Herbert Gintis
Amazon Book Reviews

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This version: March 2026.

Facts And Mysteries In Elementary Particle Physics *by Martinus J G Veltman*

Full color treatment in paperback — Rating: 5/5

Full color treatment in paperback. Very nice presentation of rather tedious material.

Thirty Years That Shook Physics: The Story of Quantum Theory *by George Gamow*

Elegant, informative and charming — Rating: 5/5

Lots of information surrounded by personal observations and scientific profiles. Great reading.

Black Hole Survival Guide: A novel *by Janna Levin*

Charming and Accessible — Rating: 5/5

This book is for first-time readers, but rather accurate as far as it goes.

The Basic Laws of Human Stupidity *by Carlo Cipolla*

Do not take seriously — Rating: 1/5

Cipolla has four categories of transactions between an individual A and others B. Both could benefit, which he call 'intelligent'. If A is harmed but B is helped, A is called 'helpless.' Did Cipolla never hear of altruism?

If A is helped an B is harmed, Cipolla calls A a 'bandit.' This is just sloppy. If I take the last spot in a parking lot, having arrived there before B, am I a bandit? Of course not.

Cipolla's ire is directed at the case where B is harmed and A is not helped. A is then called 'stupid.' Cipolla makes all sorts of empirical claims about the frequency of 'stupid,' but with no evidence, and he never gives serious examples of 'stupid.' How about this: I am angry with B for some slight, and though I will never see B again, I engage in some costly punishment against B. Am I stupid?

The Hidden Spring: A Journey to the Sources of Consciousness *by Mark Solms*

Lots of interesting beating around the bush. — Rating: 3/5

This book is informative of some aspects of modern neuroscience and for that is worth a few stars.

For explaining consciousness the book is worth zero.

Solms plausibly finds the seat (a seat?) of consciousness in the brain stem, which deals with 'feeling' as opposed to cognition. He claims feeling presupposes consciousness (there is no such thing as unconscious feeling). But this is just play on words. An unconscious being could have all the physiological attributes of affective response without having a conscious mind. This is perfectly obvious.

Origins: The Scientific Story of Creation *by Jim Baggott*

Both breadth and depth are superb — Rating: 5/5

Lots of good scientific journalism.

Concepts of Force *by Max Jammer*

Great historical exposition — Rating: 4/5

Jammer delves deeply into the scientific contributions of Newton and his predecessors. Very enlightening to someone (like me) who thought that there was a straight line from Kepler and Galileo to Newton.

Later chapters are devoted to showing that force is a non-fundamental concept. This is true, but is clear even from the Lagrangian and Hamiltonian formulations of classical physics and the modern treatment of electromagnetism. I found these chapters tedious..

Metazoa: Animal Life and the Birth of the Mind *by Peter Godfrey-Smith*

Evolution: A Path to Understanding Concsiousness — Rating: 5/5

In my waking hours, I know for certain that I am conscious and I am poignantly aware of the sights, sounds, and other external events that fill my awareness in a way that is completely determinate yet ineffable and incapable of being shared with others. This experience is not explained in the least by standard physics, chemistry, and biology.

I understand the purpose of pain in promoting behavioral changes in the organism, but why do we feel pain? Why is it not simply aversive, as it might be for a robot, a being I create in my computer, or in an organism without a brain?

Why do I believe others are conscious, experiencing ineffable things probably in much the same as myself? I do not know why, but it appears to be true. To not believe this is to be insane. But only because we are not zombies. A zombie could believe there is no subjectivity without compromising its behavior in the least.

Peter Godfrey-Smith (GS) suggest that if we believe other humans are conscious, then there is good grounds for believing that other living creatures are as well. This is because the belief in the consciousness of others is based on our accepting the other have much the same biology as ourselves, and hence probably have the same feelings as ourselves, and also we see others behaving as though they are experiencing their environment much as we experience ours.

But if we share aspects of consciousness with other creatures, and if Darwinian evolution is accurate (it is), then consciousness has an evolutionary dynamic and it must be fitness enhancing.

But how?

This is the theme GS explores in this wide-ranging review the flora and fauna of our planet. He comes to no specific conclusions, but he wisely explores an number of fruitful directions. So read it and rejoice.

Time of the Magicians Wittgenstein, Benjamin, Cassirer, Heidegger, and the Decade That Reinvented Philosophy *by Wolfram Eilenberger*

This is just a lot of gossip about the personal lives of four philosophers. — Rating: 1/5

This book is chatty and fluffy, but not at all serious.

Constructing Reality: Quantum Theory and Particle Physics *by John Marburger*

Serious, thought-provoking yet non-mathematical — Rating: 5/5

The author manages to describe modern quantum field theory meaningfully without using much of the mathematical formulations. This is very useful.

Statistical Mechanics *by Wolfgang Pauli*

Not a way to lean the subject — Rating: 2/5

If you already know thermodynamics and statistical mechanics, Pauli provides lots of interesting material. But the text is quite impenetrable otherwise. Get a good textbook to learn these subjects.

The Recollections Of Eugene P. Wigner As Told To Andrew Szanton *by Andrew Szanton*

A deep and broad thinker who is also a brilliant mathematician/physicist — Rating: 5/5

There is zero science or mathematics in this charming memoir, but there is plenty of historical interpretation and a good deal of reflection on human nature. You will learn about the Manhattan Project, what happened to Jewish scientists who were persecuted by Hilter, and Wigner's own personal political philosophy. I thoroughly enjoyed this book.

Something Deeply Hidden Quantum Worlds and the Emergence of Spacetime *by Sean Carroll*

Charming and informative even if you are not a Many Worlds True Believer — Rating: 4/5

Carroll show that one can carefully explain many aspects of reality---in his case the physics particles and the cosmos---without using any math. The math is important many to make sure that what you say without it is actually correct. It's like when you read the label of ingredients in a food product, they don't tell you how they verified their truth in the lab, but you can usually believe them. Carroll does a very good job of this.

Now Carroll has a candidly expressed goal of convincing you of the Many Worlds interpretation of quantum mechanics (QM). Well, I don't believe it for a moment, but I still liked the books a lot. It's like reading St. Thomas Aquinas or Martin Buber. Or like having a double bourbon at the end of a long day. Somehow...

There is not a grain of support for the Many Worlds (MW) interpretation. Not a grain, for or against. It is pure metaphysics to believe or disbelieve. Carroll argues that MW is just taking the Schrodinger equation (SchrE) seriously, without 'collapse.' First of all, this is just false. The SchrE describes the evolution of a wave equation is Hilbert space. But we live in four dimensional spacetime, not Hilbert space. Attributing 'reality' to the wave equation, and alternative 'worlds' to the entities that are entangled and superimposed in the wave equation is a monster leap of faith for which there is no compelling argument.

The major illegitimate assumption of MW is that every physical system has a Hamiltonian. Once you admit that you are gone. The decay of a particle, for instance, can be registered by a macro instrument (or Wigner's friend), and since the latter has a Hamiltonian, the whole system goes into superposition. But why must the instrument have a Hamiltonian? There is no reason in QM.

QM assumes the system under study has a Hamiltonian. In many cases, we can find the Hamiltonian and show that the Schrodinger equation predicts. But there is no formula for finding the Hamiltonian of a system. Does my computer have a Hamiltonian? I doubt it. No one has ever found such a thing.

QM seems to work universally because whenever we can find a plausible Hamiltonian, it works. But we mostly can't eve come close to finding a Hamiltonian for a complex system. We can create fake cardboard Hamiltonians by. say, representing the NY State lottery as a mechanism with a million integer outcomes. But that is not the NY State Lottery.

There really is a classical world. We all live in it. There really is also a quantum world. How they fit together is one of the great mysteries of modern thought. We just don't know, and theologies like the Many Worlds approach impede our progress towards a real understanding.

Dance to the Tune of Life Biological Relativity *by Denis Noble*

A great book for beginners. — Rating: 3/5

Noble's professional papers are dynamite, a great antidote to the reductionist (and false) models of standard population biology. This is a book for beginners, though. If you want to see the power of the author's thought, read his papers.

Fields of Color The Theory that Escaped Einstein *by Rodney Allen Brooks*

Quirky but lively and informative — Rating: 4/5

Brooks' extensive use of great quotes makes this book fun to read, even if you already know the material in it. Pitting the 'particle' view against the 'field' view is rather silly, since both help us understand what is going on. Brooks' dislike of Feynman is quite indefensible, but even that is fresh air since everyone seems to love Feynman (me too). The notion that Schwinger's version of QFT 'solves' all sorts of QM problem is not persuasive at all.

The Particle at the End of the Universe: How the Hunt for the Higgs Boson Leads Us to the Edge of a New World *by Sean Carroll*

Excellent popular science writing — Rating: 5/5

Carroll knows how to present highly complex mathematical material without the math. This book borders on being a bit out of date, but still very worthwhile.

Inward Bound: Of Matter and Forces in the Physical World *by Abraham Pais*

Five stars is not enough... — Rating: 5/5

Pais is a fastidious historian and a talented physicist. This book is an incredible tour de force. It is true that one must care a lot about the details of modern physics to appreciate the book, and considerable background in particle physics makes the books more impelling.

Introduction to Cosmology *by Barbara Ryden*

Good undergrad level textbook — Rating: 5/5

Low ratings for this book are by those who don't have the math skills. The skills are quite low, however. You just have to like going through lots of simple algebra arguments. It's really logic + empirical evidence.

Much of physics is simple equations that no one knows how to solve. Cosmology is simple equations (one you get beyond the difficulties of general relativity theory, which Ryden just finesses) plus lots of very difficult empirical analysis.

I liked this text a lot, although the derivation of the basic equations was hand-waving to the point of being incorrect. I would have preferred just stating the equations (Friedmann model, Robertson-Walker metric).

Why Free Will Is Real *by Christian List*

An elementary introduction to the philosophy of free will — Rating: 3/5

This book is a straightforward introduction to the main issues in the philosophy (and physics) of free will, integrated with the author's own theory, which is a defense of 'compatibilist' free will.

The author argues that free will is an emergent property of complex physical systems (brains), so to argue against its existence on the grounds that modern physics asserts deterministic dynamics (or determinism plus pure randomness) is a category error.

List is surely correct to say that free will is an emergent property of complex physical systems, and is one of many such emergent properties quite incapable of even being described, much less explained, by physical theories as we know them. However, his justification of free will in those terms will not satisfy someone who believes that emergent properties are determined by lower-level physical properties, and their 'emergence' is simply a description of our inability to provide an explanatory model of how elementary processes entail higher-level outcomes. For instance, we may not be able to use quantum mechanics to explain complex chemical reactions, but we can legitimately hold that these reactions are causally determined by quantum-level phenomena.

List's position makes sense to me only if conscious choice not only supervenes on brain processes, but actually causes these brain processes. Is this possible? Indeed it is, but it requires that there be physical forces that go beyond the four forces described in modern physics (gravity, weak, strong, and electromagnetic). This is likely to be the case, and hence free will is likely to be the case. But decision one way or the other depends on the future results of scientific research.

The Ghost in the Atom *by Paul Davies*

Fascinating interviews with the greats of quantum mechanics — Rating: 5/5

I was surprised at the amount of insight provided by these radio interviews more than thirty years ago with the major interpreters of quantum mechanics. Most of the interviewees believed that experiments would show the superiority of one view over the other, although their ideas for experiments were quite vague. This of course has not materialized.

Facts and Mysteries in Elementary Particle Physics *by Martinus Veltman*

High quality explanation, widely accessible — Rating: 5/5

The explanations, without equations, is excellent. The vignettes of the creators of the Standard Model are fascination and amusing. The book is well put together with find illustrations and photographs.

Mind and Matter: The Tarner Lectures Delivered at Trinity College *by Erwin Schrodinger*

Insightful and surprisingly relevant these many years later — Rating: 5/5

What can we know about ourselves and the material world we live in? Schrodinger suggests two basic principles. First, we can understand the world, in the sense that we can comprehend how certain material regularities are organized, and we can increase our understanding indefinitely through the scientific method. Second, we know we are part of the material world, but we mus stand outside this world to perceive it and understand it.

There is no scientific understanding of consciousness, says Schrodinger, because there is no way to use part of the material world to understand all of the material world.

Consciousness thus lies outside the purview of science and must be approached using the tools of spirituality (e.g. the Upanishads).

Schrodinger identifies spirituality with religion. I suggest that this is a really bad idea. Religion is a social institution that has produced so much drivel and falsehood that it is very dangerous to take any of it seriously.

Otherwise, Schrodinger offers us many insights worth following up.

It will be obvious to anyone trained in quantum mechanics that his approach to consciousness is deeply influenced by the measurement problem: how do we explain the 'collapse' of the wave function into a specific measurement? Schrodinger avoids dealing with this directly in the book, but it always lurks in the background.

The quantum quark *by Watson, Andrew*

Packed full of description of the particle zoo and especially of the experimental evidence — Rating: 5/5

The author knows and loves colliders. This book presents QED and QCD without equations, but with lots of description.

Gods and Robots *by Adrienne Mayor*

My wife, who is an artist, liked it a lot. — Rating: 5/5

This was a Christmas present that my wife read from cover to cover and liked a lot. I read some and liked it too.

Critical Turn in Education *by Isaac Gottesman*

It's about me! — Rating: 5/5

I liked the fact that it was about me ;).

Freedom's Laboratory *by Audra J. Wolfe*

Five stars for historical scholarship, one star for historical interpretation — Rating: 3/5

The historical scholarship is excellent and the writing is graceful and often gripping. The book would have been better if the author had abandoned her attempt at providing a larger "interpretation" of the period. Early in the book, for instance, she writes: "That many of the most outspoken advocates for scientific freedom were also deeply committed to US policies that exacerbated global inequality has made this book, at times, troubling to write." What policies? We never find out. Evidence that US policies did exacerbate global inequality? We never learn. Which advocates? We are not told. Andy why

should this be troubling? Are we supposed to believe that advocates for scientific freedom are "good people" who hate inequality? Why should we believe this and be troubled when they are not?

A couple of pages later the author argues that a scientific researcher (Glass) "refused to see any conflict between studying DNA differences across races yet being a strong supporter of African American civil rights. I can't imagine a sillier statement from a supporter of scientific freedom.

The author should have also left the Epilogue out of the book. It is a collage of politically correct statements, warmed-over post-modernism, and defense of the idea that one cannot be an objective scientist unless one is a highly moral, committed egalitarian. Spare us, please.

A crisis of beliefs *by Nicola Gennaioli*

Exciting and fact-bounded interpretation of the 2008 financial crash---but might be wrong — Rating: 4/5

Gennaiolo and Shleifer (GS) are justly eminent financial and macroeconomic economists who have worked long and hard (with several colleagues) to provide a cogent analysis of the financial crisis of 2008. Their main finding is that the dominant "rational expectations" theory is not at all supported from the data, and the common superficial explanations of the crisis ("too big to fail," "criminal banker subterfuge") are wrong. Their alternative explanation is solidily in the behavioralist economics camp (to which I admit proudly to belong). The suggest that investor beliefs are systematical biased by what psychologists Daniel Kahneman (Nobel prize winner in economics) and Amos Tversky (wh died too young to receive the price) call the "representative heuristic." This failure of rational behavior leads investors to underestimate the risk of severe downside failure and excessively to extrapolate current trends into the future.

The evidence certainly does suggest that some sort of "bandwagon effect" is responsible for the housing bubble and subsequent financial meltdown, but there is a serious objection to any explanation in terms of investor irrationality: rational investors should simply do better, eventually crowding out the incompetent. Of course, there is a whole literature on this going back to Keynes himself suggesting that rational investors have to be awfully well-heeled to counteract a stampede of crazies. And there are plenty of well-heeled rational investors.

An alternative to both rational expectations and irrational investors that makes great sense and that I have worked on for a number of years is "adaptive expectations." GS use this term to mean "mechanical extrapolation", but in the evolutionary game theory literature the term means "try to mimic the strategy of the most successful agents in the economy." Adaptive expectation in this sense are rational provided we recognize that market economies are complex dynamic systems, so it is impossible to solve a plausible model of market dynamics, and hence one cannot optimize with respect to such a model. Adaptive expectations are the best we can do, and they obviously produce outcomes similar to GS's irrational beliefs model; (a) rare events are underrepresented usually because agents who plan for them lose; (b) the success bandwagon effect occurs because in a boom, the most successful agents are doing what the bubble expectations tell them to do.

QBism *by Hans Christian Von Baeyer*

QBism is Outlandish and Sophmorically Bizarre — Rating: 2/5

Interpretations of quantum mechanics (QM) that are observationally equivalent to QM can be important if they lead to novel explanatory models based on extending the range of the interpretation to new phenomena. Think, for instance, of the Hamiltonian formulation of Newtonian mechanics. Otherwise, there is no scientific basis for preferring one interpretation over another.

There is currently no scientific basis for preferring one interpretation of QM (including QBism) over another. People who say one is right and another is wrong are just emoting. I will have none of it.

Of course, some interpretations may be preferred on metaphysical grounds, whatever that means. If there is a candidate for rejection on metaphysical grounds, QBism is it. The interpretation rests on the rejection of a frequency interpretation of probability in favor of a Bayesian (subjective) interpretation. In fact, there are several different notions of probability in the scientific literature, and both frequency and subjective models are valid under different conditions. But the frequency interpretation is perfectly valid for QM, and the subjective interpretation is simply outlandish. Can one really believe there was no spectrum to the hydrogen atom until someone saw such a spectrum? Do QM electron ic devices work because of human subjectivity? Or quantum computing? Outlandish is the subjective interpretation in these cases.

The book devotes a shoddy chapter to the critique of frequency models. It starts by observing that you can't tell if a roulette wheel is "fair" by observing one outcome (e.g., the ball lands on slot 11). It then says that 100 trials of flipping a coin can be represented by a roulette wheel with 2 to the power 100 slots. You can't tell if the wheel is fair by the outcome because all outcomes are equally likely. This is true. But suppose before I spin this wheel i assert that the probability that the outcome will have between 45 and 55 ones. This will be correct with very high probability. If the outcome has five ones, the wheel is unfair with probability close to one. This is the basis of all of statistical mechanics. The book's critique is simply wrong.

The book is well writien and fun to read, although quite unconvincing.

Through two doors at once *by Anil Ananthaswamy*

Stunning descriptions of key experiments and their interpretation — Rating: 5/5

The first four chapters are well-written introductions to the interpretation of quantum mechanics. Chapter 5 is absolutely brilliant in explaining the quantum eraser phenomenon, which is central to any interpretation of quantum mechanics. Chapter 6 is a lucid introduction to David Bohm's non-local hidden variable interpretation. Bohm's theory is ingenious, but it does not extend to relativistic quantum mechanics, is horribly non-local in a 'choreographic' way---all of nature conspires to produce quantum mechanic's weird behavior. I think of Bohm's work as a complicated system with no benefits beyond the simpler presentations of quantum mechanics. Nor has it led to any new insights with explanatory power. Physicists who believe in this theory are religiously inspired.

Chapter 7 presents a number of interesting alternative interpretations, but none is at all convincing. Chapter 8 presents the many-world theory of Everett, Deutch, et al. This theory has absolutely no empirical support, and depends on the universality of Schrodinger's equation, for which there is no evidence. Even if the Universe is a massive superposition of quantum states, no one knows what superposition really means (it has never been seen), and the many-worlds interpretation of all branches existing at the same time is quite sloppy hand-waving.

This is a great book with a wealth of material but elementary and sophisticated. Feynman was right, however: no one understand what quantum mechanics means. But if you are a realist (I certainly am), finding the meaning will vastly expand our understanding of the natural world.

The lies that bind *by Anthony Appiah*

A Fatal Blow to the (pseudo-)intellectual foundations of Identity Politics — Rating: 4/5

This is not a work of philosophy, but rather a personal memoir and an exposition of (pre-post-modern) Sociology 1. We all have multiple sources of our personal identity, and an attempt to reduce one's identity to a single 'essential' identity (cultural, religious, ethnic, or race) is bound to be a lie. But it may be a lie that binds disparate individuals together in a common task. Feminists bind all females together, radical black activists bind their racial compatriots together on the basis of skin color, Marxists try to bind workers together on the basis of their common relationships as economic agents.

These are lies, and mostly do not work well, but sometimes they work well enough to achieve important political goals.

Contemporary left-wing identity politics promote lies, but lies that cannot help the oppressed because minorities can effectively agitate for inclusion, but by sowing discord, must lose. Moreover, the idea that all 'minorities' will bind together on the basis of being a 'minority' has never worked in the past and is unlikely to work in the future.

John S. Bell on the Foundations of Quantum Mechanics *by K. Gottfried*

Lots of foundational material here unavailable elsewhere — Rating: 5/5

John Stuart Bell is one of the most powerful contributors to the foundation of quantum mechanics since Bohr, Einstein, and Heisenberg. These writing are not easy to follow without the appropriate training, but the are uniformly insightful.

Toughing it out at Harvard *by Fran Worden Henry*

Brilliant and Highly Personal Insight into the Feminist Revolution in Business — Rating: 5/5

Fran Henry must have kept a heavily annotated diary of her two years at the Harvard Business School. She deals both the intimate details of her interaction with students and professors, as well as the larger issues concerning a young woman in what only a few years before had been a bastion of male privilege. Her task, which she completes successfully, is to compete effectively in a world dominated by the "manly virtues" without abandoning her cherished female virtues (cooperation, caring for others, behaving ethically, contributing to society, etc.).

HBS certainly taught a lot of useful skills in that period, but it borrowed a faulty model of human motivation from the economic theory of the time. According to this theory all agents are really selfish, no matter what they profess or how hard they try to hide it. Therefore, the theory taught, there is no true caring for others, no true allegiance to a team, no true less-than-selfish cooperation. This then became the default ethic of most large corporations, leading to a high level of CEO corruption and malfeasance, and encouraging subordinates to overlook these failing because it was "just human nature." Henry describes all this quite well. The theory, by the way, is simply empirically false.

INSURGENT COLLECTIVE ACTION AND CIVIL WAR IN EL SALVADOR. *by Elisabeth Jean Wood*

Research of fundamental importance for understanding collective action throughout history and across the world — Rating: 5/5

Other reviewers have remarked on the highly crafted, deeply insightful and even empathetic character of this book. I want to stress the importance of the message for understand collective action in general. According to standard rational choice theory, purely self-regarding individuals will only join in a collective action if they can gain more by participating than free riding on the participation of others. Wood shows that participants in El Salvador insurgency did not expect to gain more than non-participants, and in fact did not gain more, because non-participants were not discriminated against.

I have found that this is true of virtually all collective actions. I live in a country in which we have fundamental human rights, universal suffrage, and enjoy democratic elections with separation of powers. These gifts were secured by collective actions in which common people sacrificed for political goals that would benefit all, not just themselves. Wood would doubtless have found similar human sentiments if she had been around to interview the people who made our freedoms possible.

Quantum Mechanics in Hilbert Space *by Eduard Prugovecki*

Brings von Neumann's 1932 book to life — Rating: 4/5

The author is not a well-known master, but he is a thorough and even elegant expositor. Galois was wrong to say "Only study the masters." This books is a carefully developed exposition of von Neumann's approach in his masterful 1932 book. Von Neumann's book is quite readable, although the typeface is awful and the book is not well written. I like this exposition a lot.

Incompleteness, Nonlocality, and Realism *by Michael Redhead*

Serious, important contribution — Rating: 5/5

This book summarizes many important contributions to the foundations of quantum mechanics, centering on the question of QM's violation of the principle of locality in special relativity. The presentation is excellent, although you should be comfortable with quantum mechanics formalism. Redhead's own contributions to the meaning of locality are important and interesting. The presentation of the Kochen-Specker 'paradox' is excellent.

Foundations of Quantum Mechanics *by Travis Norsen*

First rate philosophy of physics — Rating: 5/5

Norsen's treatment of locality is the best I have ever seen, and quite persuasive. The take-home is that the failure of local causality was present from the first in QM, although Schrodinger tried for a while to deny it. Certainly Einstein knew this from the first, because the collapse of the wave function is a non-local event. Einstein did not like this failure and the EPR paper was an attempt to show QM is incomplete (i.e., there are hidden variables). Now here I think Norsen drops the ball (or correct me, dear reader, if I am wrong), because he claims that Bell's 1964 paper is really a proof of non-local causality, not the impossibility of hidden variables. What this paper shows is that there is no locally causal hidden variable model. This does NOT follow from the Copenhagen interpretation of QM, from deBroglie-Bohm, or anything else.

Norsen's untangling of locality, hidden variables, the EPR argument, and deBroglie-Bohm. can be summarized as follows (my summary, not Norsen's): EPR show that local causality implies realism; realism means hidden variables; Bell shows that QM plus hidden variables contradict local causality; Bohm shows that hidden variables are possible in QM; experiment confirms Bell. Hence local causality is false---QM is in conflict with special relativity.

I do not agree with his defense of Bohm's theory. There is no evidence for it and it does not extend to relativistic quantum mechanics. Moreover, it models may particles (e.g., electrons in the ground state of an atom) as having zero momentum. This is a lot worse than saying there are several "superposed" momenta. In the end, this theory s just a balm for some people's metaphysics. Occam's razor favors the more empirically founded Copenhagen interpretation, with all of its ambiguities and clearly provisional nature.

Norsen provides a spirited defense of the Many Worlds theory, but it also must be rejected because there is no evidence for it. It is not outlandish, as some would have it (the Universe increases its degree of superposition over time, but the various Hilbert basis states are in configuration space, not physical space, so there are no real "splitting" of universes into "parallel" universes as some would have it. The

"relative state" formulation is elegant, but this approach cannot handle probabilities.

I wish Norsen had dealt more with decoherence, which is barely mentioned in the book.

The order of time *by Carlo Rovelli*

Confusing mixture of fact, speculation, and humanistic philosophy — Rating: 2/5

It is a fact that instead of past, present, and future, we have past light cone, space-like separation, and future light cone for each point in space-time. It is true that the time registered by two clocks that are moving relative to each other, or experience difference gravitation fields, will tell different times. It is true that a particle travelling in space-time will have a unique proper time, but this will differ from the age of the particle as measured by a distinct observer. Many other facts about our universe are well explained by Rovelli.

Much of the rest that Rovelli writes is speculative philosophy or speculative physics. Rovelli does not suggest otherwise, but he constantly attempts to convince the reader of propositions for which there is no evidence. The most important of these is his explanation of the relationship between entropy and the arrow of time. The fact that neither the second law of thermodynamics or the arrow of time can be derived from the fundamental laws of physics has been known and discussed for a century and a half. Some physicists believe that we can explain both by positing that the Big Bank was a very low entropy state. Rovelli embellishes on this by adding the anthropic principle and the multiverse hypothesis; in our corner of the Universe, things started out as super low entropy, but elsewhere is was probably very different. this is pure speculation. Moreover, I have never understood the attractiveness of the "low entropy Big Bang" theory of the arrow of time or the Second Law. The assumption works in cosmological models with a few variables, but it does not explain why my morning coffee gets cold while my evening beer gets warm.

This book is fun, but it is mostly idle speculation and futile attempts at unifying science and humanism.

Post-truth *by Lee C. McIntyre*

Read it a weep. Or give a sardonic chuckle. — Rating: 3/5

Virtually everything argued for in this book is true and accurate. It is all also well known and boring, unless you just awoke from a three year coma.

There are deep and serious theoretical issues involved in understanding when "facts" are accepted as such by a segment of the population. You won't find out about these issues in this book, and in fact, the question currently has an unknown answer.

The perils of "privilege" *by Phoebe Maltz Bovy*

The Poverty of the Social Justice Warriors Revealed — Rating: 2/5

I have been privileged in so many ways in my life. I am privileged to grow up in a society where my forefathers fought and died to construct a society based on freedom of expression, tolerance, and democracy. I am privileged to have had parents and grandparents with good values who worked hard to create a good life for themselves and their loved ones. I am privileged to have been endowed with a sound mind in a sound body. I have been privileged to be alive at all, and I am privileged to have my parents' generation successfully destroy fascism, a movement that destroyed much of my grandparents' generation in Europe.

I am lucky to have been so privileged. I do not pride myself on my worldly success because I understand that without these privileges, I would have accomplished exactly nothing. I have dedicated my life in part to creating a world in which more people can enjoy privileges such as mine.

But only in part, because I have other worthy personal goals.

And I will never, never, be shamed into apologizing for my privileges. To do so would sully the memory of those who have fought and died to make my life, and the others with privileges similar to mine, possible. The moral weakness of the social justice warrior movement's attempt to make the privileged

feel ashamed of their privileges is just this: it betrays the legacy of those who have fought and died to make our lives possible.

The strategic weakness of the critique of privilege movement is simply that it will never even dent the social injustices around us. This is the subject of this book, although I must say that they author never gets around to this point until the final chapter, and never really argues for it. But it doesn't need much argument. Privileged groups cannot be shamed into giving up their privileges. They can, of course, be convinced that more should be done to improve the lot of the less privileged, but only by saying what precise measure can be implement to that end. The social justice warriors are a rather pathetic in this regard. I look forward to more promising movements in the future for progressive social change.

CRITIQUE PURE TOLERANC *by Robert Paul Wolff*

Threatening Words from the Pretenders to Cultural Hegemony — Rating: 1/5

When I was a grad student at Harvard (about 1967 or so) I was in the anti-war movement and fancied myself a Marxist (whatever that was). My friend John C was an undergrad in the movement, and was very brilliant. John related to me that his history teacher, Barrington Moore, Jr., (one of the authors of this book) gave him a bad grade on a paper because, despite judging the paper as very well done, he disagreed with it. I was appalled. Never in my life have I given a student a grade based on whether I agreed with the paper or not (of course, I expect papers to be factually correct, but to embrace my political or philosophical prejudices).

A couple of years later I was an Assistant Professor and read Critique of Pure Tolerance. I quite hated it. It espoused a doctrine of the objective truth of what are in fact simply personal opinions with emotive value but no fact value. I also read Herbert Marcuse's One-Dimensional Man, which I also hated. I had lunch with Marcuse when he was lecturing in Cambridge, Ma. I quite liked Marcuse because his was capable of changing his mind, and was mentally vigorous at an advanced age (most of my colleagues ceased thinking beyond tenure). I told him that he and his critical studies comrades were true totalitarians. They hoped for a workers' revolution, after which they would be appointed Cultural Commisars by the Great Leader of the working class, and they would teach people what to think.

At any rate, this book is the enemy of real critical dialog. The brainless post-modern humanities professors would happily feed it to their gullible students if it weren't written by a cis white male who use too many difficult words.

Enlightenment Now *by Steven Pinker*

Brilliant, Comprehensive, and Convincing — Rating: 5/5

Many contemporary progressives (by which I mean people who try to embrace policies that improve the lives of ordinary people around the world) are distraught by the apparent reactionary authoritarian and bigoted reaction against liberal democratic values and are convinced that the world is returning to pre-Enlightenment mysticism and other anti-scientific thinking. The reaction of some is to throw out reason and science, and root for strongmen like Fidel Castro and Hugo Chavez---stupid authoritarians who have no idea how to foster the long-term well-being of their people. The reaction of others, especially in the USA, is to embrace an ultra-left ideology that may be personally satisfying (so-called virtue signalling) but effectively abandons the struggle for a better world.

Pinker has a two-pronged strategy to restore a balanced understanding of the state and pace of world social progress. The first is to deploy a mass of empirical data to prove that in fact the past decades have been hugely successful in conquering poverty and improving welfare around the world. The second is to defend Enlightenment values---reason, science, dialog, tolerance of diversity, humanism---as the driving force behind human improvement. He is quite successful in both.

Pinker shows that world life expectancy has grown at a rapid rate since the Industrial Revolution and continues to increase (p.54). He shows that child mortality (percent of children dying before the age of

five years) has fallen from about 35% in 1790 to less that 1% today (p. 56) and maternal mortality has dropped equally precipitously (p. 57). Famine deaths have also fallen to extremely low levels (p. 73), GDP per capita has skyrocketed in many countries and has increased dramatically on average around the world (p.85). Extreme poverty has fallen from 90% of the population in 1820 to about 10% today and is still falling fast (p. 87).

It may seem counter-intuitive, but global inequality is falling as well (p. 104-105). Pinker here uses many sources, the most comprehence of which was compiled by Branko Milanovic, who has compiled and analyzed an immense amount of data in support of three propositions. First, the past few decades has witnessed the rise of a "global middle class," mostly in a "resurgent Asia" (although Africa and Latin American should not be ignored). Second, the globally relatively affluent by middle-income classes in the richest countries has seen their incomes stagnate. Finally, a "global plutocracy" has emerged, including the rich in the advanced countries who have captured all of their countries' productivity gains in the past few decades.

Pinker's treatment of Enlightenment values is nothing new, but it is passionately presented. More interesting is is withering attack on modern-day conservative and liberal ideologies in the United States, which he argues are outdated and not true to plausible liberal and conservative ideals and values. I quite agree with his analysis of this distressing situation.

The Elegant Universe *by Brian Greene*

More science speculation for lovers of mental gymnastics — Rating: 4/5

Explaining physics without the equations, it has always seemed to me, is like teaching cooking without the recipes. If you want to understand the arching grandeur of Newton's theory of gravity, you must master the derivation of Kepler's three laws from the gravitational inverse square law. All the talk in the world about falling apples, and materialist epistemology will simply not do the job.

But Brian Greene does as good a job as possible explaining string theory without equations, at least up to chapter 12, after which string theory becomes esoteric and autobiographical.

We must keep in mind that there is not a shred of evidence supporting string theory. Greene follows Witten in saying that string theory predicts the equations of general relativity, but this is way too weak a form of prediction. I want some numeral predictions with great accuracy. String theory does make sense in some classical way, but quantum mechanics makes no sense at all, yet it is true.

The Fabric of the Cosmos *by Brian Greene*

Succeeds in explaining deep stuff without the equations. — Rating: 5/5

Greene presents relatively theory, both special and general, extremely well without equations. He puts some equations in footnotes, but they won't be much use unless you'v.e studied them before.

Greene's explanation of thermodynamics, in particular the treatment by Boltzmann, is lively and worthy of study. But I think his argument (shared by many cosmologists) that the arrow of time can be explained by the low entropy state of the Universe shortly after the big bang seems to me to be quite implausible. First, this might explain the increase in entropy in the whole Universe, but not in small parts thereof (like the spread of milk in my tea). Second, the assumption of low entropy right after the bang has no known justification. Moreover, Boltzmann's assumptions in proving the high probability of entropy increase assumes that any two colliding particles have independently distributed kinetic energies. velocities, and positions. If this is true with forward time, it is true for backward time, so entropy must be an absolute minimum. But this is assuming what is to be proved.

Neither Liberal Nor Conservative Ideological Innocence in the American Public *by Donald R. Kinder*

Lot's of numbers, but very convincing. — Rating: 5/5

For the contents of the book, see Athan's great review. The most important point, I think, is that most people in the US (there is some coverage of other countries, but very little) have consistent self-identification as liberal/conservative/moderate, but there is little correlation of this identification with support for particular social policies. In this sense, most people are non-ideological. I suspect that the self-identification is linked with Jonathan Haidt's personality profiles with basic values.

Risky Curves *by Friedman, Daniel*

Read it and weep, traditionalists. — Rating: 5/5

This is clearly a book for experts in the field of rational choice and behavioral economics. There is nothing real new here, but it gives a great review of empirical findings. Expected utility and even prospect theory do not come out well at all in modeling the risk behavior of individuals. I have long stressed that preferences are time-,state-, and frame-dependent. This seriously complicates modeling behavior, but there is no other way, as far as we know. If one limits the frame (e.g., risk related to finance, or risk related to sports) we can do much better. The most important point is that individuals do not have a single risk preference schedule across activities.

Special relativity and classical field theory *by Leonard Susskind*

I got went with — Rating: 5/5

I am reminded of the story related by an English professor at a Midwestern

university, a contestant on Groucho Marx's You Bet Your Life, who asked a clearly bored young lady why she decided to

go to college, and she replied “I come to get went with, but I ain’t yet."

Founder of modern economics *by Roger Backhouse*

Beautifully Done, Bound to be a Definitive Biography of Samuelson's Life and Times — Rating: 5/5

This book covers the life and times of Paul Samuelson, the most famous economist of the Twentieth Century (except perhaps for the equally great John Maynard Keynes, Friedrich Hayek and Kenneth Arrow) from birth in 1915 to early post=WWII in 1948. This period includes the writing of Foundations of Economic Analysis, which revolutionized economic theory, and Economics, the undergrad text that revolutionized the teaching of elementary economics. The historiography is stellar and the author is a sensitive and balanced interpreter of Samuelson's life and times.

This book is bound to be at tines tedious for anyone but a historian, but many of the issues Backhouse deals with are extremely fascinating, including the culture of Harvard, MIT, and U Chicago of the period. I thought I knew the broad outlines of this history, but I was wrong on many counts. For instance, neither Samuelson nor Alvin Hansen were uncritical Keynesians, and indeed Samuelson was wickedly critical in his review of Keynes' masterpiece General Theory. I concur with Samuelson. I recall reading this book in my first year as a grad student at Harvard, and I found it quite mysterious and impenetrable. However, the IS-LM formulation developed by Hicks is quite elegant, and Samuelson was not critical of this development.

Backhouse' treatment of Antisemitism at Harvard, MIT, and Chicago is quite nuanced and interesting. I knew all of this, pretty much, but I did not know about the fuss made by business supporters of MIT's economics department when they read a draft of Samuelson's undergrad text, which they called socialist and even Communist-inspired. In fact, Samuelson was perfectly in line with the talented young economists of his time (including Lawrence Klein and Lorie Tarshis) in seeing the capitalist economy as an interaction of free market competition and government regulation to neutralize the inefficiencies and inequities of the marketplace. His bosses at MIT, by the way, stood up for Samuelson on the grounds of academic freedom.

I became acquainted with Samuelson in about 1969 1970, when I was a young Assistant Professor at Harvard, and I was working with my colleague Samuel Bowles on an update of Marxian economic theory that I thought might do better than neoclassical economics. Samuelson was not favorable to my efforts and had no sympathy for my work. Indeed, I was the only economist criticized in his Nobel prize speech of 1970. Here is what he said: "Just recently I was reading an article by a writer of the New Left. It was written in blank verse, which turns out to be an extremely inefficient medium for communication but which a dedicated scholar must be prepared to struggle through in the interest of science. The writer was scathing on the notion of Pareto-optimality. Yet as I digested his message, it seemed to me that precisely in a society grown affluent, where dissident groups are called toward a way of life of their own, there arises an especial importance to the notion of giving people what they want. An Old Left writer dealing with a socialist economy on the verge of subsistence has surely less need for the concept of Pareto-optimality than does the modern social observer in the United States or Sweden."

But Samuelson was in fact extremely helpful to us in his critique of Marx's model of capital-labor relations. Whereas we stressed the power of capital over labor, Samuelson maintained that the neoclassical model shows that it does not matter whether labor hires capital or vice-versa. This was a revelation to us, but it is very true. We proceeded to use this insight to develop a theory of power in the economy that is compatible with competitive market exchange. I remain deeply grateful to Samuelson to this day for his vigorous grappling with our early efforts.

A course in microeconomic theory *by David M. Kreps*

Good for its time, but not now — Rating: 2/5

I snatched this book up and used it as the main text in my graduate game theory course many years ago. It was quite unique then in presenting game theory in as social theory, not just mathematical theory. But it is now way out of date and many more useful texts are available.

Boltzmanns Atom *by David Lindley - undifferentiated*

Accurate and insightful account — Rating: 5/5

Lindley manages to convey the essence of Boltzmann's contributions and the controversies surrounding them correctly and with insight and grace. Especially interesting is Planck's and Einstein's adoption of Boltzmann's methods for different purposes. The controversy over the nature of entropy increase and the arrow of time continues unabated.

World As I See It *by Albert Einstein*

Get it for free online — Rating: 1/5

This is now in the public domain, is abridged, and completely lacking in sources.

A big bang in a little room *by Zeeya Merali*

Fiction Physics---Lots of Fun — Rating: 4/5

Science fiction is fiction produced by non-scientist writers, based on far-flung extrapolations and fantasy explorations of the insight of modern science. Fiction physics is the opposite, produced by scientists with highly sophisticated models of what the Universe(s) might be like, but with absolutely no evidence for their theories. Fiction physics is often schizophrenic, affirming the truth of its theories to a lay public (and professional philosophers of science) at the same time as acknowledging its speculative nature. This book is a prime example of fiction physics, but it also does present a lot of very interesting material on the current state of particle physics and its experimental basis.

For example, Andrei Linde is quoted as saying "So long as you don't have an observer, the arrow of time doesn't exist...As soon as you have an observer, the universe comes alive." (p. 84) Really? this is just pure fiction, without any empirical support. Indeed, the notion of an "observer" has been debated for eighty years (at least since von Neumann's famous book) with no resolution. How could Linde actually believe such a thing without evidence, and perhaps even without meaning?

Another example. The author asserts "I subscribe to the notion that we have free will... So even if there are other inflationary copies of my physical self out there, they cannot be me." Subscribe? My physical self? Other inflationary copies? Pure fantasy.

A final example. The many worlds interpretation of quantum mechanics. This is not the place for me to explain why this interpretation is bizarre and implausible. It is the place to criticize popular interpretations of the theory that have no basis in physics at all. The author writes "[Physicist Don Page... advocates the view of quantum theory that broadly says that whenever you make a decision, reality splits into parallel universes, each containing alternatives versions of yourself, with your closed selves enacting different choices in different worlds." Of course, there is NOTHING in quantum mechanics to support this (rather popular among many world enthusiasts) view. Of course, if consciousness reduces to brain states and if decision situations involve a wave function whose eigenvectors represent alternative decisions, and if the many world interpretation is correct, then this belief would be well-founded. But none of these "ifs" is anything more than fiction science.

An amusing anecdote. I read a review of this book in Nature or Science (I forget which). The reviewer liked the book (so I ordered it from Amazon), but complained there was much to much talk of God and theology for his liking. He did not even bother to mention the even more prominent fictional science.

The Greatest Story Ever Told - So Far *by Lawrence Maxwell Krauss*

Thank you for writing this fine book. — Rating: 5/5

Lawrence Krauss is an extremely gifted scientist who, out of love for his subject and an equal love of disseminating its truths and tribulations, writes books such as this fine addition to the literature. As the dimwits and nay-sayers who downgrade this contribution say, there is nothing new here. There is also nothing new when I hear a Beethoven sonata performed for the 100th time. The nay-sayers should get a life and realize what a great social contribution the popularization of science truly is. This is a fine book, and finely written.

The Reformation in Economics *by Phillip Pilkington*

Another Critique with No Alternative — Rating: 2/5

Standard macroeconomic theory is simply smoke and mirrors when it comes to economic dynamics. For this reason, the recent financial crisis cannot be insightfully explained in terms of traditional theory. That said, this book does nothing to correct the situation.,

That said, this critique has little to offer. The author spends much time critiquing standard theory and provides a very weak, hand-waving alternative with no empirical propositions and, not surprisingly, no empirical support. Moreover, he gives sociological and ad hominem critiques of standard economic macroeconomics. I find this quite useless. If you have an alternative, then give it. Otherwise, just shut up.

Yes, we need new macroeconomic dynamics. But this is not it.

The Grand Design *by Stephen Hawking*

An Enjoyable and Breezy Introduction to Modern Physics — Rating: 4/5

This is an enjoyable and breezy introduction both to modern physics and also the minds of physicists. Of course, physicists have varied interpretations of their field, but the authors are fairly standard in their views. Where the evidence supports their views, it is difficult to disagree with them. But several of their most confident statements should be viewed with tolerant skepticism. For one, they argue that their no-boundary-point model of the universe (which, by the way, is pretty implausible) does a way for the need to posit a Creator of some sort. Of course, there may not be such a Creator, but their model does not modify the ancient discourse on the subject. For another, they treat M-theory as virtually certainly true, and similarly for multiverse theory. Neither has the slightest bit of empirical support.

Autobiographical Notes *by Albert Einstein*

Afternoon tea with Einstein — Rating: 5/5

I would love to have had tea and biscuits with this brilliant thinker. But he died when I was a child. When I was at the Institute for Advanced Study in Princeton, I took out books from the math library that had been signed out by Einstein. Very inspiring.

But reading these notes by Einstein are sort of like having a (one-sided) conversation over tea and biscuits. I recommend it highly.

Space and Time in Special Relativity *by N. David Mermin*

Beautiful, careful, presentation of foundational material in physics — Rating: 5/5

This is a book of great value to those interested in the foundations of physics. Mermin begins by establishing the basic 'phenomenal' principles of special relativity (time dilation and length contraction) and uses these to construct the Lorentz equations. He then uses the equations to discuss the central "paradoxes" of special relativity. Mermin then goes through the material again using the Minkowsky spacetime construction. This is very useful, but I find the superposition of coordinates from two inertial systems on one graph to be consistently counter-intuitive because the lengths are different in the two systems. He closes with related material on energy and momentum, but his treatment is rather hasty.

Mermin stresses the centrality of the constancy of the speed of light (in a vacuum) and the equivalence of inertial frames, but he does not mention that the Lorentz equations flow directly from the equivalence of inertial frames and the homogeneity and isotropy of time and space alone. From these assumptions we derive the Lorentz equations, including a constant parameter c, which can be experimentally determined to be finite (excluding Newtonian relativity) and positive. This is the speed of light. This derivation appears not to be well known. I found it on the Web (I lost the URL), but I put a copy of it on my web site [...] under Papers-->Physics

Mermin could also have mentioned that conservation of energy and momentum also flow from time and space homogeneity assumptions.

The Quantum Divide *by Christopher C. Gerry*

Elegant and insightful review of major experiments in quantum mechanics — Rating: 4/5

This slim books is an elegant introduction to the major experiments that impact strongly on the interpretation of quantum mechanics, especially non-locality and entanglement. The subtitle is annoying and misleading. The book says nothing new about the collapse of the wave function, and certainly does not answer the question concerning the status of Schrodinger's cat.

Physics and Beyond *by Werner Heisenberg*

Fascinating memoir and apologetics — Rating: 3/5

Heisenberg spends most of his time in these essays discussing his musical activity and nature walks. He writes well on these topics. He also explains that not all of Hitler's supporters were racist thugs, although he disagreed with them and never joined the Nazi party. He reports that Max Planck advised him not to leave Germany when Hitler had forced so many other brilliant scientists left for Europe and (especially) America. The reasons were quite lame. In fact, Hitler's assault on academia (especially his persecution of Jewish scientists, in the end contributed strongly to his fall. These scientists formed the backbone of the Allied technical military system, including the atom bomb.

Heisenberg's criticisms of the opponents of the Copenhagen interpretation of quantum mechanics are very strong and interesting. It's worth it buying the book for this contribution alone.

Physics and Philosophy *by Werner Heisenberg*

Fascinating collection of observations by a great master — Rating: 4/5

This collection of papers has many entries that will interest those new to quantum mechanics and others that are very much dependent upon rather advanced knowledge. There is really no philosophy here, but lots of interesting commentaries. The chapter defending the Copenhagen interpretation against alternative theories of Born probabilities is excellent, in particular the assessment of Bohm's pilot-wave theory.

Farewell to reality *by J. E. Baggott*

Balanced, sensitive, and highly informative — Rating: 5/5

This book is really a careful review of the current state of theoretical physics. One can read it with profit even if one knows the physics and does not care about the metaphysics. Baggott's critique of string theory is carefully done and is quite accurate. It is, of course, nothing new.

I found Baggott's dismissal of the weak anthropic principle unconvincing. The anthropic principle does not explain anything, but it raises really interesting questions of a clearly scientific nature.

I read many of the reviews of this book, and found that those giving low marks to the book are defending SUSY and string theory. Everyone agrees that these theories are worth exploring, but until there is empirical substantiation, they are metaphysics, not physics.

The instant economist *by Timothy Taylor*

First-rate choice for beginners who what to know what economic really says — Rating: 4/5

Most books on basic economic for beginners are politically biased, unrepresentative of what economic theory really says, and often present theories that are bizarre and quite unfounded. The great strength of this book is that it just presents the theory as it is taught in most economics departments around the world. This is very, very rare indeed.

The author is a well-know economist who has run the most widely read journal among economists, the Journal of Economic Perspectives. What he says is what in fact economic theory says.

I think the author should write a longer book in which he explores some key issues missing from this book. One is to give solid advice on personal investment, and a second is to apply the theory to evaluating important social policy questions. He doesn't have to come down on one or the other side of a debate, but rather to state clearly what economic theory has to add to the evaluation of issues.

What We Cannot Know *by Marcus du Sautoy*

Entertaining and insightful modern review of physical theory — Rating: 4/5

Reading this book is like sitting down with a gifted thinker and listening to his stories about exploring the brilliant success and remaining mysteries of modern physics and logic. It is entertaining and informative even if you know the issues involved, and can be appreciated even if they are new to you.

The Principle of Relativity *by HA Lorentz and Albert Sintein*

Exciting exploration of the masters of modern physics — Rating: 5/5

If you are really interested in the thought of the masters of relativity theory, it is incredibly exciting to read their papers.

Free Will (Blackwell Readings in Philosophy) *by Robert Kane*

Very clear and balanced presentation of basic material — Rating: 4/5

Kane divides theories of free will into several distinct categories, according to their positions on determinism (D) and the possibility of free will (FW). A third central category discussed throughout the argument is the relationship of D and FW to moral responsibility (MR), but this category does not make it to Kane's categorical positions. A fourth and quite important part of the argument is the relationship of D and FW to consciousness (C). This is never discussed in the book.

Compatiblists (Co) believe D and FW could both be true. Most are soft-determinists who believe both D and FW are true. Incompatiblists (InCo) hold that D and FW cannot both be true. Libertarians (Li) are InCo's who believe FW is true and D is false. Hard determinists (HD) believe that (a) D implies not FW; (b) FW is false, whatever the status of D; and (c) some believe D is true, others are not so sure.

The deepest problem with this analysis is its assumption that FW means one thing and we must decide what that one thing is. But in my studies, I perceive at least three very different FW's. First, there is "scientific FW" (FWscientific) in which the issue of causal determinism is central. FWscientific deals with physics in depth, especially quantum mechanics and relativity theory. Second, there is "social FW" (FWsocial), which deals with the meaning of FW in everyday life and its relationship to moral responsibility. This view is well represented by Strawson and Wallace in the book. Third, there is "ethics-theory FW" (FWethical-theory) which is much like FWsocial, except that instead of asking how people actually use the terms FW and MR, asks how we ought to use these terms.

The problems and confusions emerge when philosophers ignore these distinctions. For instance, I think FWsocial is a purely sociological concept, and understanding it requires studying various cultures and their varied use of the terms. It is silly to criticize an FWsocial theory because it doesn't deal with the question of whether an individual could have behaved differently, and it is completely independent from any position of physical determinism. Thus, I am a Compatibilist with regard to FWsocial. I have absolutely no interest in FWethical-theory. I find FWscientific extremely interesting, but the issue is not dealt with in depth in the book.

Human nature and the limits of science *by John Dupré*

Mostly correct, but very outdated and generally unhelpful. — Rating: 3/5

I found this book online (126 pages), with the same title and I assume the same content. Please correct me if I am wrong.

This book has three themes. The first is that physics is a very incomplete theory of the natural world. People who run around proclaiming that physics shows that nature is deterministic, for instance, are just full of hot air. There are deterministic and time-reversible physical laws (quantum mechanics, in particular), but we know they are incomplete and in some important aspects, must probably wrong (in particular, they cannot account for the arrow of time or the collapse of the wave-form). Dupre's exposition is not convincing here because he provides no particulars, but he is right.

The second theme is that evolutionary psychology is wrong. Dupre is correct in criticizing some aspects of the early years of evolutionary psychology (e.g., excessive emphasis on the non-amenability of human incentives to refinement through cultural influences), but this has been said many times, and much of current evolutionary biology is quite immune to this criticism (but not all---Cosmides and Tooby's students still lean heavily on the independent module model of the brain, and discount culture virtually completely). However, Dupre's critique of E. O. Wilson's seminal book, Sociobiology, is quite off the mark. I recently reread this book and found little to quibble with.

The third theme is that rational choice theory is wrong. Here, Dupre identifies rational choice with selfishness and materialism (e. g., he argues that economic theory ignores work as a fulfilling experience, which is just wrong). Rational choice theory is probably the most important analytical tool in the behavioral sciences. Where it is narrow-mined, it must be expanded. But Dupre will have none of that.

Dupre is best at criticizing. He is unhelpful in providing a fruitful direction for a better theory.

Markets Without Limits *by Jason F. Brennan*

A major contribution to our understanding of the limits to markets — Rating: 5/5

The authors' major contention, that if it is okay to give something away for free, or to accept something from another person without payment, then it is in principle okay to have a market in that something. I think this is a major contribution to the debate over commodification, mainly because it leads us to avoid quarreling about a lot of irrelevant issues. For instance, you cannot sell your child as a sex object, or to be sacrificed for organ transplant material because you don't have the right to give away your child for these purposes. Similarly, it is beside the point that current markets are not properly regulated (e.g., for sexual services) because than can in principle be well regulated in the public interest.

The authors contend that this principle is universal, but they may be significant qualifications. For instance, some things that are permissible may nevertheless be socially undesirable, especially if they become common. If markets in such a thing are suppressed the level of the activity might be quite low, but when markets are opened in this thing, the level might grow to very harmful levels.

At any rate, the book is a pleasure to read and very though-provoking. I predict it will lead to a much higher level of debate about commodification in coming years.

Thinking physics is gedanken physics *by Lewis C. Epstein*

A Problem-oiriented Journal through basic Physics — Rating: 5/5

There are tons of interesting problems, and the explanations are often ingenious. The difficulty of the problems is highly variable, and there are some I could not answer without actually writing out the appropriate equations. But mostly, all that I required is basic physics intuition and common sense. Highly recommended.

Saving capitalism from the capitalists *by Raghuram Rajan*

but warned that businessmen did not like competition and will try to undermine it at every ... — Rating: 4/5

In the Wealth of Nations, Adam Smith defended the new world order of market competition, but warned that businessmen did not like competition and will try to undermine it at every turn. They will do this by collusion, acquiring competitors, and asking the government to give them a monopoly position (rent-seeking). The authors relentlessly repeat Smith's theme and bring it up to date. The most important thing they do in this book is explain what a healthy financial system does for the economy (mainly keeping the cost of financing innovation and competition low), and explaining why so many countries have severely underdeveloped financial systems (the capitalist powers that be and their government cronies don't want competition, so they hate modern financial institutions).

The authors are accused by many reviewers of begin laissez-faire right-wing ideologues, but it is the reviewers who cannot get beyond left versus right. I recommend this book highly.

Capitalism for the People *by Luigi Zingales*

Lots of anecdotes, few facts. Good policy advice, especially for real crony capitalist countries — Rating: 3/5

There is no doubt but that the US could be more competitive, and that lobbying efforts sometimes lead to undeserved profits for the already rich. But the author's claim that the US is a crony capitalist country is certainly not proved by bunch of unsupported asserts and cherry-picked anecdotes. There are not even many crony-exhibiting anecdotes---the author dredges up Fanny Mae and ADM over and over, and they are very poor examples because they ended up not costing taxpayers anything. Rather, they are examples of successful state intervention.

The author hates to give references and details. For instance, he speaks of a "data provider" who sued "a friend" without naming either. Spare me.

The policy advice in the latter half of the book is good, and it is about what the magazine The Economist says every week. This advice, however, does not address the US's current key economic problems, which are the economic failure of African American and lower middle class white males.

The gardens of democracy *by Eric Liu*

Where is the policy bottom line? — Rating: 3/5

A number of books have appeared in the past few years that purport to go beyond the old divisions of right vs. left. This is an interesting addition to the mix. It is not clear what right and left mean because the positions they hold change over time and one standard right vs. left position can shift in the next

period. I think the effort to deep-six right vs. left is a great idea. I can't stand either Leftists or Rightists---both are non-thing dogmatic ideologies (although changing over time).

The idea of the economy as a garden is, of course, a new way to say that there is a role for the planner (the gardener) in making the economy work. It is nice to have a new name for this, and it correctly implies that an unrestrained free market economy must go to the weeds. This is very true. The idea also is in opposition to the mechanistic notions of intervention proposed in the past by the Left (five year plans, price controls, and the like). So I like very much the garden metaphor, which I heard first in a speech by Bill Clinton some years ago.

A second important idea is that there is narrow self-interest and real self-interest. Real self-interest is considerably prosocial and altruistic. In my work I drop the word self-interest because it is confusing. If we are happier and healthier by giving to others, then giving is self-interested. But we don't feel calculating and selfish when we give, so the word is confusing. I use the terms self-regarding and other-regarding. A self-regarding motive is one that directly affects one's material well-being (what I earn, what I eat, how I enjoy my recreational time, etc.). Other-regarding motives look beyond myself to other people, the environment, issues of justice, fairness, and basic character virtues, such as honesty and loyalty. The authors' discussion of this is very nicely done.

The weakness of this an other books of this genre is that it does not lead to clear policy conclusions. What does it say about financial reform, educational policy, income redistribution, and the other myriad policy choices that we face? Not much, I am afraid.

Violence and Warfare among Hunter-Gatherers *by Mark W. Allen*

Modern Anthropology at its Best — Rating: 5/5

One of the most fascinating questions we can ask concerning human nature is to what extent are the behaviors of modern people etched deeply in our genes and evident in the behaviors of our ancestors from the very dim past. Our eldest ancestors were uniformly hunter-gatherers, and there are still some 1000 basically hunter-gatherer societies around the world, most of which have been studied to some extent by modern ethnographers. To the extent that these groups mirror their forbears from the ancient past, their behavior has some informative value in addressing this question. For a general and highly informative use of such information, see Donald E. Brown, Human Universals (New York:

McGraw-Hill, 1991). A more recent application of this method addresses the question of how much modern technology has affected our sleeping patterns, some claiming that it is "natural" to sleep when the sun goes down and awake at dawn, others not so sure. The evidence is that modern hunter-gatherers, without electricity, stay up by the campfire long after dark and sleep some 6.5 to 7.5 hours, on average.

A prominent question that has been asked since the Enlightenment is whether men are naturally good but corrupted by modern society, or naturally evil, the corruptness of society being a result of our venal natures. The answer, we can now say with some certainty, is that humans harbor within their breasts the ingredients for both extreme good and extreme evil, and often both reside in the same breast. For instance, there is no disagreements among experts but that (a) our ability to cooperate and collaborate [good] has been central to our success as a species, and (b) human groups have always been extremely violent, on average, and probably much more so in the dim past than in the present (See Pinker's fine book, The Better Angels of our Nature).

One debate that I have found less than enlightening is whether making war is part of our nature as a species, or whether war-making is the product of modern society. Humans are violent, they are expert weapon makers and have been since they emerged as a species, and our bodies have been modified over at least the past 200,000 years to make us more powerful and accurate as weapon wielders. See my paper in a recent issue oif Current Anthropology, or Chapter 2 of my forthcoming book Individuality and Entanglement (Princeton, 2016). There is surely no "gene for war" any more than there is a gene for violin playing. But war, like violin playing, is well within human capacities and war is likely to break out between groups when their common presence in the world threatens the secure future of each.

Those who dedicate their lives to making the world peaceful often find this conclusion highly threatening. I do not understand why. Just because war has always been part of human social life does not mean it must continue to be so. Social progress consists in creating new conditions so that people can lead better lives than their ancestors. World peace is one goal of such a social dynamic.

There are however, people who do not see it that way, but rather see war as a modern highly corrupt overlay on human nature. They seem to believe that if they are wrong, then we are condemned to kill each other in blazing conflicts until our presence on this planet is extinguished. Anthropologists of this persuasion claim that war is a modern invention.

The contributors to this excellent volume show that they are simply wrong. If we define war as "socially sanctioned lethal conflict between independent polities" then war has a long history, quite evident in the archeological record. I urge the reader to refer to the massive evidence presented by the many authors who have contributed to this book.

I must repeat: war is not part of human nature. Violence, lethal weapon-making capacity, and a physiology well suited to wielding lethal weapons are part of human nature. War can be contained and prevented, but the human capacity for war-making will always be with us, at least until Big Brother can give all his children a little pill every morning that drains these capacities from his behavioral repertoire.

The Big Picture *by Sean M. Carroll*

Wonderful contribution to modern metaphysics — Rating: 4/5

Sean Carroll is a prominent physicist. I love his lectures in the Great Courses series (I watch them regularly while working out on my treadmill), and his Spacetime and Geometry text is very good. My own work is highly interdisciplinary, although completely within the behavioral sciences (physics has remarkably little to add to understanding complex species). Thus I very much appreciate having and expert physicist's contributions to understanding "life" and "meaning." The strongest parts of this book are his criticisms and appreciations of the larger contributions of philosophers and scientists who understand modern physics and attempt to grapple with the problems it raises. The weakest part of the book is attempt to deal with moral philosophy and the nature/meaning of our existence as a species.

Carroll attempts to give meaning to an impersonal, deterministic universe by espousing "poetic naturalism." He freely throws around this term, but it really doesn't mean much. Basically, he correctly notes that there are many alternative frameworks for describing the same phenomena, and the rigid determinism of the Core Theory (his term for the Standard Model of Particle physics) simply has no place for many of the key concepts relevant to human existence. Among these are causality, beauty, responsibility, morality, and hosts of others. Poetic determinism recognizes that our actions are "determined" by the configuration of molecules in our brain and our interaction with the environment, but that there is an overlapping discourse in which it is perfectly sensible to say that we have free will over many aspects of our lives.

The most important point Carroll makes is that we cannot expect some interpretation of quantum mechanics or relativity to answer the deep questions we have about human nature and human behavior. He reminds me of the early Wittgenstein who, after showing that virtually all philosophical statements are strictly meaningless, and being asked if philosophy has any use at all, replied "Yes. Philosophers can protect us from meaningless philosophy."

Carroll's discussion of Turing's criterion for consciousness is very useful, and his critique of Penrose's attempt to derive from a purported non-algorithmic structure of the human brain is quite persuasive (or, at least, I perfectly agree with him). Quantum mechanics and microtubules are not like to explain consciousness. He also has little affection for the many attempts to see consciousness as related to the measurement problem in quantum mechanics (the role of observability in accounting for the collapse of the wave function). I quite agree that decoherence does not solve either the measurement problem nor contribute to a theory of consciousness.

Of course, Carroll has no explanation for consciousness, except to explain the basic principles of complexity, define and study emergent properties of complex system, and simply say that consciousness is one such property of the brains of some species. But then no one else has an explanation either.

Carroll's critique of the many theories of consciousness that depend on forces that lie outside standard particle physics + relativity is extremely vigorous and challenging. Most important is the idea that only electrons, neutrons, and protons make up the world of everyday life, and the Core Theory holds that by the proper rotation of Feynman diagrams we can expect any particle that interacts with these would be observed in particle accelerator data. There simply is no room, he holds, for additional mysterious forces. I appreciate this strong argument, but it certainly could be wrong, if it turns out the Standard Model is incomplete in some way. The fact that it has never been wrong does not give one confidence that it might be missing something important.

One of the biggest mysteries in modern physics is the irreversibility of time in the real world, despite that time is perfectly reversible in quantum mechanics and relativity. The major spheres where irreversibility are prominent are thermodynamic processes and the wave function collapse in quantum mechanics. Carroll is perfectly convinced that the arrow of time is due to the low entropy state of the early Universe. I have heard this argument for many ears, and it has always seemed completely lacking in credibility. Perhaps one can explain the gross increase in entropy in the Universe by this argument, but that does not explain why I age from baby to adult to old man, or why my coffee gets cold. The arrow of time is indeed a great mystery, or at least a proof if the limited nature of the Standard Model.

All this and more are richly discussed in this most welcome book. Where Carroll completely fall down is in dealing with human nature and morality. He has not read the behavioral literature at all, and his discussion of the philosophical literature are sophomoric and irrelevant. Irrelevant because the question of human nature cannot be answered by philosophy, but only by science. And sophomoric because he continually confuses how people "should" act and what moral statements "should mean," and never addresses how humans do act and how morality fits into our nature as a social species. He should have studies the literature before writing the last section of his book.

Black-body theory and the quantum discontinuity, 1894-1912 *by Thomas S. Kuhn*

Beautiful history of science, but you must know quantum mechanics to appreciate it —

Rating: 5/5

I knew Thomas Kuhn's work well before reading this book. My radical friends and I threw around the work 'paradigm' freely to suggest that the neoclassical economics we were studying at Harvard was just one of many equally plausible alternative frameworks.

When I got to the Institute for Advanced Study in Princeton, 1977, my office was right across the hall from Kuhn's, and we spent many hours talking about science, the history of science, and related themes. Kuhn gave me a draft of Black-Body Theory... to read and comment on, but I did not know enough history of the period to have anything useful to say.

I did learn from Kuhn that he was very dissatisfied with the way in which his earlier book, Structure of Scientific Revolutions, was being transformed into an anti-science post-modern diatribe by many academics. He taught me that there is nothing post-modern whatever about his theory of scientific change. I never forgot the lesson.

This book reveals the art of a true historian of science craftsman. The scientific content is very simple. Planck did not discover the quantum, but he discover and measure Planck's constant h brilliantly. Planck followed Boltzmann's statistical mechanics argument, in which phase space is divided up into very small cells of size epsilon, where epsilon is sufficiently large that each cell can contain many particles. Boltzmann then analyzing the resulting multinomial distribution, assuming all occupancy combinations are equally probable. It turned out for Boltzmann that the size of epsilon did not much matter (you could not take zero-limit, though). When Planck did the same thing with h rather than epsilon, he found that he could fit the observed shape of the black-body radiation curve, and fit it almost

perfectly for the now well-known value of h. However, Planck believe the radiation was still continuous (a la Maxwell), and h was a property of what he called 'resonators'; i.e., the radiating dipoles that he used in the proof./ Only after Einstein, in 1910 or so, did Planck recognize the quantum nature of light.

So who cares? We should care. Kuhn's work supports the idea that science progresses from-what-we-know to what-we-know-next. This is in contrast with the Whig interpretation of science, which is the inevitable march from darkness to light, from confusion to clarity, from error to truth. Of course, there is nothing wrong with teaching physics by recounting its past successes, but that is not in fact how the dynamic of knowledge works.

Kuhn makes the interesting point in the Afterward to the book that even the innovators often rewrite the past to make the dynamics more "logical' and 'transparent.' Kuhn says: "...quite usually, scientists will strenuously resist recognizing that their discoveries were the product of beliefs and theories incompatible with those to which the discoveries themselves gave rise." (p.366).

Insights such as this abound in this rich work.

Niels Bohr's times *by Abraham Pais*

Uniquely beautiful and elegant history of a vital time in modern science — Rating: 5/5

Pais is a beautiful writer, an admirable human being, and a fastidious chronicler of the history of physics. I confess that I loved all three books he has written. It is true that you cannot really appreciate this material if you don't know some physics and you don't care about the details of quantum mechanics and nuclear physics. But if you do, this is the books for you.

How institutions think *by Mary Douglas*

Five stars, but not the full story — Rating: 5/5

I was recommended this book by a social science colleague whose judgment I trust. I certainly would not have bothered on my own, after reader her book with Wildavsky, which I found to be shallow and misguided (see my review of this book).

Douglas's major thesis in this book is that the notion of rational action as the behavior of the socially isolated self-regarding actor is incorrect. Her alternative is that "mind is society writ small." That is, individual beliefs, desires, and hence actions, are the product of the individual's social connections and social experience, and have a strong other-regarding and ethical element of self-sacrifice on behalf of the group and its moral principles. She develops this theme with great eloquence, insight and erudition.

Nevertheless, her arguments could have been stronger. Even thirty years ago, she would have benefitted from the incredibly powerful works of the sociologists Talcott Parsons and Ralph Linton (Douglas only recognizes the late Parsons, whereas the early Parsons of 1937 is relevant for her thesis). Moreover, she does not understand the scientific notion of rationality, as developed by Von Neumann and Morgenstern as well as, even more critically, Leonard Savage (1954). In terms of modern decision theory, stemming from Savage, we would summarize her argument is that the subjective prior of rational choice theory must be replaced by a model in which beliefs are socially constructed. Most important, her critique of rational choice theory as necessarily self-regarding is completely incorrect.

Douglas' stress on the importance of Durkheim is well-founded, but she does not find a way to overcome the most common objection to Durkheim, which is that its portrayal of society is completely functionalist---society functions when people agree on basic beliefs and conventions. This is simply incorrect. Societies can function quite well with serious ideational conflict (although general adherence to certain core principles tends to facilitate constructive social cooperation). I have argued that individuals are embedded in social networks of minds, and individual beliefs and knowledge are distributed over these networks. We may call this socially distributed cognition.

Socially distributed cognition almost never takes the form of a single network of consonant information and values, and indeed, major forms of social change are the result of the clash of contrasting networks of social cognition. With this emendation, Douglas' brilliant argument makes much more sense.

Social Acceleration *by Hartmut Rosa*

Another defeat for critical theory — Rating: 2/5

My dislike of critical theory dates back to my reading a critique of Jazz music by Theodore Adorno. I found his critique to be just his personal preferences couched in fancy words. My opinion was reinforced by my reading of Herbert Marcuse's One Dimensional Man. I admired Marcuse a lot, but as I told him one time, his idea that the proletarian masses were completely deprived of critical thinking is simply an academic prejudice. His idea of cultural emancipation, I said, was that the workers would make a revolution for more bread and after the revolution, their consciousness would be uplifted by Cultural Commissars such as himself. It will never happen, I remarked. And I was right. I remember having dinner in Paris one evening many years ago with Gerard Horst (Andre Gorz) and his wife Doreen. "Do you often come in contact with critical theorists?" he asked. "Not if I can help it," I replied. I did read Telos for several years and found one or two good articles. But that was it.

Rosa take an obvious fact about modern technology, the ability to accomplish tasks more quickly and at lower cost, and turns it in the "essence" of modernity. In fact, modernity is multi-faceted and has no essence. Rose argues that the modern technical capacities lead to the acceleration of social life in a manner that undermines the stability and well-being of individuals. He never even tries to prove this. He simply asserts it. Well, I certainly don't believe it.

Rosa writes well and at great length. But he is just expressing his personal and not very well founded opinions in elegant academic prose.

Quantum enigma *by Bruce Rosenblum*

A Valiant and Partially Successful Effort — Rating: 4/5

Wave-particle duality moved from philosophy to science with Bell's equation (1964), which showed how to test the concept of entanglement analyzed in the famous Einstein-Podolsky-Rosen paper (1935). The authors of Quantum Enigma try valiantly to explain this event and its consequences to a lay audience. I admire their effort, which is surely partially successful, and so I recommend this book to the casual reader who is curious about the relationship between quantum mechanics and consciousness.

One minor problem with the book is that it discusses many ideas without citing the major papers and books in which these ideas are developed. Google helps here, but with minimal effort the book could have allowed us to avoid this error-prone search strategy.

A major problem is their taking seriously, and repeatedly throughout the book, is that a possible explanation of the quantum enigma is that we lack free will, so that the experiment we choose to do is physically correlated with state of the quantum system we are investigating. This is just too far-fetched to be taken seriously. David Bohm did come to defend his explanation by reference to an ineffable cosmic unity, but this too is no different from no explanation at all. Rather, it is reminiscent of astrologers' claim that our individual lives are regulated by the stars. How does this happen? By some ineffable cosmic unity. This take on the problem seriously detracts from the books value. The quantum enigma has nothing to do with free will or its absence.

A second problem with the book is that the reader really must take Bell's Theorem on faith, and with it the fact that Bell's inequality is violated exactly the way quantum theory suggests. If you really want to understand this, look at Simony's entry on Bell's Theorem in the Stanford Encyclopedia, or some other source that explains the math. It is truly stunning.

Seven Brief Lessons on Physics *by Carlo Rovelli*

Very brief indeed. — Rating: 2/5

The idea behind this book is admirable: provided an introduction to modern physics for real beginners. The execution fails. Rather than explaining the deep problems of modern physics, it gives the novice the idea that he has learned something when he has not. I am reminded of the story of a man who took his wife to the golf pro at the local golf course and asked him to give her a golf lesson. "And do you want a lesion too," asked the pro. "No, I learned yesterday," the man replied.

There is much more that could be done without introducing a lot of complicated math. Special relativity is virtually ignored. General relativity does not explain how the equivalence of inertial and gravitation mass gives rise to general relativity. Galileo is seriously underrepresented, as is Newton. Quantum mechanics does not deal with entanglement, locality, wave/particle duality, or most other interesting issues. The discussion of loop quantum gravity is good, but far too advanced in comparison with the other topics. The final chapter, on what it all means philosophically, is a throw-away.

Hundert Autoren gegen Einstein *by Hans Israel*

Einstein: If I were wrong, wouldn't one author be enough? — Rating: 5/5

Recently 137 population biologists wrote a letter to the journal Nature protesting a paper criticizing inclusive fitness theory written by Martin Nowak, Corina Tarnita, and Edward O. Wilson. I recall reading the paper with interest, and with a resolve to spend a couple of months tracking down their references and evaluating their argument. Long before completing this task, I was asked to cosign the protest letter. I refused, on grounds of incomplete assessment of the argument.

There were a few problems with the Nowak, Tarnita, Wilson paper, but it was a highly useful contribution to the literature. By contrast, the very first paragraph of the protest letter, signed by a huge number of respected biologists make several statements that were simply factually incorrect.

This led me to recall Einstein's famous reply to a journalist who asked him about this book. His answer was of historic interest and Shakespearian simplicity.

Please, enough collective ultimatums against innovators. Truth is not determined by majority rule, and the majority is often wrong.

Manufacturing consent *by Edward S. Herman*

An Unconvincing Explanation for the Unpopularity of Radical Socialism — Rating: 1/5

If you are a good Leftist and you want to know why your ideas are not popular, this is the book for you. You don't have to worry that perhaps your ideas are wrong, or your values are not shared by the larger public. Just blame it on the media.

The main reason I do not like this book is precisely the above. It leads serious people who want to reform society into circling their wagons, talking only to each other, and ignoring the importance of speaking to the people as a whole.

The second reason I do not like this book is that I think the major argument is false, and the authors have made a poor case of marshaling the evidence for their model's being superior to other models. Indeed, they present no other models.

Here is another model: the commercial media consist of firms in competition with one another for audience. The firms that best give people what they want will succeed and the others will fail. Capitalist owners are profit-oriented and hire managers, journalists, commentators and others who maximize their firm's profits by giving people what they want. Of course, some people just want to hear stuff that confirms the political prejudices. But others base their opinions on the facts, and this part of the

clientele of the media are broad enough that the observed level of delivery of factual information obtains.

The complete idiot's guide to string theory *by George Musser*

A Triumph of Words over Symbols — Rating: 4/5

I am always skeptical of physics for laypeople that avoids all the math. The math of string theory, however, is for experts only. Musser does a great job of explaining the lay of the land. He does not only string theory, but all the background needed to make sense of string theory. I do think string theory is seriously overhyped. It makes no testable predictions (as of yet).

Spooky Action at a Distance: The Phenomenon That Reimagines Space and Time—and What It Means for Black Holes, the Big Bang, and Theories of Everything *by George Musser*

Interesting speculations — Rating: 3/5

Most of the criticisms of this book are on the mark. If you don't know anything about non-locality, this book will probably not help you much. If you don't like metaphysical speculation arising from conundrums of contemporary physics, this is not the book for you. I found the speculations interesting, although Musser applies the term non-locality to far more phenomena than deserve the term. I looked at some of the papers on alternatives to the notion of space and found them extremely half-baked, with lots of hand-waving.

Dark matter and the dinosaurs *by Lisa Randall*

Probably wrong about the dinosaurs, but lots of good physics here. — Rating: 4/5

This book is a lively introduction to contemporary cosmology (especially the notion of dark matter), and leads the reader through lots of interesting physics with the ostensible purpose of explaining the demise of the dinosaurs. The geology is quite out of date and I don't believe her thesis is plausible. But I liked the book anyway. It is a good read and the reader will learn a lot of interesting stuff.

War, Peace, and Human Nature *by Douglas P. Fry*

Interesting anthropology, but asks the wrong questions — Rating: 3/5

Douglas Fry's message in this edited volume is that "warfare is not ancient,,, arising within the timeframe of the agricultural revolution" (pp. 4,6).Therefore making war is not part of human nature and hence can be avoided. How? "In this interdependent world of the twenty-first century we need to 'Expand the US to include the Them." (p. 546).

I think the basic conclusion, that war is not ancient, is most probably wrong, as I have written recently in Current Anthropology (with Carel P. van Schaik and Christopher Boehm, "Zoon Politikon: The Evolutionary Origins of Human Political Systems", Current Anthropology 56,3 (2015):327-353), and more extensively in my book with Samuel Bowles (A Cooperative Species, Princeton University Press, 2011). Humans are the only mammals who make war, by which I mean organized combat involving the coordinated action of many combatants facing a well-organized opposition of considerable size. Most nonhuman primate species have great trouble in acting collectively in conflict with neighboring groups. Chimpanzees are a major exception: they engage in war-like raids where larger parties cooperate closely

to target and destroy much smaller ones. But Chimpanzees engage in raids and fight only when they encounter single individuals from another group. There is no organized combat between groups of comparable size and strength.. War among human hunter-gatherers likewise largely consists of such a raiding strategy, suggesting a shared predisposition to engage in this type of warfare. Obviously, the dramatic changes in human social organization accompanying the origin of defensible wealth produced major changes in the nature of warfare. But despite the confident claims of Fry and others in this volume, there is ample evidence that this behavior is characteristic of humans.

Despite the intrinsic interest in the question of war and human nature, it is really of virtually no relevance to the issue of promoting the abolition of war. Warlike human nature does not make war inevitable, but other aspects of human nature make war a permanent aspect of human socially organized life. First, like other primates, humans are naturally aggressive when threatened. Moreover, humans are masterful creators and users of artificial lethal weapons (i.e., not natural biological weapons such as claws and venom), on a scale quite unknown in other species. Finally, humans organize and collaborate in large-scale enterprises in hunting, economic production, and social defense. Making war is simply the creative composition of lethal weapon use and large-scale human collaboration.

How should we treat Fry's solution to modern warfare (expand the Us to include Them so there is no need for warfare)? Suppose all societies followed this rule. Then any society that defected from this rule could reap huge games by exploiting its peaceful neighbors. The situation of universal peace is there not stable. Perhaps we can correct this problem by maintaining that all societies be strong in defense but not engage in offensive attacks. This is pretty much what we have now. It is only partially successful because the line between offense and defense is subtle and hard to draw. Virtually every group that attacks does so in the name of defending its principles and prerogatives.

War is the continuation of politics by other means," von Clausewitz tells us. He does not say this because he has some concept of human nature in which the drive to kill The Other is a prime directive. He says it through historical observation. War is of course horrible and to be avoided under most conditions. But urging us to love our enemies is simply silly, and saying that war can be abolished because war-making is not part of our nature is a gross non-sequitur.

String Theory and the Scientific Method *by Richard Dawid*

Nice try, but completely nonconvincing — Rating: 2/5

This physicist turned philosopher attempts to justify the notion that we should give up the traditional criteria for accepting the (provisional) truth of a theory. The traditional criterion is that the theory has adequate empirical support. String theory has no empirical support, and it may never have such support because test current models require energy levels far beyond anything we have or are likely ever to have. Yet string theorist continue to spend much time and energy spinning out new results based on the simple notion that fundamental particles are not dimensionless points, but one-dimensional strings in some high-dimension space. The higher dimensions are too small to be detected, and may never be detected.

String theory is attractive because it provides a significant unification to the laws of physics, especially important being its unification of quantum mechanics and gravitational theory. It also explains black hole inertia and in general is pretty elegant in conception. The general point is that standard point-particles can get infinitely close to one another, leading to crazy infinities, only some of which can be normalized away. Vibrating strings cannot get that close to each other, so the infinities disappear.

The fact that, although string theory is severely underdetermined in any detail, it is capable of unifying so much leads many of its proponents to declare its truth, even without empirical support. Dawid attempts to defend this view, which is supported by very influential and serious people, but he does not succeed. This is through no fault of his own. The view is simply indefensible. All the arguments In favor of it are blatant special interest pleadings that cannot be taken seriously. If you cannot make predictions that are empirically verified, you don't have a supportable theory. That is all there is to it. The notion that Bayesian updating using non-empirical facts (such as the theory getting more elegant, more

inclusive, or remaining the only game in town) cannot substitute for empirical evidence. Either there are little strings or there are not. You have to see the strings to credibly assert their existence. Without this evidence, string theory may remain a formidable speculative hypothesis, well worth working on, but it is still speculation.

It is a tribute the incredible progress in our understanding of the laws of physics that in some areas we appear to be at a point where we can go no further without really fundamentally new insights. My understanding of quantum mechanics, for instance, leads me to believe a version of multiuniverse theory in which the whole universe is in quantum superposition, so that the observations that appear to entail the collapse of the wave function really just means that the observer is in quantum superposition. But I have no idea how to test this notion, so it is just another speculation. Like string theory, we may never know. Or perhaps with better theory we will be able to attack this problem fruitfully.

I learned a lot from this book about the philosophy of string theory. But I remain completely unconvinced.

Concepts of mass *by Max Jammer*

Waste of time — Rating: 1/5

I found this book utterly pedantic and boring. Why would I care what the ancients said about mass, unless as part of a systematic study of the thought of the different philosophers. I found the treatment of Newtonian and relativistic theory labored and lacking in insight. Just study Newtonian mechanics, special relative, and general relativity and you will understand the notion of mass. Also cosmology and dark matter/dark energy.

Group selection *by Williams, George C.*

A book of historic value — Rating: 4/5

It is not surprising that this book has no review up to this point. It is very technical (but not very mathematical) and probably only of interest to history science types. I am rankled that I had to pay a huge amount of money for this thin book, most of whose essays I now find can be download from online sources.

The book should cost about ten dollars.

Nevertheless, the essays are very cogent, and George Williams is a careful and thoughtful commentator.

End Game *by Corey M. Abramson*

Preachy and Anecdotal — Rating: 3/5

Well-off males live about fourteen years longer than poor males, and well-off females live ten year longer than poor females. I thought this book would help me understand why. I was rudely disappointed. The author uses anecdotes and lots of interesting interviews to document difference between well-off and poor, but never attempts a causal explanation of what affects what. Are people poor because they are unhealthy, or is their lack of income the cause of their relatively fragile physical constitutions? We do not find out in this book.

I also object to the sentimental and emotive tone taken by the author. I care just as much as the author about the plight of the elderly and of the poor, but I try not to let my heart take over from my head. The author conforms well to the current culture of sociology in reversing heart and head.

On inequality *by Harry G. Frankfurt*

I Agree with his Alternative — Rating: 4/5

Harry Frankfurt's chief attractions are his clear arguments and his short, easy to read books. His On Bullshit was welcome because there is indeed so much long-winded bullshit in professional philosophy and social theory journals and books. People who have virtually noting new to say find ways to say it with big words, in in my territory, tons of equations and esoteric references.

In this book, Frankfurt argues that egalitarianism, by which he means favoring equal distribution of wealth and income, is not a moral ideal. By that he means that there is no reason to favor more equal over less equal on principle, although there may be moral effects of inequality that are undesirable. What is morally important, he argues, is that people have enough of what they need to live a decent life. If that requires some form of distributional equity, so be it. He also argues that excessive consumption by the well off, in the face of the destitution of the poor, is a form of gluttony that is disgusting and offensive. The rich should not act that way. But that does not imply that equality, or even a move towards equality, it a moral good in and of itself.

I quite agree with this argument. Perhaps more important, I believe that at least in my society (the USA), almost everyone agrees that inequality is not a moral evil, although many do not agree, as Frankfurt and argue, that poverty is a moral evil. I believe it is inherently unfair that a child born in one family have a much greater chance at a decent life than a child born in another family. I do not believe that this is completely remedial as long as children are raised in families and families are heterogeneous in their capacity to raise their children properly.

But Frankfurt never talks about equality of opportunity, and he does not make the above argument.

Indeed, Frankfurt does not make any argument for his views, but rather critiques those who have tried to defend egalitarianism. His critiques are not new, and I found some of them rather perfunctory and incomplete.

John Rawls' principles of justice are considerably better developed that Frankfurt's, and they place equal emphasis on the injustice of poverty. But they are in essence extremely egalitarian morally, although Rawls recognizes that much inequality is implied by his maximin principle. I do not much like Rawls arguments. In this I am in agreement with many who argue that Rawls is analytically weak.

Like a true philosopher, Frankfurt does not deal with the behavioral science that attempts to deal with how real people construct a social morality for themselves. If he did, I suspect he would have a much stronger argument.

A beautiful question *by Frank Wilczek*

An Oddesy of Broken and Unbroken Symmetries — Rating: 5/5

We often think of truth as eternal and unyielding---a fact, theory, or model is either true or it is false. We often think of beauty as fleeting and relative---what is beautiful for people in one society may be ugly, revolting, or simply uninteresting in another. In this book, Wilczek claims not only to elevate the status of beauty to that of truth, but to claim that in some sense the most ultimate beauties are at the same time the most ultimate truths. Wilczek is certainly not the first to claim this, and indeed the author traces the idea back to Pythagoras and other classical Greek thinkers. But Wilczek add to the fold the truths of quantum electrodynamics and quantum chromodynamics, as well as general relativity theory.

Now this common vision of truth is well known to be overdrawn. Truth is usually provisional, and often only partial. And beauty is not so subjective and culturally-bound after all---consider the ineffable beauty of flowers in a jungle never seen by human eyes but meant to be attractive to pollinators, or the stunning beauty of objects from cultures infinitely far from our own. My own take on the situation is that both truth and beauty are absolute categories. Truth may be partial, but it is never multiple---when two assertions clash, at least one of them is false. And beauty is an ideal category instances of which can be appreciated cross-culturally and across time. Moreover, there are beautiful things that I do not

appreciate, and things I appreciate that are not beautiful. So Wilczek's thesis is not doomed from the start, and I think he does a very good job of defending it.

One problem is that the fraction of the human population that can recognize beauty in mathematical equations is quite small. Most people I know hate math, or at least fear it, and many of the people who appreciate mathematical beauty are in other respects quite lacking in aesthetic acuteness. The high marks accorded to this book by reviewers doubtless reflects a strong selection effect. If you don't like math, you probably won't get much out of this book.

The central message of this book is that beauty is symmetry and the equations of physics can be derived from a small set of symmetry principles. Why this is true, no one knows. Why these particular symmetries instead of countless other possible symmetries, no one knows.

Equally important is that the character of our lives is the product of broken symmetries. It is easy to glorify the symmetries and their Apollonian serenity, but the Dionysian world we experience is the ineluctable product of symmetry-breaking. Nor is symmetry-breaking any less beautiful than symmetry itself. Hegel lamented that the perfect serenity of the Ideal is instantiated as the alienated Real, and saw History as the progressive dynamic from Material to Ideal. But it is the broken symmetries that lends meaning and excitement to our lives.

Perhaps one of the most pervasive symmetry-breaking comes from quantum mechanics, where every material entity has a wave equation, and the wave equation portrays the entity as in a constant and instantaneous superposition of states. When we observe such an entity, the wave seems to collapse into one determinate state among the myriad of possible states. The wave equation is symmetric but the reality is a broken symmetry. The standard Copenhagen explanation of this is incoherent. as is well known, because the concept of an "observer" is incoherent. The only plausible explanation, to my mind, is the many-worlds interpretation, in which the whole universe is in a high-level superposition of states. When we view a quantum event, we ourselves, as observers, fall into a myriad of superimposed states corresponding to the possible outcomes of the event.

But our consciousness is not in a state of superposition! At least mine is not, and when I ask others, they do not report a superposition of states. Thus consciousness is a broken symmetry. How beautiful!

A singularly unfeminine profession *by Mary K. Gaillard*

Bemused — Rating: 3/5

I do not know why Gaillard wrote this book, and I do not know why I read it (with pleasure). I guess the author wanted to stress the difficulties of breaking into an all-male enclave. I guess I wanted to learn something about the emergence of the Standard Model. I liked the book, although I may be biased by the fact that I am an academic, and the book is an odyssey of academic schmoozing.

I certainly did not have to be told about the male domination of academia forty years ago. In all my years as an undergrad at the University of Pennsylvania and the Sorbonne, and my graduate training in economics at Harvard, I never had a female instructor. The only books I read by women were in economic history and development economics. When I was a first-year Assistant Professor at Harvard, I received a letter inviting my wife to join the Harvard Wives Club. Needless to say, there was no Harvard Husbands club.

Gaillard (which means "hardy" in French) spends lots of time on her personal life, which is okay with me. She also talks a lot about faculty politics and how she was mistreated. Okay. But I don't know an academic who couldn't relate with relish stories of being mistreated. Really boring. Who cares?

I recommend this book because it found it fun reading, I did learn some history of science, and Gaillard is a pleasant writer with a sunny disposition.

Collective Action and Exchange *by William D. Ferguson*

Exciting, Rigorous, and Extremely Insightful — Rating: 5/5

Political economy has evolved in the past two decades from verbal gymnastics to a scientific study of how people form groups to solve collective action problems. Ferguson's book is a forceful introduction to the analytical techniques involved in this intellectual revolution, together with a presentation of the evidence supporting various models. It exhibits a deep appreciation for the long road ahead in improving our understanding of the political aspects of social life.

I should warn the reader than I am not unbiased---the above is a blurb I wrote for the book jacket. Moreover, the first line of the Acknowledgments credits my graduate game theory course some two decades ago as the inspiration for Collective Action & Exchange.

However, the ideas presented in this book are far from parochial, but rather represent concepts that have been growing in the profession for several decades and now are rather well known an accepted. Indeed, there is a four volume graduate textbook, soon to be published by Oxford University Press, written by Professor Sanjit Dhami of Leicester University (England), that will likely be widely used in graduate courses around the world.

This book is great for self-teaching, but it is rigorous and not meant for your bedtime treat. It is even better for teachers of undergrad economics courses, and can take the place of a traditional first year microeconomic text, or a second year follow-up course. Your students will love you for it because the material is so exciting and real-world. Quite an antidote to traditional micro texts! Indeed, I quit teach undergrad micro years ago because all the texts were the same---ancient, incorrect, and dreadfully, insufferably boring (incorrect is the worst charge, of course, but quite accurate, especially when it comes to consumer and production theory).

I once was giving a talk to project directors at the National Science Foundation (on the importance of integrating the various behavioral sciences) and when I critiqued how microeconomic was taught to undergrads, a member of the audience commented “Well, I don’t believe the textbook; I just teach it.” How deeply saddening. Perhaps it would be better if he really believed it, but that is tragic in another way. Something like this could never occur in the natural sciences, where professionals care about the empirical evidence and shift to new theories quickly when the models explaining the facts become professionally accepted. The great physicist Max Planck once famously said "A new scientific truth does not triumph by convincing its opponents and making them see the light, but rather because its opponents eventually die, and a new generation grows up that is familiar with it." It is a very funny quote, but infinitely less applicable to the natural than to the social sciences.

If you are a teacher, I guarantee that even if you learned economics the old way, you will feel comfortable and authoritative in introducing the ideas in this book to your students.

The most important point developed in this book is that one cannot understand the economy unless one integrates models of market exchange with concepts drawn from political, sociological, and even psychological theory. The challenge is to present such a synthesis with elegance, rigor, and insight. This book does just that. Moreover, it is important in presenting scientific theories, even in the social sciences, without betraying some political bias or other. We all have our biases, of course, but passing them off a scientific truths is unconscionable. This book is pretty admirable in avoiding this fatal pitfall.

Misbehaving *by Richard H. Thaler*

Full of great ideas and a wonderful writing style — Rating: 5/5

This book is a great way to learn about behavioral economics, and it has the added attraction of being written by one of its most creative practitioners. The best way I can convey the power of this book is with some examples. Let me start with the case of the beer at the beach. Two friends are at the beach on a hot afternoon and one says to the other "I'm going to the hotel to get a beer. I'll first try the little stand run by a local, and if it is closed, I'll go to the bar in the hotel. In either case, I will be right back with the beer. How much is the most you will pay from the little stand for a cold Corona, and what is the most you will pay from the hotel bar for the same drink?" The second friend replies, "I'll pay up to 2 dollars at the stand and up to 4 dollars at the bar." Now this sounds quite reasonable but it is easy to see that it is

completely irrational according to traditional economic theory. If the beer is worth 4 dollars from the bar, how could the same exact product be worth 2 dollars from the stand? Behavioral economics is about such well-experienced phenomena that are poorly represented by traditional economic theory.

Here is a second example. An experimenter gives you 10 dollars and tells you that there is another subject in the next room. You must offer his some part of the 10 dollars, and if he accepts, you split the money accordingly. If he reject, you both get nothing. The experiments comments that you will never see the person in the next room, and you will have no chance to repeat the experiment with this person or any other. Standard economic theory says that if you think the other guy is rational and if you offer him any positive amount of money, he will take it, because something is better than nothing. So you offer him one dollar, he rejects, and you go home poor. The game, called the Ultimatum Game, has been play in the lab and in the field hundreds of times, and even with very large stakes, such as three month's salary. Offers of less that 30 percent of the pie are very often rejected. This is completely at odds with traditional economic theory.

Now, why did the other guy reject your offer? A variety of experiments that I won't describe here (see my book The Bounds of Reason, Princeton University Press, 2009) make it clear that the guy thinks your offer unfair, and he rejects because it is worth more to him to punish your unfairness than to get 1 dollar.

The point is that people are motivated by morality, not just self interest. This is shown again and again in behavioral economic experiments.

Now, what is the relationship of the second example to the first? THEY ARE THE SAME! The thirsty beach vacationer thinks it is unfair to charge more that two dollars from the little stand, which has low costs, but will pay up to four dollars from the bar, which pays high rent to the hotel. The vacationer is willing to go beer-less to punish the little stand owner for overcharging.

I want to stress something that Thaler says often, but not often enough: most the behaviors he describes are not at all irrational---far from it. They don't fit the standard model, but there is certainly nothing irrational about acting morally! Otherwise the only rational people would be sociopaths!

Let me give an example. A friend of his was fighting with her young daughter, who refused to wear dresses to school, preferring pants and tee-shirts. The mother fussed that she spent good money for three nice dresses at the beginning of the school year, anb by Lord, the little girl had to make good use of them. The mother ask Thaler to intercede in the tiff. Thaler asked if the mother had anything against pants and tee-shirds, an she said no. He then explained the concept of "sunk costs," which are expenditures in the past that support an investment that is currently expected to be unprofitable (it is called the Concorde Effect in Europe---guess why). The correct advice is "don't throw good money after bad." In this case, the money you spent for the dresses is gone, and you can't get any benefit for you or your daughter by making her wear them.

Now, there are certainly many cases in which people fall prey to the sunk cost fallacy, but I have found that in almost every case, this behavior is quite rational. On reason is that you might want to discipline yourself to be more careful about investments in the future, so sticking with a bad investment is just a therapeutic holding your feet to the fire. Another reason is that someone else is paying the costs, and if you fail you will be blamed. In the case of the mother and daughter, I bet anything that the little girl wanted the dresses at the beginning of the school year, and just changed her mind later. The mother is simply disciplining the girl.

A third example: why do popular restaurants put up with long waiting lists of people who want to eat there? The "rational" solution is the raise prices at the restaurant at peak hours, so supply equals demand. But a restaurateur explained to Thaler that people judge the quality of a meal taking into account its price, so even though people would pay more, they would recall that the meal was not that good, probably without even realizing that they took the price into account in making that judgment. I can swear that I behave exactly 8in this way, yet I did not understand the phenomenon until I read it in this book. Wow! Super wow!!

The only weakness of the book is Thaler's incessant theme of "traditional economics, bad---behavioral economic, good." This is simply false, and most people understand that this is the case. Moreover, behavioral economics has swept the field in the past two decades. This is greatly to the credit of

economists as scientists. There have been many criticisms, but that is welcome and necessary in the evolution of economics as a discipline.

Go ahead! Read this book. You'll like it. Take my word for it.

The deeper genome *by John Parrington*

Professional Overview with Fabulous Bibliography — Rating: 5/5

I study sociobiology in general, and the sociobiology of Homo sapiens in particular. The population genetics of the New Synthesis is now verging on a century old, and it is firmly grounded in a conception of genetic information transmission that is clearly out of date. I have been studying epigenetics and epistasis to understand the complex nature of multicellular organisms and social species. The most important thing I have learned so far is that the traditional idea of how information is passed from a biological entity to its daughter copies goes far beyond Mendelian segregation.

This book describes contemporary genetic research in to complex information transfer mechanisms in the genome. It requires that the reader know something about molecular biology, but not that much. The description is very well done, and the bibliography is extensive and well directed.

Most fascinating is the author's argument that the complexities of the genome require that we go beyond the "reductionism" that has guided microbiological research and theory for more than a century. It is not clear what the alternative is, but some of the readings in the bibliography do give some indications.

Man is by nature a political animal *by Peter K. Hatemi*

Useful, but Limited Vision — Rating: 3/5

The most important fact about political theory is that there really is none. Or, rather, political theory generally takes almost everything as given, including the fact that human society has a political sphere, and pontificates on the merits of various political organizational structures. If you Google Political Theory, you mostly come up with political philosophy, plus the "political theory" of random outstanding thinkers (Aristotle, Dewey,...). There is simply no coherent body of general political theory.

This exploratory volume advocates grounding general political theory in evolutionary biology. I think this is a great idea, and if you have never thought much about the relationship among evolution, human nature, biology, and political life, this is a useful way to start. The editors seem to think that genetics and neuroscience should be included in evolutionary theory, so there are several chapters that simply analyze genes, neurons, and hormones. These are useful in their own right, but they have little to do with an analytical core for political theory.

The contributors to this volume simply miss the most basic facts about political theory. The most important fact is that the public sphere is the area of human social life where the rules of the game are made, stabilized, evaluated, debated, and transformed. This is important because, while many animals play games, humans alone can conceptualize the notion that games have rules, these rules can be violated or respected, and that we can agree to play by certain rules with the expectation of achieving certain social regularities thereby. Homo sapiens is thus "Homo ludens": Man the game player. This is the central fact of political theory.

We are Homo ludens because we evolved in hunter-gatherer society as fundamentally egalitarian and participatory animals. See my recent article in Current Anthropology on the topic---it's on my web site--as well as my coauthor Chris Boehm's book Moral Origins: The Evolution of

Virtue, Altruism, and Shame (New York: Basic Books, 2012).

The second amazing fact about our species is that individuals are willing to participate in large political events, including elections and collective actions, even though their participation is completely non-consequential. No individual has ever made a difference in a large election or a large demonstration,

march, etc. Never. Humans appear to follow a social logic that I call distributed effectivity. For details, see the paper on my web site (under submission at APSR) called Homo ludens, under "Political Theory."

To explain the world *by Steven Weinberg*

Exccellent source for the history of astronomy — Rating: 5/5

I love both Weinberg's erudition and his iconoclasm. This is really a history of science the way it should be done---recording the passage from error to truth, and explaining scientific controversies in scientific as opposed to sociological terms. Here is one of my favorite paragraphs: Descartes and Bacon are only two of the philosophers who over the centuries have tried to prescribe rules for scientific research. It never works. We learn how to do science, not by making rules about how to do science, but from the experience of doing science..."

Actually, I there are rules for doing science, but they are social rules concerning how scientists must behave towards each other for scientific research to be successful.

The technical notes at the end of the book are fabulous.

SPEAKABLE AND UNSPEAKABLE IN QUANTUM MECHANICS: COLLECTED PAPERS ON QUANTUM PHILOSOPHY. *by J.S BELL*

An Interesting Read for the Curious — Rating: 3/5

It is worth reading this book simply because Bell is such an important figure in the interpretation of quantum mechanics. I found his (other than Bell's Inequality) ideas interesting, but rather spotty.

The Multiple Self (Studies in Rationality and Social Change) *by Jon Elster*

Of Historical Interest Only — Rating: 3/5

The idea of multiple selves is an interesting one, although modern neurosciences is pretty strong on the unity of the mental processes of decision-making. This book is a bunch of ruminations by interesting people, but primarily of historical interest. No one seems to know what to make of the idea in any analytical sense. This book came out before the era of behavioral game theory and experimental study of choice behavior. It would be good to see if these techniques could revive the idea of multiple selves.

Quantum mechanics and experience. *by David Z. Albert*

A Deep and Important Contribution to the Understanding of Quantum Mechanics — Rating: 5/5

Albert goes to great lengths to present all the mathematics that is needed to reveal the problems in interpreting quantum mechanics. I think he does a great job. The idea that one can understand the problems of interpretation without the math is simply silly. I cannot be done. If you want to find out why physicists might possibly believe in the many worlds interpretation of QM, read this book. The many worlds interpretation is bizarre and unbelievable, but the problem in defining a "measurement" without become subjective and anthropomorphic seems impossible.

I will probably read this book a couple of more times, as well as reading some of the papers in the bibliography (I read a few and found them enlightening, although rather difficult for a non-physicist.

A revolution of the mind *by Jonathan Israel*

Investigates the Moderate vs. Radical Enlightenment — Rating: 4/5

Jonathan Israel, Revolution of the Mind (PUP, 2010)

In the late sixteenth century in Europe, thinkers began to question church authority and the unquestioned reverence for Aristotelian natural philosophy. Francis Bacon in that period lay down laws for scientific research that remain insightful to this day. Galileo, Giordano Bruno, Descartes lay the basis for a secular epistemology, and Kepler demonstrated the elliptical shape of planetary orbits.

We tend to think of the resulting period of Enlightenment thought as rather a whole cloth, but Jonathan Israel rather convincingly shows that this was not the case. Rather, he argues that the early Enlightenment figures were rather conservative, wanting a reformed state and religious elite to lead the way in social progress. Four out of six of the Enlightenment's philosophical founding fathers--- Descartes, Hobbes, Spinoza and Bayle--- believed that enlightened states and religions could improve the masses understandings of the world and improve society thereby. Spinoza was rather more skeptical of dominant institutions, though, although he to believed extensive structural reform of Christianity could lead the way.

Turgot and Adam Smith first developed coherent theories of social progress, based on the human capacity to learn from experience, innovate technically, and to evaluate evidence rationally. This led to the idea that education and reason were all that was necessary to improve society. Political democracy thus became a possibility for the new Radical Enlightenment thinkers, whereas democracy was anathema to the earlier moderate Enlightenment thinkers.

There was considerable wavering over this key issue. Kant, for instance, supported a pervasive liberalism and qualified support for the French Revolution, but was not anti-aristocratic or anti-religious. Rousseau started out quite radical but became moderate in his old age. Kant, Ferguson, Kames, Smith, Voltaire, Hume, Locke and Turgot considered the basic social order not defective, but needing change. They argued that history has proved the value of basic institutions of church and state.

The radical Enlightenment figures included Paine, d'Holbach, Priestley, Diderot, Godwin, and Bentham, who dropped the reverence for history and tradition in favor of promoting "reason" as the basis for all social, political, and moral decisions. They believed in full individual rights, freedom of expression, democracy.

Israel tells a persuasive story, though I thought for the average reader the job could have been done in about a third of the number of pages.

More Heat than Light *by Philip Mirowski*

A Failed Postmodernist Experiment — Rating: 2/5

Philip Mirowski, More Heat than Light: Economics as Social Physics, Physics as Nature's Economics. Cambridge: Cambridge University Press, 1990.

Philip Mirowski is a talented, widely read, exceptionally broad thinker with excellent training in the natural and social sciences as well as the humanities and philosophy. He is well equipped to contribute fruitfully to the history and interpretation of economic theory. In fact, as I explain below, his substantive claims are mostly wide of the mark, and even egregiously so. But first, we must understand what led him to take the shockingly intemperate and arrogant tone exhibited in virtually every paragraph of this long work?

I will spare the reader an account of the ungenerous stance Mirowski assumes facing both physics and economics, but rather recall two reviews of this book. The first appeared in Methodus by UC Davis economist Kevin Hoover. Hoover writes "I hold no special brief for neoclassical economics. ... Yet, reading this book gave me a slowly rising feeling of outrage. Taken as a whole, it is an outrageous book:

neither the history nor the methodology is persuasive; the scholarship is often slapdash; the tone is intemperate; and the style is often obnoxious. Mirowski's hatred of neoclassical economics borders on the pathological… Mirowski strikes a flashy, bullying tone throughout the book, patronizing the reader, economists and physicists."

The second review, by D. A. Walker, appeared in the Economic Journal. Walker writes "Mirowski portrays neoclassical economics as a conspiracy to delude the public hatched by prevaricating fools… A dispassionate critique of the work of the neoclassicals, both old and new, would not destroy the perception that they were scientists. Scientists, after all, have often been wrong, but have nonetheless been scientists. To destroy the perception it would be necessary to demolish the neoclassicals' legitimacy, moral authority, and prestige in the mind of the reader, and to do that it would be necessary to destroy their dignity. That is the effect, if not the intent, of Mirowski's presentation. Whereas the reader would refer to their scientific dedication, their search for truth, their research papers and scholarly debates, Mirowski refers to their 'tiffs and squabbles', their 'contretemps over marginal productivity, periodic shouting matches over capital theory, pothers over supply curves and empty boxes, and pouts over the superfluity of the firm and the entrepreneur' (page 284). At best their work had a superficial resemblance to science; they 'were dazed into incoherence' by it; but they pretended to be scientific (page 271). As Mirowski tells the story, the neoclassicals' motives, sincerity, and veracity were questionable. They 'smuggled' assumptions; they made 'gambits'; and even the modern neoclassicals engage in 'one big shell game' (pages 273-4). Paul Samuelson, for example, is disingenuous and deliberately misleading on the relation of his work to physics (pages 378-85). The neoclassicals may have used mathematics 'to browbeat and hoodwink their colleagues' (page 249), and they concocted their theories 'surreptitiously, generally under the guise' of one or another pretense (page 273). Of uncertain mental health, they 'clutched neurotically' to their field theory of value (page 275; cf. pages I97, 243). Emerging from the pages of Mirowski's script as petty and childish, they are given to throwing tantrums, 'breast-beating, wailing, crowing, and soul-searching' (page 356), and to 'calumny and cacophony' (page 28i). They 'squirm in a most apprehensive and guilty manner' (page 287), but are also prone to 'smug satisfaction and self-congratulation' (page 356). 'Lost in the funhouse' (page 377), they caper and emote, by turns coy and assertive, naive and cunning (pages 279, 367-8, 37I). Thus, under Mirowski's expert direction, they perform exactly as he wants, deftly reduced to the undignified status of buffoons in an animated cartoon."

To understand Mirowski's stance, we must recognize the author as experimenting with a mode of analysis known as postmodernism, which Wikipedia describes as "a late-20th-century movement in the arts, architecture, and criticism that was a departure from modernism [i.e., Enlightenment thought]. Postmodernism includes skeptical interpretations of culture, literature, art, philosophy, history, economics, architecture, fiction, and literary criticism. It is often associated with deconstruction and post-structuralism because its usage as a term gained significant popularity at the same time as twentieth-century post-structural thought."

The most important tenet of postmodernist treatments of science is that all truth is socially constructed. In particular, theories create their own criteria for truth, and the Enlightenment method of testing theories against exogenously given "facts" is completely discredited. It follows that one cannot compare theories by assessing their relative ability to explain the facts, because different theories explain different sorts of facts. The historian of science Thomas Kuhn is often drawn on for support of this position, although he was in fact a strong critique of this interpretation of his work.

If theories produce their own facts, then the scientist who follows the Enlightenment method is of necessity deluded and even complicit in hiding the true nature of the scientific enterprise. Therefore it is perfectly appropriate to consider scientists as fools and scam artists, and to treat their "discoveries" as deceptions no different from that of the astrologist and reader of tea leaves. Whence comes Mirowski's intemperate and arrogant tone.

Postmodernism is today mostly discredited, although it leaves a powerful residue in the older members of university faculties throughout the world. It was an interesting experiment, but its limits were carefully revealed in the literature prior to 1990. The Enlightenment method of comparing theories against empirical reality reigns supreme in most areas of natural and behavioral science. For this

reason, Mirowski's work now seems bizarre and embarrassing. If I had written this book, I would apologize. I might ask that the book be read as an exercise in (academic) mob psychology, however.

Neoclassical economics does some things right and some things wrong. I have outlined my take on the theory in my book The Bounds of Reason (Princeton 2009), which includes strong support for the rational actor model, and my work with Antoine Mandel, which shows how to handle the many weakness of the standard general equilibrium model. My critique of Mirowski is very simple: the only effective critique is one that (a) shows explanatory weaknesses in some area and (b) provides a theory that conserves the correct parts of the old theory and modifies the incorrect parts so as to explain the area in question and (c) explains new, previously unanticipated, phenomena.

Group agency *by Christian List*

Recent Contribution to Collective Choice Theory — Rating: 3/5

In behavioral theory (economics, biology, etc.) an agent must have sensory inputs allowing it to assess its environment, as well as organs and other means of interacting with its environment. In addition, an agent must be capable of choosing among various available behaviors in a given context based on it store of knowledge plus the sensory information available to it. An agent must have sufficient unity as an actor that it has transitive preferences; i.e., under identical environmental conditions and internal states, if an agent chooses action A over action B when both are available, and chooses action B over action C when both are available, the when both A and C are available, the agent will choose action A over action C. When this property fails, there is no meaningful sense in which the entity can be described as an agent seeking to attain certain goals subject to its material and informational constraints.

List and Pettit include all of the above criteria in their definition of an agent, confining their analysis to groups of humans that must make a single choice in a situation in which each member of the group has a preference ordering over the choice. Their concern is discovering a set of conditions under which the group's choice represents in some meaningful sense the preference orderings of its members. This of course is the classic setting of the Arrow Impossibility Theorem. In his doctoral dissertation and later a book Social Choice and Individual Values (1951), Kenneth Arrow showed that when group members have at least three distinct available choices alternatives and member preferences are arbitrarily heterogeneous, no aggregation of individual preferences can be Pareto efficient (no alternative to the group choice can better satisfy the preferences of some members without hurting some other members) and satisfy the independence of irrelevant alternatives (the ranking of any two choices is the same regardless of what other choices are available) unless it is dictatorial (i.e., the group choice is that of a single one of its members).

This book explores the more recent literature on alternatives to the Arrow axioms that might permit "corporate agency," by which they mean that the group choice does reflect individual preferences in meaningful ways. The literature on this is technical and tedious mathematically, but not particularly deep or interesting to non-specialists (in my humble opinion). The answers they provide are of a simple form: if we restrict the range of preferences of group members, then corporate agency is possible. For instance, if membership in the group requires that all members have certain beliefs and goals, then it is reasonable to attribute attitudes and beliefs to the group. This is fairly obvious, but nonetheless a significant result because it delegitimizes many forms of social bias and bigotry, such as attributing beliefs to all members of an ethnic group on the basis of the collective behavior of some subset of members of the group.

The great debate *by Yuval Levin*

Lively Rehash of Old Ideas with Questionable Relevance for the Contemporary Liberal-Conservative Divide — Rating: 2/5

Thomas Paine believed that the correct principles of government can be deduced through reasoned argument based on the Natural Rights of Man. Edmund Burke believed that government evolves organically through gradual historical trial and error, and new social problems should be addressed by applying the wisdom of past generations. This divide is well known and has been discussed in innumerable books and papers for many decades. Yuval has nothing new to say about these two thinkers, but if you don't know the story, this is a very nice place to learn it.

Why Levin was awarded a Ph.D. from the august University of Chicago for this work is beyond me. There is little scholarship and no addition to the literature on the two writers or their philosophical positions. It is a nicely done work of journalism, nothing more.

The idea that Burke embodies the basic ethos of modern American conservatism and Paine that of its liberal counterpart is pretty far-fetched. I cherish both these men: Burke as the adamant opponent of demagoguery (the hallmark of the bloody massacre known as the French Revolution), and Paine as the champion of universal human rights. Any reasonable political thinker will recognize the truth in what both these men espoused, and the error in thinking that they are contradictory or opposed principles.

Do these categories apply to the modern conservative vs. liberal ethos in the United States? Levin suggests exactly this in the concluding chapter, but the chapter itself is simply an incoherent jumble of interesting insights with no underlying coherent theme. "The deep commitment to generational continuity and to the institutions of implicit social knowledge that we have found at the core of Burke's thought remains essential to today's American right." (p. 228) Apparently "generational continuity" refers to the old-fashioned home-grown tradition of white male privilege in the face to the growing power of women, ethnic and racial "minorities," and immigrants. The notion that this is related to Burke's concern is ludicrous. These groups just want to be part of the traditional system of American values. They are not creating or demanding any new order of things, as was the case of the French Revolution (or later, the Russian and Chinese revolutions). An "implicit social knowledge" for today's conservatives has nothing to do with the Wisdom of the Ages, but rather the denial of scientific truth in favor of Creationism and the rejection of global warming. Any relationship to Burke is verbal only. Burke would have thought it bizarre to consider fundamentalist Christianity and a wild-West enthusiasm for hand-held weapons expressions of the Wisdom of the Ages. Moreover, the conservative opposition to big government is not based on tradition, because there is not a single advanced market economy with a small state sector, and there is not much chance there ever will be, unless new and unknown technologies render such a society feasible. Finally, the possessive individualism of the American right is much more in line with Paine's principles of natural right than the social egalitarianism of the American left, which hearkens back to the age of Jefferson's small-town agrarianism.

Contemporary American liberalism revolves around issues of income distribution, not the Rights of Man, and liberal arguments on behalf of the historically dispossessed are based on Burke's principles of generational continuity in the form of asserting the rightful inclusion of new groups into the traditional forms of social power and influence. Moreover, the liberal defense of labor unions and opposition to school choice are based on tradition, a la Burke, not the universal rights of man.

I do think there are values difference between liberals and conservatives, including the fact, emphasized by the social psychologist Jonathan Haidt in his research, that liberals endorse the individual-focused moral concerns of compassion and fairness more than conservatives do, and conservatives endorse the group-focused moral concerns of ingroup loyalty, respect for authorities and traditions, and physical/spiritual purity more than liberals do. But this value difference does not explain the absurd positions often taken by conservatives (there is legitimate rape, there is not global warming, guns are wonderful, global warming is a liberal scam, etc.) and corresponding stupidity of liberals (teachers' unions are wonderful, competition in education is terrible, obesity is caused by corporate advertising, poverty is caused by discrimination, government should legislate equal pay for equal work, etc.). To my mind, no serious student of social policy could possibly be either a liberal or a conservative. We all love Edmund Burke and Thomas Paine, but they do not embody contemporary political wisdom.

Our Mathematical Universe *by Max Tegmark*

From Terra Firma to Way Beyond the Wild Blue Yonder — Rating: 3/5

The first half of this book is an inspired and highly accessible overview of modern astrophysics, marred only by really bad photos and cramped figures. I would have preferred if this section of the book were twice as long with better graphics, and the second half of the book offered as Online Supplementary Material.

I will not go over Tegmark's speculative metaphysics, the subject of the second half of the book, as other reviewers have done this quite well. I was not convinced in the least by Tegmark's justification of the idea that the universe is a mathematical object. Rather than a sophisticated used of information theory to arrive at this result, he offers a thought experiment in which both we and aliens from another universe have completely different sensory attachment to the real world, so share only their mathematical theories, which Tegmark takes to be sets of logically consistent rules rather than a unified set of principles based on a small set of axioms. Since both we and the aliens experience the same real world, the only think this experience could be is the mathematical system itself. The problem is that we and the aliens may share much more, such as sensitivity to electromagnetic radiation and thermal activity (heat). It is probably true that evolutionary beings all share a set of sensors that are preconditions of successfully evolved creatures.

The one think I learned from this book was a really neat interpretation of Everett's many worlds interpretation of quantum uncertainty. This led me to reread Everett's short and elegant dissertation with new eyes. Tegmark's idea is that human consciousness is subject to quantum superposition, but the qualia of consciousness are localized differently in each entangled state. In other words, when we observe quantum entanglement, all possible eigenstates become associated with a distinct copy of your conscious identity. Thus it is not that there are really "many worlds" but rather "many entangled consciousness." I don't know why this might be true, but it is an intriguing idea.

Tegmark's inconsistencies are sometimes a bit annoying. On the one hand he defends constructive mathematics in which even the real numbers and Hilbert spaces do not exist (I agree with him on this) and there is no such thing as a "realized infinity." On the other hand, he argues that with probability one there are exact copies of yourself in other parts of the universe, or in other parallel universes. This argument depends, however, on realized infinities. I doubt that there are exact copies of me and my bowling team on some BetaCentauri XXVIII.

This book draws you in with excellent descriptions of what we know, and leads you Pied Piper-like into LaLa Land. Good fun.

WHAT HAVE WE LEARNED? MACROECONOMIC POLICY AFTER THE CRISIS *by George A. Akerlof*

Highly Informative and Equally Tentative — Rating: 3/5

If you are looking for definitive answers to the book's title, you won't find them here. That of course is a blessing, since anyone that offers definitive answers is overstepping the current state of knowledge concerning macroeconomic regulation.

Most of the papers in this volume are written by seasoned high-level financial regulation experts, not academic theoreticians. Most of the insights are generalization from history in the large or personal experience over the past few decades. These insights are extremely useful, and the authors give excellent references to the literature (the individual chapters are mostly just a dozen pages long and even fewer). Academic economists have produced a number of first rate empirical/historical studies of financial instability since the financial melt-down of 2007/2008. I urge the interested read to dive into these illuminating studies. But of course, don't forget the writings of Hyman Minsky, whose take on financial crises, although formed many decades ago, is still quite prescient and not at all outdated.

The summing up section of the book includes rather incisive short papers by George Akerlof and Joseph Stiglitz. Akerlof correctly stresses how effective was the US response to the crisis and how misled the US public has been in underrating this effectiveness and overstating its cost to taxpayers. Akerlof estimates the benefit-cost ratio as 1000 to one and that sound right to me. Siglitz, the ultimate bottom-liner, argues that we have learned from the crisis what many of us already knew: markets are not stable, efficient, or self-correcting. That of course should be obvious, but is denied by the free-market fundamentalist (who to my mind vie with flat Earthers for empirical cogency). Stiglitz also takes a well-directed swipe at real business cycle theory, which treats exogenous shocks as the source of instability. Stiglitz correctly notes that the recent financial crisis was completely endogenously generated by the housing bubble. I should note, however, that the housing bubble may have been caused or significantly deepened by Federal Reserve low interest rate policies; see John B. Taylor's provocative paper in the American Economic Review of May, 2014.

Complexity and the Art of Public Policy *by David Colander*

Best Book on Public Policy in Years — Rating: 5/5

I want to begin my review of this marvelous and compelling book by outlining what economists have known concerning public policy for at least fifty years. This is a prelude to discussing what is wrong with this received wisdom, and what is new in the complexity approach to modeling the market economy that is advocated and explained in this book.

I was taught public economics by Richard Musgrave, who in 1959 wrote the classic textbook on the subject, The Theory of Public Finance. Surprisingly, many prominent figures and public intellectuals today profess an understanding of the economy yet know nothing about public economics. They regularly assert the truth of principles that have been discredited for half a century. Colander and Kupers have very important corrections to the standard theory, but one must first recognize the status of standard public economics as the foundation stone on which complexity theory does, and must, rest.

Public economics analyzes the conditions under which market exchange leads to imperfect outcomes that might be corrected by non-market institutions and policies. Complexity theory has, to my knowledge, no quarrel with these principles Rather, complexity theory alters our understanding of what forms of non-market economic interventions are likely to be effective in improving economic efficiency and promoting economic growth.

There are two distinct roles for economic policy: regulating market dynamics (e.g., stabilizing business fluctuations and preventing catastrophic breakdowns) and influencing the equilibrium allocation of economic resources (e.g., financing social infrastructure, providing public goods, and regulating industrial effluents).

The analysis of market dynamics is based on the so-called Walrasian market economy, in which there are households that own the factors of production (land, labor, capital, resources) and firms that rent these resources from households (e.g., they hire labor for a wage and borrow funds at an interest rate), and produce goods and services that they sell back to the households. In this model, the capital and resources owned by the firm are simply assigned to the firm's owners.

The Walrasian economy is in equilibrium when the price structure for goods, services, and factors of production is such that supply and demand are equal in all markets. In the 1950's, economists Gerard Debreu, Kenneth Arrow, and others

proved the existence of general equilibrium, under rather mild assumptions. This means that there always exists a set of positive prices at which all markets clear. However, economists have been quite unable to develop a plausible model of how the market economy behaves out of equilibrium. Hence economists cannot say whether the market economy, under particular institutional arrangements, fragile or robust in reacting to such exogenous shocks as new technologies, financial speculation, and socio-political turmoil. For a discussion of the history of attempts to develop a dynamic model of Walrasian economy, see my paper "The Dynamics of Pure Market Exchange," which is available on my website: people.umass.edu/gintis.

Because of this stunning failure of basic economic theory, all of our understanding of market dynamics is based not on established analytical principles on smoke and mirrors, known as macroeconomic theory, and journalistic posturing. Macroeconomists do not like to admit this, but in fact we know nothing systematic concerning market dynamics.

Historically, the most important type of economic dynamics have dealt with the business cycle. Every market economy has regulations aimed at smoothing the business cycle, including monetary and fiscal policy (increasing government expenditure and reducing taxes during a downturn, and doing the opposite during an upturn), and automatic stabilizers (e.g., unemployment compensation, progressive taxation) that automatically move net government debt in the opposite direction as aggregate demand in the private sector. Because, as Colander and Kupers stress, the market economy is a complex nonlinear dynamic adaptive system, no one can prove that automatic stabilizers work, but they appear in practice to do for the economy what shock absorbers to for motor vehicles.

As I write, financial instability is the key dynamical instability problem facing advanced economies, and the standard economic models (Keynesian and rational expectations models) are incapable of handling the problem because the financial sector is simply not represented in the standard macroeconomic models. Of course, intensive work by economists is now under way to correct this problem, but it will be several years before an adequate model is developed. It is unlikely, for reasons explained by Colander and Kupers, that any model that ignores complexity will survive.

In the popular press, conservatives blame the financial crisis on over-regulation and liberals blame the crisis on under-regulation. The notion that the financial sector of a market economy needs little regulation and is robust in the absence of extensive intervention is simply an article of faith unsupported by theory or experience. I know only a handful of economists who embrace the free-marketeer's faith in the stability of unregulated markets, and they are all ideologically motivated thinkers whose arguments I find to be without merit. The notion that the financial sector may be under-regulated is probably false and is dangerous because simply slapping on intuitively desirable regulations threatens to dampen the financial sector's contribution to economic growth and technical progress. The correct position is that the crisis was due to improper regulation, itself in part a failure to understand the economy as a complex dynamical system.

If the traditional theory of business cycle regulation is a rather complete failure, the traditional theory of when markets produce the most efficient pattern of production inputs (resources,labor, and capital) and production outputs (consumption and investment goods) is much more successful. The basic question of when free markets are the most effective instruments of economic efficiency was worked out in the post World War II period, and remain valid today, a half century later. This theory is called the theory of market failure.

Market Failure I: Increasing returns to scale sectors. In some goods, the optimal efficient firm size is so large that competition is precluded. For instance, water to a city may be supplied by a single reservoir and a unified system of delivery and waste removal. There is simply no room for multiple firms to compete, so the service is supplied by the government. Many municipal services are of this form. The problem can sometimes be handled by requiring firms to share the resource that accounts for increasing returns, such as railroad tracks or an electric grid.

Market Failure II: Public goods. Some goods are non-exclusionary---they are consumed equally by many or all individuals (although they may be valued differently by different individuals). For instance, national defense protects all equally, and many forms of public health measures affect the incidence of diseases for the entire population. Public goods must be publicly provided in most cases.

Market Failure III: Externalities. Some goods are produced using technologies that release waste products into the environment at zero or low cost to the producer but that impose high costs on everyone else. Economic theory suggests that the costs imposed by these effluents be charged to producers, or in some cases that the release of effluents be prohibited by law (e.g., making it illegal to release chemical waste into a river or lake).

Market Failure IV: Ensuring product quality: In many industries in which the quality of a product cannot be ascertained until after purchase, and in which reputation effects are not sufficient to ensure a minimum quality level, quality can be maintained only by legal regulation. For instance, most countries

have health standards for restaurants and quality standards for hotels (perhaps rated by one to five stars, or some such) that prevent an upstart from profiting at the expense of consumers and the high quality firms. Similarly, professionals may be licensed (e.g., medical and legal services), and pharmaceuticals may be regulated for safety and effectiveness.

Market Failure V: Merit goods: There are some goods that are not permitted to be bought and sold on markets for ethical reasons. Examples are votes and body parts.

Of course, just as there is market failure, so there is state failure, which means that the regulating agencies fail to operate in the public interest because of corruption, special interest lobbying, incomplete and inaccurate information, and the like. For this reason, is often better to leave imperfect markets unregulated, or lightly regulated, rather then regulate them heavily or replace them with government production.

The notion of state failure was completely ignored when I was a graduate student in the mid-1960's. I recall asking the famous Keynesian Nobel prize-winning economist James Tobin, at a talk to the Harvard economics department on business cycle stabilization, why the government could be expected to act the way his model suggested it should. I was treated as though I had transgressed the boundaries of propriety in posing such a question.

But the question was a fair and important one. State failure was stressed by Milton Friedman in his critique of Keynesian economics. Friedman argued that when a legislative body is called up to change the tax system, members will fight interminably over exactly who will bear the burdens and benefits of the changes, and by the time they have come to an agreement, the business cycle will have moved on to another phase.

But Friedman was a pariah at that time in Cambridge Massachusetts and most other economics departments. James Buchanan and Gordon Tullock introduced rent-seeking into the literature in their 1962 volume The Calculus of Consent, and Mancur Olson provided an economic theory of special interest pleading in the Logic of Collective Action in 1965, but the general notion of state failure was not recognized by economists until the mid-1970's, with the collapse and discrediting of Keynesian models of the macroeconomy.

The second major weakness of the neoclassical policy framework was its assumption, maintained to this day, that the government has at its disposal all the information concerning the operation of the economy that is available to private agents. In particular, the price system and production technologies were assumed to be public information. To appreciate how unrealistic is this key assumption of neoclassical economics, I might point out that in the great continental "Sozialismusdebatte" (socialism debates) of the 1930s, the market socialists Enrico Barone, Fred M. Taylor, Oskar Lange, Abba Lerner and others used the neoclassical general equililbrium model to argue that a state-run economy could at least be as efficient as a capitalist economy. All that was needed was for government planners to use the price system to simulate the role of Walras' auctioneer in setting prices to induce market clearing in the market economy. The state could then simply own all the property, hire managers to run firms, and instruct these managers to maximize profits. The return to capital could then be used by the state on behalf of its workers and citizens in an egalitarian and just manner. The opponents of the market socialists, members of the Austrian school of laissez-faire economics, led by Ludwig von Mises and Friedrich Hayek, were no match for this high-tech neoclassical-turned-socialist analysis, which convinced even so stalwart a champion of capitalism as Josef Schumpeter to predict the eventual triumph of state socialism. This indeed is the message of his famously misguided contribution Capitalism, Socialism and Democracy (1942).

His defeat at the hands of the market socialists convinced Hayek that neoclassical theory must be abandoned, for it was incapable of explaining why private property and entrepreneurial initiative were superior to centralized state socialism. He published his definitive break with neoclassical economics in his famous American Economic Review paper "The Uses of Knowledge in Society" (1945). In this paper he asserted that information is extremely decentralized in a private property market economy, and a government agency simply will not have the information to perform the massive number and range of

calculations necessary to run an efficient and innovatory economy. Hayek wrote (p.\ 519): "What is the problem we wish to solve when we try to construct a rational economic order? If we possess all the relevant information,\ldots the

problem which remains is purely one of logic.\ldots This, however, is emphatically not the economic problem which society faces.\ldots The problem of a rational economic order is determined precisely by the fact that the knowledge of the circumstances of which we must make use never exists in concentrated or integrated form, but solely as the dispersed bits of incomplete and frequently contradictory knowledge which all the separate individuals possess."

I know that this has been an unusually long preface to the review of a book, but it does teach us some important lessons. First, neoclassically inspired public economics provides a very powerful and largely correct framework for analyzing when markets work well and when they fail. Second, markets are often fragile and easily destabilized unless properly regulated. Third, markets and regulating institutes are not alternatives but rather complements. Fourth, neoclassical economics cannot model state failure, and therefore overstates the latitude for government intervention in stabilizing the economy and correcting market failures. On reason for this failure is that government is subject to political forces that lead it to favor special interests rather than the general good. What Colander and Kupers tell us is that there is a second reason: the market economy is a complex, dynamic, and adaptive system more like a natural ecology than a man-made machine.

The complex economy cannot be controlled, as the planners would like, but it can be influenced by very carefully formulated and judiciously applied "rules of the game" that move market dynamics in preferred directions. In this respect, traditional planners are like the Queen of Hearts in Through the Looking Glass who cannot stand the fact that she cannot order the flowers in her garden to heed her bidding, and employs a bevy of "gardeners" to paint the flowers to her specifications. The situation is worse for an economy because there is no regulatory counterpart to painting the flowers. "The [effective] government does not impose norms, or even force individuals to self-regulate. Instead it attempts to encourage the development of an econstructure that encourages self-reliance and concern about others." (p. 9).

Complexity theory helps us understand that the moral rules that govern everyday life cannot be imposed, but must emerge from the dynamics of everyday life. Horace long ago noted that "laws without morality are useless." Some two thousand years later Colander and Kupers similarly write "A government... must be a moral strength... not a coercive strength that attempts to control." A great example of this insight is the life-work of the great Nobel prize winner Elinor Ostrom, who has shown that local community initiatives can effectively control common pool resources (e.g., the ecology of waters that provide sustenance to fishing communities, or forests to lumbering communities) where the market is no help and the central government is more often the exploiter than the preserver of such resources. The government can best achieve efficient resource use given the complexities of common pool resource management by setting conditions under which local community control can thrive.

Kudos to David Colander and Roland Kupers for this fine book.

Behavioral economics for dummies *by Morris Altman*

A Good Place to Start in Understanding the Pitfalls of Decision-making — Rating: 4/5

There has been a revolution in the past thirty years in our understanding of how people make decisions and what the range of goals people generally have in deciding how to act. The most important two findings are (a) people sometimes use faulty reasoning in making financial decisions and (b) people are generally both altruistic and vindictive in dealing with others and social issues, rather than being the self-interested actor of traditional economic theory. The evidence for these and other principles of human behavior come from experimental economics and psychology in the laboratory, as well as field work exploring how people make decisions in real-world contexts.

Like most "Dummies" books, this books is extremely elementary and highly accessible. Some readers have complained that the book is college-level material, and that may be true. But it is still completely

accessible for someone with no college math background and no previous knowledge of decision theory or psychology.

This book is presented as a "self-help" book rather than a piece of scientific journalism. It is actually both. If you want to make better decisions, especially financial, this book plus Malkiel's classic A Random Walk Down Wall Street might just do the job for you.

Social physics *by Alex Pentland*

Some Mildly Interesting Techniques for improving Communication-intensive Workplace Productivity — Rating: 3/5

There is not much interesting social theory here, and the massive use of data is deployed for rather mundane ends. Of course idea-based enterprises should benefit from social science research. But the results are of limited interest beyond this use.

I was drawn to this book because I believe that better social theory demands better and more varied data for testing. But this book presents no social theory and tests nothing. It just is creative data mining. Boring to me.

I was continually assaulted by the author's self-promotion. This book is not for social scientists, but rather for businesses that might hire the author and his coworkers. Boring to me.

Touching a nerve *by Patricia Smith Churchland*

A Relentless and Dogged Search for Truth in Defiance of the Spin Doctors — Rating: 5/5

Churchland, who is both neuroscientist and philosopher, tries to accomplish two goals in this book. The first is to tell us what modern neuroscience has to tell us about the brain and its relationship to human behavior and consciousness. The second is to do so in a popular language that conveys the information accurately without the professional message delivery system as found in the professional journals. Now, I have nothing against the professional manner of communication, but it in fact as difficult to understand as some of the biochemical terminology that is known only to those who deal with it every day in the lab.

For an instance of successful communication, Churchland says to the reader, "You are not just a big rat," by which she means that studies of neuronal structure and hormonal pathways that describe rat behavior do not necessarily transfer to humans. You have to be really dense not to understand this. Otherwise, why could she possibly want to tell us something that we all obviously know. None of her readers has fur, whiskers, and a tail. Nevertheless, you will rarely find in an academic article a sentence like "humans are not just big rats," and for good reason.

Like many people, I am deeply fascinated by the nature of the brain and what it tells us about human nature and behavior. As a young academic, I turned to the French phenomenology philosopher Merleau-Ponty, who analyzed the neurological science of his time with prescience. When Oliver Sacks came along, and the incredible movie Awakenings (Robert de Nero and Robin Williams), and I have followed the literature ever since. With increased popularity, however, has come a huge amount of what one might call "neuro-woo," literary and romantic excesses of interpretation that mix a few facts from scientific studies with a large dollop of the author's own half-baked prejudices and wishful-thinkings. Readers are not well served by neuro-woo. Churchland is a sustained antidote to neuro-woo.

Now some readers have faulted Churchland with being a "reductionist" because of her avoidance of neuro-woo. I think this is a misdirected criticism. Of course the brain is a complex dynamic adaptive system with emergent properties beyond mere communication among synapses, just as a computer is more than a bunch of electrons shuttling back and forth among solid state devices. However, we can say exactly how a computer goes beyond electron dynamics because we have well-developed models of

computer architecture and dynamics. We know virtually nothing about the larger structure of the human brain.

Where is consciousness located in the brain? Churchland's discussion of consciousness in mammals, and its specialization in humans, is authoritative and very enlightening. Consciousness is, however, distributed over the whole brain, and we haven't the faintest idea how that works. We can locate a single structure in the thalamus that, when disabled, deactivates consciousness, but that is about it. Churchland conveys this quite clearly. However, her presentation of the comparative anatomy in the brain of mammals strongly supports the notion that the origins of consciousness go back to the evolution of the class Mammalia, and all the major known brain areas involved in consciousness have remained essentially conserved over this evolutionary period.

Churchland is a delight to read, she is very informed in several fields, and unless you have some sort of personal chip on your shoulder, you will appreciate this book.

Social Learning *by William Hoppitt*

Social Learning Research in Animals Has Come of Age — Rating: 5/5

Most of the information available to an animal that will be used to survive and thrive in a complex environment is transmitted from parent to offspring genetically. Some, however, is transmitted epigenetically through teaching, and some is acquired through the animals personal interactions with nature, other animals, and conspecifics. The latter two forms of information acquisition are called social learning. This volume is a highly sophisticated yet clear hands-on manual of what one needs to know to do professional level research in social learning. It is also recommended for the interest non-professional reader who wants to understand what social learning really is, by contrast with the often overly-simplified representations in the popular press.

Evolutionary restraints *by Mark E. Borrello*

Are we Doomed to Repeat History--Endlessly? — Rating: 3/5

George Santayana one famously said "Those who cannot remember the past are condemned to repeat it." Perhaps even those who remember the past may be condemned to repeat it, unless they learn sufficiently from it. Borrello adds a bit to the well-known history of the debate over levels of selection, but he does not help us understand what the real issues are, and how they might be resolved. Perhaps it is not his fault: the whole issue seems to be a hopeless muddle even in the hands of the most adept contemporary thinkers--present company excepted, of course. ;)

Biologists have debated the nature and status of group selection since the early twentieth century. The debate continues. Curiously, there have always been both extremely eminent supporters and equally eminent detractors of group selection, such as J. B. S. Haldane vs. Ernst Mayr (early years), John Maynard Smith vs. Stephen Jay Gould (recent past), and most recently Edward O. Wilson vs. Richard Dawkins. So pitched has this debate been that in reviewing Wilson's book The Social Conquest of Earth (which eloquently defends and extends group selection arguments), Richard Dawkins (who treats such arguments with characteristic distain) wrote "To borrow from Dorothy Parker, this is not a book to be tossed lightly aside. It should be thrown with great force." My more temperate and supportive review of Wilson's book, by the way, is published in BioScience and entitled The Clash of the Titans The paper is available from my web site.

To add fuel to the fire, in a response to a paper in Nature in 2010 by Wilson and coauthors Martin Nowak and Corina Tarnita that trashes inclusive fitness and extols group selection, some 150 well-known biologists wrote a vitriolic reply in a letter to Nature in 2010, resoundingly rejecting Wilson and coauthors' arguments. More heat, in my estimation, but less light.

I am an outsider to this debate. My training and most of my research until a couple of decades ago was in mathematics and economics. But I have come to work in biology as an adult, a situation that may have allowed me to avoid the emotional baggage attached to the dispute.

The group selection dispute shows the immaturity of contemporary population biology. No mature scientific dispute can sustain itself at so a high level of emotion and so low a level of progress for over a century without resolution. Indeed, most participants to the dispute agree that one can describe sociobiological behavior equally validly at the level of the gene, at the level of the individual (in a sexually reproducing species with a sequestered germ plasm), or at the group level (in species that live in groups engaged in social interaction). This admission, surprisingly, does not stop the disputants from intemperate diatribes at each other's expense.

Borrello's book does a competent if breezy and non-technical overview of this controversy, with some historical emphasis on particular papers presented by the disputants at different times. He does, however, seriously underestimate the importance of R. A. Fisher in laying the groundwork for the position of the Oxford school in this research area, and he has a long, unoriginal, and irrelevant analysis of Lamarckism. However, Borrello makes no attempt to cut through the verbiage and miscommunication to put the issue into insightful theoretical perspective. History, for Borrello, is not one damn thing after another---it is the same damn thing over and over!

So let me here explain what is really going on in the controversy over group selection. Population biology is based on careful accounting at the level of the gene (this is why Ernst Mayr criticized J. B. S. Haldane's work as "beanbag genetics"). Indeed, all of Darwinian evolution can be analyzed, at least in principle, in terms of changes in gene frequencies and correlations among genes in the genome. The two sides to the debate over group selection differ as to how correlations among genetic loci in the genome are to be treated. In the tradition of Fisher and Haldane, inspired by the mathematics of heredity developed to deal with animal husbandry, only the additive component of a gene's contribution to the fitness of its carriers need be analyzed because "evolution only sees the additive component." Those in the tradition of Ernst Mayr and Theodosius Dobzhansky, by contrast, consider the genome itself as a unit that is subject to natural selection, and it is the cooperative interaction of genes in the genome that governs its evolutionary success.

This distinction is then carried over from interactions among genes in the genome to interactions among individuals in a social species: inclusive fitness theorists, the heirs to the Fisher-Haldane gene's-eye view, reduce complex interactions among individuals in a social species to simple influences at single genetic locus (inclusive fitness), whereas the heirs to the Mayr-Dobzhansky tradition take social cooperation to involve complex dynamical and nonlinear interactions (multi-level selection). The inclusive fitness adherents argue that the genome cannot be an object of selection because it is broken up in every generation through meiosis and crossover, while the gene is conserved intact over many generations. The multilevel selection adherents claim that inclusive fitness analysis ignores all the substantive complexities of social interaction that in fact account for the evolutionary success of a social species.

My own studies have provided me with a third perspective. First, inclusive fitness analysis is extremely important and valid under almost all circumstances in dealing with sexually reproducing populations. Its strength comes from the fact that its reasoning is on the level of a single genetic locus. Popular expositions obfuscate this point by implicitly, without argument, treating a complex social behavior as governed by a single genetic locus---the so-called "phenotypic gambit." The correct analysis, that proposed by William Hamilton in 1964, shows that genes are utterly selfish in the sense popularized in Dawkins' great book "The Selfish Gene." What this means is that the conditions for the evolutionary success of a gene are distinct from the conditions under which it promotes the fitness of the reproduction population. Thus individual genes have absolutely no regard for the evolutionary success of the species in which they reside.

For instance, take the basic inclusive fitness equation, Hamilton's Rule. This says that if an allele at a genetic locus causes a behavior in the individual (the donor) that costs the individual a fitness loss c, and provides a fitness benefit b to another individual (the recipient), then the allele will increase in frequency provided $b\,r > c$, where r is the degree of relatedness between the donor and the recipient. The total contribution of the allele to the population is then b-c, which must be strictly positive provided

that the degree of relatedness is a probability (the usual case), and b,c > 0. This is because b - c = b(1-r) + br - c > b(1-r), which is non-negative. However, there is no reason to limit the analysis to b, c, and r having particular signs. Hamilton's rule holds no matter what the sign of the cost c (which becomes a benefit when less than zero) and the benefit b (which become a cost when b is less than zero). Thus Hamilton's rule says that a selfish gene that helps its carrier by hurting other members of the population is just as capable of evolving as an altruistic gene that induces its carrier to take a fitness hit in order to confer a fitness benefit on others, despite that the former reduces mean population fitness while the latter increases mean population fitness.

For instance, suppose b and c are both negative, which occurs when the allele helps its carriers by hurting other members of the population. In that case b - c, the fitness contribution to the population, will be negative unless individuals interact almost exclusively with their genetic relatives. For instance, suppose b = -0.4, c = -0.3, and r = 1/2. Then b-c = -0.1, which is negative, but b r - c = 0.1, which is positive, so Hamilton's rule is satisfied.

The validity of inclusive fitness theory allows us to formulate the central problem of sociobiology as follows: Individual genes are utterly selfish, yet evolutionarily successful species consist of genes that predominantly cooperate with one another (this is the reason there is an "appearance of design" in multicellular organisms), and evolutionary successful social species consist predominantly in individuals who cooperate in a manner furthering their joint biological interests. By the very fact that inclusive fitness theory abstracts from interactions among loci, this theory cannot help solve the central problem of sociobiology.

The irony in the debate over group selection is that the theorists involved in the debate fight endlessly over it even though they know that there is nothing to fight about, while the onlookers, such as those tempted to read this book, believe the debate must be over something real and of momentous importance. Usually, onlookers think the debate is about whether "biological altruism" can exist, and more specifically, whether human society is based on self-interest or truly moral behavior. That is a very important question, to which Samuel Bowles and I devoted a whole book: A Cooperative Species (Princeton University Press, 2011). We conclude that our success as a species is based on the essential morality embedded in human nature. But this has nothing to do with the group selection debate as it is properly formulated. We argue in this book that the fact that humans evolved in small groups (hunter-gatherer societies) is central to the evolution of human morality, but our analytical models are equally well described in terms of inclusive fitness (applying the phenotypic gambit) and multi-level selection. Indeed, the models themselves use neither concept, but are simply sets of equations that represent plausible dynamics underlying the current constitution of the human genetic structure.

BIG IDEAS IN MACROECONOMICS: A NONTECHNICAL VIEW *by Kartik B. Athreya*

At Last! A Serious Presentation and Defense of Modern Macroeconomic Theory —

Rating: 4/5

It is easy to find excellent, accurate, accessible, and entertaining books that present the current theories and ideas in many fields, including law, physics, and biology. It is virtually impossible to find such books in economics. Sadly, when someone writes a book about economics, it almost always is an attempt to convince the reader that some politically motivated partial truth is the whole truth.

There are some books that present basic economic theory in an unbiased manner, and I review the ones I have found in an entry on my web site ([...] Click on You Must Read This! and look for "Books on Economics for Serious Beginners: Very Introductory Readings."

But for the sort of advanced macroeconomic that guided policy makers and central bankers leading up to the financial meltdown of 2008, there has been virtually no serious accessible exposition without a political bone to pick. I love this book because it treats the reader as intelligent and discerning, presents the theory ably and in great detail, but avoids the mathematical detail that makes the material quite impenetrable to all but the expert who spends the bulk of his time devoted to the subject.

The reader who even cursorily inspects this book might consider me a biased observer because I contributed a blurb to the book jacket and the author graciously thanks me for my support in the introductory pages. The fact is that I consider this an exemplary exposition of modern macroeconomics, and I think his defense of the theory is as good as one can find anywhere, the theory is in fact so weak that nothing can save it. People continue doing it not because it is good theory, but because it is the only game in town. I believe a complete revolution in macroeconomic theory is in the process of being born, although it will take some years to take over as the mainstream theory.

Change in macroeconomic theory can be extremely rapid. Keynesianism displaced classical macroeconomics in just a few years after the end of WWII, and the reigning "rational expectations" macro displaced Keynesianism in just a few breathtaking years. This is a credit to economics as a discipline--given new evidence and given new economic conditions, young Ph.D. economists are quite willing to throw over the past, and in the best graduate schools, hiring of new faculty is based on how productive they are as researchers, not whether or not they agree with the reigning orthodoxy.

Macroeconomics has always been deeply political. After WWII in Europe and the US, the growth in organized labor led to cost-push inflation (higher wages --> higher prices) and unemployment caused by wages above the market-clearing level. Keynesianism blamed the unemployment on the market system itself and suggested deficit spending as the way to restore full employment and accommodating higher prices by increasing the money supply. Of course, this is a stupid theory because it leads to chronic deficit spending and chronic inflation. With the decline in the power of organized labor (caused mainly by increased international competition eliminating domestic monopolies in internationally traded goods such as steel, mining, and automobiles), a resurgent right-wing macroeconomics, called rational expectations theory, displaced Keynesian macro by recognizing the fatal flaws in its reasoning, which contradicted economic rationality. Keynesianism remains today in an attenuated form that recognizes coordination failures and price inertia, but is mainly a liberal profession of faith.

The only virtue of rational expectations macro (RA macro), which Athreya explains so nicely in this book, is that it killed Keynesian macro. The theory itself is nothing but smoke and mirrors. It purports to be solidly based on widely-accepted microeconomic principles that accurately describe the market economy (the "rational" in rational expectations), but this is simply false. The market economy is in fact a complex dynamic system whose behavior can be simulated, much as the weather is simulated by supercomputers, but cannot be captured in a few recursive equations, as the RA macro supporters claim. Instead of a large number of economic actors, RA macro assumes there is one "representative agent," and instead of large numbers of firms and industries, RA macro assumes there is one "production function." The only source of volatility in such a world is technology shocks and the vagaries of "expectations" (which of course cannot be measured, because they don't really exist). All we end up with is smoke and mirrors, plus lots of abstruse equations.

Among the more bizarre modeling choices of RA macro is to assume that all markets clear instantaneously. This of course assumes away the coordination failures that really underlie macroeconomic fluctuations. Especially exotic is the assumption that there is always full employment! "Unemployed" workers are simply people who temporarily prefer not to work (they prefer "leisure," in the parlance of macro theory). In fact what happens in a recession is that millions of jobs disappear. The displaced workers prefer their old or equivalent jobs at their accustomed wages, but these are gone. Of course, many could find work at a lower wage, but that is not always the rational thing to do because the worker may get locked into the lower wage occupational level.

This absurd sort of macro modeling would be okay if the resulting models predicted well, but they do not. RA macro long ago gave up econometric testing their equations in favor of "calibrating" them, which means just get the best fit you can, however poor. An poor they are.

Of course, prediction is not everything. Engineers cannot predict when a car will go over a bump, but they can model the effects of such a shock on the car and proposed mechanisms (shock absorbers) that allow the system (the car) to survive the shock with minimal damage. The same is true, to a much more limited extent in macroeconomics, where "automatic stabilizers" can lessen the effects of shocks to the economy.

The real problem with RA macro (and similarly of Keynesian macro) is the theory cannot deal with finance at all, and financial markets lie at the heart of contemporary economic instability. The

Walrasian micro model on which RA macro is built simply has no place for money or finance. Graduate students in economic do not even study finance---that is left to the business schools.

Of course, all of that is now changing. Economists around the world are revamping their theories and developing the empirical data on finance so that a more useful theory is likely to be forthcoming. It is a very exciting time for macroeconomics. Athreya's defense of the current theory is quite brilliant and I urge the reader to learn from him. However, we all know the story of the silk purse and the sow's ear.

Genetic explanations *by Sheldon Krimsky*

Interesting but One-sided, Avoiding Key Issues — Rating: 3/5

When I started working in sociobiology, I incurred deep hostility from my academic colleagues and friends for suggesting that biology had anything to do with human behavior. My inspiration was E. O. Wilson's magnificent 1975 book Sociobiology. This books was mostly about sociality in non-humans (especially ants), but the last chapter was about humans and it got me hooked. Wilson was horribly and unjustly criticized and attacked for this work, even by his Harvard colleagues. See the excellent historical account of Ullica Segerstrale, Defenders of the Truth: The Sociobiology Debate (Oxford: Oxford University Press, 2001).

The contributors of this collection claim, with some good reason, that the pendulum has swung too far in the other direction, with genetics being trotted out to explain just about everything concerning human behavior. "Genetics will continue to play a central role in the life sciences," the authors write in the Introduction, "but the evidence suggests a far less reductionist role as scientists fully appreciate the dynamic nature of biological systems and the complex interactions among DNA, proteins, and the environment at all levels of organization within the system." The various contributions to this collection attempt to justify this assessment, with some success.

There is a Monster Anomaly in the literature on the genetics of behavior. On the one hand, the sociobiology of human behavior has matured over the last forty years (my own recent contribution, with Samuel Bowles, is A Cooperative Species, Princeton 2011), and behavioral genetics has shown that many aspects of behavior have high heritability (see Robert Plomin, John C. DeFries, Gerald McClearn and Michael McGuffin, Behavioral Genetics, New York: W. H. Freeman and Company, 2000). On the other hand, no one has discovered particular genes or gene networks that explain more than a miniscule fraction of the variance in behaviors across individuals. Evelyn Fox Keller, in an insightful chapter, notes that when we read that a certain gene explains some aspect of health or physiology, the author almost always means that when the gene mutates or is otherwise inactivated, the result is the deterioration of the characteristic in question. In other words, we don't know what the gene does, but we know what happens when it doesn't do it. That's not saying much, of course. For instance, if I pull the plug on my TV, I know the picture will go dark. That doesn't tell me much about how a TV works.

The contributors to this volume virtually all believe that genetics (phylogeny) must be combined with development (ontogeny), which is the project of so-called Evo-Devo (for an overview, see Endless Forms Most Beautiful: The New Science of Evo Devo by Sean B. Carroll). I consider this to be a really important project, but I think this volume is slanted towards critique a straw-man genetic determinism, without really replacing it with anything. The positive message that developmental pathways are highly creative and contingent is not supported by consistent data. Rather, each author in turn provides his or her personal take on what is wrong with genetic explanations. Of course, sociobiologists (like myself) would NEVER say that a behavioral pattern in humans has a "genetic explanation." No such notion has empirical support. Rather, we might say that members of a social species have "genetic predispositions" to behave in certain ways under certain conditions. The contributors appear to me to have found it sufficient to attack journalistic excesses rather than the professional literature.

Love and math *by Edward Frenkel*

Nice try — Rating: 3/5

The observation to which this book is a response is the fact that intelligent, educated, and sophisticated readers who take pride in the breadth of their knowledge, reveal with pride that they hate math. Those of us who use advanced mathematics integrally and intimately in our work have all heard this refrain. Why would someone take pride in their ignorance? Why would someone who would never say they hate art take pleasure in affirming their aversion to mathematics, which is doubtless and indisputably one of the most stunning achievements of human intellect?

Frenkel's answer is that students are not taught math properly in school. Students learn how to perform calculations, but are never exposed to the deep principles of symmetry and dynamics that embody the true beauty of mathematics. His response is to show how human an enterprise modern mathematical research can be. I read this book from cover to cover with some pleasure, but I do not think he has made his case. Frenkel tell us early of the insights of Galois and even explains with some effectiveness exactly what an incredible tour de force Galois theory is. Moreover, Galois proved something with his detour through group theory that is truly remarkable: there are no general solutions to polynomial equations of degree greater than four using the operations of arithmetic operating on integers and their various integral roots. Frenkel explains that the Langlands Program is a sophisticated and ambitious extension of Galois' project, but he fails in two ways. First, he introduces a plethora of mathematical constructs to which he gives a best vague descriptions, and gives no intuition as to why they are related to one another in interesting ways. Second, he gives us no concrete examples of how all of this high-level math solves some real-world problem of the sort that Galois theory addresses. Why all the huffing and puffing? All we are told is that some of the theory Is useful in banking and cryptography. How and why? Who knows?

In fact, probably most people who become mathematicians or use mathematics extensively actually like to solve rote problems. I know I did. I would spend hours and hours solving problems, deriving trigonometric identities, and integrating funny-looking rational functions. Moreover, I treat mathematics as very hard and exhausting---like running laps and lifting weights. The rewards are surely there, but it is simply hard work most of the time. Art and music are fun, not work. Of course, we must learn to appreciate art and music, but once the brain is prepared, it is all fun thereafter. Math is not like that. Math is sweat and pain all the way. Struggling through a three page paper full of symbols is excruciating effort. The reward is surely there at the end---understanding something of ineffable majesty.

I still think that the beauty of mathematics can be explained to humanists, I'm not sure how, though.

The Ageless Generation *by Alex Zhavoronkov*

A Primer for the Lay Reader, with lots of good social policy suggestions — Rating: 4/5

This book describes the personal and social impact of the acceleration in the pace of keeping people alive to an increasingly advanced age. The material is very informative, especially for those who are not familiar with the medical care delivery systems in the advanced countries. The author takes a very scientifically balanced position on most issues. His most creative effort lies in outlining the cultural changes that will be needed to permit increased longevity to be accompanied by mental and physical youthfulness.

Zhavoronkov may be an optimist in his assessment of what sorts of cultural changes are likely to take place. In my work as an economist, I have found over and over again that mental flexibility is widely absent after age 30 or so. For instance, job retraining programs rarely work, so that new technologies simply leave the older generation behind. The idea of retaining workers in the traditional workplace until they are 80 years old, simply because their bodies have held up okay, could prove impractical simply because people become superannuated.

On the other hand, we know so little about the dynamics of culture that Zhavoronkov may be correct, and it is certainly worth a try. Perhaps with increase levels of education, mental flexibility can become the norms. On the other hand, I find that even scientists with Ph.D's tend to think the same things when

they are 75 as they did when they were 25. I used to tell incoming graduate students in economics to choose their allegiances carefully in the first two years, because the ideas they develop during this period will probably stick with them to the end of their days. Unfortunately.

Delphi Programming with COM and ActiveX *by V. Ponamarev*

Waste of time — Rating: 1/5

I learned virtually nothing from this book. I am an expert programmer, but I don't know COM programming. I still don't.

Evolutionary genetics *by Charles W. Fox*

Authoritative Overview of All Facets of Modern Evolutionary Genetics — Rating: 4/5

The most notable attributes of this collection of essays on evolutionary genetics are: broad, authoritative, up-to-date, well-presented. This is not a book for beginners, and the authors are not afraid to assume you know some math, chemistry, and biology. If you want to find up-to-date syntheses of major topics in genetics and evolution, including fine bibliographic references to recent empirical studies, this may be the books for you. I particularly liked the section on the passage from genotype to phenotype, including modern evo-devo theory, new results in canalization theory, and a nice chapter on epigenetics. Quantitative genetics is also well covered, including genotype-environment interactions, sexual selection, and social selection. The genetics of speciation is thoroughly handled, as is host-parasite interactions, senescence, and laboratory techniques for the study of speciation.

Creating Web pages for dummies *by Bud E. Smith*

Very elementary. Does not explain markup languages — Rating: 3/5

I was misled into buying this book, although it may have been my fault for reading the book description too cursorily. I need a guide to html5, css, and related markup tools. This is not it.

Jane Austen, Game Theorist *by Michael Suk-Young Chwe*

Insightful Literary Analysis with a Cognitive Psychology Twist — Rating: 4/5

Michael Chwe is a smart and talented economist whose multidisciplinary predilections led him to the political science department at UCLA. I know and love Jane Austen, and was skeptical of the title of this book. Indeed, I think the title is somewhat tangential to the content of the book. There are no Nash equilibria, no common knowledge assumptions, no mixed strategy solutions---all the standard fare of game theory.

What Chwe has authoritatively explored is the complex back-and-forth psychological dynamics of making decisions based on psyching out what other people are thinking, and taking actions that can reverberate three or more times from one mind to another, in the search for achieving one's goals. I had not thought just how central this idea is to the Austen novels. Indeed, it may just be what makes Austen the fine novelist that she is.

Chwe is always interesting and insightful. You will not learn academic game theory from this book, but you can take what you learned back to your reading of the Austen novels, and see dimensions of human behavior you may have missed in previous readings.

Nature's Oracle *by Ullica Segerstrale*

e/c = mc, pv = kT, and now... b r > c: About the guy who gave us Hamilton's Rule — Rating: 3/5

William Hamilton was one of your ordinary brilliant scientists, grappling with fundamental questions in sociobiology all his life. His claim to fame is a single article that he published in the Journal of Theoretical Biology in 1964, "The Genetical Evolution of Social Behavior I." This article gave rise to the terms "inclusive fitness," "kin selection," and "Hamilton's rule," three terms that are explained in every sociobiology article and book. He of course did other things of interest, but in everything else, he was just another brilliant scientist, of whom you might not be inclined to read a long biography. Segerstrale claims correctly that many consider Hamilton the Darwin of the Twentieth Century. Indeed, Hamilton is like Darwin in having shown the world a simple idea that explains an immense amount of biological dynamics. Unlike Darwin, however, Hamilton did not write a Great Book, his simple idea is in fact extremely subtle and not available to the critique of such dimwits as Creationists and Intelligent Design blowhards. This book will not appeal to the casual reader, as might a Life of Charles Darwin.

Ullica Segerstrale is a talented and insightful historian of biological thought. Her 2001 book "Defenders of the Truth: The Sociobiology Debate," covering early clashes between sociobiologists, especially Edward O. Wilson, and their critics, especially Stephen Jay Gould, Marshall Sahlins, and Richard Lewontin, is a well written and exciting documentary of this fascinating period. There is no question concerning her sympathies in this book: she gives a rather manachean account where the sociobiologists are Good and their critics are Pathetic.

This book is well worth reading, but it is not up to the standards of "Defenders of the Faith." Part of the problem may be with me: I really don't care about Hamilton's childhood, or where he sends his kids to school, or how he behaves at dinner parties. Moreover, his recurrent disputes with journal editors and his dismay at his treatment by article reviewers, stressed repeatedly in this book, is supremely uninteresting. Every academic has such experiences, and they are so common that they are not even worth mentioning.

Hamilton is not the sort of Lovable Creature that we associate with the likes of an Einstein or a Freud. He's just your typical brilliant scientist. Moreover, Segerstrale spends only a small portion of the book dealing with Hamilton's substantive contribution, inclusive fitness, and a much larger portion deal with how his other ideas fared---which was about average for a big thinker like Hamilton. She should have elaborated on the development of his ideas in the larger field of population biology and sociobiology. More important, Segerstrale does not appear to understand inclusive fitness theory that well, never deals with the substantive intellectual debates surrounding this theory (most of which are misunderstandings, not by Hamilton), and just acts as a rah-rah booster for William Hamilton. One might describe this book as a Readers Guide to the Narrow Roads of Gene Land (Hamilton's book about his own work).

Hamilton's 1964 article is a masterpiece. Indeed, in my study of inclusive fitness theory, have never seen anything in print with the analytical power and depth of Hamilton's original article (I explain this in my paper "Inclusive Fitness and the Sociobiology of the Genome, which is on my web site). Before I read Hamilton's 1964 article, I could not even make sense of standard expositions of his theory, because they misstate and overinterpret it. His article, on the other hand, is extremely opaque, despite that fact that he uses only simple algebra. I arrived at an understanding of his model only by starting with the basic equations, and working backward to determine the underlying model. This model is a paradigm of rigor and clarity.

Karl Marx once said, after hearing some of the claims made on his behalf by so-called supporters, "Je ne suis pas Marxiste" (I am not a Marxist). William Hamilton could say the same thing when encountering the bizarre claims of some of his supporters: "I am not a Hamiltonian." By God, he'd better not be!

Intellectuals and society *by Thomas Sowell*

Sowell is a Biased, Opinionated, Klutzy Intellectual — Rating: 2/5

Thomas Sowell is a gifted applied economist with much of importance to say about the larger issues in social policy and government regulation of economic affairs. I have reviewed several of his books and recommend them to the reader.

Sowell, however, has two failings. First, he has no heart for the plight of the poor, so his work in this area is illuminating for the false ideas he debunks, but does not contribute in any way to dealing with the problem of poverty. Second, he is a thorough-going right-wing ideologue, who is often cogent in his critique of liberal ideas, but is blind to similar, indeed often parallel, problems with conservative ideas. This book suffers especially from the second of these weaknesses. The book endlessly repeats the errors of left-wing intellectuals (especially in the Cold War era, when many embraced some form of socialism, with totalitarian forms of Communism heavily represented), but says nothing about the errors of right-wing intellectuals (many of whom embraced fascism and even Nazism, and argued in favor of tolerating racial segregation and gender discrimination, as well as the abolition of government regulation of food and drug quality).

Sowell's book adds fuel to a right vs. left dialog that is petty, vituperative, Manichean, and unilluminating. The social division between left and right persists throughout democratic societies and will doubtless continue to do so. The reason is that both types of political world-views have strong positive contributions to make, but both are deadly and destructive when pushed too far. Sowell encourages pushing the right too far by his lack of insight into the virtues of liberalism.

Sowell knows applied economic theory quite well, but he never presents the balanced model of government-market interaction that has been taught to graduate students of economics for half a century, and has no serious critiques in the professional literature. This is because this model of "public economics" does not fit the conservative free market ideology. This ideology has no scientific validity and cannot even be formulated in an intellectually rigorous form. It is simply wrong.

Sowell has no understanding of information economics. He follows Hayek on the distributed nature of information, but he never confronts the literature that deals with the transformation of private information into public information. The importance of public information, central for instance to Durkheim and Aumann, is completely ignored in his treatment of government regulation.

This book preachs to a right-wing choir, a wordy version of the radio talk-show hucksters I so regularly avoid. There are many factual gems and cogent insights in this book, but they are smothered in invective. If you want to be preached to, this is the book for you. If you want insight, look elsewhere.

Death from a Distance and the Birth of a Humane Universe *by Paul M. Bingham*

Five Stars for What is Included, Three Stars for What is Left Out — Rating: 4/5

Paul Bingham is a primarily a biochemist and molecular biologist of considerable talent, and teaches in the Department of Biochemistry and Cell Biology at Stony Brook University. In the year 1999, I came across an extremely innovative article that Bingham wrote on the same topic as this book, "Human Uniqueness: A General Theory", Quarterly Review of Biology 74,2 (1999). I was writing an article on human altruism at the time, which eventually appeared as "Strong Reciprocity and Human Sociality", Journal of Theoretical Biology 206 (2000). This paper showed that altruistic punishment could evolve in humans provided the cost of punishing transgressors is not too high. I was very excited by Bingham's paper, because he explained cogently, on the basis of the evidence of several key anthropologists, why the cost of punishment is so low for humans as opposed to other species (e.g., our primate cousins). I even explored with him the possibility of his joining my research network, but this never happened (I can't remember why---I think perhaps because he was too busy with his "day job" in microbiology).

The Bingham-Souza argument is simple and powerful: "...ancestors of the first humans evolved, inadvertently, the capacity to kill or injure conspecifics...from a substantial distance. .... This ability arose, in turn, from the evolution of human virtuosity at accurate, high-momentum throwing. No previous animal could reliably kill or injure conspecifics remotely...For the first time, natural selection could now "reward" individuals who actively suppressed conflicts of interest in others and responded to

this suppression from others." ... Ancestral humans evolved a new ability that brought these enforcement costs down drastically, and uniquely human economic systems (kinship-independent social cooperation) became possible. ... Everything else that distinguishes us from other animals flows from this utterly simple trick of enforcing social cooperation in spite of conflicts of interest.

Lethal weapons have played such a key role not only in prehistory, but through our modern history as well. Souza and Bingham write "Moreover, it produced a long sequence of ever more sophisticated adaptive revolutions in the two million years since the evolution of the first humans. These revolutions represent all the major transitions in human history including the behaviorally modern human revolution, agricultural revolutions, the rise of the archaic and modern states, and the currently ongoing consolidation of pan-global human cooperation. Each of these adaptive revolutions has precisely the same underlying logic on our new theory--the self-interested application of relatively inexpensive coercion resulting in sustained social cooperation. This fundamental logic is merely applied at ever-larger scales with each historical transition."

The notion that the technology of warfare determines the political structure of a society was argued long ago by Aristotle, who said: "There are four kinds of military forces---the cavalry, the heavy infantry, the light armed troops, the navy. When the country is adapted for cavalry, then a strong oligarchy is likely to be established [because] only rich men can afford to keep horses. The second form of oligarchy prevails when the country is adapted to heavy infantry; for this service is better suited to the rich than to the poor. But the light-armed and the naval elements are wholly democratic... An oligarchy which raises such a force out of the lower classes raises a power against itself.'' (Politics IV). Souza and Bingham argue, correctly, I believe that "Modernity emerges from the barrel of a gun... artillery stabilizes the hierarchical state," and "handguns democratize the modern state." The second of these is perhaps controversial, but it was defended admirably by Samuel Finer in Charles Tilly's excellent volume The Formation of National States in Western Europe (1975).

The authors' basic thesis on the importance of lethal weapons on human affairs is thus correct and systematically understated in the standard literature on human evolution and politics, in my view. However, they make three mistakes. First, they believe that lethal weapons alone explain human society. This may be true, but it is likely one of a few key factors, other including collective child-rearing, long-distance trade, and the invention of fire, each of which has huge implications for the nature of Homo sapiens. Second, the authors insist that human nature is basically self-interested, which is demonstrably false. A reasonable model of gene-culture coevolution [Herbert Gintis, "Gene-culture Coevolution and the Nature of Human Sociality", Proceedings of the Royal Society B 366 (2011)] explains why humans have evolved other-regarding preferences. The notion that society could work without this is flat wrong, however much vaunted by the "selfish gene" group. Third, the authors insist that they were the first to have these ideas. This is just flat wrong.

I suspect Souza and Bingham really believe this. Consider the following tale. A couple of years ago Robert Boyd, Samuel Bowles and I improved our model of costly altruistic punishment by showing how collective punishment could work when uncoordinated punishment is too costly because, for instance, the offender's family might retaliate against lone or uncoordinated punishers. This appeared in Science as "Coordinated Punishment of Defectors Sustains Cooperation and Can Proliferate When Rare", Science 328 (2010). Paul Bingham and Joanne Souza were very critical of our paper, despite the fact that our ideas are very close. They wrote a letter to Science which said "We have two serious concerns...First, these investigators continue to rely on models dependent on doubtful group selection processes...[Second,] the authors invoke "increasing returns to scale'' for coercion here for the first time in their long association with group selection models. This approach to modeling coercion is apparently borrowed (without attribution) from our earlier analysis..."

In our reply (Science 30 April 2010), we held that our model does not depend on "group selection," (by the way, gene-culture coevolution has nothing to do with group selection) and that the notion of increasing returns to scale in conflict is well-know and goes back to antiquity. Specifically, we wrote their claim that we failed properly to attribute their contribution "misstates the novelty of their contribution to this literature; the commonplace idea that a group's probability of success in conflict may be subject to economies of scale is as old as the expression "divide and rule" and has been formalized using "contest success functions" developed by Jack Hirshleifer and other economists prior

to and independently of Bingham and Souza. The mathematical modeling of these relationships goes back to Lanchester's work in 1916, which we cited in our supporting online material, and such models were used in evolutionary biology prior to Bingham and Souza's work. What was novel about the valuable contribution of Bingham and Souza was their exploration of the important role of projectile weapons in human evolution, not the observation that economies of scale might govern the outcome of conflicts. But economies of scale do not require the use of projectile weapons. Ethnographic evidence suggests that many forms of punishment in band-level societies do not involve projectile weapons (for instance, shunning, ostracism, and enforcement of penalties), and there are good reasons to think that increasing returns apply to these forms of punishment as well." I bring this up because the interested reader might want to follow up this literature after reading Bingham and Souza's fin book.

By the way James Woodburn, "Egalitarian Societies", Man 17,3 (1982) argued the Souza-Bingham position many years ago, but not as successfully, I believe. For my own recent contribution, see "The Origins of Human Hyper-Cognition," on my web site.

Is Behavioral Economics Doomed? *by David K. Levine*

Get the other side of the argument — Rating: 4/5

David Levine is a fine, lucid, relaxed writer who conveys complex information in a straightforward manner without compromising the fundamental issues.

I quite agree with his argument that substantive rationality is shortchanged in many behavioral economics papers and books. I have argued this position at length in my book The Bounds of Reason (Princeton, 2009).

I have three problems with his argument.

First, who are these "behavioral economists" whom he critiques? He mentions the neuroeconomists (but only a couple). Is Vernon Smith on his Bad Guy list? Am I? Who exactly is? Is Ernst Fehr? Do NO "behavioral economists" escape his critique? If so, who escapes? Without such a list, Levine is making the mistake of appearing bigoted (everyone who belongs to a certain group has a particular quality) and of disliking the evidence. Theorists should NEVER critique experimentalists except for running bad experiments in a true science.

Second, Levine seriously underestimate the importance of social preferences. This is just a scientific error and it does not further his argument because he agrees that social preferences can be rational.

For instance, his analysis of voting is just silly. He shows in voting experiments in the laboratory that the participation rate can be explained by simple self-interest. However, people vote in elections because they have social preferences for democracy and collective political solidarity. Levikne overgeneralizes from his experiment that social preferences and morally-based incentives are not relevant to voting. In fact, voting in a democracy is a perfect example of the deep importance of our moral constitution. Why on earth would he want to deny this, or even diminish it as an important social fact? I cannot imagine.

Third, he confuses rationality with common knowledge of rationality in your discussion of backward induction. He should know better than this, and if you doesn't, he can read my paper on the topic on my web site (or Bounds of Reason).

On ethics and economics *by Amartya Sen*

A diffident critique of standard welfare economics — Rating: 3/5

This slim volume is an edited version of the Royer Lectures that Sen delivered at the University of California at Berkeley in 1986. It is a rather diffident and undifferentiated critique of the reduction of moral reasoning in economics to the Pareto principle, the standard assumption of rationality, and the equation of rationality with self-interest. Sen stresses that welfare is not simply a function of getting

what you want, but also of having the power to make your own choices, in addition to having the material products of your choice. This book is superseded, I suggest, by his Development as Freedom (Anchor, 2000).

What Money Can't Buy *by Michael J. Sandel*

Good journalism, Bad economics — Rating: 3/5

Michael Sandel is, to my mind, perhaps the greatest living political theorist. To get an idea of his breadth, check out his books on Amazon (and read my reviews of a couple). This book, however, is really journalistic social commentary and says nothing new. However, it is great reading, as Sandel has done an excellent job at amassing anecdotes to the effect that more and more of social life takes the form of market interactions.

His main point is that there are moral dimension concerning the way we make agreements and distribute the rights and duties of participating in society, and the use of markets and contracts are only one way, and not always the morally correct way.

My favorite example of this is a sketch on the sitcom Seinfeld, where on Elaine's birthday, George and Kramer give her thoughtful gifts, while Jerry give her a sum of money. When Elaine opens the envelope and sees the money, she exclaims rather incredulously, "Money! You gave me money on my birthday!" Jerry explains that money is better than some other gift, because you can spend it any way you want. Elaine will have none of it. "Money! I can believe you gave me money on my birthday."

How about a personal example? Many years ago, when I was teaching at Harvard, my wife and I had a dinner party for a half dozen Harvard faculty and their spouses. Two days later I received a letter in the mail from one of the guests. The envelope contained a $20 bill (a lot of money in those days) and a note saying "Thank you so much for your hospitality." NEVER in my life was I so deeply insulted. I learned after some inquiries that the gentleman was not mentally balanced, and he took offense to my criticism of s United Nations resolution that Zionism is a form of racism. When I confronted him directly, he accused me of being a CIA agent (this was an insult in those days).

So if you have not ever thought much about when markets are the right way to interact and when they are not, you will get a lot out of this book. Sandel makes the obvious point that paying someone to wait in line for you to get into the fancy museum may be immoral because people should have access to the museum on the basis of their capacity to wait in line, not their wealth. But Sandel does not try to formulate a comprehensive moral structure that tells us when to use markets and when not. I think he should have tried.

Sandel lists two main problems with using markets for social interactions. One is that the poor cannot make use of markets. I do not agree with this critique. The poor are excluded from participation in many aspects of life, and the cure is to eliminate poverty, not to make sure others are also excluded from monetary exchanges. The other is that monetizing social relations leads to a decline in moral sensibility. For instance, if firms can pay for the right to emit carbon into the atmosphere, this erodes the moral obligation we all have to reduce pollution. This is because paying for pollution legitimizes pollution and turns a social decision into a purely private decision.

I think this is just wrong. We do not expect firms in a competitive economy to sacrifice profits on behalf of the environment. We expect firms to obey the laws concerning emissions. The notion that CEO morality can replace regulation is really silly. Of course, when it comes to private life, Sandel's critique has a great deal of force. But we all know that, and few of his examples are this (private) form.

Sandel does not like economists, but his critique of economics is ill-informed and anecdotal. The The idea that not all valuable things should be bought and sold on markets has been known for centuries, certainly since the anti-slavery movement in England, and all mature economists understand this well. The fact that an economist can gain his fifteen minutes of fame once in a while be advocating the suppression of non-monetary gift-giving should not be interpreted as an exercise of brilliant economic argument. We do not have an adequate theory of when the exchange of valuable entities are best left to

the market and when they should be regulated by other mechanisms, such as queues, social norms or laws, but the notion that economists have gotten this all wrong is just absurd.

Sandel's point that hat monetary incentives can crowd out moral incentives has been known at least since Richard Titmus's 1971 book, but it is certainly not a cut-and-dry issue. For instance, in 2008 economists Laurence Goette and Alois Stutzer conducted a large field experiment in Switzerland, found that offering lottery tickets increased turnout at blood drives. More generally, Nicola Lacetera and Mario Macis found that donors prefer small in-kind rewards to monetary incentives. On the other hand, economists are often correct in saying that if voluntary contributions do not elicit enough participation, then monetary incentive may do so, despite the fact that they completely drive out moral incentives. By neglecting this point, Sandel gives the impression that wherever the supply of a social good or service is governed by altruistic motivations, is a social evil to replace moral incentives with financial incentives. This is simply not the case, and his critique of Kenneth Arrow and Lawrence Summers is therefore faulty.

In the same vein, economists Ernst Fehr and Klaus Schmidt, in a paper published in the European Economic Review in year 2000, showed that basing a business relationship in part on trust rather than relying upon complete contractual specification, can increase both the efficiency and the fairness of the relationship. This is just one of many contributions by economists that belie Sandel's crude depiction of economic theory. Does he really believe that nothing has changed in the twenty first century?

Sandel is persistent in his critique of economics, but he smears all of economic theory with the broad brush of neoclassical economics of a previous era. The impression given in this book is that it is not worth studying economics, because it is incurably ideological and incapable of dealing with contemporary social policy issues. This, I believe, is simply not the case.

Sandel consistently ignores contemporary economic theory, especially behavioral economics. This stance leads him to misrepresent a key issue in contemporary economic policy: the role of corruption in economic efficiency and growth. According to Sandel, corruption is a purely moral issue. ``corruption...points to the degrading effect of market valuation and exchange.'' In fact, corruption is a major impediment to economic growth in both developing and developed economies, as stressed by economists Daron Acemoglu and James Robinson in their new book Why Nations Fail.

Sandel's second blind spot is far more serious. By focusing on the marketability of particular things, e misses the larger effect of an economy regulated by markets on the evolution of social morality. Where have movements for religious and lifestyle tolerance, gender equality, and democratic government flourished and triumphed? The answer is in societies governed by market exchange.

Dramatic confirmation of this relationship between markets and morality come from studies of fairness in fifteen simple societies studied by myself and colleagues, described in our book Foundations of Human Sociality: Economic Experiments and Ethnographic Evidence from Fifteen Small-Scale Societies (Oxford: Oxford University Press, 2004). These societies consisted of three hunter-gatherers, six horticulturalists, four nomadic herders, and four small-scale, sedentary farmers in Africa, Latin America, and Asia, and they played standard ultimatum, public goods, and trust games, conducted by twelve professional anthropologists and economists. As in advanced industrial societies, all these societies exhibited a considerable degree of moral motivation, subject being willing to sacrifice monetary gain to achieve fairness and reciprocity goals, even in anonymous one-shot situations. More interest for our purposes, we measured the degree of market exposure and cooperation in production for each of these fifteen societies, and we found that simple societies that regularly engage in market exchange with the larger society have more pronounced fairness motivations. The fact that the market generates a high level of economic inequality is incontrovertible, The notion that the market economy makes people greed, selfish, and amoral is simply and dramatically fallacious.

The infinity puzzle *by Frank Close*

This book is for the historian of physics — Rating: 3/5

If you are interested in the minute details of who-did-what-first in the evolution of the Standard Model, and you really care about who got Nobel prizes and who did not but really deserved to, then this is the book for you. I don't care about either very much, so a good part of this book was a waste of my time.

The descriptions of basic physics models is always very challenging, and Close tries to do a good job of it. He does manage to get across a lot about how fundamental particles behave, but the various theories he discusses are just names, with no substantive content. I know that in mathematics, there are many areas that simply cannot be explained to the non-mathematical layperson, and that may be true of modern physics as well. However, in other fields that I know (population biology and economics, for instance) the important stuff can be fully explained with only the most minimal use of mathematical formalism. I am searching for a popular account of the Standard Model with this attractive feature.

The moral foundation of economic behavior *by David C. Rose*

A Solid and Insightful Contribution to the Theory of Economic Morality — Rating: 4/5

The standard model in economic theory assumes that arbitrarily complex contracts can be written at zero cost, and contractual arrangements can be enforced by a third party (the judiciary) at zero cost to the contracting parties. When these conditions hold, it is impossible for agents to cheat successfully, and no moral issues are involved in executing their side of the contract. When there are aspects of performance for one of the partners to a contract that cannot be third-party enforce, principal-agent models suggest that the principal can costlessly set complete incentives for the agent that induces optimal performance, so the principal is indifferent to the moral character of the agent.

The assumptions that imply the irrelevance of moral character in market exchange are, however, widely violated, and often gravely violated. For instance, an employer may prefer an honest and trustworthy worker to a self-interested worker, because the cost of monitoring will be lower and the level of effort and care delivered by the worker will be higher if the worker behaves morally. Similarly, when two firms contract for services, the honesty and trustworthiness of each may be a prime concern of the other because it is infeasible to write complete contracts.

The proof of the importance of morality is that economies in which the moral element is absent will generally operate at a low level of efficiency. Corruption and malfeasance do not mere transfer benefits from the moral to the immoral agents, they are contagious: integrity unravels when moral individuals see that they are being scammed, and respond by in turn abandoning their moral high ground. This is known as the unraveling of cooperation.

David Rose's fine analysis of the morality of economic behavior is inspired by the economist Friedrich Hayek, who stressed that information in the economy is radically decentralized and distributed across economic agents (see his American Economic Review paper of 1945), as well as the philosopher Immanuel Kant, who stressed that moral behavior is based on adhering to moral rules, not acting benevolently on behalf of others. For Kant and Rose, and I think this is the correct view, is that one is not honest because one cares about one's exchange partner, but because being honest is the right thing to do.

Rose's support for the Kantian position is not philosophical, but psychological. In very small societies, one can care about all of one's trading partners, he argues, but in modern society, in which one has many trading partners and one does not really know more than a few personally, contract enforcement cannot be expected to depend on mutual positive feelings, he argues.

One of the attractive features of this closely argued book is that Rose argues that trust is not a moral virtue, but that trustworthiness is. He correctly notes that in a society in which individuals generally trustworthy, then even amoral agents will be trusting, and there is nothing moral about trusting others in a generally untrustworthy environment.

My only quibble with Rose's argument is that it is just too Kantian. Rose argues that honesty and trustworthiness must be unconditional, whereas I believe that no moral value is truly unconditional. This is because moral behavior is in fact governed by the rational actor model: individuals behave morally because this maximizes their utility. Individuals in general will trade off some moral values

against others, and will even trade off moral behavior against selfish interests. When the cost of behaving morally is very high, individuals will abandon their morality. In fact, we do not expect unconditional compliance from exchange partners, but rather only generally dependable integrity.

An Engine Not A Camera How Financial Models Shape Markets *by Donald A. MacKenzie*

A Thick Ethnography of American Futures and Options Markets — Rating: 4/5

MacKenzie's thesis in this book is well known and worthy of consideration: financial models such as Black-Scholes are not simply tools of the finance industry, they actually constituted a new social order, and one in which the risk of catastrophic failure is systematically underestimated, thus increasing the frequency and depth of such failures.

But this is an old story told many times, although never better than MacKenzie, who is a fine writer with a historian's flair for detail and the theoreticians's curiosity about What It All Means. The true value of this book is the institutional detail and the insights into the minds of the key players, as revealed by extensive interviews.

This is modern sociology at its best, a Granovetter-style voyage through the complex networks of individual and institutional linkages that make the financial system the dynamic, innovative, yet fragile system it is.

MacKenzie's analysis actually as much more nuanced than his major thesis, which is really just a hook for getting the reader interested in his historical exposition. In particular, he does not believe that most movers and shakers in the futures and options industry believed the Black-Scholes model after 1987. He also believe that the leaders in the industry only used mathematical models as one tool among many in making important decisions. His more interesting thesis, and I believe worthy of considerable additional research, is that the fragility of finance is caused by the tendency of traders to follow the lead of the successful to a degree that is individually rational but dangerous to the stability of the financial system. He also argues that behavioral finance may be correct in its depiction of the trading public as basically irrational (e.g., prospect theory when applied to personal portfolio management is pretty silly), but he argues that professional traders offset these irrationalities in ways that stabilize the market and fatten their pocketbooks.

A Universe from Nothing *by Lawrence Maxwell Krauss*

Excellent Exposition of Modern Cosmology, Questionable Metaphysics — Rating: 4/5

This book is a very engaging and highly enlightening introduction to modern cosmology, with forays into quantum mechanics and general relativity thrown in. Indeed, I have never seen better. Krauss's ploy to get you to read this book is to add some half-baked theology/metaphysics that will draw in those interested in the debate as to whether science can replace faith in interpreting our world. Krauss's argument is that modern cosmology shows that we have a universe without the need for positing a Creator. He is not at all convincing (which no doubt motivates most of his one-star detractors in the Amazon reviews of this book).

The story starts with the discovery that Cepheid variable stars exhibited a regular relationship between brightness and period of variation. In 1913, the distance to a known Cepheid was accurately measured, making it possible to use the brightness of a Cepheid in any part of the visible universe to measure its distance. Hubble used this fact to show that there were galaxies outside our own, and that the universe is expanding.

Another advance allowing us to measure distances in the universe was the fact that Type 1a supernovas, which occur only once per hundred years per universe, have a tight relationship between brightness and the length of time they shine before winking out. We can measure the time, and then infer the distance

to the galaxy containing the supernova. Because there a billions of galaxies, Type 1a supernova are actually quite common in the night sky.

By observing the spectral lines from stars, astronomers long ago determined that stars and intranebular gasses are made from the same stuff as the physical matter on Earth. Indeed, helium was first discovered from analyzing starlight, and only afterwards discovered on Earth. Because we know what the matter in the universe is made of, we can estimate the composition of the matter in the universe. If we know how much matter there is, we can use simple physics to determine how stars should attract one another, and hence determine the speed of various stars and even galaxies. When this was done, it was found that stars far from the center of our galaxies are moving much faster than predicted by the known mass of the stars in the universe. This is the origin of "dark matter."

What is dark matter made of? If we measure the initial density of protons and neutrons arising from the Big Bang (there was too much energy for the first 300,000 years of the universe to support anything but a plasma of neutrons and protons), which we can do by measuring the current abundance of very light atoms (hydrogen, helium, lithium), which were the first atoms to appear after the universe cooled a bit, we find that the we are missing about half of the matter that we should see. The other half presumably is part of the "dark matter." However this accounts for only about 20% of what the amount of dark matter must be. What is the rest? No one knows.

The amount of dark matter is important because this amount determines whether our universe is open, closed or flat. However, we don't know how much dark matter there is. So Krauss takes another tack. The light from a star shows us what the star was like at the time the light was emitted from the star. If we look at very far-away stars, we can peer far into the universe's past. However, before age 300,000 years, the universe' matter was a hadron plasma that absorbed all photons, so it is impossible to peer back farther than that. However, the 300,000 year surface of the universe is "last scattering surface," and by measuring the density of matter on this surface, we can tell whether the universe is open, closed, or flat. Why? Because gravitational clumping is subject to the laws of gravity, and gravitational forces move at the speed of light. Therefore, we can determine the actual maximum width of a clump, as measured on the last scattering surface. If the universe is flat, we will observe exactly what we calculated. If the universe is open, light rays will "fan out" from the last scattering surface, so clumps will look bigger. Similarly, if the universe is close, lumps will look smaller. What we observe is compatible only with a flat universe. Krauss's exposition here is just superb.

Given that the universe is flat, we can calculate that 70% of the energy is missing, being neither visible matter nor dark matter. This is essentially Einstein's "cosmological constant," although astronomers move this from the right side of the equation (curvature) to the left (energy). Krauss argues that this "dark energy" is actually the energy of empty space (this is the "nothing" in the title of the book).

Krauss here takes a long and beautiful detour into quantum mechanics explaining how the uncertainty principle predicts that empty space is really a frothing turmoil of particle coming into and out of existence, and reality of virtual particles is proved by their use in predicting the spectral lines of hydrogen with an accuracy of one part in 100 billion.

If we calculate the energy in empty space, we get a figure that is 120 orders of magnitude larger than all the energy in the universe. So this calculation is wrong, but no one knows why. Krauss calls this the Cosmological Constant Problem. He makes a rather lame argument that the energy of empty space must be zero after the frothiness cancels out (although perhaps it does). Cryptically, a few pages later, he asserts that the missing energy must be not in the form of any matter but empty space (p. 75), so I will disregard his lame argument.

Krauss explains why the universe is flat using Guth's inflation theory, which says that very early in its existence, the universe underwent a phase transition that led it to increase a trillion-fold in size in almost time (space can expand faster than the speed of light, although nothing in a give space can travel faster than the speed of light). Whatever small amounts of curvature were present at the inflation point would be obliterated by the inflation process. Therefore the universe is flat.

Here is Krauss's main point: "Including the effects of gravity in thinking about the universe allows objects to have... "negative" as well as "positive" engery....gravity can start out with an empty universe---and end up with a filled one." (p.99) This is because the conservation of energy allows for offsetting

positive and negative energy. This seems like nothing new to me, and hardly a revelation. Electron-positron pairs are created from nothing and can go their own ways, so matter can be created from nothing.

This is where Krauss's theology/metaphysics comes in. Because the universe could have been created from nothing (quantum fluctuation, empty space),there is no need to posit a Creator. But, the theologian will ask, who created the rules according to which the Big Bang was regulated? Krauss has no answer, except to say (a) there might be lots of different rules for different universes, and (b) if you are going to posit an eternal preexisting Creator, you are no better off that simply positing the eternal and preexisting laws of physics. But Krauss is wrong. When one posits a Creator, one is admitting that one's knowledge has limits, and there are higher orders of knowledge that are inaccessible to mere human intellect. We do not know anything about the realms of being of the Creator or Creators, but we believe they must exist beyond the limits of our understanding. Our reason for believing this is that we experience possessing forms of knowledge inaccessible to other species (amoebae, mushrooms,field mice, Capuchin monkeys, German Shepards, chimpanzees, and such). It would be completely arbitrary to claim there is no realm of intellect beyond ourse. Simply positing the eternality of the laws of physics is, in comparison, an unsatisfying alternative.

Here is Krauss's faith: "Without science, everything is a miracle. With science, there remains the possibility that nothing is." (p. 183) I maintain that this is very likely incorrect, and hardly the basis for a firm metaphysics.

Wired for culture *by Mark D. Pagel*

A Beautiful Contribution with an Untenable Theory of Human Cooperation — Rating: 4/5

When one thinks of theories of culture, the humanities come to mind, as well as disciplines like soicology and anthropology. Mark Pagel is a population biologist who has developed new and creative directions in estimating phylogenetic trees from highly spotty data, using phylogenetic trees using Bayesian Markov process and related methods. What is he doing writing a book on human culture? Well, it turns out that biologists have developed much better models of cultural evolution than sociologists or anthropologists, and it is a crime and a scandal that the latter displines do not simply take over wholecloth the body of research created by evolutionary population biologists and animal behavior theorists.

The basis for the biological approach to culture is to note that culture is information passed from one generation to the next, just as genes are information (coded in DNA strands in our chromosomes) that do the same thing. Indeed, both genes and culture evolve by very similar mechanisms: replication, mutation, and selection. This is by far the most important point to keep in mind in trying to understand human culture and its contribution to the life of our species. Pagels does a very clear, elegant, and creative job in conveying this message even to readers who have never though more about biology than that involves dissecting frogs. Whenever a biological topic comes up, Pagel takes the time to explain the issue clearly and completely non-pedantically, often refering to analogies from music and the movies to make his points clear.

There is a second absolutely central connection between genes and culture: they mutually interact in the two million year history of the emergence of proto-humans and their transformation into Homo sapiens. The connection is called gene-culture coevolution. This term expresses the fact that once culture becomes an important part of our ancestors' lifes (I will call these ancestors hominids), through both tool-making and other forms of technology, as well as through initiating new forms of social interaction, culture determines who gets to reproduce and who does not. Thus in the long run culture produces genes and genes go on to produce new cultural forms. Moreover, both the genes and the culture are constantly subject to evolutionary pressure: a cultural form persists in the long run, just as a gene persists in the long run, only if it enhances the fitness of the individuals in which it resides. Indeed, the very title of the book "Wired for Culture" is a poetic way to express this deep insight.

Curiously, perhaps because it involves a lot of fairly heavy theorizing, Pagel does not present the models that validate gene-culture coevolution, and the biologists who pioneered this approach, including E. O. Wilson, Luca Cavalli-Sforza, Marcus Feldmean, Peter Richerson, Robert Boyd and others, are barely mentioned in the book, and when they are mentioned, it is for other things. I wish Pagel would turn his immense expository and literary talent to presenting this body of research to the general public. It is immensely exciting. Pagel suffices with nicely stated but rather cryptic statements like "To make our societies work, we had to acquire the social and psychological systems that would somehow overcome and tame selfish instincts born of millions of years of evolution by natural selection to cheat, exploit, dupe, and even murder one's rivals. The solution was simple in principle but profound in its effects: natural selection found ways that made it possible for individuals to align their interests with those of their group." (p, 72) Pagel summarizes these human propensities by saying that "Humans seem to be equipped with emotions that encourage us to treat others in our societies as if they were 'honorary relatives.'" (p. 81) He calls the underlying cultural forces "cultural altruism."

I heartily recommend this book to novice and seasoned professional alike---the former because he or she will learn much about our species, and the latter because they will learn how to present difficult material in an exciting and literary way without dumbing down the message. However, I do have a major bone to pick with Pagel: he apparently learned all of his cultural biology in the period before gene-culture coevolution in the 1980's, at the hands of the great innovators Richard Dawkins, William Hamilton, Richard Alexander, and Robert Trivers. These were the leading lights in the field when I came to the subject in 1990, but I quickly saw the limitations of their basic models, and got on the Feldman-Boyd-Cavalli-Sforza-Richerson bandwagon, and never got off. So perhaps the reader will indulge me while I express why the old theory has limitations and why our new approach is an important revision of the received wisdom.

Pagel summarizes his argument toward the end of the book as follows: "The fundamental feature of human societies is our cooperation...This cooperation depends upon meeting people repeatedly and on knowing others' reputations." (p. 364) This is of course the reciprocal altruism theory that Robert Trivers developed in a famous 1971 article. And of course, it is quite true that repeated interaction and reputation formation are very important parts of human social behavior and account for a lot of our success as cooperators. Interestingly, Trivers thought that this mechanism would apply to other animals as well (consider the famous cases of mutual grooming in simians and blood sharing of vampire bats), but it turns out that this is not the case. There are almost no confirmed case of cooperation in a non-human species based on reputation and reciprocal helping of the tit-for-tat variety. So it is at least possible that this account fully for human cooperation. But it does not.

According to the reputation theory of cooperation, people acquire a good reputation by exhibiting concerned citizenship, and others prefer to make alliances and transact with "good citizens." Why this preference for civic-minded transactors? The explanation is that such individuals are

likely to be following a long-term strategy of behaving honestly, loyally, and in a trustworthy manner, whether in public or private life. Therefore self-regarding individuals will behave as good citizens, at least when others are looking.

The problem with the reputation theory is that humans behave morally even when no one is watching. If people only cared about reputations, they would rob, rape, and steal as long as they were assured that no one is looking. Moreover, we would teach our kids to do exactly this! But few parents counsel their children in such manner. Probably none of us has ever heard our parents advise us "Now, Johnny, if you see an old lady in an alley or an otherwise empty appartment, knock her out and take her handbag." Moreover, if Pagel were right, we could never ask directions from strangers. Perhaps more importantly, all of modern democracy depends on people acting prosocially even when this is costly. In large democratic elections, the reputation-minded individual will not vote because the costs of voting are positive and significant, but the probability that one vote will alter the outcome of the election is vanishingly small. Nor is there a reputation effect. In fact, almost no one cares whether one's friends, business partners, or tradespeople vote. When one asks the bank for a loan, or when one applies for a job, one is not asked whether one votes. And if asked, one could simply simply lie and say that one voted when in fact one did not, because individual voter behavior is not public information. An individual with a morbid fear of getting caught lying (by it being documented, for instance, that he did not appear at the

polling place on election day), could go to the voting booth, but would have no reason to fill out the voting form at all, or in any particular way, as it is costly to spend one's time putting little marks on a sheet of paper, and the voter's choices cannot be traced to the voter himself in secret ballot

elections. Thus the personal gain from voting is also vanishingly small. For similar reasons, if one chooses to vote, there is no plausible reason to vote on the basis of the impact of the outcome of the election on one's fitness or material circumstances. It follows also that the average voter will not bother to form opinions on political issues, because these opinions cannot affect the outcome of elections. Yet people do vote, and many do expend time and energy in forming political opinions. This behavior does not conform to the reputation model, because not being political does tarnish one's reputation. Some people are political and others are not. It is a short step from the irrefutable logic of reputation-based political behavior that selfish individuals who only sacrifice when it can help their reputation will not participate in the sort of collective actions that are responsible for the growth in the world of representative and democratic governance, the respect for civil liberties, the rights of minorities and women in public life, and the like.

Yet we have such political institutions and they are the result to a significant degree of such collective actions. This behavior also does not conform to the reputation model, unless you want to believe that all the heroes who have fought and sacrificed for our freedom and dignity were just enhancing their reputations. Personally, I think the idea is absurd.

Doubtless because Pagel believes humans are inherently selfish and cooperate only because it worthwhile having a reputation he also subscribes towards the end of the book to the so-called Machiavelian hypothesis, which purports to explain the large, highly costly brains that we have by the fact that smart people can outwit dumb people, so there was an "arms race" among early hominids where the weapon was the conniving, scheming social brain. Pagel is very insightful and persuasive in claiming that humans are excellent deceivers, excellent sleuths at uncovering deception, and smart people can do it better than stupid people. However, this is a crazy explanation of human intelligence is one posits, and Pagel does, that humans evolved because they are first-rate cooperators. If the main purpose of intelligent were to dupe your neighbor and avoid being duped by him, hominid groups and species with small brains would have beat out groups and species with large brains because the small-brained hominid would have dramatically lower costs of brain mainenance. Note that it is the large human brain that required humans to be born way before they are mature (neoteny), which caused a reorganization of the female pelvis and led to very long periods of infant dependence. The notion that you can explain this in terms of Machiavellianism is just bizarre.

The alternative to the reputation theory is that humans evolved substantive morality in the course of our evolution as a species, and developed a cultural system that was extremely inhospitable to sociopaths who are nice only when others are looking, and are depraved maniacs otherwise. Of course, sociopaths are still among us, but they are a small minority. For two recent contributions to this line of research, see my book with Samuel Bowles, A Cooperative Species (Princeton 2011) and Ghristopher Boehm's forthcoming book Moral Origins (Basic Books 2012), as well as the various writings of our coauthors Robert Boyd and Peter Richerson.

Pagel's venture into paleoanthropology is one of the strong points of this book. If you know nothing about it or think the subject is boring (find a tooth and conjure up a whole new species...) you will learn much form Pagel. However, I want to add a few general points, especially concerning the role of tools and weapons in our evolution. Our primate ancestors evolved a complex

sociopolitical order based on a social dominance hierarchy in multi-male/multi-female groups. In these societies, the alpha male had no positive role in contributing to the group, but rather was a despot relying on physical strength and careful coalition-building to corner the largest possible part of the group's efforts, both in nourishment and reproduction. The emergence of bipedalism in the hominid line, together with environmental developments that made a diet of megafauna fitness

enhancing under conditions rapid climate change, created a niche for hominids in which there was a high return to coordinated, cooperative, and competitive scavenging. This in turn led to the use of stones and spears as lethal weapons, and thence to the reorganization of the upper torso, shoulders, arms and hands to maximize the effectiveness of these weapons, as well as the growth of new neural circuitry allowing the rapid sequencing of bodily movements required for accurate weapon

deployment.

The availability of lethal weapons in early hominid society undermined the standard social dominance hierarchy, thus threatening social dissolution, as the hominid niche required sophisticated coordination of hunting activities and procedures for the peaceful sharing of the meat. Two successful sociopolitical structures arose to prevent this dissolution and to enhance the flexibility and efficiency of social cooperation in hominids. The first was the reverse dominance hierarchy, which replaced pure power and Machiavellian coalition formation with political system in which success depended on ability to persuade and motivate. The second was cooperative

mothering, which provided a strong impetus towards prosocial psychological propensities. This system persisted until cultural changes in the Holocene fostered new patterns of economic activity, in which it became possible again, as did our primate ancestors, to sustain a social dominance hierarchy, this time in the form of a predatory state.

This scenario has important implications for political theory and social policy, for it suggests that humans are predisposed to seek dominance when this is and not excessively costly, but also is predisposed to form coalitions to depose and dispose of pretenders to power. Moreover, humans are much more capable of forming powerful and sustainable coalitions than other primates, due to our enhanced cooperative psychological propensities. This, of course, is a defense of liberal democracy, but it is based not on political philosophy, but rather on the facts of our evolution.

I am not asserting the inevitable triumph of liberal democratic over despotic politics. The open society will always be threatened by the forces of despotism, and a technology could easily arise that irremediably places democracy on the defensive. The future of politics in our species could well be something akin to George Orwell's 1984, or Aldous Huxley's Brave New World.

I am certain Pagel can defend himself ably against my critique (I have heard him do so, although I am certainly not convinced---I believe he would do better to learn a little standard sociology and social psychology), but would have been useful for the reader to get the whole picture as it stands today and not simply a highly valuable statement of a possibly superannuated theory.

Fragments of an anarchist anthropology *by David Graeber*

I'll wait for the David Potter movie version — Rating: 4/5

James Woodburn ("Egalitarian Societies", Man 17,3 (1982):431-451) offers the following general description of a large number of extant hunter-gatherer societies: "Social groupings are flexible and constantly changing in composition...People are not dependent on specific other people for access to basic requirements" and "relationships between people, whether relationships of kinship or other relationships, stress sharing and mutuality but do not involve long-term binding commitments and dependencies." (p. 434) These societies, he suggests, are "profoundly egalitarian... [they] systematically eliminate distinctions--other than those between the sexes--of wealth, of power and of status... relationships between men and women are quite variable in these societies, although in all of them women have far more independence than is usual in [modern societies]."

Christopher Boehm concurs with Woodburn in his famous book Hierarchy in the Forest (2000). He observes that we humans share with other primates the striving for hierarchical power, but hunter-gatherers successfully countered the dominance aspirations of "bullies" by what he calls "reverse dominance hierarchy." By this he means that hunter-gatherers do not accept being controlled by an alpha-male, and are extremely sensitive to attempts of group members to accumulate power. When an individual appears to be stepping out of line by threatening or killing group members, he will be warned and punished. If this behavior continues and he cannot be ostracized, the group will delegate one or more members (usually including at least one close relative of the offender) to kill him. Boehm's message in Hierarchy in the Forest is that "egalitarianism...involves a very special type of hierarchy, a curious type that is based on antihierarchical feelings" and that we are genetically predisposed to exhibit these antihierarchical feels, because individuals with excessively pro-hierarchical feelings have tended to be underrepresented in the gene pool through the process of reverse dominance hierarchy.

These societies are anthropologist David Graeber's inspiration for this short and engaging book on the possibilities for an anarchist society. "The basic principles of anarchism---self-organization, voluntary association, mutual aid," he correctly asserts, are "forms of human behavior [that have] been around as about as long as humanity." (p. 3) Moreover, he suggests that we can go back to older and simpler forms of social organization: "The West may have introduced some new possibilities, but it hasn't canceled any of the old ones out." (p. 51)

What Graeber does not tell us is that the highly egalitarian societies of which he approves are virtually universally "immediate-return" societies. In immediate return societies group members obtain direct return from their labor in hunting and gathering, with food lasting at most a few days. The tools and weapons they use are highly portable. The alternative to immediate-return societies are "delayed return" societies in which the group recognizes that individuals hold rights over some sorts of valuable assets. The main types of such assets are valuable means of production, such as boats, nets, and beehives, processed and stored food or materials, and herds of animals. In delayed-return societies this egalitarianism gives way to highly inegalitarian forms of social stratification akin to those in modern societies: lineages, clans, chiefdoms and the like.

As commentator mtraven pointed out to me, Graeber does touch on this issue, as follows;

"There have been all sorts of successful experiments: experiments with worker's self-management, like Mondragon; economic projects based on the idea of the gift economy, like Linux; all sorts of political organizations based on consensus and direct democracy..."

However, these experiments have being going on for more than a century and have never amounted to more than a blip on the economic charts. Linux, Mozilla Foxfire and other voluntary contribution software initiatives have become megolith profit-maximizing firms. Except for a few outliers, like the Apache server and Aptana Studio, professional software developers use commercial software. Worker self-management, which I championed for many years, only works in firms with very low capital per head (such as law firms) or where the capital is extremely marketable (such as airlines) and where the degree of differentiation of the work force is very low. Moreover, successful worker-owned firms hire labor in the second generation and become capitalist owners themselves. All this is well described in the literature.

I am not sure exactly why delayed-return societies have been able to overcome the innate egalitarian morality of which Graeber is so wistfully fond. Most likely the basis for egalitarianism in hunter-gatherer groups with lethal weapons (knives, spears, poisoned arrows, and the like) is the ability of any man to kill any other, if only by taking him by surprise or in his sleep. This capacity, by the way, is completely lacking in other primate species, which therefore rather prefer either solitary life or a social dominancy hierarchy with an alpha-male who rules by virtue of force alone. In delayed-return societies, there are forms of wealth that an aspiring despot can use to forge durable alliances protecting him from the masses whom he exploits.

My conclusion is that only delayed-return societies can support a high level of material well-being, and such societies have the military power to control or marginalize any immediate-return society that might arise. Even if all societies magically became egalitarian and stateless, a mutant with an eye towards exploiting the weak could use delayed-return techniques to grow and eventually control and supplant egalitarian immediate-return societies.

Anarchism is thus anachronistic, except for a small group of people who want to opt out of the world system and live in its social interstices. This does not mean that one cannot be an egalitarian. Indeed, the rise of liberal democratic capitalism and representative government have shifted the balance of power, even in delayed-return societies, to the masses---at least by contrast with the despotic and corrupt systems in the poor countries of the world today, and by equally strong contrast with the despotic and totalitarian systems of the past.

The anarchists are disillusioned with liberal democratic capitalism because it is so unequal, and it leave so much poverty to itself while the rich and privileged wallow in obscene luxury. In fact, the only corrective for this situation is more democracy and more control over the aspirations of despots.

The history of freedom is indeed U-shaped.. Our immediate-return hunter-gatherer ancestors were dignified and free, but life still was nasty, brutish and short. With the rise of delayed-return societies

(agriculture, settled trade, bureaucratic state institutions), social dominance hierarchy was reestablished, but the democratic collective action of the masses of subjects since the mid-eighteenth century has turned the tide in favor of democracy and welfare-state capitalism.

Evolutionary history *by Edmund Russell*

Elementary Initiation into Evolutionary Theory — Rating: 3/5

If you don't know anything about evolutionary biology or Darwinian theory as applied to humans, this is a very nice place to start (5 stars for this audience). If you do know evolutionary theory but want to find out how it applied to history a discipline, there is one relevant chapter, but mostly the book will be a waste of time.

Perhaps a quote from the Conclusion (p. 151) says it all: "I hope this book has convinced you of five ideas. First, evolution is ubiquitous. Second, people have shaped the evolution of populations of human and non-human societies. Third, anthropogenic evolution has shaped human as well as natural history. Forth, human and non-human populations have coevolved... And fifth, uniting the insights of history and biology in evolutionary history enables us to understand the past more fully than either discipline does alone."

Keynes Hayek *by Nicholas Wapshott*

Entertaining but Over-Interpreted — Rating: 3/5

This book is quite nicely written and has little trouble engaging the attention of the reader. The two eminent economists certainly had extremely divergent ideas, Keynes representing modern liberal interventionist social policy, and Hayek representing the classical laissez-faire position so characteristic of the Austrian school. The problem with the book is that the two figures really did not much interact, either in words or in real life, and each was preoccupied with a major battle that did not involve the other. Keynes' polemic was against the received wisdom in British and American economics, which held that economic downturns are self-correcting, provided the monetary authority maintained the value of the currency and did not run exorbitant deficits. Of course the Austrian school believed this too, but this school was practically unknown in Anglo-American circles. Hayek was concerned with business cycle theory, but his contributions were exceeding arcane and unpersuasive. Rather, Hayek was the dedicated enemy of central planning of the state socialist variety.

Hayek's major clash with the socialists occurred in the mid-1930's in the so-called economic calculation debates with the market socialists, most notably Oskar Lange. The market socialists clearly won this debate, in which all parties assumed the validity of neoclassical economic theory. Curiously, the great Josef Schumpeter concluded that socialism was inevitable (he develops this theme in Capitalism, Socialism, and Democracy, 1942), while Hayek concludes (correctly) that it is neoclassical theory that is wrong. Hayek spent the next decade developing his own extremely cogent critique of central planning, writing his most important article: F. A. Hayek, "The Use of Knowledge in Society", American Economic Review 35,4 (1945):519-530. This is one of the greatest pieces of economic analysis of all time.

The Road to Serfdom, which Wapshott interprets as a diatribe against the Keynesians, is to my mind nothing of the kind. Rather it is a "slippery slope" argument against centralized socialist planning.

I think the world of both Keynes and Hayek, the former as a wise practitioner whose economic theory is completely ridiculous (it took Hicks, Samuelson, and other serious economists to "make sense" of Keynes' impenetrable prose---"make sense" not by clarification of Keynes' ideas, but rather by offering an alternative analytical framework in which underemployment equilibrium is possible), and the latter as brilliant intellectual who was almost destroyed (despite his Nobel prize) by his adherence to the bizarre and irrelevant doctrines of the Austrian school, whose economic theory was dogmatically dictated by its paranoid fear of state intervention.

Read this for fun, dear reader, the same way you read People magazine. Don't think you will get some deep insights in the the nature of modern political economy. You won't.

The Genial Gene *by Joan Roughgarden*

Over the Top, but Some Very Good Ideas — Rating: 4/5

Darwin believed that there are two kinds of biological selection, natural selection and sexual selection. Natural selection is for traits that confer success the individual's battle with predators and search for prey. Sexual selection is for traits that increase an individual's chance for successful mating. Darwin was particularly struck by the fact that some traits that clearly have fitness costs in the natural selection setting seem to have fitness benefits in the sexual selection setting. For instance, the peacock's gorgeous and abundant plumage is costly to produce and renders the bird vulnerable to predators but desirable to peahens.

The issue of sexual selection was especially important to Darwin because natural selection alone appears unable to explain central characteristics of human beings. For instance, hunter-gatherer tribes rarely have languages in which counting uses numbers beyond one, two, and three, yet humans are capable of prodigious mathematical feats. More generally, of what possible survival value is there in a brain that is extremely costly to maintain, much of whose power is used in singing, dancing, creating art and music, and in other tasks far removed from the daily grind of self-preservation? Lord Russel Wallace chided Darwin at length for maintaining that humans are subject to the same biological laws as other species, and urged him to recognize the intervention of a Divine hand in the creation of our species. Darwin used sexual selection to answer Lord Wallace, saying "He who admits the principle of sexual selection will be led to the remarkable conclusion that the nervous system not only regulates most of the existing function of the body, but has indirectly influenced the progressive development of various bodily structures and of certain mental qualities. Courage, pugnacity, perseverance strength and size of body, weapons of all kinds, musical organs, both vocal and instrumental, bright colours and ornamental appendages, have all be indirectly gained by the one sex or the other, through the exertion of choice, the influence of love and jealousy, and the appreciation of the beautiful in sound, colour or form, and these powers of mind manifestly depend on the development of the brain." Darwin (1879, p. 687.)

Concerning singing and language, Darwin was even more insistent on the importance of sexual selection: "some early progenitor of man probably first used his voice in producing true musical cadences, that is singing, as do some of the gibbon-apes at the present day; and we may conclude from a widely-spread analogy, that this power would have been especially exerted during the courtship of the sexes." Darwin (1879, p. 109)

The mechanism for sexual selection for male traits was outlined by Darwin as follows. A female mutant prefers a certain male ornament, and preferentially mates with males with that ornament. Her female offspring inherit her taste for the ornament, and her male offspring inherit the ornament. Thus this preferential mating scheme is perpetrated in to the next, and all succeeding, generations. Called "runaway selection," this dynamic was analytically specified by the great Ronald Fisher, and there are currently several models of this type in the literature. This is the model of sexual selection, characterized by coy females who instigate intense competition of males for her favors, the males having no role in the sustenance of their offspring and hence of no value except reproductive value, that Roughgarden says is wrong. It its place, Roughgarden proposes a dynamic of "social selection," in which males and females cooperate harmoniously in nurturing and raising their young. Her great example is nesting birds, who work furiously and jointly to tend to their young. Males and females in nesting species both care about the quality of their partners, including not only their ability to compete in reproducing, but also foraging, defending, and provisioning a nest.

Joan Roughgarden is a very famous and accomplished biologist. In recent years, however, she has turned to a virulent form of ideological conflict-aversion that greatly interferes with her ability to get her (important) message across. It is typical of scientists to build on the successes of previous generations (Newton claimed that "if I have seen further, it is by standing on the shoulders of giants"). Roughgarden will have nothing of this. Traditional population biology is incurably infected with patriarchal bias, and

must be swept away. The truth for Roughgarden is simply the opposite of the traditional theory; whence the title of the book, in contrast with Richard Dawkins' famous The Selfish Gene. In fact, both conflict and cooperation, as well as selfish and altruistic behavior, are inextricably intertwined aspects of the behavior of many vertebrate species, and the contemporary task is to augment and not simply deny traditional population biology.

Social selection is, as Roughgarden asserts, the more general category of which sexual selection is a subcategory. What is social selection (this is my story---Roughgarden may consider me an enemy, for all I know, but mine is the true story, I assert)? Every sexually reproducing species in which members interact in frequent and routine ways develop standardized patterns of interaction that involved both conflict and cooperation. These patterns are built into their genes and take the form of standardized structures and standardized behaviors. Structural standardization is called "niche-construction," and accounts for the beaver dam, the termite mound, the beehive and so on. See, for instance, Kevin N. Laland, F. John Odling-Smee and Marcus W. Feldman, "Evolutionary Consequences of Niche Construction and Their Implications for Ecology", Proceedings of the National Academy of Sciences 96 (1999):10242-10247; Kevin N. Laland, F. John Odling-Smee and Marcus W. Feldman, "Group Selection: A Niche Construction Perspective", Journal of Consciousness Studies 7,1/2 (2000):221-224; Kevin N. Laland and Marcus W. Feldman, Niche Construction (Princeton: Princeton University Press, 2004); F. John Odling-Smee, Kevin N. Laland and Marcus W. Feldman, Niche Construction: The Neglected Process in Evolution (Princeton: Princeton University Press, 2003). The importance of standardized structures is that these structures then become the environment within which the species evolves. This process is perhaps most dramatic in humans, for whom production techniques and their related cultural forms become the basis for further genetic evolution. This is the so-called gene-culture coevolution. See, for instance, Robin M. Dunbar, "Coevolution of Neocortical Size, Group Size and Language in Humans", Behavioral and Brain Sciences 16,4 (1993):681-735; William H. Durham, Coevolution: Genes, Culture, and Human Diversity (Stanford: Stanford University Press, 1991); Herbert Gintis, "Gene-culture Coevolution and the Nature of Human Sociality", Proceedings of the Royal Society B 366 (2011):878-888; Robert Boyd and Peter J. Richerson, Culture and the Evolutionary Process (Chicago: University of Chicago Press, 1985).

The social behavior side of social selection is much less well developed that the social institutional side, but it includes the typical pattern of male-female mating and care of offspring, as well as the pattern of mate characteristics typical of males and females of that species. Darwin could only think of fitness-reducing characteristics, such as the peacock's feathers, or the attractive female's physical weakness and fragility. But in fact, the characteristics of social selection develop according to the laws of natural selection, just as every other aspect of the constitution of a species. Moreover, it has been recognized for many years that the runaway selection model favored by Darwin and Fisher is not mathematically tenable (see my analysis in Game Theory Evolving (Princeton: Princeton University Press, 2009). The widely preferred theory is the costly signaling theory of Amotz Zahavi and William Hamilton (see Amotz Zahavi, "Mate Selection---A Selection for Handicap", Journal of Theoretical Biology 53 (1975):205-214; Amotz Zahavi and Avishay Zahavi, The Handicap Principle: A Missing Piece of Darwin's Puzzle (New York: Oxford University Press, 1997); William D. Hamilton and M. Zuk, "Heritable True Fitness and Bright Birds: a Role for Parasites?", Science 218 (1982):384-387). Costly signaling theory nicely embraces the dual conflict/cooperation nature of social interaction.

According to the handicap principle, females are indeed choosy, but they choose mates who have "good genes" and hence will contribute to hearty offspring. For instance, a peacock with a heavy parasitic load does not have the resources to produce beautiful plumage. A female does well to choose a mate with light parasitic load, because her offspring will inherit the immunity to pests enjoyed by her mate. To make a long story short, virtually every case of female choice is an instance of costly signaling. Female choice is thus fitness enhancing and evolves by natural selection. Of course, there are times when the cues used by the female as a signal of mate fitness are imperfect signals and can be exploited by males for their own reproductive ends. But in general we can expect mate choice and cooperation in rearing offspring to an intimate aspect of the fitness of a species, and that the strategic interaction of mates will be some pattern of cooperation and competition, as is the case of all cooperative enterprises (see Samuel Bowles and Herbert Gintis, A Cooperative Species: Human Reciprocity and its Evolution (Princeton: Princeton University Press, 2011).

Where does Roughgarden stand on all this? First, she completely rejects costly signaling theory, reciting its failures but not its successes. This is quite disingenuous; Roughgarden's social selection hypothesis is immeasurably strengthened when seen as extending and correcting costly signaling theory. Moreover, costly signaling theory does support some of traditional sexual selection theory, while contradicting other parts of the theory. Similarly, Roughgarden cannot give a cogent explanation of social selection theory because it in fact sometimes supports traditional sexual selection and sometimes does not.

This book is thus very frustrating. There is virtually no chance Roughgarden's message will be accepted by traditional population biologists because they will not get beyond her whole-cloth rejection of classical sexual selection. The layman will see the morality play of the good guys (Roughgarden and allies) against the bad guys (supporters of conflict/competition theories of all types), but they will be confused by the mass of evidence, only half of which supports her position. This book is aching to be rewritten from a balanced perspective.

Schrödinger's rabbits *by Colin Bruce*

Spirited Defense of an Implausible Idea — Rating: 3/5

In the nineteenth and early twentieth centuries, many natural philosophers believed that the laws of the Universe could be derived from Reason. For instance, Galilean invariance gave us Newton's Laws, and similar invariance conditions give rise to special and general relativity. Quantum mechanics changed all that because many quantum mechanical phenomena violate one or more 'reasonable' assumptions, such as the impossibility of action at a distance. This is really why Einstein never accepted quantum mechanics as more than a provisional theory.

It is tempting to be dismissive of quantum mechanics because it only deals with phenomena at extremely sub-microscopic dimensions, and classical mechanics and electrodynamics can get alone without it perfectly well at 'human' dimensions. Both reasons are faulty. First, quantum mechanics explains quantum tunneling, which is central to solid state devices such as transistors, and more generally, quantum effects can be amplified without difficulty to the human level (this is the famous Schrödinger's Cat problem, to which the title of the book alludes. Second, there are deep antinomies in classical electromagnetic theory, including the prediction that the energy in blackbody radiation goes to infinity as the wavelength of the energy goes to zero.

There are many strange and beautiful quantum phenomena. Perhaps the two most famous are wave/particle duality and entanglement. Wave-particle duality is well illustrated by the famous two-slit experiment. Photons are directed towards an absorbing wall with two vertical slits some macroscopic distant apart. The few photons that go through one of the slits hit a clear photographic film that records the absorption of the photon by coloring the impact point black. If photons are particles, there should be two widely separated masses of black dots whose location can be calculated using simple geometry. If photons are waves (like waves in a pond), it is not hard to show that there should be alternating bands of light and dark on the photographic plate, corresponding the interference pattern of the two parts of the wave that pass through the distinct slits. If you do this experiment, photons act wave-like. However, if you measure the passage of the photon through a slit, you always find it went through either one or the other, but not partly through both. This shows the photon is a particle. Moreover, if you can measure which slit the photon went through, the interference patter on the plate disappears, and the photon leave a black spot on the plate.

Early interpreters of this weir phenomenon argued that by measuring the photon, you interfered with its normal path, as explained by classical signaling theory, so the phenomenon is just poor experimental design. For a variety of reasons that you can read about, this explanation is faulty. The widely accepted explanation (the so-called Copenhagen theory, named after Neils Bohr) is that the photon is indeed a wave, as described by Schrödinger's famous equation or Planck's relativistic version. These equations describe not where the photon is, but rather a probability distribution over its possible locations. When observed, the wave 'collapses' to a particular location, the location being proportion to its relative probability.

This experiment and its interpretation calls into question the nature of objectivity and subjectivity in a highly radical form. What does it mean to be 'observed'? By whom? What if it is 'observed' by a machine and you do not have access to the machine's memory? The two-slit and related experiments, as explained by the Copenhagen school, simply divides reality in to nature plus observer, where observer means a human or an instrument that can be read and recorded, accessible to a human. This is fine for all practical purposes, because that's how we humans do science. But its ontological status is highly compromised.

A second weird phenomenon involves 'entanglement.' Electrons have 'spin,' which when measured in any direction, is either 'up' or 'down.' When electrons are generated in pairs, they may be entangled in the sense that after they are separated, if one measures 'up' in a particular direction, the other must measure 'down.' However the state of spin is a probability distribution that collapses to a particular up or down when you measure it. Suppose the entangled electrons move apart until they are a light-second apart, and then the spin of one is measured in some direction. Then immediately, not a second later, the other measures the opposite direction. This is not a relativistic time effect, and it has been repeatedly verified in the laboratory. It is called a violation of locality.

Einstein and his colleagues Podolsky and Rosen (1935) used a similar argument to show that there must be something wrong with quantum mechanics, but it turns out that that is just the way the world works, like it or not.

Most physicists do not care why quantum mechanics works the way it does, but some do, and many of those think that there must be a better model that the Copenhagen collapse theory. One is the Many Worlds Interpretation (MMI), which Bruce explains and defends in this book. The MMI says that whenever there appears to be a collapse of the quantum wave, the Universe really branches into a large number of alternative Universes, side-by-side, each of which captures one of the possible states. So, for instance, if you set up an apparatus that kills you if a certain photon is measured as having spin up, and does nothing if the spin is down. Then the whole Universe splits into two Universes, in the first of which you are alive and the other of which you are dead.

This theory does explain most of the queerness of quantum mechanics, and it could be true. But there is no evidence that it is true. Nor has anyone ever suggested an experiment that would determine its truth value (Bruce suggests some possibilities, but they are far-fetched). Moreover, the theory itself is completely outlandish, far weirder than the phenomenon it is supposed to explain. The fact is that reading this and other attempts to explain quantum weirdness are fun and challenging intellectually, but their real value is virtually zero. When someone tells me he believes a version of the MWI, I treat the person the same as if they told me they believed in transubstantiation or the tooth fairy.

Nevertheless, quantum mechanics is certainly not a "true" theory, if only because it makes no room for gravity. The string and quantum gravity theorists attempt to repair this fault, but they produce theories that are as yet untested, although possibly testable.

But I think there is a deeper problem. Quantum mechanics represents a particle (e.g., a photon) as a point in Hilbert space, which is an infinite dimensional vector space. I don't believe there are `real' infinities, and hence this representation must be an approximation of the true, finite, model. We should be looking at finite or countable models of particle physics, not hugely overpopulated continuous models. Richard Feynman registered his discomfort with nonconstructible, continuous models, in the following words (quoted by Bruce, p. 242): "It always bothers me that, according to the laws as we understand them today, it takes a computing machine an infinite number of operations to figure out what goes on in no matter how tiny a region of space, and no matter how tiny a region of time..." I have often make the hypothesis that ultimately physics will not require a mathematical statement, that in the end the machinery will be revealed, and the laws will turn out to be simple, like the checkerboard with all its apparent complexities."

I realize many readers will not share my skepticism concerning infinite models. But they should, because it is the only reasonable position. Countable models are fine, because we can attain any element of a countable model in finite time. But uncountable models are just a useful human construct, probably not corresponding to anything real in the world. At any rate, reading Bruce's book conjures up all sorts of cute ideas that are fun to think about while taking a break from the real world.

A Random Walk Down Wall Street *by Burton Gordon Malkiel*

The First and the Best — Rating: 5/5

I can't add much to the many positive and insightful reviews of this book.

Here, however, is an example of the savings from using low-cost mutual funds (point 3 above). Suppose you put $1000 every year for 30 years into stocks. The average rate of return, historically, is about 8.6%, so if there are not brokers' fees, you would have $138,420 at the end of 30 years. With yearly brokers' fees of 1.15% (the industry average), you end up with $103,890 after 30 years, which means the brokers get 25% of the total. Moreover, had you invested in Treasury bills for the same period, you would have earned about $55,000, so the total increase in your wealth from using the broker is $103,420 - $55,000 = $48,420. of which the broker gets $34,530, or 70% of the net gain from using the broker.

When you buy domestic index mutual funds, you need never pay more than one fifth of one percent in overhead per year. International mutual funds, you will have to violate this rule, however. At this rate, after 30 years you will have $134,447 and the broker will earn $3,972, or about 5% of the net gain from using the broker.

Cultural evolution *by Alex Mesoudi*

Great on Cultural Evolution, Awful on Synthesizing the Social Sciences — Rating: 4/5

When I began thinking about an evolutionary approach to culture, in about the year 1993, there were perhaps a half dozen people working in the field. The major works were Luigi Luca Cavalli-Sforza and Marcus W. Feldman, Cultural Transmission and Evolution (Princeton: Princeton University Press, 1981), who also published a dozen first-rate papers on the subject between 1973 and 1985, as well as Robert Boyd and Peter J. Richerson, Culture and the Evolutionary Process (Chicago: University of Chicago Press, 1985), which was considerably broader and came from an anthropological rather than biological perspective, and William H. Durham, Coevolution: Genes, Culture, and Human Diversity (Stanford: Stanford University Press, 1991). Mesoudi's book is a testament to the explosion of theoretical and empirical material on cultural evolution.

Mesoudi's treatment is fastidious yet relaxed. There are many definitions of culture, and different definitions are appropriate for different purposes. Mesoudi's definition of culture is perfectly suited to a population biology approach: "culture is information that is acquired from other individuals via social transmission mechanisms such as imitation, teaching, or language." (p 2) Other definitions of culture, I believe, are either subcategories of Mesoudi's definition or are analytically meaningless. The definition's power draws from the analogy with genetic evolution. We know that genes are sequences of DNA base pairs, which are simply chemically encoded digital information for protein building. Genetic inheritance is thus information transfer from parents to offspring. Cultural inheritance is broader, including vertical transmission from parents to offspring, horizontal transmission from peer to peer, and oblique transmission from non-parental elders to youth (e.g., religious and technical instruction).

Charles Darwin, William James, and many others prior to Cavalli-Sforza and Feldman commented on similarities in the dynamics of genes and culture. Genetic evolution is based on the fact, as Mesoudi explains in Chapter 2, that genes can make accurate copies of themselves (reproduction, inheritance), but there are continual mutations that introduce variety in the gene pool (mutation, variation), and genes must compete for the ability to reproduce (selection, completion). The same is true for culture. Mesoudi carefully examines the strength of the analogy between genes and culture, never pushing it beyond what appears reasonable given our empirical information.

The basic analytical expression of Darwin's principle of survival of the fittest is the so-called replicator equation in dynamical systems theory. In my book, Game Theory Evolving, I derive this equation four different ways, one of which can be interpreted as purely cultural. The parallel between genes and culture is pretty stunning, mathematically. In Chapter 3, Mesoudi motivates this cultural dynamical

system without any equations, making it accessible to people who don't like or don't trust equations. In Chapter 4, Mesoudi applies this methodology to particular cases of cultural macroevolution taken from the archeological and anthropological literature. He follows this with two extremely informative chapters on cultural evolution in the laboratory and in the field.

Mesoudi is a major contributor to the field of evolutionary culture, and his expert treatment of this recently emerging field is highly welcome. The author's second goal, as expressed in the book's subtitle, is "how Darwinian theory can ... synthesize the social sciences." This part of the book is, I think, completely incorrect and betrays Mesoudi's lack of understanding of economics, and his lack of appreciation for the insights of sociology, psychology and anthropology. His basic idea is that all of economic theory can be replaced by evolutionary and behavioral economics, and Darwinian cultural theory can replace all of the other social sciences. This is just incorrect. There is no room in Mesoudi's intellectual world for the rational actor model, for game theory, for theory of social norms and the psychology of socialization. There is accordingly no role for morality or reason in his treatment of human society. What he presents as a model for synthesizing the social sciences I just an embarrassing recitation of his principles of cultural evolution. Cultural evolution is important, but it isn't everything that is important, by a long shot.

The little book of economics *by Greg Ip*

This will help you understand the economics articles in The Economist — Rating: 3/5

Greg Ip is a senior editor of The Economist, a weekly magazine of economic, political, and business affairs. I read The Economist regularly. It is informative and I usually agree with its policy positions and recommendations. This little book will ease the transition from ignorance to competence in understanding economics articles in The Economist, The New York Times, the Wall Street Journal, and the like.

The book is not a substitute for an economic theory textbook at all. It is very macro-oriented, with good descriptions of some institutions (e.g., central banks and the national income accounts) that are usually slighted in a popular introduction to economics. Ip does not say why the economy works as he describes, which is what economists want to do using analytical models. But he is usually pretty accurate ind describing how the economy operates in broad strokes, stressing economic growth, business cycles, the causes of economic crises, and the like.

Ip does not try to deal with the deep questions, such as the validity of the Efficient Markets Hypothesis, the relative power of fiscal and monetary policy, what is the proper range of government spending, and the like. what he does, however, he does well and without obvious political bias.

The fair society *by Peter A. Corning*

A Valiant Attempt to Define a Liberal Vision of Social Justice in America — Rating: 4/5

Peter Corning is a distinguished evolutionary biologist who has spent much of his research life investigating the implications of evolutionary biology for human social life. This book is perhaps the most ambitious of his efforts, and draws on cutting research concerning evolution had human nature. Corning is very knowledgeable and his description and analysis of this research is highly informative.

Corning is a man of the Left, and this book is his attempt to construct a realistic, morally and politically compelling, set of principles for a just society. Corning is concerned with constructing economics and social institutions that (a) speak to the needs of the poor and dispossessed in our society; (b) foster meritocratic reward, entrepreneurship, and innovation, and (c) are socially stable in the sense of attracting a strong majority of voters in a democratic society. The goal is indeed a worthy one, as achieving social justice is the only liberal ideal that remains unrealized in contemporary society.

"A harmonious society," observes Corning, "depends, absolutely, on fairness and social justice." (p. 171) Corning's first principle of social justice is that "goods and services must be distributed to each of us

according to our basic needs (in this there must be equality)." (p. 154) Corning devotes considerable space to defining "basic needs" and defending his definition against the many critics of the concept, based on the work of such experts as Amartya Sen, Ian Gough,Len Doyal, and many others. Corning's defense of basic needs is very persuasive. Moreover, it is clear that in an affluent society, it is very feasible to meet the basic needs of all citizens without much sacrifice on the part of the non-poor.

Corning's second principle is the meritocratic notion that "surpluses beyond the provisioning of our basic needs must be distributed according to "merit." (p.154). Corning refuses to equate "merit" with the rewards accrued on capitalist markets, because he argues that not all market returns are "merited" (e.g., the exorbitant pay of CEO's). Corning's basic innovation in distributional justice is to propose stakeholder rather than shareholder capitalism, with the implication that the cost and profit structure of corporations would be more equally shared among owners, employees, and clients.

Corning recognizes that these two principles alone violate a basic human norm---that of reciprocity. This is because individuals will have their basic needs satisfied without contributing to society at all. For this reason he adds a third principle, "In return, each of us is obligated to contribute proportionately to the collective survival enterprise in according with our ability (there must be reciprocity)." (p. 154)

Corning argues carefully and eloquently that such an economy would be both feasible and politically acceptable to all but the rich, who can simply be outvoted. He also argues, based on an in depth analysis of how our species evolved from hunter-gather days to the present, that such an economic system would be deeply consistent with human nature. Indeed, he refers to his three principles as a "biosocial compact," harkening back to the notion of a social compact in the works of Hobbes, Locke, Rousseau, and others. The distinctive feature of Corning's compact is that it is firmly rooted in a model of human nature, rather than being based on an abstract ethical theory.

I believe Corning's fair society is well worth thinking about, but there are some deep problems that would have to be overcome for it to work. Most important, the feasibility of this model flows from an analogy with hunter-gatherer societies, which were small and ethnically extremely homogeneous. In such societies, it is easy to determine who is contributing his fair share according to his ability and who is not. Moreover, in contemporary hunter-gatherer societies, a violator of the third principle (contribution according to ability) would be summarily ostracized or refused a share of the group's collective production. This of course violates the basic needs principle. Perhaps Corning has some idea of how to ensure that people contribute according to ability without depriving them of basic needs. I have no idea how this could be done.

I imagine that the fair society could simply require that each individual of sound mind and body who is at the bottom of society's labor hierarchy show up for work for a certain number of hours per week, but it is hard to see how individuals could be motivated to work hard and with due care without either threatening the withdrawal of basic needs satisfaction, by offering material incentives for high quality work that brings most if not all individuals into the "meritocratic" category. I do not find either of these alternatives feasible. Threatening the withdrawal of basic needs violates the first principle, and paying enough for unskilled labor that individuals prefer to provide quality labor under the threat of being reduced to the basic needs category is likely to be simply impossible. There is little doubt but that many individuals would opt out of the "meritocratic" system based on incentives, and build a satisfying life based on the satisfaction of basic needs alone. Indeed, I suspect that Corning's fair society would spawn many "basic needs" subcultures focusing on art, sports, religion, and the like. Of course, such individuals could be obliged to spend time "working," but the cost of administrating a labor system without incentives where people are simply uninterested in hard, high quality work would be high, and because the reciprocity fairness condition would be widely violated, Corning's biosocial contract would quickly unravel.

I think Corning is correct in stressing the need for a solution to the problem of poverty in America, but I do not believe affording the poor a basic income and requiring them to work is the answer to the problem. I think the solution lies in understanding why there is poverty in the present economic system. Unlike the situation in many third-world countries, American poverty cannot be explained by predatory, corrupt governments and explicit laws and regulations excluding certain groups from gainful employment. Rather, poverty in America is either transient, as in the case of immigrant groups whose children received a good education and moral training from their parents, or it is chronic, and the result

of a culture of poverty, in which children do not receive a decent education and are not taught proper work and study habits by their parents. If this is correct, then social policy should be geared towards creating healthy community alternatives to the culture of poverty ghettos that currently reproduce an unskilled underclass in America.

Honor Code *by Anthony Appiah*

Philosophising is no substitute for scientific explanation — Rating: 2/5

Perhaps the most stunning, and salutary, fact about human history is that it has a strong emancipatory thread. This emancipatory thread is based on Enlightenment the values of secularism, tolerance, meritocracy, republicanism, democracy, gender equality, and the structuring of social life around egalitarianism rather than hierarchical privilege. There are two powerful enemies of this emancipatory thread: the despotic state and welfare-reducing social practices, including the four studied by Appiah in this book (dueling, foot-binding, slavery, and sexism).

Appiah attempts to explain this emancipatory thrust in purely philosophical terms, using the concept of "honor" as the emancipatory force. Honor for Appiah is an intrinsic human moral quality that can be diverted, suppressed, and exploited, but eventually will triumph. There is simply no honor in dueling, foot binding,slavery, gender discrimination, and the other abominations that have served to oppress our species. Appiah is thus an inverted Hegelian, in which the driving force of the Idea is incorporated in an evolved human characteristic.

No scientist will place much credence in Appiah's story. Human society is a highly complex, dynamic, adaptive system that must be studied using the tools of behavioral science. Hand waving of the sort preferred by Appiah will not answer the big questions. I confess that I do not have a satisfactory alternative explanation of the emancipatory thrust of social history into which many of us have placed such great faith. I do have two points that I believe should be kept in mind in developing such a theory.

First, there is a very widespread human yearning for freedom and democracy (of course there are anti-democratic movements, but they are populated by small minorities that want to control the masses), and this arises from human prehistory as hunter-gatherers, where there was a socially enforced egalitarianism (see Christopher Boehm, Hierarchy in the Forest: The Evolution of Egalitarian Behavior). With

Second, there is no assurance that the emancipatory thread will not be extinguished by new ways of oppressing majorities. Perhaps the greatest emancipatory force for humans was the emergence of lethal weapons, including the hand axe and projectile weapons, which occurred some 300,000 years ago. Because of these weapons, the hierarchical organization of power and influence in humans was undermined, simply because one man can easily kill another, however powerful, in his sleep or when his back is turned. All of human prehistory is predicated on the egalitarian power of lethal tools and hunting weapons.

With the emergence of settled agriculture and private property, it became once again possible to oppress majorities by force. The past 10,000 years thus represent an interplay of centralizing exploitative states and state-like groups on the one hand, and the constant pressure by the oppressed to find a way to destroy their oppressors. The most recent egalitarian event was the invention of the hand-gun, which lead to the preeminence of the foot soldier in war. Because of the hand gun, despotic states were obliged to extend political representation to the masses as a precondition of recruiting effective armies (see my paper with Samuel Bowles, "State and Class in European Feudalism," in Charles Bright and Susan Harding (eds.), Statemaking and Social Movements: Essays in History and Theory (Ann Arbor: University of Michigan Press, 1984), and our book Democracy and Capitalism: Property, Community, and the Contradictions of Modern Social Theory, New York: Basic Books, 1986).

I conclude from this historical review that there is no inherent thrust towards emancipatory social life, but rather a back-and-forth movement propelled by technology. This does not mean that honor is not an important force is the social life of humans---I deeply believe that it is. However, it is a knife that cuts

both ways, and it is critical to remember this when planning and participating in emancipatory social change.

The Soros Lectures *by George Soros*

Perhaps our only Modern Public Intellectual Does a Good Job — Rating: 4/5

"In the course of my life," says well-known financier and philanthropist George Soros, "I have developed a conceptual framework that has helped make money... It is about the relationship between thinking and reality... My goal is ambitious. It is that this conceptual framework should provide the foundation for a better understanding of human affairs" (p. vii,3) This book is short, to the point, and stuffed with interesting ideas. If you want to go for an exhilarating merry-go-round with an interesting thinker, I recommend Soros highly. His blend of extreme arrogance and unstudied humility is worth experiencing, as is thinking deeply about the principles he espouses.

Soros studied with the great philosopher Sir Karl Popper, and indeed Soros confesses that in his school days in London (having barely escaped the Nazis in his homeland, Hungary) he "harbored some fantasies of becoming an important philosopher." (p. 7) He has thus spent much of his life switching back and forth between making (lots of) money and writing semi-popular philosophical tracts. As he admits, and for which he blames only himself, these tracts were widely read but dismissed by serious philosophers and economists.

Soros learned from Popper that the "open society" is the only way to truth, and political democracy with civil liberties and a non-intrusive state are the key institutions of an open society. He learned from economics that buyers and sellers are by and large rational, and their judgments about the future are, on average, very accurate. This is the so-called "rational expectations macroeconomics" that developed in the mid-1970's in the hands of Robert Lucas and friends, but was long held in a more tacit form much earlier by most of the great University of Chicago economists, including Milton Friedman and George Stigler, and was doubtless taught at the London School of Economics.

The central principle of rational expectations macro theory is the so-called Efficient Markets Hypothesis (EMH). The weak form of the EMH states that financial markets are informationally efficient, so that the current price of a security contains all publicly available information concerning its future performance. Because the past performance of a security add no information concerning its future performance, one cannot on average "beat the market" by judicious buying and selling based on stock market levels or dynamics. I believe this principle is highly defensible. Indeed, investors who think they can beat the market using some daffy scheme or other based on market levels or dynamics do nothing other than line the pockets of their brokers.

The strong form of the EMH holds that investors' mean expectations about the future securities prices are unbiased. If the strong form of the EMH were it true, there should never be speculative bubbles, and financial markets should be intrinsically stable. Soros rejects rational expectations theory and the strong form of the EMH precisely because speculative bubbles and financial instability indubitably exist. He is, of course, not alone in holding this position.

It may seem that the weak form of the EMH implies the strong, because in the midst of a speculative bubble, those who get out before the collapse necessarily earn superprofits. Therefore the weak form of the EMH appears to imply that there are no speculative bubbles. The problem with the argument is that no one knows when the collapse will occur, and it may always be better to stay in for the ride rather than watch by the wayside.

Soros' alternative to rational expectations macroeconomics is the theory of reflexivity. "It so happened that the theory of reflexivity," he tells us, "provided me with a new way of looking at financial markets, a better way that the prevailing theory." (p. 8) The theory of reflexivity starts with the observation that there are two aspects of thinking about the social world: the cognitive (understanding the world) and the participatory/manipulative (changing the world). We thus accept an idea either when it true, or when it is very useful and by accepting the idea, we tend to induce others to accept the idea as well. Thus we may embrace ideas, whether true or false, that when conveyed to others, leads them to behave in

ways we prefer. Soros gives the example of the idea `This is a revolutionary moment.' Soros observes, "That statement is reflexive, and its truth value depends on the impact it makes." (p. 13)

The most important form of reflexivity for Soros is the reflexive feedback loop: "The participants' views influence the course of events, and the course of events influences the participants' views. " (p. 14) Such feedback loops, suggests Soros, can be negative, in which case the participants' views and the actual situation are brought closer together over time, or positive, in which case they are driven ever further apart. Negative feedback loops are thus self-correcting, while positive feedback loops are inherently self-reinforcing, and hence unstable. Soros also calls positive feedback loops "fertile fallacies." (p. 16)

It is obvious how positive feedback loops can explain speculative bubbles, and hence how Soros' theory of reflexivity might provide an alternative to traditional financial theory. Soros goes further than this to argue that the problem with traditional economics is that it pretends that one can do social science in the same way that we do natural science, and that this is a mistake. "In the case of the natural sciences," says Soros, "events unfold irrespective of the views held by the observers." By contrast, in human affairs, the thoughts and ideas of the observers change the social dynamic. As a result, he says, "social theories themselves are reflexive." (p.23) Therefore social science is far different from natural science: the former is more challenging, simply because it is impossible to tease out the cognitive from the participatory/manipulative aspects of a social theory. In particular social theories can suffer from the same sort of positive feedback loops as occur in human thought in general. In the natural sciences, by contrast, there is no participatory/manipulative element to thought, simply because inert matter does not think, and we cannot persuade it to behave the way we would like. Thus there is never a positive value of an incorrect theory over a correct theory.

If Soros is correct, then we must abandon any attempt to base economic theory in general, and financial theory in particular, on the sorts of scientific models generally used today, and inspired by the successes of the natural science over the past three centuries. Rather, he argues, a philosophical analysis of economic activity, based on the notion of reflexivity and related ideas, can provide the basis for social policy, much as these ideas, he contends, made money for him. This doctrine should be carefully assessed before lending our agreement, because it implies that economic theory, solidly based on the principles of scientific research, is inevitably the enemy of sound social policy. I shall argue that Soros is incorrect in his relegating social theory to the annals of non-scientific discourse.

Soros' assessment of social science is a standard view of some prominent sociologists, especially those informed by Ludwig Wittgenstein's later writing (see for instance Peter Winch's The Idea of a Social Science, 1958). This assessment is rejected by most scientists, natural and social alike. The idea is also a key element of postmodern social theory, which I believe is a humanistic movement lacking any analytical core. Soros does distance himself clearly from postmodernism, asserting that reality eventually comes to bear even on the most vigorous positive feedback systems, holding that a positive feedback system "cannot go on forever because eventually the participants' views would become so far removed from objective reality that the participants would have to recognize them as unrealistic." (16) I infer from this that Soros takes positive feedback systems as occasionally large excursions from a basic equilibrium system in which the majority of feedback mechanisms are negative.

Soros defends his assertion that social theory cannot be scientific by stressing that science is about the natural world, but human thought and subjectivity, the core elements of social life, lie in a subjective realm beyond the natural world. Soros' subjective/objective, ideal/material dichotomy has a venerable lineage back to Hegel and Marx, but it is not at all persuasive. The fact is that the human brain is a part of natural reality, and is subject to the same natural laws as the rest of natural reality. Subjectivity is an expression of the genetic structure of Homo sapiens, and despite its complexity, is substantive part of the natural order. For instance, Soros' positive and negative feedback loops, which he is correct in implicating in humans social dynamics, are part of reality itself, and hence in principle can be studied by traditional scientific methods.

Moreover, the contention that in the natural world, events unfold irrespective of the views of the observers, whereas in the social world, observers and their theories change the course of events, is not correct. Astronomy, geology, epidemiology, evolutionary biology, and host of other natural science research areas have had huge influence on the direction and pace of social change in the modern world, and natural science theories are regularly espoused and rejected because of their social implications.

Indeed, individuals have consistently attempted to interpret scientific principles in a way favorable to their political goals (think of Lysenko in the Soviet Union and George W. Bush and his cronies in the United States). However I do not believe that the social sciences have been substantively affected by the reflexivity of thinking.

Soros' second essay is an application of reflexivity theory to financial dynamics. His main point is that the theory of reflexivity is a better approach to understanding the financial system (and making money) than is standard economic theory. I must warn the reader that what Soros calls "economic theory" is almost exclusively neoclassical financial theory, which is not even taught to students in most universities. Young economists are taught that there is a `real' economy on the one hand and `money' on the other hand, and the money side of the economy does not have much effect on the `real' economy. This perspective is probably grossly incorrect, and we can expect economic theory to incorporate finance more directly in coming years. Nevertheless, there is nothing in microeconomic theory, including in the Walrasian general equilibrium model, that suggests that "markets are self-correcting." Free market ideologists may believe this (recall Federal Reserve chief Alan Greenspan's famous admission to the House Committee on Oversight and Government Reform that "Those of us who have looked to the self-interest of lending institutions to protect shareholders' equity, myself included, are in a state of shocked disbelief). He and his colleagues may have believed the strong EMH, but it does not follow from standard economic theory, which indeed has no acceptable model of multi-market dynamics (see my paper Herbert Gintis, "The Dynamics of General Equilibrium", Economic Journal 117 (2007):1289-1309, and related papers on my web site).

Soros' critique of standard financial theory, especially the strong EMH, is quite correct. However, it can be couched in terms of standard complex systems theory, especially using models with many heterogeneous agents. Indeed, a vigorously developing school of economic complexity researchers is contesting the strong EMH and related strands of neoclassical financial economics, precisely on the grounds that there are strong interactions among agents in the financial sector that can lead to positive feedback loops. Thus, as Soros suggests, ideas and expectations can be "contagious" so that the error terms in modeling financial forecasts are positively correlated, leading to economic series with "fat tails" as compared with standard Gaussian distributions. This means that excursions from equilibrium are highly likely under some conditions. I should stress these alternative models are completely scientific, and do not employ any conceptual notions that are absent from standard scientific theories.

Soros also criticizes so-called "rational expectations" macroeconomic theory, as developed by Robert Lucas, Robert Barro, Thomas Sargent and others identified with the University of Chicago economics department. Soros' critique is perfectly correct. This theory fails to deal with financial fragility because it was not created to deal with the financial sector at all. Rather, it was created as a reaction to the Keynesian theory that increasing the money supply and increasing aggregate demand through running government deficits could not trigger inflation until unemployment was purely frictional (perhaps three or four percent). The stagflation of the mid-1970's showed that this theory was incorrect, and the rational expectations school explained this failure by noting that economic actors could not be fooled into ignoring the possibility of inflationary spirals and the necessity of repaying government debt through higher taxes in the future. I believe rational expectations macroeconomics is fundamentally flawed and must be replaced, but the rational expectations school was a scientific rather than purely political intervention, despite its huge implications for economic policy. The true weakness of rational expectations theory is revealed only when we try to use it to understand financial fragility and other aspects of international economics based on the interaction of heterogeneous agents operating in complex networks. In this context, the theory is about as flawed as Soros suggests, and for reasons that he lays out clearly in his second essay.

The policy recommendations that flow from both the reflexivity approach and heterogeneous agent complexity theory agree on the following policy recommendations for reforming the world financial system. These recommendations all stem from the simple observation that contemporary financial fragility is caused by excessively tight interactions among participants in the network of financial institutions. This excessive institutional interpenetration leads to amplifying rather than damping reactions to shocks to the system.

1. Banking regulations should foster a large number of small and medium sized financial institutions, as well as limited inter-institutional connectedness.

2. There should be firewalls between different types of financial institutions of a sort that limit contagious asset bubbles and collapses.

3. Stockholder groups should ensure that monetary incentives for decision-makers in the financial sector favor long time horizons.

4. There should be a complete separation of auditing and audited institutions. In particular, the latter should not hire and fire the former.

5. Auditing firms should be financially liable for covering up weaknesses in the firms they audit.

6. We need a new macroeconomic model replacing the rational expectations model that is engineered to deal with complex networks of financial institutions.

7. There perhaps should be a small tax on financial transactions.

8. The European Union should develop a central back with the full powers of a national central bank.

9. Government accounts should be audited by international lending institutions, thus preventing covering up the true state of a country's finances.

The major impediment to implementing these changes is the political influence of the financial sector, especially in the United States. The current "too big to fail" system is perfectly acceptable to the giants of finance, and the move to accountability will be vigorously opposed. In Europe, the obstacle to reform is political fragmentation.

Soros' third lecture is potentially very interesting, but as it stands is not well thought out. Soros uses the same arguments to critique Popper's "open society" theory that he does to critique the current financial system (positive feedback loops), but instead of concluding that we need more openness to prevent or dampen or eliminate feedback loops in public discourse, he concludes that nothing can be done. This is an excessively hasty rush to judgment. Just as we can reform the financial system, we can foster public institutions that promote truth-telling and negative feedback loops.

In his third essay, Soros defines the "Enlightenment fallacy" as the notion that "free political discourse is aimed at understanding reality" (p. 55). This of course was the major premise of his teacher Karl Popper, but Soros believes that the "manipulative function" of thinking undermines the "cognitive function," so that the open society need not produce truth. This is of course correct, but is not grounds for rejecting the open society, unless one proposes a superior social alternative. To my knowledge, there is none. Soros does not suggest otherwise, but he remains supremely pessimistic about the possibility of a human social system that consistently produces truthful discourse. "People are not particularly concerned with the pursuit of truth," says Soros. "They have been conditioned by ever more sophisticated techniques of manipulation to the point where they do not mind being deceived; indeed, they seem to positively invite it." (p. 60) I consider this very far from a plausible interpretation of how citizens value truth in open societies. Soros goes to great length to distinguish himself from postmodernism, which is a justly reviled movement of superficial mindlessness that has infected intellectual life in recent decades, but only on one point: Soros holds, in contrast to postmodernism, that eventually reality takes over and destroys the socially constructed fantasies that people have created. He agrees with the postmodernists that human beliefs, even in contemporary post-Enlightenment societies, are socially constructed without regard to the objective facts.

Soros' bizarre position concerning the open society is an extension of his assessment of the Efficient Market Hypothesis. Just as investors manipulate their expectations so as to generate financial bubbles and crashes, so voters manipulate their critical faculties to support whatever form of wishful thinking they are collectively taken up by. However, the correct critique of the EMH is not based on inadequacies of human nature (as some famous economists are wont to do, in including Robert Shiller and George Akerlof in their book, Animal Spirits) is not in accord with what we know about financial dynamics. Central to financial dynamics is a tendency towards "herding behavior" because when information is incomplete, it is often optimal to imitate the decisions of others and to adopt, provisionally, their assessment of business conditions. This can occur even when most, or even all, market participants do

not believe their behavior can be sustained in the long run. Inadequacies of human nature are not involved in this dynamic at all.

The same line of reasoning applies to public discourses in general. There is no superior alternative to free and open discussion in a democratic society, even though there are surely conditions under which this framework can lead to very poor decisions. Supporters of the open society do not passively bemoan the irrationality of public decision-making, but rather work to ensure that the institutional structure of society minimizes the possibility of poor decisions. Every major failure of discursive decision-making of which I am aware was based on the public's being deceived by faulty information. Voters supported the invasion of Iraq believing that Saddam Hussein harbored weapons of mass destruction. When that turned out to be false, voters moved quickly to wanting the US to leave Iraq as soon as decently possible. The financial collapse in the US in 2007 was based on faulty information concerning the quality of residential mortgages, exacerbated by financial auditors who simply lied about the health of the enterprises they audited. The current Euro crisis was caused by the Greek government lying about the size of its debt obligations at the time of its admission to the Euro region. To make the open society decision-making process work, we must make it more open. It's that simple.

The fourth of Soros' essays is devoted to what he calls the agency problem. "Agents," Soros says, "are supposed to represent the interest of their principals, but in fact, they tend to put their own interests ahead of the interest of those whom they are supposed to represent." (p.71) Soros recognizes that this is treated at length in standard economic theory (it is a short stretch to say that this is the central message of modern economic theory), but he rightly notes that there cannot be a solution by tinkering with contractual terms with purely monetary incentives, but rather a solution requires that economic actors behave morally, a concept foreign to economic theory. My and my coauthor Rakesh Khurana, who is a professor at the Harvard Business School, have dealt at some length with this problem: Herbert Gintis and Rakesh Khurana, "Corporate Honesty and Business Education: A Behavioral Model", in Paul J. Zak (Eds.) Moral Markets: The Critical Role of Values in the Economy (Princeton: Princeton University Press, 2008). Rakesh Khurana, From Higher Aims to Hired Hands: The Social Transformation of American Business Education (Princeton: Princeton University Press, 2007); and Rakesh Khurana, Nitin Nohria and Daniel Penrice, "Management as a Profession", in Jay W. Lorch and Leslie Berlowitz and Andy Zelleke (Eds.) Restoring Trust in American Business" Cambridge: The MIT Press, 2005). The essence of our analysis is that there are professions, such as science, law, and medicine, where professional ethics are of such importance as checks on material self-interest that these professions could not operate on self-regarding motives alone. American business at one time operated on such professional principles, but all that changed when American business schools began teaching agency theory, which holds that greedy self-interest is the motivating principle of business. Khurana argues, correctly I believe, that a healthy business ethic could be fostered even in highly competitive environments.

Reckless Endangerment *by Gretchen Morgenson*

Pleasant to the Ears of the Free Market Ideologues, but Not a Plausible Argument —
Rating: 1/5

I have written about an number of right-wing free market ideologues, stunned and shocked by the near-collapse of the US finance industry and irritated by the success of government intervention in saving the industry from its excesses, who insist that the whole problem is with the government, which refuses to let free markets work themselves out through their intrinsic inner logic.

Much of the book is historical, a diatribe against the liberal initiatives of Presidents Roosevelt, Johnson, and Clinton to extend home ownership in American to less well off families. Another goodly portion of their argument is a thorough critique of the government-sponsored mortgage agencies (GSE's), specifically Fanny Mae and Freddy Mac. Their excess are indeed a great example of government bureaucracy gone wild. However, this does not mean that the GSE's did any more than join the legion of government agencies that fleece the taxpayers when they can get away with it. In particular, the authors do not present any systematic evidence that either the housing bubble or the financial crisis were caused

by, or even materially exacerbated by the GSE's. They certainly do not show that there is anything wrong in principle with using government regulations and finance to extend home ownership.

For a cogent critique of Morgenson and Rosner's argument, see the article by Jeff Madrick and Frank Partnoy in the October 27, 2011 issue of The New York Review of books. Also see my Amazon review of Thomas Sowell's, The Housing Boom and Bust. In that review, I noted that It is true that the NSEs have special privileges, among which are being exempt from state and local income taxes, Securities and Exchange Commission requirements and fees, and they have potential lines of credit with the Treasury of over $2.25 billion. In exchange, the President can appoint five of their eighteen board members. The most important effect of their Federal charters is, however, the implicit understanding that the Federal government would never permit Fannie Mae or Freddie Mac to fail, whatever the state of their portfolio.

This implicit guarantee might appear to place stockholders in a no-lose situation in which they can take great risks with subprime mortgages and reap the profits when things go well, but can offload their losses to the taxpayer when things go bad. Were this true, there is no doubt but that these the two GSEs would take on otherwise highly unprofitable levels of risk. This is the received wisdom, but in fact, stockholders have been clobbered by the financial meltdown, and stock prices in these two institutions have fallen to near zero. Stockholders understood that the institutions would be saved, but their stock values would not be immune from steep decline.

Moreover, just as housing prices began to increase rapidly several years ago, Federal regulators, responding to GSE accounting scandals, placed serious restraints on their ability to assume high-risk debt. Indeed, by definition these GSEs did not engage in subprime lending because their legal statutes prohibited them from issuing mortgages without substantial down payments and closely validated assurances concerning family income and wealth. [Professor Russell Roberts (Economics, George Mason University) commented on this point in personal communication: "As far back as 1999, Fannie and Freddie were using subprime mortgage purchases and the purchases of subprime backed MBS to satisfy their HUD requirements to purchase "affordable" mortgages, a requirement that began in the Clinton administration and that Bush continued with equal if not greater zeal. This has been documented by both the NYT and the Washington Post though without much detail. I've read through the annual reports of Fannie and Freddie where they admit in the early 2000s that subprime mortgages typically amount to 17% of their book of business--which amounts to hundreds of billions of dollars in some years. Edward Pinto, former CFO of one of them claimed in Congressional testimony that they were actually even more involved than this. I am skeptical of both of these claims to some extent. Informed folks have told me that the annual reports of Fannie and Freddie may be essentially fictional. And I'm not sure that Pinto's analysis is verifiable or accurate. Either way, it's clear and undeniable that Fannie and Freddie were non-trivial players in the subprime market. But how significant is their involvement? Very hard to tell. While I've suggested that the above story may be important, it is mitigated (as is Sowell's story) by the fact that Ireland and Spain and South Africa (I think) also had housing bubbles. Did they have government-mandated expansion into the low-income sector? I suspect not. So all of the domestic explanations have to answer the magnitude question. Surely Fannie and Freddie contributed to the problem. But you have to establish the magnitude.] Indeed, Fannie Mae and Freddie Mac began to recede from the forefront of mortgage lending when the housing bubble emerged in the years after 2003.

Fannie Mae and Freddie Mac executives panicked when their positions in mortgage markets began to deteriorate, and they introduce questionably legal procedures ("expanded approval" for Fannie Mae and "A minus" for Freddie Mac) to recapture market share. But these efforts were basically unsuccessful because the GSE lenders were saddled with fixed-rate loan structures. The share of GSEs in the mortgage market faded rapidly in the latter years of the housing bubble.

Note that before being taken over by the government, the GSEs were private, market-oriented, investor-owned companies, and their behavior in excessive risk-taken was, if anything, less pronounced that the rest of the private financial sector. Nor did any Federal legislation, including the Community Investment Act of 1977, require that banks take on subprime assets. As Richard Posner says in his recent book on the subject, "the pressure exerted by the government to lower lending standards was a case of pushing on an open door…Banks wanted to make risky mortgage loans.' Indeed, never during the housing bubble dynamics did they protest that they were forced to behave irresponsibly. "The

critical role of government in the crisis," Posner concludes, was one of permission rather than encouragement." (p. 242) In other words, the financial meltdown of 2007 and after was a failure of coherent regulation, not government meddling.

In their review of this book, Madrick and Partnoy add the following facts. First, the GSE housing bubble losses were large, but they followed rather than led the house market collapse. Second, the GSE default rate was only 20% to 25% the rate of defaults in the private housing market.

The view of life *by Georg Simmel*

Please, will somebody tell me what this means? — Rating: 3/5

This book has a beautiful picture of Georg Simmel on the front cover,and the back cover has blurbs by very famous people (Horkheimer, Park, Habermas). But they say how great Simmel is, not how good the book is.

I could not figure out what Simmel was trying to say. If someone told me Simmel was parodying the Germanic idealist literary tradition of the time, I would be prepared to believe it. Here is one sentence chosen at random (p. 63): "The inorganic body is distinguished from the living one above all by this: the form that defines it is determined from outside... The organic body, however, produces its form from within."

Well, I do declare! That is really deep and insightful. If you are about eight years old. The whole book reminded me of the movie "Being There" in which Peter Sellers is mentally retarded but everyone takes his pithy statements seriously because he dresses impeccably and has a perfect upper class British accent.

Perhaps some reader will tell me what this book is really all about.

Economics *by Steve Slavin*

Strong on Economic History and Schools of Though in Macroeconomics — Rating: 3/5

I will discuss three useful books for beginners:

Sean Flynn, Economics For Dummies (Wiley, 2011)

Tom Gorman, The Complete Idiot's Guide to Economics (Penguin, 2003)

Steve Slavin, Economics: A Self-Teaching Guide (Wiley, 1999)

People often ask me what to read to learn the type of basic economic theory that is taught in university graduate and undergraduate courses. This is somewhat difficult because most writers for the general public have some sort of political axe to grind and present a one-sided version of the theory, or a complete alternative to the theory. I have nothing against such writers, but I will always suggest that readers also/instead of/before reading these political pleadings, find out what the general "received wisdom" is.

It may seem that there is no "received wisdom" that is shared by most economists, but this is not the case. Except in the area of macroeconomic policy, there are few disagreements. In the macroeconomic area, the standard models are pretty awful, but economic policy types have deeper problems: general models can show you the general direction of effects, but when there are offsetting directions, only quantitative evidence can supply a credible answer. For instance, increasing government expenditure to lower the unemployment rate may be offset by the effects of government debt on interest, inflation, and growth rates. Only careful attention to details can determine the net effect of the policy, and even this is subject to significant error. However, you cannot even begin to assess economic policy seriously unless you know basic economic theory.

The books reviewed here are basic starting points for gaining a facility in economic theory. Alternatively, you can simply buy one of the leading undergraduate textbooks and plow through it. The textbook will

be more demanding, very fat, and quite expensive. Before doing this, I advise that you tackle one or more of the above volumes. They are all quite good, and it wouldn't hurt to read them all. But, here are my impressions.

Economics for Dummies is the most sophisticated of the three books and covers extremely important material left out of the others. This includes an analysis of property right, market externality, public goods, asymmetric information, and other absolutely fundamental aspects of modern economic theory, which is really the theory of the interaction between markets and macroeconomic regulation for efficiency and stability. It rather weak on national income accounting (none of the books is strong in this very difficult area), and it does no general equilibrium analysis (e.g., the very instructive Edgeworth box is missing). Finally, the book rather slights statistical information on the economy and give little historical perspective.

The Complete Idiot's Guide to Economics is a little out of date (2003), and is especially concerned with regulatory policy in dealing with volatile economies. It has lots of interesting statistics, and gives a detailed explanation of the Federal Reserve and its operation. It is similarly strong on analyzing international trade and exchange rates. Read this after Economics for Dummies.

Economics: A Self-Teaching Guide cannot deal with recent economic issues because it was published in 1999, but it is well worth reading. It is especially strong on economic history and it presents in some detain the various schools of thought in macroeconomic theory. It also does considerable national income accounting, which I consider a prerequisite to understanding current economic issues. Its microeconomics sections are rather brief. It is certainly not a substitute for Economics for Dummies.

If readers have comments and/or suggestions of these or other candidates for learning basic economic theory, please pass them on to me.

The complete idiot's guide to economics *by Tom Gorman*

STrong on Regulating Economic Volatility — Rating: 3/5

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Economics for dummies *by Sean Masaki Flynn*

Especially Strong on the Theory of Market Intervention — Rating: 4/5

I will actually discuss three books in this review. All are books on self-learning of economic theory for serious beginners.

Sean Flynn, Economics For Dummies (Wiley, 2011)

Tom Gorman, The Complete Idiot's Guide to Economics (Penguin, 2003)

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If readers have comments and/or suggestions of these or other candidates for learning basic economic theory, please pass them on to me.

The Constitution of Society *by Anthony Giddens*

One More Fake Sociological Guru Bites the Dust — Rating: 2/5

Anthony Giddens is a world famous theoretical sociologist. This book is an outline of his mature thought, which he terms structuration theory. Giddens is intelligent, thoughtful, and does not confuse social analysis with social pleading. He is typical, though, of the modern sociological `guru' in developing a theory that (a) stands alone rather than building on and complementing previous sociological theories; (b) embraces inductive, high-level interpretive generalizing about contemporary society with no analytical or microsocial foundations; (c) ignores all the other behavioral sciences, including biology, economics, anthropology, and political science; and hence (d) presupposes that one can understand modern human society without the slightest knowledge of premodern social formations and non-human societies.

Human society is a complex dynamical system, and as such cannot be fully or deeply understood in terms of purely analytical models with axiomatic mathematical bases. It is for this reason that broad, synthetic investigations into human society are absolutely indispensable for fully understanding its structure and dynamics. In the hands of some Sociological Guru types, this stance leads to interesting sociopolitical commentary that is about as close to science as it is to humanist studies, but in the hands of a Freud, a Foucault, or a Habermas offers insights and dimensions of thought inaccessible in traditional behavioral science models. Giddens is of a different sort. He does not have any earth shattering insights to offer, but rather synthesizes the incompatible insights of other Sociological Gurus into a harmonious blend of fundamental compromises.

In particular, he takes the two major strands of Marxism, nomological and structural on the one hand, and praxeological and action-oriented on the other, and blends them into a reasonable system in which, following the Karl Marx of the Eighteenth Brumaire, "Men make their own history, but they do not make it as they please; they do not make it under self-selected circumstances, but under circumstances existing already, given and transmitted from the past. The tradition of all dead generations weighs like a nightmare on the brains of the living. And just as they seem to be occupied with revolutionizing themselves and things, creating something that did not exist before, precisely in such epochs of revolutionary crisis they anxiously conjure up the spirits of the past to their service, borrowing from them names, battle slogans, and costumes in order to present this new scene in world history in time-honored disguise and borrowed language." I will not go through the basic argument, which is spottily developed and merely alluded to in the book, but it is a strong argument. Basically, there is a social structure that coordinates the activities of individuals and determines the macrosocial rules of

distribution, allocation, and system evolution (the nomological) and there is the active, reflexive, conscious individual and the resulting network of minds that acts to staff and reproduce the structure, as well as to transform the rules of the game (the praxiological).

This of course is tremendously interesting, but nothing new. Moreover, Giddens routinely falls in the Continental Ruse of criticizing a theory he does not like by using tons of big words that at first appear impenetrable, but upon investigation turn out to be trivial. Here is his critique of the rational actor model of economic and decision theory: "This approach can draw only sparingly upon the analytical philosophy of action, as `action' is ordinarily portrayed by most contemporary Anglo-American writers. `Action' is not a combination of `acts': `acts' are constituted only by a discursive movement of attention to the durée of lived-through experience. Nor can `action' be discussed in separation from the body, its mediations with the surrounding world and the coherence of an acting self. What I call a stratification model of the acting self involves treating the reflective monitoring, rationalizing and motivation of action as embedded sets of processes." (p. 3) Now, I have nothing against the discursive movement of attention, but that hardly justifies abandoning the analytical models that have been so successful in economics, decision theory, and other parts of the behavioral sciences.

The simple fact is that Giddens and the other Sociological Guru simply take human society as given and philosophize on a few far-flung aspects of modern society as though they could be understood without any fundamental understanding of the basic forces that foster the coherence of society and the nature of the forces that impel social change. For these aspects of social theory we need gene-culture coevolution as developed in biology and anthropology, a strong understanding of the varieties of sociality as developed in sociobiology and behavioral ecology, a psychological theory based on modern cognitive science and neuroscience and not the speculations of century-old psychoanalysts.

Theoretically, modern sociology is dead. But like the phoenix, it has the capacity to rise from its ashes, born anew, and wrapped in its many insights from its illustrious past. For now, read this book and weep.

Law's Order *by David D. Friedman*

A Beautiful, Carefully Argued, Well Written Book on Law and Economics — Rating: 5/5

The layman's view of law is that it has to do with justice, and the layman's view of Economics is that it has to do with who gets what. This is not correct. The early legal scholars, Grotius, Pufendorf, Locke and others, despite their disagreements, all stressed that property rights law was justified by the fact that an individual will not invest in the improvement of a valuable resource (land, idea, factory) unless he can expect to enjoy the fruits of this investment, and secure ownership is the best means of ensuring that this is the case. In other words, the legal institution of property rights served to improve economic efficiency, not justice. Or rather, as David Friedman would say, our ideas of the justice of property rights are the effect of the efficiency of the institution of property rights, and not vice versa.

Law's Order is a wonderful, exciting, and hugely informative book. It never lowers its standard of rigor (a very high standard), but avoids all mathematical modeling and never makes a silly argument simply because there is some outlandish economic model that supports it. One need not always agree with Friedman in order to appreciate the power of his argumentation and the limpidity of his writing.

The most important theoretical term that must be mastered is that of `economic efficiency.' The concept is not simple, and only by many varied examples will the reader come away with an appreciation for the strengths and weaknesses of the concept. Basically, an economic arrangement is efficient if there is no alternative arrangement that can make all individuals, even those not participating directly in the arrangement better off according to their own preferences. We also say that moving from situation A to situation B improves efficiency if the winners from moving to B could compensate the losers so that all are better off.

A perfect example of an efficiency improvement is where a firm produces harmful effluents that contribute to polluting the natural environment. A firm that releases harmful effluents can simply be prevented from doing so, thus likely leading to the closing of the firm. However, if the cost to society

from, say, a ton of effluent can be accurately measured, the firm can be asked either to pay a price per ton of effluent equal to this cost or cease production. The firm can then find a profit-maximizing level of effluent production, and if profits are positive at this level, the new situation, with a lower level of effluent and a tax on the effluent, may be more efficient than either the original situation or simply closing down the firm.

Friedman's central assertion is "the thesis, due to Judge Richard Posner, that the common law, that part of the law that comes not from legislatures but from the precedents created by judges in deciding cases, tends to be economically efficient." (p. 15) Most of the book consists of an extended argument supporting the above statement. If Friedman is correct, and he may well be (I cannot think of an exception to his assertion, although of course I am not a legal scholar in any way), common law is then an incredibly stunningly useful social institution. For instance, many people, especially right-wing ideologues, claim that that free markets are efficient, but economic theory does not support this statement (there are externalities, public goods, increasing returns industries, and dynamic fragilities, all of which reduce the efficiency of markets and may possibly be improved through some non-market intervention). Here we have a true expert in Law and Economics, our author, who claims that the dynamics of common law in America "tends to be economically efficient" with no systematic deviations at all. I come from this book not only marveling at the author's analytical and exegetical skills, but also wondering why common law has this character. Many human social institutions contribute strongly to our success as a species and our happiness as individuals and families, but I know of none other that can truly be said to be efficient, without some systematic deviations from efficiency. Friedman does not say why common law is efficient, and I know of no one who has developed a model to explain this fact.

Note that legislative law is often inefficient. For instance, a free market in body parts is illegal in virtually every country around the world. This creates huge inefficiencies. For instance, thousands die each year waiting for kidney transplants from compatible donors, but it is illegal to buy a kidney from a healthy person who would love to sell it, perhaps to by an IPod and a pair of Nike sneakers, or perhaps to pay for a life-saving surgical procedure for his mother. I am sure also there are rich people who would be willing to pay for human eyes that it pleases them to float in a crystal prism while they eat breakfast, and poor people who would gladly give an eye for the money to send their children to decent schools. But these efficiency enhancing exchanges are forbidden by law. According to Friedman, if the issue were left to common law, such exchanges would be allowed, and I cannot see that he is wrong.

Of course, this does not mean that all legislated law is inefficient. Indeed, quite the opposite is the case. Consider, for instance, laws that oblige sellers to truthfully represent their wares. Without this sort of law, honest sellers would be driven out of the market by dishonest sellers unless the honest sellers could find an alternative way of guaranteeing the quality of their products (e.g., warranties or reputation). In general there is no way short of government regulation by independent judgmental bodies of experts to achieve this, because when a firm is in financial trouble, it will ineluctably sacrifice long-term profitability in favor of short-term survivability. Experience, in addition, shows that when the level of corruption in a society is low, its government tends to frame and enforce such truth in advertizing laws rather competently. It is a rather difficult exercise in economic modeling to show that truth in advertizing improves efficiency (it does, after all, harm the dishonest seller), but it can usually be done.

Product safety regulations, however, are generally inefficient. Take the American FAA, which specifies complex safety regulations for private and commercial airlines. Their philosophy is "one size fits all," so travelers who are willing to take a higher risk of an accident are not permitted to do so. A libertarian would probably suggest that airlines be forced to reveal the risks involved in flying with them, but no regulation beyond that.

Friedman's thesis implies that when justice conflicts with efficiency in common law, efficiency always wins out. Friedman supports this statement in two ways. First, we tend to consider a law just when it is efficient. For instance, if a lawnmower manufacturer can prevent a certain type of accident at low cost by installing a flange near the mower blade, but the user cannot prevent the risk of injury through normal prudence, then a common law precedent of holding the producer liable for injuring the user will be perceived as just. However, if the user can avoid injury through normal prudence, but the producer cannot prevent injury through user carelessness, both justice and efficiency will place negligence liability with the user.

Friedman's second defense of the efficiency principle is based on a very famous argument first made by Nobel prize economist Ronald Coase in his article "The Problem of Social Cost" in 1960---a paper that really started the whole Law and Economics research area. Coase noted that if one party causes harm to another, and if there are no transactions costs, then In law and economics, the Coase theorem, attributed to Ronald Coase, describes the economic efficiency of an economic allocation or outcome in the presence of externalities. The theorem states that if trade in an externality is possible and there are no transactions costs, bargaining will lead to an efficient outcome regardless of the initial allocation of property rights. Therefore the careful and unambiguous specification of property rights, which can be accomplished in common law through precedence, will promote efficiency.

Consider, for instance, the issue that Coase dealt with before publishing his 1960 paper: eliminating interference between radio stations in the broadcast frequencies they use. He reasoned that so long as the law clearly stated who has rights to what (for instance, the conditions under which a new radio station can broadcast on a certain frequency band), then bargaining among broadcasters would eventually lead the right to broadcast in the hands of the entrepreneur who stands to gain the most from broadcasting on that frequency band by putting the radio station to its most economically valued use. Of course it matters to the broadcasters which one initially has the right, but standard property rights law (e.g., the Lockean right to appropriate from nature by mixing one's labor with an unutilized resource, plus the justice of voluntary exchange) might well speak to this problem.

Perhaps the Coase Theorem might be the basis for explaining why common law is efficient and why efficiency tends to justify patterns of ownership. At any rate, I am sure that most readers will find this book very valuable, and if there is a major critique of Friedman's argument that I have not expressed, perhaps a reader will relay this to me in a comment.

Durkheim and the birth of economic sociology *by Philippe Steiner*

Fascinating Historical Account, though Imbellished — Rating: 4/5

An insightful entry in Wikipedia notes that economic sociology, which studies the social causes and effects of economic activity, can be broadly into a classical and a contemporary period. The classical period¸ lasting from the Industrial Revolution in Europe to the mid-1980's, was concerned particularly with the effects of the rise of modern capitalism, including the passage from "community" to "market" organization of social relations, from rural to urban life, the rise of secularism, and the transformation of social stratification. Sociology as a discipline arose primarily as a reaction to the rise of capitalism, and unlike Karl Marx and his followers, was generally accepting of the new social order but critical of the unbridled action of market institutions and the industrial proletariat on social life. Economics tended to be less critical of the new social order, with the institutional and historical schools more or less siding with the sociologists, while the "political economists" who employed mathematical techniques and evolved from Adam Smith, David Ricardo, John Stuart Mill, and Jean-Baptiste Say and the other classical economists, tended not so much approve of the social transformations initiated by industrial capitalism as to simply ignore them. Max Weber's work on the links between economics and religion, in particular the role of Protestantism in fostering modern capitalist entrepreneurship, are the high points of this period of economic sociology.

Contemporary economic sociology was inspired by the "embeddedness" approach outlined by of Mark Granovetter in 1985. Granovetter stressed that exchange relations almost always take place within a complex network of substantive social relations. Granovetter's theory of "weak ties" and Ronald Burt's theory of "structural holes" are salient products of this second wave of contributions to economic sociology.

Economic sociology in both periods has been generally hostile to analytical economic theory (called "political economy" in the early years). In the modern period this probably is due to the fact that economics is more mathematically sophisticated than sociological theory, and it is unclear to many that the increased sophistication has any payoff in terms of improved understanding of the economy. Moreover, economists consistently and completely ignored sociological theory until very recently, and sociologists responded by offering frequent and vitriolic attacks suggesting that the analytical economic

approach was wrong-headed. These attacks, are to this observer rarely coherent or interesting. It is certainly true that economic models would be significantly enriched by paying closer attention to sociological phenomena, but it is not plausible that the basic economic models, stemming from the rational actor model, game theory, and market analysis, should simply be abandoned.

Indeed, in recent years, major economic researchers, including Nobel prize recipients Herbert Simon, Douglas North and George Akerlof, and influential economists including Jeffery Sachs and Avner Greif, have directly incorporated sociological insights into their models. The rise of behavioral game theory and experimental economics has also rendered the lines between economic and sociological analysis rather difficult to define (see my Bounds of Reason, 2009 and my book with Samuel Bowles, A Cooperative Species, 2011).

The book under review relates only to the first wave in economic sociology, inspecting the reaction of Emile Durkheim and his followers to the political economy of the late nineteenth and early twentieth centuries. Durkheim is of special importance because is, along with Max Weber, one of the cornerstones of modern sociological theory. However, unlike Weber, Durkheim's most important work and ideas do not intersect with economic theory at all, and Durkheim turned away from economics altogether in his later years. For this reason, only the first two chapters of this book deal with Durkheim's personal views, the remainder dealing with his followers in the first third of the twentieth century. While these views are of more than a little historical interest, they will have limited importance for the casual reader. The title is thus a bit misleading, as most of his analysis does not related to Durkheim at all, and it would be a mistake to attribute all of the ideas of his students to the master himself.

Emile Durkheim, the formative sociological thinker, and Leon Walras, the equally formative economic thinker, appear to have ignored each other rather completely, and economists of the time had no systematic means of discussing the effects of the growth of markets on social life in general. Durkheim's major starting point in the critique of political economy is that social cohesion is based on notions of fairness and justice, while the unregulated growth of capitalism undercuts morality by determining prices purely through unregulated markets. Indeed, Durkheim's picture of capitalism is little different from Marx's as expressed in the Communist Manifesto, where we learn that "the bourgeoisie, wherever it has got the upper hand, has put an end to all feudal, patriarchal, idyllic relations. It ... has left remaining no other nexus between man and man than naked self-interest ... for exploitation veiled by religious and political illusions, it has substituted naked, shameless, direct, brutal exploitation ... Constant revolutionizing of production, uninterrupted disturbance of all social conditions, everlasting uncertainty and agitation distinguish the bourgeois epoch from all earlier ones ... All that is solid melts into air, all that is holy is profaned, and man is at last compelled to face with sober senses, his real conditions of life, and his relations with his kind."

Durkheim could not match Marx's brilliance, but he was no less convinced of the truth of the message. Unlike Marx, of course Durkheim more or less accepted the class relations devolving from the Industrial Revolution, but he fervently believed that industrial society need new "professional groups" that could regulate capitalist growth in a way that promoted the legitimacy of the economic system and the justice of its division of labor and distribution of wealth. This led him to a bitter attack on political economy because it generally had no concept of justice whatever, and those economists that discussed normative issues tended to rely on the marginal productivity principle to determine when the terms of exchange were just. Durkheim had no sympathy with this notion, and he rejected both the market determination of wage rates and the justice of wealth inheritance.

In short, Durkheim argued that modern industrial society led to the dissolution of the social bonds that render life meaningful. The result is "anomie," which leads to mental illness, indicative of which is the high rate of suicide in modern society. Steiner develops this theme quite nicely, although with a degree of detail that will be of interest only to the historian and perhaps the philosopher.

Taking economics seriously *by Dean Baker*

Some very good policy ideas, but not yet ready for implementation — Rating: 4/5

This is a pamphlet in book form, with a very old-fashioned but elegant cover, reminiscent of the great pamphleteers of the nineteenth century. Dean Baker is an economist with a Ph.D. from the University of Michigan who left academia to devote full-time to policy analysis in liberal Washington think-tanks. The books' dedication is "to the hope that we can start thinking about economic policy in ways that do not always work to the advantage of the rich and powerful."

This book has a clear theme that threads the book from start to finish. "Progressives," says Baker, have painted themselves into a corner by accepting a policy debate in which they are on one side and the market is on the other. This framing is both essentially wrong and a bad political move." (p. 83) The real debate between conservatives and liberals, claims Baker, is about the structure of regulation, not the degree of regulation. Specifically, liberals want regulation that benefits the relatively less well-off, while conservatives want regulation that benefits the rich and the powerful.

Of course, many liberals will accept this favorable description of political conflict in America, but is it true? Certainly conservatives will reject it with righteous indignation. Conservative political theorists are likely to counter that they espouse a meritocratic vision in which individuals get what they deserve, not what they can wheedle out of the system through political influence. Conservatives will add that the liberal welfare state produces a pathological culture of poverty by ensuring that some individuals can live off of the hard work and sacrifice of others, and the abolition of anti-meritocratic interference in markets will empower the less well off to better their position. The idea that conservatives just want to help the rich and the powerful is just one of those absurd ideas that liberals use to pump up their self-esteem.

I am less than enthusiastic about the conservative position for a single reason: a system that condemns children to unfulfilled lives due to the poverty of family and community is unfair and unconscionable. On the other hand, contemporary "progressives" seem to have forgotten about the poor and the dispossessed altogether in recent years and certainly they do not appear in this little book. Moreover, the support of liberals for labor aristocracies (especially teachers' unions, but state workers' unions in general) is hardly an indication of caring about the less-well-off in our country.

Nevertheless, it is true that liberals strive for a redistribution from the rich to the middle class, and they envision the means to be both progressive taxation and an expansion of the role of government in regulating economic activity. And it is equally true that the rich and the powerful have consistently acted to turn economic regulation to their own benefit, and certainly have not shown any love for "free markets."

The beauty of American liberalism lies in its past struggles for occupational health and safety regulations, food and drug regulation, Social Security, Medicare and Medicaid, racial, ethnic, and gender anti-discrimination laws, birth control and family planning, sex education, and a culture of tolerance for alternative life-styles and personal choices. These struggles have been extremely successful. There of course remains more to do, but time is on the side of the liberal vision.

The greatest failure of American liberalism is to have eliminated or marginalized poverty, except for the elderly. Perhaps this is because you can't win votes by caring about poor children, although this is not obviously so. At any rate, the culture of modern American liberalism is to focus not on social problems and their solution, but rather on the income distribution and how to move it in favor of the "middle class." I have long argued that this is a mistake, simply because few voters care about the distribution of income, but rather care about justice and social values. For instance, as I write there is great animosity towards bankers not because they are rich, but rather because they enriched themselves through actions that gravely hurt the country's economic health, and while ordinary Americans saw their livelihoods threatened an destroyed.

Dean Baker perfectly reflects contemporary American liberal culture. He is fixated on the task of redistributing from rich to middle class, but his means is very creative and unusual: by using the market as an egalitarian instrument. His strongest argument is that the regulation of the financial sector is geared towards subsidizing the large banks, especially through government deposit insurance and the implicit "too big to fail" safety net that allows the big banks to maintain a high risk exposure and consequent higher rate of return that is available to smaller banks. There is little doubt but that increasing competition in the finance sector would have a strongly beneficial effect on the economy, especially by reducing financial fragility (see the paper "The Dynamics of Pure Market Exchange" on my

web site). There is also little doubt but that the oligarchial structure of the financial sector is maintained by its political clout, especially via campaign contributions.

There are two problems with Baker's strategy here. First, it is not clear that a streamlined financial sector would have any particular effect on the distribution of income. Second, it is unclear that many voters would be moved by a campaign centering on a reorienting of financial sector regulation, partially because voters care little about either technical issues in economic regulation or about the distribution of income. A campaign to jail the perpetrators of financial fraud might do much better at the polls, but this would be economically costly to carry out and is merely vindictive with no long-run favorable implications.

Baker's remaining recommendations are important in principle but a long way from being currently implementable in fact. For instance, Baker notes that fostering international competition might be used to curb health care costs. Medical procedures are a fraction of the USA cost in other countries, and the quality of the services provided is equally high. Why not encourage Americans to go abroad for expensive medical procedures, and make it easier for foreign professionals to gain accreditation for working in the US health sector? Any such suggestion would of course engender the immediate and sustained animosity of the rich and influential physicians' organizations, with Americans' traditional suspicion concerning the quality of foreign services leading them to listen closely to the counterarguments. The success of this proposal would depend on carrying out several careful studies of the international health care market weighing pros and cons. Hopefully, Baker's arguments will encourage others to undertake such studies.

Baker's final suggestion is based on the observation that economic efficiency requires that price be equal to marginal cost, whereas in some very rich sectors of the economy, including recorded music, computer software and especially pharmaceuticals, marginal cost is close to zero, but firms charge very high monopoly prices because they have secure patent rights on the product. Of course, drug firms must make a significant profit per unit sale to make up for the high costs of discovery and testing of products, but once on the market, it would be most efficient if they were sold at their marginal cost. Drug that costs thousands of dollars could then sell for a few dollars. The problem is: how do we encourage the research if the resulting products cannot be counted on for a stream of high-level returns?

Baker's answer is not convincing. He notes that there is considerable rent-seeking with big pharma and other patent and copyright holders, but surely eliminating this (how do you do that, pray tell?) does not solve the problem. He then suggests that NIH and other governmental agencies do the innovating (p. 33). This is, of course, just a sick joke. Governments are not subject to competition, and hence they do not innovate. Finally, he suggests that "government could construct a prize mechanism under which it buys up patents after the fact for a premium keyed to the patent's usefulness." The problem here is that the government has no incentive to buy up the most effective drugs, but rather has an incentive to buy the drugs of the most politically influential pharma firms. The potential for graft and rent-seeking is extreme. This does not mean that such a scheme would be impossible, provided there were citizen/scientific boards that made the choices, but these too would be ripe for corruption.

Baker's suggestions for a more egalitarian system of economic regulation deserves a lot of creative research, especially if the results reached down to the poor and dispossessed rather than representing perks to the already relatively well off American middle class.

The five thousand year leap *by W. Cleon Skousen*

Thoughtful and Balanced — Rating: 4/5

Willard Cleon Skousen (1913--2006) was a prolific writer, a lawyer, a college professor (Brigham Young University), and police chief, a rabid John Birch Society anti-Communist, and much more. This highly accessible but practically forgotten volume has gotten much press recently by activists in the newly-revived Republican activist, so-called `Tea Party" movement. Being somewhat confused as to what this group would like to see happen in the United States (besides simply replacing the reigning regime in Washington), I thought reading some of their tracts might give me a clue.

For all the extremism of his political views, this books comes across as a pleasantly optimistic and healthy-spirited defense of the American Constitution and the political way of life that this Constitution has fostered. Skousen considers the American Constitution a stunning miracle, and the fact that it was framed and agreed upon through the voluntary participation of normal, everyday citizens an even more stunning miracle. Skousen holds out the principles on which our nature was formed to be a great blessing to humankind, and takes it as one of his twenty-eight basic principles of government that we have the duty of spreading the Gospel of the Constitution to all parts of the world.

The heart of this book consists precisely of the twenty-eight aforementioned principles, which include some of the most basic building blocks of human emancipation. For instance, (2) A Free People Cannot Survive Under a Republican Constitution Unless They Remain Virtuous and Morally Strong; (6) All Men Are Created Equal; (11) The Majority of the People may Alter or Abolish a Government Which has Become Tyrannical; (14) Life and Liberty are Secure Only so Long as the Right to Property is Secure; (16) The Government Should be Separated into Three Branches--Legislative, Executive, and Judicial; (17) A System of Checks and Balances Should be Adopted to Prevent the Abuse of Power; (19) Only Limited and Carefully Defined Powers Should be Delegated to Government, All Other Being Retained in the People; (20) Government [should] Operate According to the Will of the Majority, but ... Must Protect the Rights of the Minority; (21) Strong Local Government is the Keystone to Preserving Human Freedom; (22) A Free People Should be Governed by Law and not by the Whim of Men; (23) A Free Society Cannot Survive as a Republic Without a Broad Program of General Education; The Core Unit Which Determines the Strength of Any Society is the Family. Therefore, the Government Should Foster and Protect its Integrity; (28) The United States Has a Manifest Destiny to be an Example ... to the Entire Human Race.

Now, I believe these principles are true and incontestably important, even the one about property. I also believe that we have important things to learn from other societies, but political structure is not one of them, and Skousen does not deny this. I am pretty sure, however, that it is not these aspects of Skousen's book that has inspired so many contemporary conservatives. Who, after all, in the United States today, doesn't believe in these principles? Certainly they are routinely violated in Iran, Russia, Saudi Arabia, and a dozen other countries, but they are not in question here in America.

In some places, Skousen's political conservatism does shine through, but rarely in an unenlightening way. For instance, (7) The Proper Role of Government is to Protect Equal Right, Not Provide Equal Things. The problem with this is that Skousen leaves out a third option: a "proper role" of government might be to mitigate unequal outcomes when they are not the fault of the afflicted. For instance, one might argue that it is the proper role of government to provide equal educational and health care resources to children and the elderly. Also (15) The Highest Level of Prosperity Occurs when there is a Free-market Economy and a Minimum of Government Regulation. I believe this a severe overstatement of the correct balance between market and state. The correct statement is that the market is especially powerful in producing and distributing goods and services in a flexible decentralized manner, but it produces a host of externalities. Many of these externalities are good and useful, but some are highly destructive and in need of regulation by the state. It is for this reason that there never has been a prosperous market economy without a strongly interventionist state. I am confident that there never will be. However, the state is run by politicians and bureaucrats whose capacity to intervene wisely on behalf of the public good is quite limited. Therefore, we will never have a perfectly regulated economy and any attempt to achieve this end will doubtless cripple private initiative and lead to a bloated public sector. We simply must learn to live with the evils whose alternatives are yet more evil.

I think the most distinctive aspect of Skousen's political philosophy is his instance on grounding liberal democratic political philosophy in religion, while at the same time denying a central position to any particular religion, and therefore promoting vigorous religious diversity. Skousen recognizes that "Natural Law" rather than religiously "Revealed Truth," is the basis of liberal democracy, thus avoiding any sense in which theology should be the basis of political principles. However, he insists that a belief in God and a reliance upon religious institutions are necessary ingredients in maintain a health political culture.

Thus we have (4) Without Religion the Government of a Free People Cannot be Maintained; (5) All Things Were Created by God. Therefore upon Him All Mankind are Equally Dependent, and to Him

They are Equally Responsible; (9) To Protect Man's Rights, God has Revealed Certain Principles of Divine Law. Skousen vigorously supports the "separation of Church and State," but holds that this achieves legal status only for the Federal government. State and local governments are not prohibited from mixing with religious principles, services, and icons, provided they do not favor on religion over another.

I was prepared to dislike this book, but was pleasantly surprised at how ecumenical a message Skousen has to offer. Moreover, the book is easy to read and hence will be accessible to the common citizen and voter who may, if lucky, get to read one or two books a year such deep subjects as the nature of American society.

Winner-Take-All Politics *by Jacob S. Hacker*

Interesting but not compelling analysis — Rating: 2/5

This book is an in-depth statistical and political analysis of the rather stunning increase in income equality in the United States since the Reagan era. The authors are clearly liberals with a political agenda, but they are knowledgeable and their analysis is professional. One may disagree with the authors ` conclusions (I do), but still learn from their analysis. I also profited from an issue of Politics & Society (38, 2 2011) containing several reviews of the book and a response by the authors.

Income inequality in the United States declined from the end of WWII to the mid-1970s and increased steadily in the 1980's to the present. Because the Democratic Party has the reputation of being the "party of the little people" (following Franklin Delano Roosevelt's New Deal redistributive policies), it is thus curious that Republicans have done so very well during this run-up of the wealth of the already rich. Some blame this on the fact that voters "vote their hearts" rather than their "pocketbooks," and voters are swayed by the family and church orientation of Republicans, as well as resonating with a meritocratic, free-market, political philosophy that the Republicans support whether or not the voters are, as individuals, on the winning side. Some blame this on the demise of labor unions and the collapse of Southern Democratic conservatism, leaving true liberals an embattled few on the east and west coasts of the nation. Some even blame it on the public relations success of conservative think tanks like the American Enterprise Institute.

All of these explanations have merit, I believe. Voters in fact do not care much about "inequality" per se, but rather care intensely about violations of fairness. Thus, it is not the astronomical increase in the income share of the very rich that moves most voters, but rather their indignation at the bankers who practically destroyed our economy yet hand themselves big bonus as a reward for what the public considers self-serving and antisocial behavior. Voters thus do vote their hearts, although fairness and merit are important issues of the heart. In addition, the decline of the Southern Democratic old-boy network and the virtual disappearance of private-sector unionism have cut the center out of the corporatist political philosophy so cherished by American liberals. The success of conservative ideology in America is a reflection of the preferences of the American voter. The notion that that voters are ignorant and apathetic, and hence easily swayed by the conservative think-tanks and talk-show hosts is exactly the opposite of the truth. The latter are successful precisely because they resonated with the political spirit of the American people.

Liberals like Hacker and Pierson generally lament this turn of events, which they characterize as the eclipse of liberal political philosophy. This is a mistake. American liberal values have triumphed over the past forty years in many critical spheres, such as tolerance of diversity, equal rights for ethnic and racial minorities, gender equality, protection of children from abuse by adults, and an expansion of the notion of the family to include same-sex unions. Other quality of life issues, such as environmental sustainability and abortion rights remain contested, but will almost certain win out in the long run, when the current generation of youth becomes a political majority. And in critical economic areas, bitterly opposed by conservative ideology, such as public education, social security, and Medicare, voters have indeed protected their material interests. Moreover, these successfully promulgated American liberal values, as well as the more traditional values of liberal democratic capitalism, increasingly resonate around the world.

Thus the notion that American liberalism is on the defensive due to voter apathy and gullibility is incorrect. The error is on the part of Hacker, Pierson, Paul Krugman and their supporters, who, in formulating Democratic Party politics, argue that the path to power lies in agitating about the plight of the "middle class," that is exploited by the super-rich. This is simply a bankrupt strategy that has never worked and probably never will. For, as I mentioned above, voters simply don't care much about the shape of the income distribution per se. For a recent analysis of this fact, see one of the Politics & Society reviews of Hacker and Pierson, "The Public's Role in Winner-Take-All Politics," (2010) 38,2 pp. 227-232, by Andrea Louise Campbell.

This is not to say that the stunning increase in the wealth of the very rich in the past few decades (hardly interrupted by the huge asset deflation initiated by the financial meltdown a few years ago) does not cause problems for American society. The biggest problem is simply that the stagnation of middle class income has curbed the demand for manufactured goods at the same time as manufacturing productivity is increasing at a rapid rate (the reader might ask why this does not just lead to falling prices of manufactured goods; this is a good question but a diversion from the current topic). The introduction of credit cards and the vast increase in credit card debt from the 1980s to 2006 fueled the consumption of manufactured goods (especially automobiles, electronics, and household goods), but the financial collapse has made consumers wary of acquiring new debt. It is this fact that probably explains the fact that we how have over 9% unemployment in the year 2011 even though the real prime interest rate is negative.

Hacker and Pierson barely touch on the above issues. Rather, they argue that shocked by the profit squeeze of the 1960s and 1970s at the hands of empowered workers and voters, American business determined to increase its influence by capturing raw political power and legitimating this power by fostering a free-market, anti-corporatist political philosophy. The Republican Party, emboldened by the growth of popular tax revolts in California and elsewhere, as well as the success of the Reagan administration in cutting the taxes of the rich, took the bait and formed an alliance of small scale conservative voters and the super rich, who financed a new level of political lobbying on behalf of deregulating the economy. This deregulation led directly to the meteoric increase in the income shares of the very rich.

If Hacker and Pierson are correct, the obvious solution for Democrats is to foster a counter-ideology and forge a counter-coalition with the friends of social equality. As I have said, however, this solution has been tried for the past two decades and has repeatedly failed. Neither Clinton nor Obama were elected on an income redistribution platform, and they certainly did not undertake any serious redistribution toward the "middle class." I believe that the Hacker-Pierson argument that politics is important to increased income inequality is likely correct, but their view that the business power is the causal force in enhancing the fortunes of the rich is incorrect. Rather the increased effectiveness of conservative arguments reflected a true shift in the political philosophy of the average American voter.

The watershed event in recent economic history was the rejection of American liberal economic policy by the voters who brought Ronald Reagan to the presidency. Reagan brought full employment and growth to the United States at a time when Europe was mired in persistent stagnation with double-digit unemployment rates. Reagan used his power to show the weakness of the industrial labor unions when he fired the air traffic controllers, and big business used the unpopularity of unions (which were in fact a labor aristocracy leeching wealth from consumers and taxpayers) and the competition from Europe and Asia to render them a thing of the past (except in the public sector, where there is no competition). The average voter listened to the new conservative ideology because it seemed to work, benefitting individuals who work hard rather than "special interests" who attempt to gain by holding back innovation and progress.

In short, the average voter liked the conservative economic message and the liberal quality of life message, and that's what they got. Of course this led to increase income shares for the rich. This could have been prevented in part by tax policy and increased corporate regulation, such as limiting the size and extent of stock options for CEOs in a period of sharp stock market run-up, but the public was not then interested such measures, so the business lobby successfully blocked such reforms. Similarly, the public largely agreed with or was indifferent to the financial deregulation of 1990s, which included

repeal of Glass-Steagall, permitting bank-insurance company mergers, and exempting novel financial derivatives from regulatory oversight.

It could be that one day all of middle-class America will wake up and say, "where have we been while the rich and powerful robbed us blind?" But I wouldn't bet on it. The bald-faced fact is that American liberalism has no economic vision to which the American people are currently attuned. Rather than face this fact, the American liberal intelligentsia, along with Hacker and Pierson, arrogantly and superciliously attribute voter preferences to apathy and ignorance. This stance is not only morally questionable, but is a sure recipe for failure. It is American liberal political philosophy that has failed, and it is about time this state of affairs is recognized and addressed.

The globalization paradox *by Dani Rodrik*

A New Creed for the Democratic Party — Rating: 3/5

Dani Rodrik is a gifted economist who has spent most of his professional life studying the evolution of the modern advanced liberal democratic economies. This book presents a political philosophy for the advanced countries. The audience is the interested layperson. There are no equations, tables or graphs in this book. Rather Rodrik's evidence is largely anecdotal, drawn from his vast experience.

Rodrik's message is simple. The first stage of capitalism was dominated by a hegemonic capitalist class and unregulated markets, guided by an ideology of laissez-faire. The second stage was dominated by the distribution struggle between industrial capital and industrial labor, with Keynesian economics in the ascendency. We are now in a third stage of capitalism in which globalization has thrown the supporters of labor in disarray, and in which a new set of nation-state level regulations are needed to protect democracy without losing the economic benefits of globalization.

The enemy for Rodrik is ultraglobalism, in which unregulated international capital flows prevent countries from redistributing in favor of the less well off, free trade principles prevent countries from applying their own environmental and product safety standards, and hypercompetition prevents countries from implementing desirable pay scales and occupational safety and health regulation. In short, says Rodrik, ultraglobalism is the enemy of democracy, because it prevents voters from making meaningful choices about the future direction of their own society.

Rodrik's recommendations for a healthy economic policy are far from radical. He recognizes that the prospects for "global government" are slim, so meaningful economic regulation will continue to be exercised at the nation-state level. He then asserts that each country has the right to determine its own social arrangements, regulations, and institutions, even when this self-determination interferes with globalization, and thus requires serious levels of economic protectionism. A replacement for Bretton-Woods for the control of international economic relations should permit the proliferation of national differences in the philosophy of economic regulation, should refrain from imposing the institutions of one country on another, except that democracy should be fostered in all countries, and non-democratic nations should not have full access to the international economy.

There are serious problems with Rodrik's argument, in my view. It is clear that his new regulatory order is aimed at resuscitating the power of organized labor to collude with big capital to raise wages and prices, and curtail competition over these and the quality of goods by restricting international competition. If Rodrik's regulatory system were in place in the last quarter of the 20th century in the USA, we would still be driving the gas-guzzler pigs of cars that the Big Three forced down our throats since WWII. What Rodrik calls "democracy" is really the exercise of special interests whose main goal is to prevent real competition. We can do without.

I do not think much of labor unions for the advanced liberal democracies in the present era. The maintenance of occupational safety and health are better served through national legislation that affects all workers, not a privileged few in a highly organized industrial sector. In the industrial era, where many important industries were oligopolistic so the bosses earned huge monopoly profits, the role of the union was to redistribute a portion of these monopoly profits to the firm's workers. With globalization, oligopoly has given way to competitive industries in which there is no monopoly surplus

for redistribution. Accordingly, labor unions have all but disappeared except in the public sector, where workers can fight for a bigger share of the tax dollar.

It is interesting to consider the two major capital-labor battles in the USA that rage as I write: the owners of the National Football and National Basketball Associations pitted against their players. Why is there a battle? Because the NFL and NBA both have charters granted by Congress that gives them monopoly rights. With these rights come monopoly profits, whence the logic of the Players' Associations. In a competitive sports framework, unions are simply not worth the candle.

Of course, Rodrik's is an attempt to articulate a liberal political philosophy for an era in which the traditional supports for the Democratic party have weakened. I do not think his well-meaning attempt will be successful.

Toward a General Theory of Action *by Edward Shils*

Sociology Must Return Here and Branch Out — Rating: 2/5

In 1950 Talcott Parsons was at his height in influence in the sociology profession. In this book, Parsons gathers some of the most influential social scientists of his time (Gordon Allport, Clyde Kluckhohn, and Samuel Stouffer, among others) to endorse his "general theory" of society. Despite the august company and a promising opening chapter by Parsons, the book is a failure and so was Parsons attempt to ground sociology in a generally acceptable theoretical framework. The various essays in this book, while readable, never go beyond Parsons himself, and are of marginal contemporary interest.

Parsons opens his introductory essay with these words: "The present statement and the volume which introduces are indented to contribute to the establishment of a general theory in the social sciences." Brave words indeed! By 1950 Samuelson's well-know Foundations of Economic Analysis was revolutionizing graduate education in economics, and biology was unified around the fundamental synthesis of Fisher, Wright, and Haldane. Parsons, who published his first synthesizing works in economics journals, had always seen himself as a synthesizer who might do for sociology what Samuelson did for economics. Why did he fail?

Part of the problem was undoubtedly the mind-set of sociologists of his time (and ours), which was to attach political messages to rather pedestrian observational and statistical material, and to reject any notion that there might be a "general theory" of sociology. But part of the problem was also Parsons' failure to articulate the close affinities of biological and economic theory with sociology. As for biology, we now know that Homo sapiens is one of several social species, and the biological/evolutionary analysis of human society is part of a more general scientific agenda, the study of the emergence and transformation of sociality in the biosphere. By lacking this broad perspective, sociologists in general were hobbled by a painfully short-sighted notion of the object of their studies. Indeed, the very idea of anthropology and sociology being distinct areas of study with virtually no theoretical overlap is a product of this myopic vision (anthropologists studied primitive society and kinship, while sociologists studied modern industrial society and social stratification). As a result, young people went into anthropology mostly because they wanted to preserve "pristine" pre-capitalist cultures, and into sociology mostly because they wanted to protect the downtrodden and the dispossessed. These are of course noble goals, but they cannot be achieved without some monumental social theorizing behind them.

Parsons' social theory was at base very simple, and very cogent. Society is a highly differentiated nexus of "role positions" (husband, worker, voter, hospital patient, subway rider, and so on) each of which is occupied by a person and a single individual can occupy many different roles. The rules and norms associated place general requirements of how an individual behaves in a given role position, and the individual is motivated to behave in this way by virtue of material and moral incentives. Conformity to moral incentives derives from the way individuals are socialized to accept the norms and values associated with society in general and specific role positions in particular.

If we restrict this picture to the economy, we recreate modern economic theory, except that in Parsons' time it was assumed in economics the people are purely selfish and a process of socialization could not

possible induce rational individuals to forego behaving perfectly selfishly. The role structure of the economy is the Walrasian general equilibrium system of firms and households, plus the economic aspects of government. The actors are the employers and employees who occupy positions in the economy, as well as government actors who are involved in regulating and policing economic activity. Of course, economists stressed that all of these positions could be efficiently filled by selfish agents, provided appropriate material incentives (rewards and penalties) were attached to the various economic roles. We now know that this assumption of the capitalist economy operating through purely material incentives applied to self-regarding agents is not true (see, for instance, my book The Bounds of Reason (Princeton, 2009), which supplies the appropriate empirical and theoretical references, and my new book with Samuel Bowles, A Cooperative Species (Princeton, 2011), as well as the more anthropologically oriented Joseph Henrich et al., Foundations of Human Sociality, Oxford, 2005, for details), but when Parsons wrote, the rationality = selfishness axiom was virtually universal in economic theory.

Of course, Parsons did say that economic theory is a "subset" of social theory, but he never managed to articulate how his vision of a theory of action would mesh with the economist's rational actor model. The answer is that (a) we must extend the goals of rational action to include moral behavior and non-material ends such as reciprocity, empathy, considerateness, and justice, even in purely economic transactions, and more so in general social life; (b) general role performance can be quite nicely modeled using an extended rational actor model, in which individuals have preferences that they try to satisfy as best they can subject to their material and informational constraints, and in conformance with their beliefs (called subjective priors in economics) and moral values.

Parsons' treatment of culture in his theory of action was far in advance of economic theory. In economics each individual has beliefs in the form of a subjective prior, but there is no formal way to compare or adjudicate among the beliefs of a heterogeneous set of economic agents. Economic theory thus was forced to assume "common priors" concerning the relative probability of various events, with no serious suggestions as to where these common priors might come from, as well as "common knowledge" concerning the facts of their common situation, without saying how this commonality might arise. This problem is especially severe in dealing with how individuals represent the internal states (beliefs and intentions) of others (see my analysis in The Bounds of Reason, Ch. 8). Parsons alternative, which is really due to Emile Durkheim, was to posit the existence of a "common culture" independent from and above both social institutions and individual personalities. This common culture is reproduced by specialized institutions (ritual, religion, schools, communications media, etc.) that ensure that culture remains common, changes only slowly under normal circumstances, and is "internalized" by the youth of each new generation. This common culture provides a common framework of assumptions and expectations that all social agents share, and provides the conditions needed by game theory to justify the assumption that agents will coordinate their activities appropriately (i.e., play Nash equilibria, in the language of game theory).

Parsons' treatment of culture is, however, only partially adequate. Its weakness is not dealing with the dynamics of cultural change. Culture is an effect as much as a cause and the dynamics of cultural constitution and change require careful development. The biological/anthropological treatment of culture in the theory of gene-culture coevolution, as developed by Robert Boyd, Peter Richerson, Marcus Feldman, Luca Cavalli-Sforza and others (see my review article "Gene-culture Coevolution and the Nature of Human Sociality", Proceedings of the Royal Society B 366 (2011):878-888, is a more fruitful starting point

Rather than envision the links between his sociological concerns on the one hand and biological and economic theory on the other, Parsons insisted on viewing all of social behavior through his particular lens of structural-functionalism. This was a serious error, because the power of his theory comes from its synergy with insights from other disciplines.

Why did Parsons take this path? Three key background factors were (a) his ignorance of mathematical modeling; (b) the extremely underdeveloped state of game theory until the mid-1970's, and (c) the inordinate fear Parsons, like most sociologists, had of be "swallowed up" by economics. This led him to ignore systematically the incentives side of motivating role performance. Indeed, Parsons learned from Pareto that moral concerns are "nonrational" and cannot be incorporated into a model of rational

choice. We now know that this is simply incorrect (see my Bounds of Reason, Ch 4.) The importance of the normative side to role performance is quite compatible with actors caring about material incentives. In fact, the interaction among agents in role-performance can be modeled as strategic interactions in which agents attempt to find best responses to the behaviors of others.

For whatever reasons, Parsons did make these mistakes and his critics wrongly criticized the whole Parsonian theoretical endeavor. The result is painful to view. Sociology is not at a crossroad, but rather at a cul-de-sac. We can do no better that to retrace our steps to more solid ground.

After Parsons *by Talcott Parsons*

After Parsons---Nothing Much Yet — Rating: 2/5

The Russell Sage Foundation both published this volume and financed the conference on which it is based. Russell Sage has been in the forefront of progressive social research in recent decades, which makes its eager support of a tribute to Talcott Parsons on the occasion of the centenary of his birth somewhat surprising. The contributors to this volume were virtually all students and cordial colleagues of Talcott Parsons, and none is among the politically motivated holy chorus that hounded him from the pinnacle virtually to the doghouse of the sociology profession in the 1970's.

This book includes a nice, super-Parsonian essay by Mark Gould, some interesting reminiscences by Neil Smelser, Jeff Alexander, and Robert Bellah, plus pretty terrific introduction to Parsons' work by the editors. But the title is misleading. There is not a single contribution to the book that builds on and goes beyond Parsons. Nor is there a contribution that suggests how Parsons' sociology might be restored to its rightfully central position in sociological theory, or how it might be combined with other aspects of sociological theory to form a substructure of future sociological research.

This book is not a "theory of social action for the twenty-first century." If it were it would have to address and refute Parsons' critics, which it does not even begin to do. Moreover, given the obvious discrepancies and incompatibilities among different parts of the Parsonian opus, the book would have to specify which parts of Parsons' theory must be accepted and which rejected. This it does not do, the authors preferring to treat Parsons' later work as "mature emendations" and "new insights" rather than the dead ends and the insufferably tedious commonplaces that some of them are.

My own view of Parsons' contribution is that his first book, A Theory of Social Action, is his greatest, and the central analytical tool in this book, the "unit-act" is a direct extension of the rational actor of economic theory to a larger sociological framework. The unit-act includes the end, means, and conditions of the rational actor model (which I have called the Beliefs, Preferences, and Constraints model to avoid the value-laden term "rational"), but adds a fourth element, norms. Parsons' unit-act thus corrects a major failing of the standard rational actor model, it silence on questions of morality and ethics, justice and fairness. Parsons' "conditions" in the unit-act are parallel to "beliefs" in the rational actor model, which are in fact generally known as "subjective priors," and include the actor's understanding of the relationship between means and ends; i.e., what are the probabilities that various actions will lead to various ends?

To relate individual behavior to social systems, Parsons developed his so-called "structural-functionalism," which views society as a nexus of "social roles" (teacher, mother, fire fighter, voter, sick person, etc.) that are occupied by "social actors" who behave according to the model of the unit-act. Each role is associated with an incentive system, a set of rule for proper behavior in that role, and a set of norms that the actor is supposed to internalize that guides the actor's personal sacrifices on behalf of role-performance. The failure to behave according to the social norms associated with a social role is, for Parsons, a form of social deviance. According to his theory, then, conforms to a "normative logic" and not merely the materialist economic logic of maximizing material gain. While economists were busy trying (unsuccessfully) to argue that we can run society successfully on the basic of rational self-interest, Parsons spent his life elaborating on the fundamental (Durkheimian) belief that values and norms are what makes social life productive and pleasant.

Parsons probably would have done better not to call his system "structural-functionalist," because sociologists have just as much trouble with the term "functionalist" as they do with the term "rational." I would call his system "social equilibrium theory," because it almost perfectly mirrors the Walrasian general equilibrium model that forms the conceptual basis of neoclassical theory. Supply in general equilibrium theory correspond to roles in social equilibrium theory (in fact, roles include "unpacked" versions of positions in the economic social division of labor), and demand corresponds to the actors who fill these roles. In "social equilibrium" there is a perfect meshing of actors and roles, and all actors conform to their normative role-expectations. But of course social equilibrium, like general market equilibrium, is rarely accomplished, and the disequilibrium dynamics of the social system are of extreme importance.

What seems to be a fly in the ointment of my analogy is that actors in roles appear not to be maximizing actors. But this is just a superficial problem. We have found since Parsons' time that the rational maximizing actor can be quite nicely applied to normative situations if we recognize that there is nothing irrational about behaving ethically and embracing normative goals and prosocial preferences along-side the traditional self-regarding material payoffs. For a leisurely exposition of this view and the experimental evidence on which it is based, see my book The Bounds of Reason (Princeton, 2009).

Combining Parsons' model of the unit-act with an expanded model of the social role as an aspect of the social division of labor in family and in public life in addition to economic life gives a theory which can well serve as a fundamental basis for sociological theory. The most important dimension missing from this theory is that of the nature and transformation of beliefs. Parsons treats beliefs as given by the cultural system, which stands above both the social system and the personality systems of social actors. In this he pretty much follows Durkheim, who deeply understood the role of culture in creating a common set of beliefs and understandings in an otherwise diverse society. However, Parsonian culture is basically detached from and outside the social system, without a true dynamic of its own. This is a lacuna that must be filled by a dynamic concept of culture.

The Social Construction of What? *by Ian Hacking*

Pleasant Addition to the Literature — Rating: 3/5

My introduction to postmodernism was at a liberal-artsy conference at the University of California at Davis, where an attractive and stylishly dressed woman, Donna Haraway, gave a talk, her voice seething with disdain and hostility consisting of slides of ads from Nature magazine selling complicated biological equipment using women and animals as models. I was completely flabbergasted. During question and answer period, I asked here, "If you took a picture of a native with a bone in his nose on South Sea tropical island, would you make fun of him? Of course not---that would be the height of impropriety. So why do you mock the culture of Nature magazine? What are you trying to prove?" Her answer was very simple. "I'm not trying to prove anything." That was it!

During coffee break I was told by others that Haraway was a "postmodernist" who was "deconstructing" modern biology, showing that biological theory is "socially constructed." I was still confused, because obviously all of modern science is "socially constructed." What else could it be? The next speaker was the formidable Professor Stanley Fish, now a brilliant commentator for the New York Times, but then the guru of the postmoderns, told us that even arithmetic is socially constructed. His example was the venerable denizen of the lumber yard, the two-by-four, which was in fact one-and-a-half by three-and-a-half. He concluded that "two" means "one-and-a-half" sometimes, so numbers don't mean what they say. During question and answer, I confronted him not with a question but a statement: the "two" in "two by four" refers to the unmilled size of the stock, not the milled size, so "two" does really mean "two." Similarly, the "four" really does mean (unmilled) "four."

I came home from Davis only to find a paper written by an old anthropologist friend asserting that smallpox vaccination in India was an "imperialist social construction" perpetrated to weaken Indian culture. My cozy world of rational intellectual exchange had been turned completely upside-down.

Ian Hacking's goal in this book is to explain and criticize the notion of "social construction" using the traditional tools of the professional philosopher. He begins by explaining the concept in everyday academic discourse, and then seeks its philosophical roots. He notes that when the postmodernist calls X a "social construction," he means that "X need not have existed, or need not be at all as it is. X, or X as it is at present, is not determined by the nature of things; it is not inevitable." (p. 6) Hacking adds that usually the critic adds that "X is quite bad as it is. We would be much better off if X were done away with or at least radically transformed." So, for instance, gender, race, emotions, mental illness, modern science, and many other things are "social constructions" and thus subject to the above critique. "Constructionists," says Hacking, "tend to maintain that classifications are not determined by how the world is, but are convenient ways in which to represent it." (p. 33)

Now of course there are social constructions that perfectly fit this definition. Social ideologies that justify racial, ethnic, sexual, and religious discrimination, or that suppress scientific truth in the name of a religious creed, are clearly social constructions, and in my view social constructions of the worst sort. But the general categories of race, ethnicity, religion, and science are not social constructions, but rather have a substantive reality independent of our wills.

Truth? The postmodernists are fond of denying any absolute notion of truth. Rather, there is truth-for-me and truth-for-you, and there is no secure way to adjudicate between our truths. For this reason, Hacking argues that constructionism is a form of philosophical nominalism, but he does not pursue this issue far, and it seems wrong to me. Nominalism vs. realism is a metaphysical issue dealing with the existence of universals, whereas postmodernism asserts that one can build up more than one total view of the world, and these views are hermetically sealed an incapable of cross-communication. This is a little like Willard van Orman Quine's theory of the indeterminacy of translation, but that also is not what the postmodernists mean. What they mean is that there is no realm of truth with which we poor humans have sufficient contact to overcome our tendency to build world-views that are to our liking, and to defend these world-view however deficient they may be in really explaining the world.

Phrased in this way, postmodern social constructionism harbors some powerful, self-critical insights. Whole books have been written validating that people can build world-views with only the slimmest relationship to reality and without any serious empirical support, and defend these views blindly in the face of the facts. Hacking, however, does not deal with this sociology of knowledge issue, but rather focuses on one critical area, natural science, where he argues forcefully against the social construction position. I will not go over his arguments, because it is clear to any reasonable person that natural science is not a social construction in the above sense, however forcefully the social constructionists have argued the opposite position. Rather, I want to consider two less clear-cut areas: public opinion and social science.

Is public opinion swayed by the facts in such contentious areas as global warming, the safety of nuclear power, and the possession of hand guns? Dan Kahan and is coauthors, in "Cultural Cognition of Scientific Consensus," Yale Law School Working Paper 205, 2011, for instance, conclude that "scientific opinion fails to quiet societal dispute...not because members of the public are unwilling to defer to experts but because culturally diverse persons tend to form opposing perceptions of what experts believe. Individuals systematically overestimate the degree of scientific support for positions they are culturally predisposed to accept." In other words, on contentious issues, people believe there is less scientific consensus than there really is, and place high regard for those scientists who agree with their position.

The phenomenon isolated by Kahan et al. is of course a very powerful one indeed. Moreover, there have been widely accepted yet incorrect scientific theories, often accepted without serious evidence in favor of them. For instance, social psychologists overwhelmingly supported "repressed memory" theories of child molestation as the cause of adult mental dysfunction for many years, yet the theory never had a factual basis. Similarly, autism was for decades treated as the effect of poor mothering, again without supporting evidence. Thus it is healthy for the public to take a skeptical stance with respect to scientific orthodoxy, although obviously this can be carried too far, as when parents reject vaccinations for the children even after exhaustive and thorough research has assured their overwhelmingly net positive contribution to the health of children.

Social constructionism is thus a useful theory for us to add to our box of tools for interpreting social events relating to science, although it is ultimately a fully self-destructive doctrine: if people entertain the possibility that the "authorities" are building sand-castles in the air, their critical capacities will ensure that in the long run the truth, unsullied by ideology, will win out. We should thus never underestimate the wisdom of the public in a free society where the public has access to all the facts, in addition to the pseudo-facts and non-facts.

The second area worth discussing is the behavioral sciences. Although all the behavioral disciplines pay serious attention to the gathering and analysis of the facts, most support several or even many alternative theoretical frameworks that cannot or do not talk to each other, and which one accept according to personal taste. This is true of sociology, social psychology, and anthropology, and biology, the latter taking the form of alternative models of the evolution of human society. While these disciplines refer to the facts, the facts never seem to convince proponents of one view that this view is wrong and an alternative view is correct. If one is a true scientist, one should not accept a theory as more than a working hypothesis, unless warranted by the facts. This is broadly violated in the above disciplines. Two stars for social construction theory.

Economics used to be in the same position as the other behavioral sciences, but there has been a "shake-out" in recent years that has left neoclassical economics the only game in town. This is not because the evidence supports neoclassical economics, but rather because neoclassical economics supports capitalism and capitalism has become the only game in town. But if you read neoclassical economic theory, it is often bizarre in the extreme, far from the facts, and the major neoclassical theorists are frequently arrogantly dismissive of those who point out its weaknesses. Practitioners and policy analysts care little about Grand Theory, use a small subset of basic neoclassical principles, supplemented by practical knowledge of what has worked in the past and what has not. To the extent that there are "paradigms" of social policy (free markets, limited interventionism, social democracy, etc.), they do fit the social construction theory. Free market enthusiasts, for instance, work on pure ideology, as there has never been a successful modern economy without a strongly interventionist state.

I am not happy to say that the behavioral sciences fit the social constructionist model. Note that I am not asserting that the behavioral sciences are riddled with sexism, racism, greed, self-aggrandizement, or some other fatal ingredient to good science. Rather, the behavioral sciences are rather young, and I expect them to graduate from social construction to science in coming decades. Certainly most behavioral scientists are motivated by the standard values of scientific research, including the belief that the is a single reality out there, that it is our job to discover it, and that we should be as free from personal bias as possible in our research activities. If there is a single major fatal flaw in postmodern social construction theory, it is the assertion that success in this endeavor is prima facie impossible.

European Economics At A Crossroads *by John Barkley Rosser*

Entertaining, if you are an Economist — Rating: 4/5

There used to be several brands of economics taught to budding young economists around the world. One was Marxian economics, another was institutional economics, a third was Austrian economics, and a fourth was Sraffian/Cambridge School economics. Finally, there was neoclassical economics, the body of economic theory stemming from Adam Smith, David Ricardo, John Stuart Mill, Leon Walras, and Alfred Marshall, culminating in the work of Kenneth Arrow, Paul Samuelson, and others in the post WWII period. The main development in economic theory since WWII is the virtual disappearance of all but the final, neoclassical brand, which is now taught in virtually every economics department in the world. If you want to see neoclassical economics in theory, take a look at an issue of Econometrica or the Journal of Political Economy. If you want to see the theory in practice, try the Journal of Economic Perspectives and the Journal of Economic Literature (the latter reports or a sprinkling of non-neoclassical works as well).

The triumph of neoclassical economics, while quite dramatic, is really for the lack of a better alternative. Some parts of the theory are quite solid bases for future development, such as game theory and Bayesian decision theory, but neoclassical economists are generally reluctant to extend these tools to

conquer new territory, but rather are happy to explore the same territory over and over with every more powerful mathematical tools. But, you can't squeeze blood from a stone, so new insights in neoclassical economics are extremely rare, and neoclassical economists are a dull and sanctimonious, hermetically sealed group of people who talk only to themselves. Moreover, unlike true scientists, neoclassical economists (with a few admirable and important exceptions) do not like experimentalists, whom they badmouth incessantly and with consummate ignorance.

Consider for instance the remarks of Nobel prize (and intensely creative) economist Robert Aumann: "The conclusions of behavioral economics are based to a large extent on questionnaires and polls," says Aumann. This is just completely false. I can't think of a single result in the experimental literature that depends in any way on polls, and questionnaires are used only for debriefing, demographic information, and the like. "Another problem is that the conclusions are based partly on experiments with money. Though there is some incentive given, this is usually small and people don't really pay much attention to it," says Aumann. This is quite misleading. Subjects in most experiments are motivated to participate solely on the basis of financial reward, and the amounts involved are comparable to wages that they could earn elsewhere. Field studies often use incentives that are extremely high compared to the daily wage, and there is no data indicating that subjects "don't pay much attention" to the monetary payoffs to the games they play. Aumann's views on this matter are shockingly uninformed. Aumann also says "I agree with the behavioral economists that people don't think about the decisions they make." First, this is a gross distortion of what behavioral economists say, to the point of being a malicious parody. Of course people think about the decisions they make, and humans are very, very fine decision-makers. Aumann's alternative account of decision-making is plausible, but not at all in conflict with the experimental literature.

Another infuriating characteristic of neoclassical economists is to study equilibria but to ignore dynamics. For instance, the central model of neoclassical economic theory is the Walrasian general equilibrium model, for which there are no known general dynamical extensions. In fact, the market economy is a complex dynamical system that must be modeled using stochastic processes---processes that are snubbed by neoclassical economists who look for solutions on deterministic differentiable manifolds.

So, not surprisingly, there are a considerable number of serious critics of the neoclassical approach, and the authors of this volume provide us with entertaining and illuminating interviews with some of the most prominent of these critics. I recommend this volume, and its predecessor, The Changing Face of Economics (Colander et al. 2004), in which mostly American economists are interviewed. The authors' fervent hope is that Europe not go the way of the United States in marginalizing all dissent from neoclassical orthodoxy. Like many of those interviewed, however, I believe that this is a vain hope. There may emerge alternative paradigms, but I suspect they will also be univeral around the world. The vision of a "European economics" pitted against "American economics" has little chance of occurring.

The most prominent economist interviewed in this volume is Ernst Fehr, whose experimental work is voluminous, brilliant, and completely accepted in the same graduate programs that teach neoclassical economic theory. Fehr has had many offers to teach in top US graduate schools (including MIT and Princeton), and his work, as well as that of experimental economics in general, is well represented in the curriculum, despite the hostility of the neoclassical theorists. In fact, while neoclassical economics has become hegemonic, the high theorists themselves are largely ignored because they have offered no new insights for decades. No grand theorist has won the Nobel prize in economics in recent years, except for Robert Aumann, whose contributions are extremely important.

The remaining economists in this group are either elderly statesman hostile or indifferent to the plea of the authors for more heterodox economics (Janos Kornai and Reinhard Selten), or younger economists who have nothing serious to replace neoclassical economics. I was interviewed in the authors' earlier book, and when asked my views on heterodox economics, I replied that I am homodox, not heterodox. I believe there is one correct economic theory, and our job is to find it and promulgate it. I am not very tolerant of "heterodox" thinkers who are good at critique (I call it moaning and groaning) but poor at alternatives.

The exception to this generalization are cogent critiques of contemporary macroeconomics, including the brilliant critiques of Chicago macroeconomics by Johansen and Juselius, and approaches to

macroeconomics fragility using complexity theory and agent-based modeling, by Kirman, Gallegait, and Gardini. Contemporary macroeconomics, both the Keynesian and Chicago varieties, are fatally flawed and will not survive for another five years, even if there is no systematic alternative. This is because these theories use representative agents and therefore cannot deal with coordination problems, which are at the heart of contemporary macroeconomic instability.

It is hard not to love the authors of this volume. They are serious and critical, taking time out of their own research to "stir up the pot" of alternatives to neoclassical economics. They have found no alternatives to microeconomics, though, despite the pressing need to wrench economic theory development out of the hands of the unimaginative and uncritical individuals who control the major economics journals, and who appreciate complex math but haven't had a serious theoretical idea in decades. I urge the authors to devote a third volume to those who are working on this task.

The Theory That Would Not Die *by Sharon Bertsch McGrayne*

A Complete Muddle — Rating: 2/5

Sharon Bertsch Mcgrayne is a talented science writer whose portraits of great scientists of the past are incisive and entertaining. However, she evidently believes that one must studiously avoid dealing with any serious scientific issues in entertaining a popular audience. For this reason, this book is a total failure. Why should a reader care about the history of an idea of which he or she has zero understanding? Mcgrayne turns the history of Bayes rule into a pitched battle between intransigent opponents, but we never find out what the real issue are.

In fact, Bayes rule is a mathematical tautology, being the definition of conditional probability. Suppose A is an event with probability P(A) and B is an event with probability P(B). Let C be the event "both A and B occur." Then the conditional probability P(A|B) of event A, given that we know that B has occurred, just P(C)/P(B). Moreover, if a decision-maker knows P(A), P(B), and P(C), and discovers that B occurred, then he should revise the probability that A occurred to P(A|B) = P(C)/P(B). Why? Well, suppose we have a population of 1000 individuals, where the probability that an event E is true of an individual is P(E), where E is any one of A, B, and C. Then the expected number of individuals for which B is true is 1000*P(B). Of these, the number for which A is also true is 1000*P(A). Therefore, the probability that an individual satisfies A, given that he satisfies B, is 1000*P(A)/1000*P(B) = P(A|B).

For instance, suppose 5% of the population uses drugs, and there is a drug test that is correct 95% of the time: it tests positive on a drug user 95% of the time, and it tests negative on a drug nonuser 95% of the time. If an individual tests positive, we can show using Bayes rule that the probability of his being a drug user is 50%. To see this, let A be the event "subject uses drugs," and let B be the event "subject test positive for using drugs." First, what is the probability P(B) of event B? Well, take a random subject. With probability 1/20 he is a drug user, so with probability (19/20)(1/20)=19/400 he is a drug user testing positive. With probability 19/20 he not a drug user, so he is a non-user testing positive with probability (1/20)(19/20)=19/400. Thus P(B) = 19/400+19/400=38/400. Let event C be "subject uses drugs and tests positive for using drugs." This probability is (1/20) times (19/20) = 19/400. Thus P(A|B) = P(C)/P(B) = 1/2.

If this seems mystifying, consider the following interpretation. Suppose we test 10000 people. The expected number of drug users will be 500, and 95% of them, or 475, will test positive for drug use. But 9500 people will be non-drug users, and 5% of them will erroneously test positive for drug use, which is 475 people. Thus, 50% of those who test positive for drugs are actually drug users.

The real brilliance of Bayes Rule lies in the fact that sometimes we want to find P(A|B) when we don't know either P(C) or P(B), but we do know P(B|A) and P(A). For instance, want to know P(A|B), meaning the probability that an individual who test positive is actually a drug user, but we only know the frequency P(A) of drug use in the population (5%) and the accuracy of the test, which is P(B|A) = 95% (a drug user tests positive with probability 0.95). Then we can write P(A|B)P(B) = P(C)=P(B|A)P(A). From the first and third terms we get P(A|B) = P(B|A)P(A)/P(B). In our case, this gives P(A|B) = 0.95(0.05)/P(B)=0.0475/P(B). But we can also calculate P(B) as follows.

Let N mean "A is false for the subject." Thus P(N) = 1-P(A) = 0.95. Then we have

P(B) = P(B|A)P(A) + P(B|N)P(N), as can be verified by simply multiplying out the right hand side of the equation. Thus in our case we have, given that we know that P(B|N) = 0.95 (the test accurately predicts that a non-user is a non-user with probability 0.95), so we have P(B) = 0.95(0.05) + 0.05(0.95) = 0.095. Thus P(A|B) = 0.0475/0.095 = 1/2.

Isn't this a simple and beautiful result? Only arithmetic and grade school algebra are used to arrive at this stunning result. By the way, for more on Bayes Rule, see my textbook Game Theory Evolving (Princeton 2009).

Now, who could dispute this analysis? It is clearly correct. So where does all of the vehement opposition to Bayes rule come from? The answer is that when a group of individuals (e.g., professional scientists) do not agree on P(A) then you cannot apply Bayes rule. You can however show that under many conditions, repeated observations of events A can lead to mutually acceptable values for P(A). For instance, suppose you know that the weight of a substance per ounce is variable and unknown, and each scientist i has his personal prior probability Pi that the weight is less than one gram per ounce. Suppose we take unbiased samples that are each about one ounce, and we take unbiased measurements of the weight. Then the long-run average of the sample weights will be accepted by all scientists as the updated probability. This is Bayesian updating.

However, it is not true that Bayesian updating always lead to convergence to a common probability distribution. See, for instance, papers by Mordecai Kurz, of Stanford University. Moreover, when observations are limited, the range of assessments of probabilities can be quite wide. This is why Bayes rule is considered "subjective." However, when we really know the probabilities, as in the case of the drug testing example, there is no controversy about the value of Bayes rule. It is extremely valuable, indeed indispensable, in such cases.

This book manages to obfuscate a very simple issue, turning sciences into a vast morality play. Now of course there are deep issues in the philosophy of probability that implicate Bayes rule, but one does not learn what they are from this book.

The Myth of Morality (Cambridge Studies in Philosophy) *by Richard Joyce*

The Myth of Morality is a Myth — Rating: 4/5

There are three non-theological approaches to moral theory that have fueled disputes for centuries. The first is virtue ethics, championed by Aristotle, which claims that the goal of moral behavior is to possess certain 'virtues' (such as courage, wisdom, justice and temperance) which are inherent in being a fully flourishing human being. The second is deontological, according to which there are rules governing our behavior (e.g., Kant's Categorical Imperative) that must be followed regardless of our desires and independend from the effects of our actions. The third is utilitarian (Bentham, Mill, Sidgewick et al.) which counsels acting to maximize some form of social happiness. I have come to the conclusion from my study of human behavior that each of these three captures the way some people organize their moral life. Richard Joyce appears to make a meta-ethical analysis of morality, but in fact his is a strong attack on the deontological approach to morality, followed by an argument (to me unconvincing) that without a solid foundation of ethical obligation, the rest of moral discource will be irreparably weakened. Because he recognizes the social utility of morality, he champions a "fictional" approach to ethics: just as we can enjoy novels and other forms of make-believe, so we can embrace moral discourse, even though it is fake.

The problem for Joyce is simple. We treat moral statements as though they have truth values, and we even debate which moral statements are true and which are not. But moral statements are not facts, and they cannot have truth values in the same sense as in everyday life (the water is in the glass) or science (water is a diatomic molecule). So if moral obligations are not true, why should be obey them? Whence the myth of morality.

Let me say first that my personal morality is more of a virtue morality than any of the other brands. I do not steal or kill, and would not even if I were assured of getting away with it, because I find such activities filty and demeaning. For me, moral values are part of my preference function, just as is my love for ice cream and fast cars. Moreover, I am constantly trading-off virtuous behavior for other valued goals I might have, such as personal comfort or meeting someone elses' needs. Morality is not a fiction, but perhaps moral obligation is, from my point of view.

But I know many people who build a strong moral life around "obeying the rules." My pious relatives obey the rules of the Talmud simply because they are the rules by which the Jews are obliged to live their lives. Some are judgmental and feel superior to those who ignore these rules, while others are perfectly tolerant of others who live by different rules, or even by different ways of organizing their ethical priorities.

I believe humans make morality in the same way they make language: it is simply the way we evolved. A linguist recognizes that every language has rules that govern correct and incorrect speech, but it is folly to ask what are the ultimately correct rules. Languages have lots in common all over the world because humans evolved a mental structure conducive to certain linguistic regularities. Similarly, humans have evolved a fairly common set of moral principles across a wide variety of forms of social organization. It is true that we speak of moral principles as right or wrong, true or false, but that does not mean that we are wedded to a "realist morality." Note that we say "the sun rises in the East and sets in the West," and this does not commit us to an earth-centric astronomy. Language is simply too flexible and subtle an instrument to treat out-of-context discourse as though they betray epistemological or ontological commitments.

That said, I highly recommend Joyce's book as a first-rate mental exercise.

Making Social Science Matter *by Bent Flyvbjerg*

Draws Oppositions where Synergies are Available — Rating: 3/5

Making Social Science Matter was written in Danish and translated into English, very beautifully, by Steven Sampson. It is a fine addition to sociological theory, and deserves a careful reading. It is a new addition to the venerable tradition set down by Peter Winch, Hubert Dreyfus, Harold Garfinkel, and many others, who claim that the canons of natural science do not apply to understanding human society. Various reasons are given supporting this view, but they all agree with Richard Lewontin (p. 3), who opines that "social science has set itself an impossible task when it attempts to emulate natural science and produce explanatory and predictive, that is, epistemic, theory." Among the prominent reasons are that social theory is inherently value-laden because we are both the subject and the object of study, society is the product of human consciousness, which is self-incomprehensible, and most simply, human society is far too complex to either explain or predict.

Flyvbjerg develops this theme with insight and flair, although he tries to do two other things as well, with less success. The first is to show that the concept of "power" must be central to all social theory. He fails to show this and his treatment of power is quite standard and rather restricted to left-critical and post-modern treatments. The second is to apply his theory of what social science should be to his own life-experience. Here too his treatment is quite mundane and lacking in insight. He would have done better to drop these two themes, and simply refer to the great hermeutic social thinkers, such as Aristotle, St. Thomas Acquinas, J. J. Rousseau, Alexis de Tocqueville, Bernard Mandeville, and Compte de Montesquieu, and the other greats whose works exemplify this approach to social understanding.

Flyvbjerg's approach is to contrast three forms of knowledge in Aristotle: episteme (theoretical knowledge), techne (technical know-how) and phronesis, which he treats as wisdom gathered through personal life experience and emotive identification with the life-forms studied and their myriad activities. The social-science-as-natural-science folks believe that the height of social knowledge is episteme in the form of Grand Theory, whereas in fact meaningful social knowledge consists of phronesis in the form of case studies by wise and perceptive viewers.

"At present," Flyvbjerg claims, "social science is locked in a fight it cannot hope to win, because it has accepted terms that are self-defeating. We will see that in their role as phronesis, the social sciences are strongest where the natural sciences are weakest: just as the social sciences have not contributed much to explanatory and predictive theory, neither have the natural sciences contributed to the reflexive analysis and discussion of values and interests, which is the prerequisite for an enlightened political, economic, and cultural development in any society."

It should be clear that by "social science" Flyvbjerg means "sociological and anthropological theory," because his remarks simply do not apply to psychology, economics, or biology, and his treatment of power is too weak to consider his analysis as applicable to political science. Obviously areas like paleontology, neuroscience, epidemiology, and many other areas of social science are quite impervious to the Flyvbjerg critique.

Flyvbjerg is absolutely correct in his support for thickly descriptive ethnographic and historical research, and in his claim that phronetic approaches are important contributions to social science. His error is thinking that this research conflicts with more traditional approaches to explanation in sociology and anthropology. In fact, the research he supports is synergistic with analytical and empirical studies aimed at understanding human society.

Sociology and anthropology are intimately connected to paleontology and evolutionary biology simply because Homo sapiens is a species that evolved to its present position by virtue of the same biological laws that apply to all other species. Of course, there are staggeringly important human specificities, but there are many social species, and until some 30,000 years ago we were not alone in exhibiting these specificities. There is much to learn about human society by comparing and contrasting with other social species---see for instance the recent book Superorganism, by Bert Hölldobler and E. O. Wilson, or my edited collection Moral Sentiments and Material Interests.

I appreciate Aristotle and Machiavelli, but I also have learned an enormous amount about society by reading widely and deeply in animal behavior theory. I love Levi-Strauss, but I also appreciate Donald Brown, who has shown how human values are represented in hundreds of societies, and Frasier's Golden Bough, which gives insight into human religion by cataloging hundreds of religious forms around the world.

Flyvbjerg makes his case by setting up straw men and choosing only examples that support his point of view. One example of a straw man is the notion that the natural sciences can "explain and predict" while the social sciences cannot. Physics can explain phenomena only under highly controlled circumstances, certainly not in general. Physics has changed our lives so much because engineers can reproduce these controlled circumstances in the real world. Except for astronomy and atmospherics (in the age of satellit supercomputers), physics cannot explain or predict much in the way of natural events. Social theory can easily do as well as the natural sciences in situations in which carefully controlled experimentation is infeasible for one reason or another.

An example of cherry-picking examples, Flyvbjerg's examples of successes in the natural sciences are all of the thought-experiment type: Galileo on falling objects, Einstein or general relativity, and the like. Most advances even in physics are not of this type, but rather involve careful and repeated measurement linked to deductive and inductive logic.

Flyvbjerg will appeal to the armchair philosopher who is too ignorant of real advances in our understanding of society to appreciate the value of sustained empirical and theoretical research. I urge the author to give us a new book that appreciates the synergy among episteme, techne, and phronesis, for synergy there surely is.

Applied Computational Economics and Finance *by Mario J. Miranda*

Worth adding to your library, but nothing new, and much misleading — Rating: 2/5

It is very common in the natural sciences to have exact analytical results, but to lack the mathematical techniques to provide analytical solutions to the resulting equations. In many cases this is due to incomplete knowledge, so some future mathematician will come up with solutions that do not now exist.

However, it is often the case that there do not exists closed-form solutions, or the problem is so large that the required calculations are infeasible. The latter is often the case with so-called complex systems---they are complex only in the sense that the solution space exceeds our capacity to calculate.

In such situations, the accepted research technique is to find approximate solutions for an appropriate range of model parameters. This book is devoted to providing techniques for this "computational" approach. The authors' preferred models are dynamic optimization models, and somewhat ironically, their presentation of the models (although not going beyond Bellman and Lucas-Stokey) is the more interesting part of the book. By contrast, their presentation of computational methods is elementary, basically describing a tool kit using the MatLab software environment. This is a serious error, because it leads the user away from useful computational techniques.

The book opens with techniques for solving linear equations and approximating roots to continuous functions. In fact, the user rarely needs to know such details, but rather should go to Mathematica or Maple software that can do a better job in 99% of the cases that a casual user will ever do knowing the few classical techniques used in this book. But the authors never mention any software except MatLab, which is good for some things but not very good for others.

The biggest gap in the books is its treatment of Markov processes, which are ubiquitous in models of choice and strategic interaction. Markov processes are classic examples of analytical models in which it is easy to write down the equilibrium and even the dynamics, but the equations are many orders of magnitude too numerous to solve in human dimensions of time and space. Moreover, in my estimation Markov models are much more important than dynamic optimization models, which presume much more information on the part of the decision-maker than is usually available (outside of an engineering context). Finanical economic is a mess in part because it makes assumptions that allow dynamic optimization to appear to provide useful solutions, but in fact more realistic behavioral models, taking seriously the information possessed by decision-makers, would be much more useful.

As an alternative to this book, I would look at Judd and Tesfatsion's Handbook of Computational Economic and the many references therein.

Supercooperators *by Martin A. Nowak*

A Wild Ride through Modern Sociobiology — Rating: 4/5

Martin Nowak is a mathematician and scientist of great stature, expansive ambition, and all-embracing energy. He avoids being hog-tied to any particular discipline, but rather follows his fancy where it takes him in the behavioral sciences. Nowak is especially admirable because he is an iconoclast who comes out guns a-blazing to confront any Received Wisdom with which he fundamentally (or even marginally) disagrees. He apparently does not mind being wrong (he sometimes is) because when he is right, it more than makes up for his goof-ups. Nowak was a student of Peter Schuster, the great mathematical chemist, and a student and coauthor of the biological mathematician Karl Sigmund, at the University of Vienna in the late 1980's.

Nowak is currently the head of the Program for Evolutionary Dynamics at Harvard University. He was hired by Harvard after an admirer offer to contribute a Very Large Sum to the Harvard endowment as part of a deal to install him as Professor of Mathematics and Biology at the august institution. Nowak steps on lots of peoples toes, and there is little chance he would have been hired at the venerable school without the huge monetary emolument. This is no criticism of Nowak---Harvard does not cotton up to anti-Establishment, transdisciplinary, iconoclastic intellectuals. To round out Nowak's multidimensional cerebral life, he is an observant and pious Catholic, and his work at Harvard is co-sponsored by the Templeton Foundation, famous for its support of projects that link science and spirituality.

The main theme of SuperCooperators is both important and ubiquitous in modern behavioral science: we humans are who we are because we evolved that way biologically, and cooperation has been the key to our success as a species. "Out breathtaking ability to cooperate is one of the main reasons we have managed to survive in every ecosystem on Earth, from scorch, sun-baked deserts to the frozen wastes of

Antarctica to the dark, crushing ocean depths" (the hyperbole is a typical of Nowak's literary tricks; in fact we have not survived in any of the three ecosystems he mentions, but we have in most of those he does not). If the last half of the Twentieth century was the Homage to Selfishness, the first half of the current century is the Homage to Cooperation. Perhaps the most important contribution to this new theme is John Maynard Smith and Eors Szathmary's The Origins of Life, which depicts each stage in the development of biological complexity as the synergistic synthesis of hitherto competing biological entities, from single-cell to multicellular organisms, from prokaryotic to eukaryotic cells, all the way up to social species, of which our species is among the most successful. As for humans, Samuel Bowles and I have argued this position for some fifteen years, our book "A Cooperative Species" (Princeton, 2011) coming out in a few months, and our colleagues Robert Boyd and Peter Richerson predated our effort by at least a decade.

SuperCooperators is extremely accessible to non-scientists. It dispenses with footnotes and highly accurate but complex phraseology, in favor of explaining concepts in a witty, conversational, and light-handed manner. One is struck throughout with Nowak's love of mathematics and science. He repeatedly conveys to the reader his the love of knowledge for its own sake (he regularly quotes from Albert Einstein, a man whose passion for truth approached theological levels). He also conveys his commitment to and fondness for his co-researchers, both teachers and mentors (the book is dedicated to Bob and Karl---presumably his mentor Robert May and his teacher and coauthor Karl Sigmund). In fact, SuperCooperators is much more a book about the work of Nowak and his Harvard Program for Evolutionary Dynamics than it is an even-handed overview of the field and its development. This was a good choice on Nowak's part, because it permits him to convey the degree of collegiality and personal commitment that is one of the great comforts of scientific research, and is often ignored in favor of maintaining the emotional flatness that is (falsely) reputed to be the hallmark of good science.

How do we account for human cooperation? Nowak offers five very broad mechanisms: direct reciprocity, indirect reciprocity, spatial selection, multilevel selection, and kin-selection. He devotes a chapter to each of these mechanisms, in each case highlighting his own contributions. This may sound self-aggrandizing, and it is. But I do not think this is a mistake. The benefit for readers is a sense of intimacy with the writer, who becomes the protagonist in a scientific melodrama, a knight in shining armor slaying falsity and promoting truth wherever his wanderings take him. However, this approach does not allow the reader to appreciate the substantive scientific issues involved. For instance, Nowak is strong supporter of kin-selection, but a bitter critic, along with Harvard colleague Edward O. Wilson and co-worker Corita Tarnita, of William Hamilton's explanation of kin-selection in terms of "inclusive fitness." Now you must understand, dear reader, that the inclusive fitness concept has become the standard explanation of cooperation in population biology and animal behavior theory, so Nowak's critique, presented in Nature in 2010, produced a major shake-up in the profession. Nowak presents his critique here, but does not attempt to relate the counterarguments, which are at least extremely interesting, and probably indicate serious problems with the Nowak-Tarnita-Wilson argument. For one think, the authors pose inclusive fitness theory as an "alternative to natural selection," which is pretty ludicrous. Right or wrong, inclusive fitness theory is a form of natural selection, not an alternative to natural selection.

To convey his light-handed treatment of scientific themes, consider Nowak's treatment of multilevel selection. After two short paragraphs going over the history of group selection (focus on Wynne-Edwards' latter years studying red grouse with binoculars from the window of a room in a rest home in the Dee Valley), Nowak confesses that earlier attempts to model multilevel selection were "too complicated for my taste" and that he and Karl Sigmund did not find them "particularly convincing." This manner of presenting objections to a scientific theory bypasses all substantive issues (what were the earlier models and what were their successes and deficiencies) and moves directly to the subjective emotions of Nowak and Sigmund. How does Nowak describe his and Sigmund's passage into the theory of multilevel selection. "In the heart of the Rauriser Urwald," he writes, "Karl [Sigmund] and I came across a little wooden board bearing a poem by Goethe (1749-1832)...Goethe's poem begins as follows: "Muesset beim Naturbetrachten immer eins wie alles acten." This translates as "When looking at nature, you must always consider the detail and the whole." I could not think of a better way to express the idea of multilevel selection and, though I realized the field had a long, troubled, and vexatious history, I began to think about whether it might work in the real world." Now, of course, the Goethe quote can be

interpreted in many ways, but none of them has anything to do with multilevel or any other form of selection. Moreover, I frankly do not believe that this story is accurate. It sounds like an apocryphal yarn, like the one about Newton and the apple.

Nowak goes on to explain the model of multilevel selection with Arne Traulsen that is no different than a dozen previous models of the within-group cost and between-group benefit of altruistic behavior, and with no mention of Price's equation, which was the inspiration for all previous mathematical models of multilevel selection (Nowak belittles Price's equation later in the book as being "tautological", which is incorrect, as it depends on a empirically meaningful analytical representation of biological fitness). The paper Traulsen and Nowak wrote (PNAS 2006) was indeed simple and elegant, but hardly earthshaking. The elegance derives from its simplifying assumptions (recall Nowak's distaste of complexity), which include (a) no migration; (b) fixed maximum group size; (c) groups of maximum size consist of all cooperators or all defectors. None of these conditions is biologically relevant, so the Nowak Traulsen contribution is likely only of passing interest. To reiterate, I do not consider Nowak's self-aggrandizement a mistake, given his goal of presenting the non-scientist reader with a highly human treatment of behavioral and mathematical theory. The historians will sort out who actually did what, and the average reader does not really care at all. However, this approach does lead to the suppression of scientific content in favor of personal feelings and memorable anecdotes.

Given his strong personal commitments to his co-workers, it is not surprising that Nowak rarely has praise for the sustained and seminal contributions of contemporary researchers who work outside his research group. Luca Cavalli-Sforza, Robert Boyd, Peter Richerson, Robin Dunbar, Alan Grafen, Amos Zahavi, and Joseph Henrich are not mentioned at all, and others, including Samuel Bowles and Marcus Feldman, are mentioned in passing for a particular study or two, but nothing revealing the depth of their thought or nature of their contributions to modern behavioral science. Similarly, he has little room for contributions from other fields, such as economics, sociology, and psychology, or evidence from archeology, history, anthropology, or paleontology. This I also consider a shortcoming. Weaving the contributions of others with his own in a more substantive way would give the reader a better appreciation for the contemporary state of research on cooperation and conflict in the animal and human world. Perhaps this is just tit-for-tat, as I find that few authors from the behavioral sciences outside of Nowak's circle pay much attention to the work of Nowak and his students. My problem with Nowak's models is that they tend to remove important aspects of the subject being modeled in the interest of obtaining elegant formulas. What, for instance, is the value of a model of group selection without migration and variable group size? What, indeed, are we supposed to make of the Prisoner's Dilemma played on a grid, when in real life no species plays any games at all on a grid.

I like the fact that Nowak does not shy from headlong attack on ideas that he thinks are wrong. I am not so happy, however, when the ideas of people with whom I work are being attacked. Nowak's Chapter 12, "Punish and Perish," is just such an attack. In various works, my colleagues and I have proposed that humans exhibit a behavioral syndrome we call "strong reciprocity," according to which most humans have a predisposition to cooperate in collective endeavors that depend on voluntary participation, the success of which depends on a high rate of cooperation and a low rate of defection, and also have a predisposition to punish those who free-ride on the cooperation of others, without requiring that their efforts be repaid in the future. The latter predisposition has been called "altruistic punishment," and it is this concept to which Nowak objects. I think Nowak has correct objections to assertions we do not make but that he attributes to us, and incorrect objection concerning statements we do make.

Nowak begins Chapter 12 by saying that "Punishment is not, as some have claimed, a mechanism for the evolution of cooperation." Rather, he claims, "punishment fits neatly into the framework of the Prisoner's Dilemma." Here Nowak's claim is incorrect. The Prisoner's Dilemma, and direct reciprocity as well, are only relevant in dyadic interactions, and it is quite true that altruistic punishment is irrelevant in such interactions, or in fact in even broader interactions where reputation effects are powerful and ubiquitous. However, human cooperation occurs in large groups in which reputation effects have little or no power. It is these situations that altruistic becomes relevant for sustaining cooperation.

For instance, consider voting in a democratic society. It is costly to vote and because one vote cannot change the outcome of an election except in the smallest of communities, a purely self-regarding person

would never vote. Voting is thus mostly an example of the positive side of strong reciprocity, that of altruistic cooperation. However, many people vote because their family, friends, and associates would disapprove of their lack of community spirit if they did not vote. If A does not vote and B expresses disapproval, then B incurs the cost of disrupting the normal relationship between A and B. Disapproving of A is thus an act of costly altruistic punishment, supporting democratic norms at personal expense without the likelihood of any personal gain therefrom. Without such altruistic punishment, voting might be considerably less common than it is, a situation that could delegitimize political democracy.

Consider also ostracism, which is a common group punishment to a member who violates the norms associated with group membership. An individual is ostracized when all (or at least most) group members rupture normal relations with the individual and/or actively prevent the individual from participating in group activities or sharing the benefits of these activities. We tend to ignore the altruistic punishment side of the ostracism phenomenon, but it is always present, unless there is an external third party who has an incentive to enforce the ostracism decision.

Nowak does recognize the existence of mufti-player games, as when he says "If I punish you for defecting in games with other players, that is indirect reciprocity." This statement, however is incorrect. Indirect reciprocity depends on the ability of the group to establish strong reputational information, but such information is generally not available in large groups. If I express to you my disapproval of your not voting who, other than yourself, will see this action and use it to increase my stock of "good reputation"? The answer is generally, no one; nor do I express my disapproval because I hope to gain reputation-wise.

Of course altruistic punishment is not a "mechanism of evolution" in the sense of direct reciprocity, indirect reciprocity, and the others among Nowak's "big five." The big five are social mechanisms, whereas, altruistic punishment is an evolved form of behavior exhibited by humans that contributes to human cooperation, and hence to the emergence of our species as a world-scale key player. It operates in direct interactions, large groups, and explains important aspects of multilevel selection in humans, but like big teeth, wings, or an advanced immune system, it is not a "mechanism" of evolution.

Nowak also stresses that in the many experiments that have shown the efficacy of altruistic punishment in fostering cooperation, in fact the cost of punishing often completely offsets the gains from cooperation. He does not, however, present the important study by GÃÃ,Ã,Â¤chter, Renner and Sefton (2008) in which subjects are allowed to interact over 50 periods rather than just 10. They found that after the initial rounds, the net benefits to the group with the punishment option significantly exceeded those of the no-punishment group with the difference in net payoffs growing over time, except for the final round in which the hapless end-game free-riders were heavily punished.

Given that most social dilemma interactions in neighborhoods, work teams, and the like, extend over far more than 10 periods, the concern that altruistic punishment lowers group benefits to be misplaced. The experiment to which Nowak refers (Dreber et al. 2008) does not constitute evidence for the counterproductive punishment hypothesis for the additional reason that their two-person game made punishment irrelevant, for one could always retaliate on a defector simply by withdrawing cooperation, thus obviating the need for any special kind of punishment. But while the 50-period design of the GÃÃ,Ã,Â¤chter et al. experiment corrects one of the design biases that suggested counterproductive punishment in the earlier experiment, their design still misses something essential to altruistic punishment in the real world: it is effective only if it is regarded as legitimate according to widely held social norms.

Ertan, Page, and Putterman (2009) designed an ingenious experiment to explore this possibility. They allowed experimental subjects prior to playing the public goods game to vote on whether punishment should be allowed and if so, should it be restricted in any manner. From their first opportunity to vote, no group ever allowed punishment of high contributors, most groups eventually voted to allow punishment of low contributors in the baseline treatments, and the result was both high contributions and high efficiency levels. In the laboratory, groups solved their free-rider problems by allowing low contributors alone to be punished. Apparently the determination of the punishment system by majority rule made the punishment not only an incentive but also a signal of group norms.

Nowak also argues that what we call altruistic punishment is often costly but not motivated at all by prosocial feelings of punishing norm violators. Rather it is motivated by spite and a taste for revenge. Punishing those who have hurt you is normally motivated by a taste for retribution rather than a selfless expression of support for public morality. Indeed, in our research we tend to term this costly punishment, and it is altruistic in the sense of being other-regarding. However, fully understand that retribution is generally not motivated by prosocial intentions. Much of the punishment that occurs under the rubric of strong reciprocity is motivated by the urge to retaliate simply because hurting those who hurt you is a selfish, however socially useful, pleasure.

Nowak's critique of altruistic punishment in Dreber et al. probably should not have been published because it is well known that cooperation can be sustained in the repeated prisoner's dilemma by self-regarding players without punishment (it is called tit-for-tat), and interpreting cooperating as "reward" in this setting is just a semantic ploy with no substance. However in 2009, in Science, Nowak published a true public goods game with punishment (groups of size four), called "Positive Interactions Promote Public Cooperation," with coauthors David G. Rand, Anna Dreber, Tore Ellingsen, and Drew Fudenberg. The paper contends that experimental evidence with human subjects in the laboratory shows that reward is more effective than punishment in eliciting cooperation in a public goods game.

The paper has two serious and obvious flaws. First it is indefinitely repeated, so there are no end game results. This design contrasts with virtually all previous studies of the public goods game, which assumes that players know exactly how many periods will be played, and much can be learned from the course of play from early to late rounds. It is well known, for instance, that the rate of decay of cooperation depends on the length of the game, and even when cooperation is sustained for most of the game, it can break down towards the final periods. In the Supplementary Online Material (SOM) the authors justify this deviation from the standard protocol by saying that indefinite repetition is more realistic than a fixed number of periods. This is true, but irrelevant. Having a fixed number of periods is an experimental control condition that is introduced precisely to avoid the ambiguity of indefinite repetition: there are an infinite number of equilibria to the indefinitely repeated game, and which if any is chosen is likely to depend on extraneous framing effects.

Much more important however, the "reward" in the experiment costs 4 points for the rewarding subject while the recipient gains 12 points. Of course reward will outperform punishment if the experimenter pays sufficiently for the reward, while the players pay for the punishment! It would be a surprising result if the authors came to the same conclusion with the recipient getting 4 points, not 12.

In fact, it is clear that the punishment/reward stages of the game in this paper form another public goods game with a multiplier of 3, in which individuals cooperate with no end-game effects. The fact that rewarding players can choose to whom to direct the benefits they generate is interesting, but we still have two overlapping public goods game in which the second includes a signal (previous contribution) that partially recreates the conditions of a two-player repeated prisoner's dilemma. This is a worthy subject of study, but in no way supports the authors' conclusions.

By the way, the reader would never suspect the existence of any of the egregious flaws in this paper by reading the published material. It is all available only in the Supplementary Online Material, which is read only by experts. I doubt that the reviewers of the paper even glanced at the Supplementary Online Material. If I were a Science editor, I would compel reviewers to review, separately, the main contribution and the supplementary material. The quality of reviewing might improve considerably, at least in areas with which I am acquainted.

Nowak's hostility to altruistic punishment appears to flow from his preference for rewarding good behavior rather than punishing bad behavior. This is of course very enlightened thinking when it comes to raising children and managing employees. But here he confuses the sorts of social dilemmas dealt with in the human cooperation literature with reward an punishment in the sort of principal-agent models that economists commonly deal with, such as employer employee. In an employer-employee setting, despite the predictions of standard economic theory, punishing bad behavior often has severely efficiency-reducing effects, whereas trusting an employee to "do the right thing" is often the most cost effecting strategy an employer can use. In effect, by trusting, the employer sets up a setting where the strong reciprocity predispositions of employees operate to great effect. This was shown by our colleagues Ernst Fehr. Simon Gaechter, and Georg Kirchsteiger (1997) in one of the most famous

experiments in behavioral game theory, in which they show that trust is a potent contract enforcement device. More recently, Ernst Fehr and Bettina Rockenbach, in their paper "Detrimental Effects of Sanctions on Human Altruism", Nature 422 [March 13] (2003):137-140, showed clearly that when employers have an available punishment device but choose not to use it, they elicit the best performance from workers. Sanctions are important, but they surely backfire when deployed in inappropriate circumstances.

Social dilemmas where cooperation is voluntary and regulated by peer-relationships are not principal-agent models, which are dyadic hierarchical interactions. However, it is usually true even in principal-agent models that the principal has some means of punishing miscreant agents (e.g. firing them). Nowak's idea of a world in which reward reigns supreme and the threat of punishment is absent is not our world.

Nowak's iconoclasm is a wonderful gift to scientists, because he stirs up the muddy waters in fruitful directions even when he is ultimately wrong in his critiques. In the long run, however, Nowak's modus operandi may be costly to an assessment of his scientific contributions. Nowak often jumps into a field he barely knows, makes arguments that experts merely dismiss as half-baked, and is taken seriously only by scientists and non-scientists who are even more ignorant of the field than Nowak. Human cooperation is a case in point.

Beyond the invisible hand *by Kaushik Basu*

Thoughtful and penetrating synthesis of humanism and economic theory — Rating: 4/5

As Basu says in the final chapter of this thoughtful and penetrating volume, Beyond the Invisible Hand "tries to lay the groundwork for a manifesto, but cannot pass for one." Basu stands clearly and firmly in two traditions. The first is progressive humanism, for which the goal of social policy is to create conditions that promote the well-being and dignity of all morally worthy citizens of all countries. I am sure some will violently disagree with this goal, for instance asserting that the goal of social policy is protecting property and ensuring contracts, but I consider Basu's dream no more controversial than the goal of eliminating infectious diseases. The second tradition is that of standard economic theory, in the tradition of Adam Smith's Wealth of Nations, and as taught and practiced in virtually every institution of higher education around the world.

Small minds that cherish progressive humanism respond to economic theory (called "the dismal science" because the realities it models render humanist ideals difficult to attain) by rejecting the theory without serious critique. Small minds that cherish modern economics respond to progressive humanism (called "bleeding heart liberalism") with contempt rarely associated with serious critique. The virtue of Basu is that he is a very large mind. This book is his attempt to adjudicate humanism and modern economic theory. Why bother? Because, says Basu, economic theory has truths that are essential to recognize if we are to build decent societies, but economic theory alone cannot formulate the conditions for the good life.

There are three points in Basu's argument. The first is that economic theory models only one, albeit very important, dimension of economic life: buying and selling on markets. "In reality," Basu notes, "human beings choose not just from budget sets but also from the many other things that they can do." (25) They also barter, perform charitable acts, help family and friends, volunteer for social service, form collusive alliances (crony capitalism), spread rumors, conceal transactions, misinform consumers, offer bribes, and kill or otherwise neutralize enemies. Basu stresses that such actions are simply disjoint from market interactions, but actually facilitate or undermine the role of markets in promoting social and individual welfare. This quote is just so accurate that it deserves special mention: "Successful societies rely on individual honesty and integrity, appropriate codes of behavior, the ability to communicate, and the possession economy-friendly social norms much more than economists have been willing to concede." (43) It follows from this that we require an economic theory that jointly models market competition and social norms (see my book, The Bounds of Reason, Princeton 2009).

Basu's second point is that laws are focal points that coordinate human behavior, and they are nothing more than that. This is a very deep point, and seems counter-intuitive. For instance, suppose a law is passed limited the speed on a certain road to 65 mph. Then a motorist will obey the law because a police officer might otherwise issue him a costly citation. But why will the police officer do this? He does so because, in turn, he will be punished by his captain if he does not issue speeding tickets. But why with the captain punish him? He does so because... and so on down the line. Basu's point is that if we remove the law, no single individual has an incentive to change his behavior, given that the others maintain their behavior. The law creates what game theorists call a Nash equilibrium, and is a focal point in the sense of Thomas Schelling.

The central implications of law as focal point are twofold. The first is obvious: if a law does not create a Nash equilibrium, then it will not be followed. In other words, laws must always include the appropriate incentives for the law to be effective. This is of course well known but widely violated, especially by corrupt and oppressive governments. The second implication is that "if a law...can cripple an economy...then the same can happen even in the absence of such a law." (69) In other words, pathological social practices can just as much be responsible for dysfunctional economies as perverse laws and official bureaucracy.

This is a brilliant argument, but Basu's formulation leaves out precisely the moral content of laws. Horace famously noted that laws are futile unless they conform to the moral precepts of the citizenry. We might also add that laws themselves can create a moral force where there was none, individuals conforming to the law not only because it is in their material interest to do so, but also because they consider the law as expression a moral truth that they are willing to embrace. I do not think that this emendation of Basu's principle undermines his second point, but it does undermine the first. If laws reinforce our personal morality, they need not be all Nash equilibria of the game, because we are willing to sacrifice to conform to the law. Of course, once we admit social preferences, such laws become Nash equilibria in larger games in which preferences and the rules of the game interact. Such is life.

There is a second major problem with Basu's argument--one with which must surely agree. If we withdraw the law, no single agent will change if all the others maintain their previous behavior. However, expectations might very well change. If the 55 mph speed limit law were recinded, the motorist might believe that the policeman has no longer any reason to give him a ticket, because he knows that the policeman will believe that his superior will not repremand him for not giving speeding tickets. How does the policeman know this? He uses the same reasoning as the motorist. In short, unless we believe all agents have strong beliefs that expectations will not change, when the law is rescinded, behavior will undergo a quick and perhaps radical transformation.

Of course, the above reasoning is really a critique of the whole notion that social norms merely "pick out" Nash equilibria. This is a common notion, comforting to methodological individualists, but quite problematic, if not simply wrong.

Basu's third big idea is that the Principle of Free Contract, according to which any agreement between two mature, sane, individuals that does not harm third parties should in principle be permitted. This principle knows of no exception in economic theory, although every economist knows that there are a host of voluntary transactions that are prohibited in all known modern societies. For instance, if I am rich and I like to eat human eyes with my eggs at breakfast, and if every day there is some poor soul who is willing to sell one of his eyes to feed his starving family, a voluntary exchange between the two individuals is illegal in virtually every society. In most societies, all trade for bodily organs is prohibited.

The logic underlying what voluntary trades are and are not permitted is a deep and unknown issue. Basu's goal is to determine when such economic institutions as child labor and yellow-dog contracts (a worker signs an agreement not to join a union as a condition of employment) should be permitted following the Principle of Free Contract and when they should not. Basu's argument is subtle and nuanced, and does not come to any particular conclusion. He argues that even though any one instance of, say, child labor, should be allowed according to the principle, when such an institution becomes universal, it can be deeply inefficient. For instance, one more child worker will not change the adult wage, but if all children work, the adult wage will fall. There might be a second equilibrium in which no children work and the adult wage remains high enough to support the non-working children.

The hucksters who are looking for quick answers to social issues will be soon bored with this deeply nuanced book (I remember once giving a talk at the New School for Social Research in New York, after which an agitated graduate student informed me that my ideas would "confuse the workers" who must make the revolution. I had no answer for him). For the thinking person, Basu's work is a great gift.

Ethics *by Mario Bunge*

Pedestrian, Ignorant of Behavioral Science, but Useful — Rating: 4/5

Despite the fact that this is but one of eight books in Bunge's Treatise, it is long and complex, dealing with huge numbers of issues. Writing a review of even this one book is like writing a review of Joyce's Finnegan's Wake or Tolstoy's War and Peace: the very idea of doing so in less than five hundred pages borders on the ludicrous (Woody Allen relates in one of his films that he took a course in speed reading. I paraphrase: "Yes. Why, just last night I read all of Tolstoy's War and Peace in one sitting. It's about Russia.")

After God made Mario Bunge, he must have broken the mould. Bunge is so sensible and straightforward that he is quite disingenuous. He fits into no philosophical tradition in moral philosophy, and he has admiration for a philosophical view only to the extent that it agrees with his own. Bunge's stance toward moral philosophy is that of a scientist who views the world dispassionately as it is, never allowing his personal political or social commitments cloud his judgment concerning the Good and the Right. Indeed, his major and repeated critique of traditional moral philosophers is that they fail to understand the world, and they develop ontological and epistemological positions that entail untenable moral philosophies.

In a healthy sense, Mario Bunge is the like the little boy who cries out that the Emperor has no clothes. He accurately describes the world we live in, his moral principles are common sense and rarely objectionable. Like Karl Popper, Bunge is a raging enemy of monistic ideologies that have no justification in terms of science, and cannot be put to the test of accuracy to the facts or applicability to making a good life for individuals and societies.

Bunge pays a deep price for his common sense approach to ethics: his basic principles are somewhat dated, this volume having been written in the mid-1980's when the Cold War was still a reality and the socialist and student movements of previous decades still at the center of political philosophy. I found Bunge's approach extremely valuable in the abstract, but heavy-handed and outdated in many particulars. I am not sure how he would feel about this. Perhaps good philosophy should be like a culinary masterpiece, destined for a short burst of glory. But, I suspect not. Indeed, a good editor could rewrite this book into something one quarter its size, stressing the more abstract aspects of this theory and omitting the particulars.

A problem with this book is that Bunge does not appear to know anything about the behavioral sciences. This is serious because he bases his whole approach on a scientific understanding of society. He correctly affirms that morality is an evolutionary adaptation of our species, and rejects all attempts at placing ethical theory in some Platonic or intuitionist realm. He also affirms the universality of most human ethical principles across societies. However, he appears not to have studied anthropology or biology, and hence does not know the relationship between human sociality and the social behavior of other species. As a result, he has no handle on what is specifically human about human nature that has fostered the sorts of cooperation and conflict that have made our society what it is. Bunge has the right position, but he is, frankly, quite boring in his exposition because he lacks the appropriate knowledge.

Another apt example of the joint strengths and weaknesses of Bunge's analysis is his treatment of worker ownership. Bunge considers this morally superior to capitalist ownership, on participatory and democratic grounds. He garners a wealth of evidence on the viability of worker ownership. Nevertheless, good scientist that he is, he amasses and even greater mass of evidence indicating the infeasibility of worker ownership in the sorts of large business enterprises that dominate the world marketplace. Unfortunately, he does not say why worker ownership suffers in competition with

traditional capitalist firms. The reason is ostensibly because, rejecting the rational actor model and game theory, he has no truck with economic theory. But, economic theory has the answer.

The problem with worker ownership is that the capital per worker in most large firms is greater than the wealth of a worker, and worker ownership obliges the worker to place all of his wealth in one firm--the one he owns. This is reasonable for small entrepreneurial firms, but it is irrational for a worker to forgo the benefits of portfolio diversification. As a result, even if workers were given the firm, most would prefer to sell it to a capitalist organization, diversify his personal portfolio, and go to work for the capitalist.

A second problem with worker ownership is closely related: existing worker-owners will not be willing to share their capital assets with new workers. Therefore, they will either hire wage laborers, undermining worker democracy, or they will require the new workers to go into debt to finance their share of the capital stock. But, who will lend a wealth-free worker without sufficient collateral? Moreover, if a new worker does have the collateral, why should he be willing to put all of his eggs in one basket, betting his long term financial well-being on the whims of the marketplace? The answer is that he should not.

The only area of behavioral science Bunge seems to have studied is decision theory. Bunge does not like decision theory, but his reasons are insipid and quite wrong-headed. It is very rare to encounter a truly insightful critique of rational decision theory (it has major lacunae, after all), but Bunge's critique is about as embarrassingly bad as any I have seen. Because of his rejection of rational decision theory, Bunge is led to reject all analytical formalisms in modeling human behavior, including modal logic, which he considers "a purely forma discipline without applications in science or philosophy." (p. 320) Bunge is stunningly, spectacularly wrong, and he is so out of ignorance. His arguments are so flimsy I shall not bother to refute them here (see my book, The Bounds of Reason, Princeton 2009, if you are interested in the issue).

Theory of Decision Under Uncertainty Econometric Society Monographs *by Itzhak Gilboa*

Good Technical Expositions, Interesting Spins — Rating: 4/5

Itzhak Gilboa is a very talented, broad-thinking, yet technically super-competent economist who has spent his career mulling over the problems addressed in this book. The technical material in this book is not very technical, and can be understood independent from the reader's mathematical training, although it does require a willingness to think deeply about analytical issues. The models Gilboa presents are not new, but they are presented in an attractive manner, and it is rare to see so many different aspects of the rational choice process presented between two covers.

I have long been a strong (my friends would say vociferous, my detractors stubborn) supporter of rational decision theory, while being clear about its limits and suggesting ways forward in broadening the model. My central claim is that the rational actor model is the most important analytical tool ever discovered for modeling human decision-making, and behavioral disciplines that reject this model, such as sociology and cognitive/social psychology, thereby relinquish the possibility of having core theories of decision-making and strategic interaction. I also believe that those who reject the model do not understand it and use arguments against it that are not only fallacious, but always (yes, always!) ignorant and even embarrassing. This book will thus give potential critics a solid grounding in the theory they so love to dump on.

Gilboa himself comes across in this slim volume as a kinda' hang-loose guy who is willing to entertain all sorts of objections to the theory, and to defend rational choice rather more weakly than I would like. Most important, Gilboa rather takes at face value the critiques emanating from the Kahneman-Tversky camp of experimentalists, who have so brilliantly documented the various weaknesses of standard rational decision theory. My own take on these experimental results is far more skeptical (see Chapters 3 and 12 of my book, The Bounds of Reason).. Let me give one example.

Gilboa discusses the famous "Linda the Bank Teller" example (p. 37ff). "Linda is 31 years old," we are told by the experimenter, "single, outspoken, and very bright. She majored in philosophy. As a student, she was deeply concerned with issues of discrimination and social justice, and she participated in antinuclear demonstrations. Rank order the following eight descriptions in terms of the probability (likelihood) that they describe Linda." Included in the list of eight are the following:

(c) Linda is a bank teller, and

(h) Linda is a bank teller who is active in a feminist movement.

Surprisingly, many subjects rank (h) as more likely than (c), despite that fact that the probability of (h) must be much smaller than that of (c)---the latter probability is always strictly smaller, unless every bank teller is a feminist (which is absurd).

Gilboa, like Kahneman and Tversky, agree that this is quite illogical behavior on the part of subjects. However, I argue in Bounds of Reason that the subjects are correct and the experimenters are incorrect. Here is the argument. In normal discourse, when we are talking to someone, we expect what they say to be relevant to the conversation. E.g., if we are discussing how to buy tickets for a concert, it would be bizarre for you say "my cousin George had half a banana with his cereal for breakfast last Wednesday." In light of this, what is the subject supposed to think when give this long explanation of Linda concerning her politics and personality if we are not supposed to bring this into consideration in deciding between (c) and (h)?

The polite subject will doubtless try to find some way to interpret the question so that (c) vs. (h) becomes reasonable. One is very simple: the conditional probability of being Alice is higher given the individual is a feminist bank teller than if the individual is just a bank teller. In other words, if you had a pile of pictures of all bank tellers, you would be less likely to pick Alice randomly from the pile than if you were choosing from a pile of all feminist bank tellers (the latter would be almost all females, for one thing).

Now of course other findings of subject "irrationality" have different explanations, but few of the experimental findings stand up to scrutiny as serious violations of rationality. Gilboa, nice guy that he is, goes overboard in acceding to the analyses of his critics.

Gilboa also defines rationality in a manner quite at odds with the technical material. He says an individual's choice process is rational if the individual will defend it even after being presented with the evidence that it difference from that predicted/suggested by rational decision theory. This works well with some choices; e.g., if you point out to someone that they lost money by sharing with others in a game, most will respond that of course they knew that, but they prefer to share. However, if some stubborn fool never admits a mistake, he is always rational by Gilboa's criterion. Gilboa goes too far. One can defend social preferences by noting that they satisfy the axioms of decision theory, and thereby maintain a linguistic and philosophical consistency.

Gilboa also presents a few alternatives to traditional rational decision theory, one of which, Prospect Theory, is very important, but does not violate any of the axioms of decision theory provided we define the choice space property (Bounds of Reason, Ch. 12). Most important, he devotes the final chapter to "case-based" decision making, which his own (with David Schmeidler) highly successful attempt at broadening rational decision theory.

As for Gilboa's ideas for future research, they are encapsulated in a two-page throw away at the end of the book. In fact, rational decision theory has serious weaknesses that must be addressed by scholars of decision-making. The first is the abject inadequacy of the assumption that individual beliefs can be summarized by a "subjective prior" that is given in social isolation. In fact, subjective priors are more aptly designated as "personal beliefs," and personal beliefs are in fact the product of a web/network of social connections and experiences that must be studies sui generis as a central social process. There is currently no such theory at all, although a number of people have suggested the use of network theory as a useful addendum to rational decision theory (e.g., Samuel Bowles and myself in a paper on "Persistent Parochialism" in the Journal of Economic Behavior and Organization several years ago).

A second direction for fundamental change in decision theory is to drop the assumption that individual choice itself is taken in social isolation. When people face radical uncertainty, they often refrain from choosing altogether, and rather consult the social world to ascertain the choices others have made in

similar situations. Perhaps ironically, Gilboa and Schmeidler's case-based choice theory provides a perfect analytical starting point for such a theory, though I cannot recall the authors recognizing or advocating this potential extension.

So, the enterprising reader can assimilate this book and start in right away in solving some of the deep problems rational decision theory has set for us.

Race, wrongs, and remedies *by Amy Wax*

Three cheers for Blame the Victim! — Rating: 5/5

Since about 1985 I have held a "blame the victim" attitude towards minority oppression. By this I have never meant in any way that the victims deserve their plight. Far from it: victims are victims and will remain victims until they end their victimization. Rather, I have been arguing that only by banning together in collective struggle can the victimization be defeated, and only the victims have a real interest in ending their own oppression.

Jews, Gypsies and gays were not responsible for being gassed, shot, hanged, and simply kicked to death by Hitler, with the deep appreciation of a large section of the German and surrounding peoples. But they are responsible for making sure this does not happen again. This can happen only if they blame themselves for their near-eradication. Of course, the non-oppressed have a moral obligation for aiding in any way they can the cause of the oppressed. But, the bottom line is people must end their own oppression however they can manage to do so.

In this lucid and hard-hitting essay on the politics of race in the United States, Amy L. Wax, a University of Pennsylvania law professor, makes a completely different argument, coming not from history and collective action, but from tort law. She takes without argument the premise that the position of poor blacks in America is due to a culture of poverty that was foisted upon the urban black community by virtue of centuries of slavery and racial bigotry. I believe that this premise is completely accurate and serves as an auspicious starting point for the analysis. Wax then distinguishes between liability and remedy. While others are liable for the position of poor blacks in America, remedy lies wholly in the hands of the inner-city black community itself.

Her paradigmatic analogy is with a pedestrian crippled after being hit by a car. The driver of the car and the insurance company may be liable, both morally and financially, but the major part of the remedy lies with the pedestrian himself, who will recover the use of his legs only by following a strict and demanding regime of exercise and diet. "accepting a key role for victims does not `blame the victim' because," writes Wax, "it implies no exoneration of the wrongdoer. As the parable of the pedestrian illustrates, relying on victims to heal their own injuries does not mean denying that others have harmed them." (p. 119).

Wax's argument is absolutely brilliant. Staggeringly brilliant. It is certainly a lot better than my argument in silencing the critics who say "your blame the victim argument self-servingly exonerates the perpetrators of oppression." Wax absolutely deep-sixes this (lame) critique. Moreover, she gives absolutely not ground to the "remedial idealism" (p. 107) typical of American sociologists, who make a good living simpering over the indignities of racial injustice. She also has only scorn for the postmodern ideal that all social institutions are "socially constructed" and hence the culture of others cannot be criticized. Wax has no trouble attacking the cultural practices of the ghetto that perpetually ghettoize, and the dimwitted ideas of the postmodernists. She similarly attacks affirmative action and such "double standards" as allowing minorities to join the police force despite their inability to pass the entrance exams.

Wax writes with full authority and clarity, without ever overextending her argument. This is a deeply, deeply persuasive work of historical importance. Of course, it has all been said before (think of the comedian Bill Cosby, and those who have called Al Sharpton and other self-appointed black leaders "professional beggars"). But it has not been said with such clarity and authority. I think Wax goes too far in rejecting help from the outside. People need all the help they can get. It is just that in the end, we stand alone in determining our fate as individuals and as peoples.

Rational choice *by Itzhak Gilboa*

Too Breezy, too Careless, Inadequate Attention to Empirical Research — Rating: 2/5

Itzhak Gilboa is one of my favorite economists. His book with David Schmeidler, A Theory of Case-Based Decisions (Cambridge: Cambridge University Press, 2001) is path breaking in amending the traditional Savage "small world" model of rational choice to be more realistic and useful. Rational Choice aims to present rational choice theory for newcomers without social scientific, philosophical, or mathematical expertise. Despite is diminutive size, the book ends up as a broadly accurate description of the current state of rational choice theory.

Gilboa is well aware of the limitations of standard the rational actor model, and makes no attempt in this book to go beyond this model (despite his own brilliant work on "case-based choice theory"). Rather, he considers the model as a "paradigm" rather than a "theory." The paradigm gives us a useful way of looking at the world, although by no means the only pertinent way. Gilboa urges the reader to add rational choice theory to his repertoire of tools used to assess social policy.

Rational Choice claims to be a "rigorous, concise, and nontechnical introduction to some of the fundamental insights of rational choice theory." (from the cover) Rational choice theory is well-suited for a concise nontechnical treatment, which this book is, but far from being rigorous, Gilboa is often simply incorrect, and rarely is convincing. The book appears to be directed to the layman with innate but inchoate prejudices against rational choice theory, but I doubt that such an individual will find this volume convincing.

Most opposition to rational choice theory that I have encountered, even when offered by professional behavioral scientists, is in fact couched in vague often even and ignorant terms. But there is a real critique of the theory. Gilboa simply doesn't locate it. For instance, Chapter 8 on Free Markets presents a very realistic objection to free markets and globalization in which the defender of market equilibrium, using the First Welfare Theorem, is completely incapable of even making a dent in the critics' arguments, and storms off in an angry huff. Gilboa's problem is twofold. First, the only plausible argument for free markets is dynamic and based on the innovative implications of competition and not on the First Welfare Theorem. In fact, as Arnold Harberger showed many years ago, the welfare losses of protection are generally quite small. Second, this issue has nothing to do with rational choice. Free markets have some desirable static allocational properties if agents make choices that are consistent with their welfare. Rational choice, as has been evident at least since Gary Becker's study of addiction and contemporary models of obesity, has no clear connection to making choices consonant with personal welfare.

Gilboa offers an indefensible definition of rationality. Spurning the traditional consistency definition of Savage (1954) and others, Gilboa offers the following: "a mode of behavior is rational for a given person if this person feels comfortable with it, and is not embarrassed by it even when it is analyzed for him." (p.5) The problem with this definition is that it has no analytical implications at all, and it deals with normative choice theory, not behavioral. If we add some ancillary assumptions, such as "a person will be embarrassed to find that his choices are inconsistent," then we restore the traditional definition of rationality. Why then this roundabout definition, couched in terms of the persuasive power of the author and presuming a high level of cognitive functioning of the rational agent? Gilboa argues that "An irrational mode of behavior is one that I can hope to change by talking to the decision maker, by explaining the theory to him, and so forth." (p. 5) Bringing the authors motives into the analysis, it appears, only confuses the issue even more. In the rest of the book, Gilboa does stick to the traditional definition of rationality, but he never explains why.

In Chapter 2, Gilboa tries to explain why a young lady, Ann, ignorant of rational choice theory, could improve her ability to solve her problem of choosing among boyfriends by applying rational choice theory. He quite fails to convince. Indeed, I cannot imagine why knowledge of rational choice theory could help Ann make such a decision.

Gilboa also treats very breezily some issues that merit lengthy argumentation and many examples. For instance, he treats base rate bias and conditional probabilities with a single example and biased samples

with another single simple example. There is little chance a novice with appreciate the importance of these issues. They are easily explained with simple arithmentic and elementary probability theory.

Perhaps the most egregious failure of this book is to deal in any consistent way with empirical studies of human behavior in the context of strategic interaction. Instead, Gilboa gives off-hand observations about daily life that insult the critical faculties of the reader. Indeed, Gilboa's mode of argumentation makes understanding empirical studies conceptually impossible. For instance, it is well known that many individuals prefer to cooperate in a prisoner's dilemma, provided that they have some assurance that their partners will cooperate as well. Indeed, this finding is one of the more striking regularities in behavioral game theory. For Gilboa, however, the game payoffs should "incorporate any relevant payoffs---material, psychological, sociological and so forth." (p. 96) By not defining the game by its material payoffs, Gilboa assures that no experimentation at all is possible. One cannot set up a prisoner's dilemma and investigate the behavior of the subjects, because by definition, rational subjects must defect. If they do not, then the game is not a prisoner's dilemma. Indeed, different players may be playing altogether different games according to Gilboa's methodology! By constrast with Gilboa, experimental methodology requires defining a game by its material payoffs, and investigating the subjects' possible non-self-regarding preferences by studying the way they play in a common, objective, frame of reference.

Similarly, Gilboa explains the public goods game without reference to the empirical literature on the subject. I find this treatment completely unacceptable. If Gilboa does not know this empirical literature, he should find out about it and transmit it to his readers, if he pretends to be rigorous. Or perhaps he believes that the evidence not a part of rigorous analysis. If so, he is mistaken.

Gilboa's discussion of altruism is also breezy, perfunctory, and quite lacking in rigor or understanding of the literature. For instance, he assumes without discussion that (p. 98) that altruistic giving involves having the welfare of the recipient in one's utility function, showing no recognition of the work of Andreoni and others on warm-glow altruism, or of other conceptions of other-regarding behavior.

Spurning the considerable literature on group size and cooperation in the public goods game, Gilboa asserts that cooperation is more likely in small groups, giving the example of driving in the suburbs as opposed to the city. This sort of reasoning is quite unscientific, and likely leads the reader to value unscientific reasoning.

Gilboa attempts to present the notion of Nash equilibrium and critique it in just two or three pages. This does not give the concept its due. At least twenty pages are required to draw out the implications of the Nash criterion with any rigor, and this can be done with only elementary arithmetic and some logic. He then introduces rationalizability without a single example, and common knowledge of rationality without any critical treatment. Another twenty pages of non-mathematical yet rigorous analysis could clarify these concepts, but they are not present in this book. He similarly mentions "Nash equilibrium in beliefs" in one short paragraph, the chance of being understood by the layman being zero. He similarly presents backward induction in one page, with no examples, and no critical commentary.

In sum, Gilboa appears incapable of distinguishing between nonmathematical analysis and careless analysis, perhaps on the grounds that readers who do not understand mathematical argumentation are necessarily careless thinkers. They are not. This book is full of careless and perfunctory analysis and might appeal to careless thinkers. Few others will approve.

Unequal Democracy: The Political Economy of the New Gilded Age

by Larry M. Bartels

Great Story, But a Time-series Delusion — Rating: 2/5

Larry Bartels is Professor of Public and International Affairs at Princeton University. Bartels is my favorite type of thinker: he has big ideas, he is iconoclastic, and he supports his ideas with lots and lots of data. This book is thus a great read and I recommend it highly.

Bartels begins by stressing something we all know: the rich have done phenomenally well in recent decades, garnering a much larger share of national income and wealth, and consolidating their political

power through the increased role of campaign financing on electioneering. He also shows rather convincingly that "elective officials are utterly unresponsive to the policy preferences of millions of low-income citizens, leaving their political interest to be served or ignored as the ideological whims of incumbent elites may dictate." (p.2) For example, Bartels shows that a majority, including the poor and the middle class, has strongly favored a high minimum wage for many decades, but only rarely do even Democratic regimes increase the minimum wage in the face of a rising cost of living. Bartels discusses several reasons for this derogation of the political power of the poor, but I think the most likely reason is that the poor, when they vote, always vote Democratic, so there is no good reason to take their views seriously.

The major fact stressed by Bartels is that the common people do much better when Democrats are in the White House then when they are outside looking in. "On average," he says, "the real incomes of middle-class families have grown twice a fast under Democrats as they have under Republicans, while the real incomes of working poor families have gown six times as fast under Democrats as they have under Republicans." (p. 3) Bartels similarly shows that unemployment is higher and national income grown lower (except for the rich) when Republicans are in power, Why then the strong support shown by the non-rich for Republican candidates? Bartels shows, again rather convincingly, that the standard argument that low income voters have ignored their pocketbooks by supporting traditional morality in the form of opposition to abortion, gay marriage, and the like, is simply incorrect. Bartels explains this fact by stressing that low income and even middle class voters are confused, ill-informed, and inclined to support measures that benefit only the rich.

Bartels thus throws his weight with the argument that voters are basically fools, an argument that has been widely made by progressive Democrats in recent years to explain their falling out of favor with voters. Bartels opines that mainstream political economy has "remarkable difficulty even in explaining why the numerous poor in democratic political system do not expropriate the unnumerous wealthy" (p. 26). He rejects the argument that heavily taxing the rich lowers economic growth. Indeed, he argues that this view is simply a myth, citing Robert Frank. The relationship between tax levels and growth rates has been a hot topic of research in recent years, and Frank is probably justified in saying that there is certainly no strong evidence of an aggregate disincentive effect of high tax rates on growth. However, Bartels documents in several insightful ways that American voters are fundamentally indifferent to income and wealth inequality (I have been saying that for years). If you survey voters, they almost invariably say that it would be nice to have more economic equality, but they do not really care very much one way or the other. Thus it is that the deep animosity of the rich to high levels of taxation easily wins the day in the political decision-making process. Bartels does affirm (what I have said for years) that voters are highly sensitive to unfairness. Thus, in the recent financial meltdown, public opinion moved strongly against bonuses for brokers, not because of their distributional effects, but because the brokers did not deserve such bonuses. Not surprisingly, then, while the Democratic Party activists were dead-set against extending tax breaks to the rich in 2010, the electorate was indifferent to the issue, allowing Obama to trade it away for increased unemployment insurance.

I am deeply disturbed by the left's attitude, exemplified by Bartels, that voters are fools because they do not prefer to redistribute income in their favor. Voters are responsible for the welfare state we have, including social security, Medicare, public education, and various sorts of poverty relief. It is a pretty good system (except for inner-city minorities), and it was accomplished by heavily taxing the rich (who pay most of the tax bill as is, by the way) without soaking the rich. Voters are not fools in America; rather they are principled but moderate egalitarians who disapprove of the left's obsession with redistribution.

Even if Bartels were correct is saying that Democratic regimes give the people more of everything good (equality, growth, employment), it would not follow that the voters are fools for not keeping them in power all the time. A plausible scenario is the following good cop/bad cop scenario: the Democrats (good cops) give out the goodies but undermine the long-run growth potential of the economy, while the Republicans (bad cops) take it all back but restore the conditions for economic health. In this case the voters are quite uncanny, rotating the good and bad cops in and out of office. If this story is reasonable, then it is the two parties and their ideologues (Bartels is a prime Democratic ideologue) who are simply instruments of the will of crafty, sophisticated voters.

In fact, there is considerable evidence for the above scenario. The facts that I am about to present were unearthed by James E. Campbell, a political scientist at the University of Buffalo, in 2009. In the four transitions of Democratic to Republican presidents since 1948, the economy was in very bad shape on the eve of the Republican assumption of power, whereas the economy was generally in very good shape upon a Democratic assumption of power (the Obama era is of course an exception, but this is too recent to appear in the data). Bartels attributes this transition period to the new regime, the saddling Republicans with the poor performance of the previous Democratic regime, and rewarding Democrats for a healthy economy produced by their Republican predecessors. When the proper lag structure is introduced, there is no statistically significant difference between the performance of Republican and Democratic regimes (Campbell, 2009).

A virtue of the two party system is that it prevents the crazies of the left and the right from taking over. In a multi-party system, every sectarian interest can form its own party and pursue its bizarre agenda. Our system allows crazy Republicans and crazy Democrats, like Lady Gaga and Tiny Tim in the entertainment world, to play their verbal and visual games---games that are mostly ignored by the public, which has more sense---but does not allow their schemes to become legislation. This book is a great read, but mostly Fantasy from the Left Wing Crypt.

Griftopia *by Matt Taibbi*

Sire, the Natives are Restless! — Rating: 3/5

Being a writer for The Rolling Stone magazine, which caters primarily to young rock-music oriented readers, it is not surprising that Taibbi writes like Hunter Thompson and Tom Wolfe, the object of his (dis)affection being the financial oligarchy in America. It is noteworthy that Taibbi litters his prose with curse words and scatological epithets, to the degree that I cannot repeat even one in this review without drawing the ire of Amazon's censor software. I generally have little more than contempt for people who use foul language as part of a political or sociological discourse, but this book is a little different from the average. I suspect Taibbi wants to write for people who identify with him personally precisely because he distances himself from the Establishment, whether political, academic, or business. I am part of the academic Establishment, and so my social distance from Taibbi is quite large: I cannot help but treat this book as part of the recently experienced financial crisis rather than an analysis of this crisis.

One of my central principles of human nature is that people don't care much about inequality but they care greatly about unfairness. The Robber Barons were vilified, for instance, not because they were rich, but because they were considered robbers. Liberal democrats in American don't seem to get this message. They constantly dwell on inequality, as though this were considered by the voting public as bad in itself---take for instance Paul Krugman's The Conscience of a Liberal, or Thomas Frank's What's the Matter with Kansas?, for whom distributional inequality is close to the only burning political issue. The fact is that people do not vote their wallets---they probably never have and they likely never will. People are zoon politicon (political animals--Aristotle), who vote the issues, and among the issues, violation of ethical rules will always trump distributional concerns. No matter how rich Oprah Winfrey is, people continue to love her. People turned on the immensely talented football quarterback Michael Vick not because of his multimillion dollar contracts, but because he was mean to dogs.

Americans today are extremely angry at the US financial establishment, not so much for "causing" a financial meltdown (no one really knows what caused this) but rather because the government bailed them out lavishly, while the very rich gave themselves huge bonuses, flew around in private jets, and installed $28,000 curtains in their lavish offices. Taibbi gives the people what they want: a vicious and unrelenting attack on the financial aristocracy. In a way this is refreshing by comparison with the Establishment press and government officials, whose personal feelings about financial leaders are rarely expressed.

Nevertheless, Taibbi's blanket condemnations are intemperate and extremely unfair. He repeatedly calls those who work in the finance industry "crooks" and "criminals." I very much doubt that this is an accurate assessment of this group of people, most of whom I suspect are reasonable to scrupulously

honest. Taibbi's willingness to tar a whole group for what in fact involves some combination of structural failure and the stupid or criminal activities of a few betrays an unappetizing political bias, of the same order as calling all Irish males drunks, all black American males drug pushers, all scientists atheists, or all young females whores. Taibbi is a bigot, pure and simple, in my view. Moreover, he is teaching young people that this is the proper way to carry out political discourse. I affirm that it is not. Frankly, if I heard him speak this way in person, I would disrupt his talk.

Taibbi actually has a larger message, going far beyond the current economic situation. He considers American democracy a sham, and the voters are deluded simpletons. He spares no effort to convince his readers of the basically degraded condition of American democracy. "Here's the big difference," he exclaims, "between America and the third world: in America, our leaders put on a hell of show for us voters, while in the third world, the bulk of the population gets squat... We get a beautifully choreographed eighteen-month entertainment put on every four years." (p. 9) Why is all this just show? "Voters who throw their emotional weight into elections," he asserts, "who know deep down inside won't produce real change in their lives are indulging in a kind of fantasy." (p. 10) This model of American politics allows him a very simple and clear description of what others might consider complex events. For instance, here is his explanation of the contemporary Tea Party movement: "A loose definition of the Tea Party might be fifteen million pi**ed-off white people sent chasing after Mexicans on Medicaid by the small handful of banks and investment companies who advertise on Fox and CNBC." (p. 16)

Contrary to Taibbi, I think American democracy is among the best political systems in the world, and American voters are generally on the mark is their voting behavior (even when I am on the losing side). Even if voting every four years doesn't cure all problems, please inform me of some alternative system that does better. The fact is that there isn't any. Moreover, the idea that the rich and the media determine people's political attitudes has virtually no empirical support. Of course, they try to do so and are sometimes successful. But they are most successful when they give people what they want, or at least more of what they want that their political opponents. It is usually bigoted extremists of right and left who portray American democracy as Taibbi does---such individuals have a delusional confidence in their own judgments, much as paranoid schizophrenic.

Taibbi's own vision of rational politics is this: "If American politics made any sense at all, we wouldn't have two giant political parties of rough equal size perpetually fight over the same 5-10 percent swatch of undecided voters...Instead, the parties should be broken down into haves and have-nots---a couple of obnoxious bankers on the Upper East Side running for office against 280 million pi**ed-off credit card and mortgage customers." (pp. 11-12) Why this does not happen, says Taibbi, is "media-manufactured nonsense" that "sets big groups of voters angrily chasing their own tails." (p.12) Taibbi does not seem to realize that this message has been around for hundreds of years, and it never works. This is because there are more political issues than the distribution of wealth, and movements for equalizing wealth can replace one oligarchy with another, and/or reduce average economic well-being in the pursuit of "fairness." Some will doubtless accuse me of holding a right-wing "trickle-down" model of economic progress. Let me say right off: I do hold such a theory, although I am far from a right-winger.

Taibbi does not give an alternative in this book. I find it hard to assess a critique when the critic gives no alternative. Perhaps Taibbi thinks this is obvious, but if it is, I would certainly like him to spell it out for me. I will be right there on his bandwagon.

The 5000 Year Leap *by W. Cleon Skousen*

Placing Piety and Religious Diversity as Foundations of Liberal Democratic Society — Rating: 4/5

Willard Cleon Skousen (1913--2006) was a prolific writer, a lawyer, a college professor (Brigham Young University), and police chief, a rabid John Birch Society anti-Communist, and much more. This highly accessible but practically forgotten volume has gotten much press recently by activists in the newly-revived Republican activist, so-called `Tea Party" movement. Being somewhat confused as to what this

group would like to see happen in the United States (besides simply replacing the reigning regime in Washington), I thought reading some of their tracts might give me a clue.

For all the extremism of Skousen's political views, this books comes across as a pleasantly optimistic and healthy-spirited defense of the American Constitution and the political way of life that this Constitution has fostered. Skousen considers the American Constitution a stunning miracle, and the fact that it was framed and agreed upon through the voluntary participation of normal, everyday citizens an even more stunning miracle. Skousen holds out the principles on which our country was formed to be a great blessing to humankind, and takes it as one of his twenty-eight basic principles of government that we have the duty of spreading the Gospel of the Constitution to all parts of the world.

The heart of this book consists precisely of the twenty-eight aforementioned principles, which include some of the most basic building blocks of human emancipation. For instance, (2) A Free People Cannot Survive Under a Republican Constitution Unless They Remain Virtuous and Morally Strong; (6) All Men Are Created Equal; (11) The Majority of the People may Alter or Abolish a Government Which has Become Tyrannical; (14) Life and Liberty are Secure Only so Long as the Right to Property is Secure; (16) The Government Should be Separated into Three Branches--Legislative, Executive, and Judicial; (17) A System of Checks and Balances Should be Adopted to Prevent the Abuse of Power; (19) Only Limited and Carefully Defined Powers Should be Delegated to Government, All Other Being Retained in the People; (20) Government [should] Operate According to the Will of the Majority, but ... Must Protect the Rights of the Minority; (21) Strong Local Government is the Keystone to Preserving Human Freedom; (22) A Free People Should be Governed by Law and not by the Whim of Men; (23) A Free Society Cannot Survive as a Republic Without a Broad Program of General Education; (26) The Core Unit Which Determines the Strength of Any Society is the Family. Therefore, the Government Should Foster and Protect its Integrity; (28) The United States Has a Manifest Destiny to be an Example ... to the Entire Human Race.

Now, I believe these principles are true and incontestably important, even the one about property. I also believe that we have important things to learn from other societies, but political structure is not one of them, and Skousen does not deny this. I am pretty sure, however, that it is not these aspects of Skousen's book that has inspired so many contemporary conservatives. Who, after all, in the United States today, doesn't believe in these principles? Certainly they are routinely violated in Iran, Russia, Saudi Arabia, and a dozen other countries, but they are not in question here in America.

In some places, Skousen's political conservatism does shine through, but rarely in an unenlightening way. For instance, (7) The Proper Role of Government is to Protect Equal Rights, Not Provide Equal Things. The problem with this is that Skousen leaves out a third option: a "proper role" of government might be to mitigate unequal outcomes when they are not the fault of the afflicted. For instance, one might argue that it is the proper role of government to provide equal educational and health care resources to children and the elderly. Also (15) The Highest Level of Prosperity Occurs when there is a Free-market Economy and a Minimum of Government Regulation. I believe this a severe overstatement of the correct balance between market and state. The correct statement is that the market is especially powerful in producing and distributing goods and services in a flexible decentralized manner, but it produces a host of externalities. Many of these externalities are good and useful, but some are highly destructive and in need of regulation by the state. It is for this reason that there never has been a prosperous market economy without a strongly interventionist state. I am confident that there never will be. However, the state is run by politicians and bureaucrats whose capacity to intervene wisely on behalf of the public good is quite limited. Therefore, we will never have a perfectly regulated economy and any attempt to achieve this end will doubtless cripple private initiative and lead to a bloated public sector. We simply must learn to live with the evils whose alternatives are yet more evil.

I think the most distinctive aspect of Skousen's political philosophy is his instance on grounding liberal democratic political philosophy in religion, while at the same time denying a central position to any particular religion, and therefore promoting vigorous religious diversity. Skousen recognizes that "Natural Law" rather than religiously "Revealed Truth," is the basis of liberal democracy, thus avoiding any sense in which theology should be the basis of political principles. However, he insists that a belief in God and a reliance upon religious institutions are necessary ingredients in maintaining a healthy political culture.

Thus we have (4) Without Religion the Government of a Free People Cannot be Maintained; (5) All Things Were Created by God. Therefore upon Him All Mankind are Equally Dependent, and to Him They are Equally Responsible; (9) To Protect Man's Rights, God has Revealed Certain Principles of Divine Law. Skousen vigorously supports the "separation of Church and State," but holds that this achieves legal status only for the Federal government. State and local governments are not prohibited from mixing with religious principles, services, and icons, provided they do not favor one religion over another.

I was prepared to dislike this book, but was pleasantly surprised at how ecumenical a message Skousen has to offer. Moreover, the book is easy to read and hence will be accessible to the common citizen and voter who may, if lucky, get to read one or two books a year such deep subjects as the nature of American society.

Institutions and trade during the late medieval commercial revolution *by Avner Greif*

The Death and Rebirth of Historiography? — Rating: 5/5

Despite my love for a great many works of historical research, and despite my abject dependence upon such works for the information needed to formulate and evaluate models of historical change, I never really understood what position historical works have in with relation to the behavioral sciences (economics, psychology, sociology, etc.). Historians are well trained in the scientific method, but they do not have any "theory" to go on in deciding what material to collect and how to interpret their findings. In a way, this allows historians to "just find out what really happened," without trying to force the facts into a preconceived paradigm and without using theoretical prejudices to decide what "facts" to collect. But then I learned that there are no "facts" independent from a theoretical framework that makes sense of the facts. And this appears true, at least if the "facts" involve higher-level constructs, such as "power," "purpose," "culture," and the like.

Well, now that I have found out that society is a complex adaptive dynamical system that will never be fully modeled, and have learned that the human mind is full of partially filled-out "templates" that can be deployed and refined given a new set of data, I no longer am uncomfortable with the historian's musings. Now Avner Greif comes along and tries to convince the reader, rather successfully, that historical research can after all be undertaken fruitfully and synergistically with the social sciences. But, and this is a rather giant but, only if we accept a broad notion of the social sciences in which transdisciplinary arguments are routinely made and upheld, and when a reasonable effort is made to adjudicate the differences across disciplines by developing novel arguments as syntheses.

The great merit of this book is to have largely accomplished this feat. Perhaps we are witnessing the death and rebirth of history as a discipline. Just a philosophers have come to the realization that knowledge of science complements their studies, perhaps historians---at least those who deal with big themes and broad expanses of time---will realize the value of integrating their discipline with traditional, rigorous, social-scientific studies.

Greif argues that the late Medieval Maghribi are best represented as a "reputation-based private-order institution." Greif's basic trade model is that of a merchant in one country hiring an agent in another country to carry out the many tasks involved in protecting and selling the merchant's goods in the agent's country. The critical point in this classical principal-agent model is that the agent has an incentive to cheat the merchant. If the volume of trade is sufficiently high, and if the agent can be harshly punished for a transgression by being fired, then the merchant can use the threat of dismissal to induced the agent to behave honestly (for a general model of this type, see Samuel Bowles and Herbert Gintis, "Walrasian Economics in Retrospect", Quarterly Journal of Economics 115,4 (2000):1411-1439; and "The Revenge of Homo economicus: Contested Exchange and the Revival of Political Economy", Journal of Economic Perspectives 7,1 (1993):83-102). However, in many cases, including those of medieval trade, a more sophisticated social process was required, in which the agent had to sustain a general reputation among all merchants as being honest, so that the report of cheating by one merchant

would lead to the perpetual ostracism of the agent from dealings with other merchants for the foreseeable future. The construction of this model brings Greif into a significant game-theoretic model-building exercise, from which the careful reader will learn much about the general value of game theory in elucidating social research.

One of Greif's greatest achievements is to show convincingly the value of a model in which individuals obey both the canons of rationality so beloved by the economists, and at the same time exhibit the moral inclinations, emotions, social attachments, and internalized norms so beloved by the sociologists and social psychologists. For a general treatment of how these aspects of human sociality interact creatively see my book The Bounds of Reason: Game Theory and the Unification of the Behavioral Sciences (Princeton University Press: 2009). I there argue that contemporary sociology's descent into theoretical oblivion is due precisely to its rejection of economic reasoning, and contemporary economics' descent into theoretical aridity is due to its rejection of sociological reasoning. I have an ally in Avner Greif, who combines the two modes of reasoning quite adeptly.

Indeed, Greif goes to great length to convince the reader that this is not simply a standard exercise in economic reasoning, because the "perfect information" assumptions of his model are not historically plausible. How can a merchant be sure the agent cheated him? Why can't a merchant blackmail an agent into giving him a better deal by threatening him with ruining his precious reputation? Indeed, why should a merchant report that he has been cheated at all? Does he do this out of love for justice, out of the desire for revenge and retribution, or because he cares about the well-being of his fellow merchants? Why do Maghribi trade networks exhibit strong ethnic regularities, but not strong kinship regularities? These are all obvious questions that a traditional game-theoretic analysis cannot handle, but can be addressed using a modicum of standard sociological analysis.

Greif deserves a careful reading, and I consider this a great book, because the author has gone where few have had the guts to tread. However, this book is a beginning and not an end. There are many faults, all of them associated with the books great novelty. The books should be at best half the size, and the social theory should be much more sophisticated and better integrated with the formal models. For instance, Greif alludes to several areas of social theory that might help answer the questions I posed in the previous paragraph, but he does not in fact answer them head-on. Why does the merchant bother informing on a cheating agent? How does a merchant determine that he has been cheated? What is the status of ethnic ties? I would like to have seen a much more pointed analysis. Instead, we get very general high-level theorizing that leaves the key questions "sort of answered," but not really.

The following is typical: "The Maghribis and the Genoese were constrained by the same technology and environment, and they faced the same organizational problems. But their different cultural heritages and political social histories gave rise to different cultural beliefs. Theoretically, their distinct cultural beliefs are sufficient to account for the diverse institutional trajectories of the two groups. Cultural beliefs may thus have had lasting impact despite their temporary nature." (p. 300) Statements such as these are both theoretically trivial and at the same time hard to accept. Are not culturally beliefs codetermined with other aspects of social life, rather than being autonomous and determining?

In sum, this exceptional book has a theoretical tentativeness that marks the opening of a new era in social theory. The aspiring social theorist and/or historian will see the future in Greif's adept reasoning, even if through a glass not darkly, yet not fully illuminated, thus leaving work to be done by standing on the giant's shoulders.

Economic origins of dictatorship and democracy *by Daron Acemoglu*

Solid Exposition of Half the Story — Rating: 4/5

Acemoglu and Robinson present a clear, straightforward and compelling explanation of the conditions under which political democracy emerges from dictatorship. The strength of their analysis, as they repeated tell us, flows from their use of that key tool on the economist's workbench, the so-called rational actor model (p. 19). "We stress individual economic incentives as determining political attitudes, and we assume people behave strategically in the sense of game theory." (p. xii) Theirs is also

a clear-cut class analysis, although by contrast with Karl Marx, the classes are defined mainly by their relationship to state power rather than the means of production (although that matters as well, as we shall see). "We emphasize the fundamental importance of conflict," they assert. "Different groups, sometimes social classes, have opposing interests over political outcomes and these translate into opposing interests over the form of political institutions which determine the political outcomes." (p. xii).

The main social groupings in the non-democratic society, according to Acemoglu and Robinson, are the elite that controls the state and the citizens, who are blocked from exercising political power. "Nondemocracy is rule by the elite; democracy is rule by the more numerous groups who constitute the majority... In nondemocracy, the elite get the policies it wants; in democracy, the citizens have more power to get what they want." (p. xii) The authors claim that there is a single dynamic leading from nondemocracy to democracy: "We argue that this only occurs because the disenfranchised citizens can threaten the elite and force it to make concessions.... In the limit, a revolution... repression is often sufficiently costly that it is not an attractive option for elites." (p. xii) Acemoglu and Robinson elaborate by noting that simply making non-structural concessions to the enraged masses might not be sufficient to head off revolt, because the concessions can be revoked once the collective action spirit dissipates. The concession of political democracy, by contrast, creates a long-term alternative set of rules of the game in which the previously omnipotent elites no long have the power to get their way.

There is one additional conceptual tool on Acemoglu and Robinson's workbench, that of social class. First, the authors assert that state repression does not hurt landlords much but it is very harmful to capitalists because the latter benefit from freedom of movement, speech, and consensual labor relations, whereas traditional landlords never really get beyond the stage of medieval social relations p. 288). Hence industrial capitalism has an elective affinity with democracy that is completely absent from earlier economic formations based on agriculture. Second, Acemoglu and Robinson argue that the elites are more likely to accede to democracy when there is a strong middle class (entrepreneurs, academics, professionals), because the latter will not allow so much power to pass to the unwashed masses as to seriously threaten the wealth and influence of the elites (p. 255, 258).

Acemoglu and Robinson's argument is so powerful that one might be forgiven for overlooking its weak points. But it does have some significant weak points. First, it assumes that there is a monolithic elite and a potentially monolithic citizenry. Neither of these is in general correct. For instance, often there will be conflicts among the elites, one side drawing on support from the lower classes to defeat the other. This was the case in Great Britain in the passage to democracy.

Second, and more important, I think it is just false that political democracy is compromise in which the elite gives up hegemonic power and the citizenry gives up the vision of revolution and complete mass hegemony. As Samuel Bowles and I argued in Capitalism and Democracy (Basic Books, 1985), large-scale collective actions have virtually always had the goal of social emancipation, in which the common man and woman are endowed with the blessings of liberty and in which democratic institutions are desired not only because they lead to an alteration in the distribution of wealth, but also because political democracy is desirable in its own right, given the nature of our species as, to use Aristotle's term, zoon politicon.

Third, Acemoglu and Robinson incompletely address the question as to why the dominant movement in the past two centuries has been from nondemocracy to democracy. Their recognition that capitalism and middle classes are relatively favorable to democracy explains part of this movement. But I think another crucial element is the emergence of modern warfare based on infantry with small arms weapons. Elite control of the state goes along with small armies of elite and/or mercenary mounted warriors with a heavy capital cost per man, whereas enlisting the common man to participate in national armies in the nineteenth and twentieth centuries required ceding the suffrage to the masses.

Acemoglu and Robinson do not appear to realize that their commitment to the rational actor model does not oblige them to model all social behavior as self-interested, and all political goals as materialistic. There are whole dimensions of social and moral history absent from their account because they do not accept that the fight for dignity and freedom is just as central to collective action as the fight for shoes, a coat, and a job. Nor can they possibly understand why collective action even takes place unless they admit that people fight and die for ideals, and for comforts that will only be enjoyed by those

who come after them. There is another volume to be added in explain the emergence of democracy---not a volume hostile to Acemoglu and Robinson's effort, but rather fleshing out the moral and emancipatory thrust of modern collective action.

Violence and social orders : a conceptual framework for interpreting recorded human history *by Douglass C. North*

Part of the Story, Retold — Rating: 3/5

This is a work of historical interpretation. Every age must have its favorite broad-brush, evocative, wide-ranging historical leitmotiv, most of which in retrospect are but political spins on well-known events, and wish-lists for political activity in the present. Think of the Decline and Fall of the..., or Takeoff into Self-Sustained..., or even the Communist Manifesto. Think of the Road to Serfdom and think of Capitalism, Socialism, and Democracy. Most such endeavors, when successful, are cultural markers of their epochs, but rarely are more prescient that your average Hollywood blockbuster.

North, Wallis and Weingast (hereafter NWW) offer a story that is indeed a major morality tale of our age: the centrality of the nation state in promoting or hindering economic development. So many countries have made the transition from backwardness to development, more or less in the same way over the past few decades that it has become clear that "politics," not "economics" is the main sticking point in improving the welfare of the poor around the world. NWW claim that the predatory states that feed corrupt elites by exploiting a powerless citizenry are the source of the problem of underdevelopment, and in my opinion, they are correct. They also claim that such predatory states ("natural states" in their vocabulary) are self-reproducing, and make the transition to modernity ("open-access orders") only under highly specific conditions.

The authors of Violence and Social Orders are eminent intellectuals all, one having received a Nobel prize in economics. The book claims novelty in many places, but their general argument, while mostly true, is not at all new, and is not the whole story. North, Wallis and Weingast claim that there have been three distinct forms of human society, hunter-gatherer, the natural state, and the open-access order. All of humanity shared hunter-gatherer status until some 10,000 years ago when an explosion of trade and settled agriculture gave rise to sedentary societies with private property and complex institutions of state and military dedicated to sharing the means of violence used to allow a powerful network of elites to control and exploit the mass of citizens. This new state apparatus was the virtually ubiquitous child of hunter-gather life. About 200 years ago a new form of social order began to pop up here and there, the so-called open access order that relied on meritocracy, science, market competition, and eventually political democracy, to make use of modern industrial and organizational techniques.

All this is true, but Charles Tilly said as much, and with greater nuance and descriptive thickness in his The Formation of National States in Western Europe (Princeton: Princeton University Press, 1975). Moreover, it is easy to neglect the positive role of the "natural state" in earlier eras in protecting the mass of citizens from brigands and organized mercenary armies, as stressed by J. R. Strayer in his Medieval Origins of the Modern State. NWW are warranted in stressing that the natural state is not an aberration but rather a self-reproducing social formation whose durability is at least as likely as that of the open-access orders that now, perhaps temporarily or perhaps for the foreseeable future, dominate modern life. But this is surely nothing new.

A second strand in NWW's analysis concerns the conditions for a transition from the natural state to the open-access order. They argue that there are in general two stages. The first involves the transformation of state power from personal relations among members of the elites to impersonal institutional relations in which state positions are regularized and bureaucratized, much in the manner described in Weberian sociology and stressed by Parsons in his brilliant, "Evolutionary Universals in Society", American Sociological Review 29,3 (1964):339-357. The second condition is that the dominant elites find it necessary to modernize in order to compete successfully with other states. This element in NWW's theory also has considerable truth, but is hardly new, being a central theme in explaining modernization in Japan, Russia, France, and many other countries.

I think the major weakness in NWW's story is that they have little to say about a central thrust of political development since the advent of open-access orders: the vibrant emancipatory thrust of history leading to representative government, political democracy, civil liberties, freedom of speech and association, and the separation of church and state. In our book Democracy and Capitalism (Basic Books, 1985), Samuel Bowles and I argued that the citizenry of developing states demanded representative government and universal suffrage, and elites reluctantly acquiesced, especially in the face of a new military order in which, because of the development of the hand gun, the standing army replaced elite and mercenary mounted troupes as the most effective instrument of war, and democracy was the price that had to be paid to permit the conscription of standing armies. A less detailed but similar view is voiced by Daron Acemoglu and James Robinson in their recent book, The Economic Origins of Dictatorship and Democracy: the elites gave democracy to the people out of fear of being swamped by out-and-out revolution. NWW offer the following critique of Acemoglu and Robinson: "Because they are not unified, elites cannot intentionally decide to do anything, let alone decide to share power. Members of the dominant coalition are rarely so unified." (p. 149) This is, after all, a quite pathetic critique. The idea that representative government and democracy are simply necessary elements in a system of impersonal institutions is not in the least credible.

This book is a one-dimensional interpretation of a period in our history that deserves more. You can read this book with profit, but please don't think that it says much new about how we got here in history, and what this book leaves out is at least as important as what it includes.

Socialism after Hayek *by Theodore A. Burczak*

Hayek Plus Sen Rings a Bell — Rating: 4/5

Theodore Burczak is Professor of Economics at Denison University. He received his Ph.D. from the University of Massachusetts, where rigorous training in traditional economic theory and econometrics was linked to an equally rigorous training in "political economy," by which was meant the analysis of the politico-economic dynamics of social systems. I was privileged to teach in this department at the time Burczak was there, and indeed in the acknowledgements, Burczak says that I "showed how to transform traditional economics into political economy." So the reader is warned---I am not an unbiased reader of this book.

Many reasonable people believe that capitalism, for all its myriad of weaknesses, is the best possible economic system. This is a highly defensible position, given the abject failure of all attempts to create viable alternatives over the past two centuries, and especially after the spectacular collapse of the Soviet Union, the failure of European socialism, and the bitter extinction of Third World Socialism. Personally, I believe capitalism is the best system we know of, but it is very important to have some smart and committed people around who spend all their time and energy in devising workable alternatives. Burczak lies squarely in this tradition, and Socialism after Hayek is a very creative and thoughtful work that deserves to be widely read and evaluated.

The most salient fact about Burczak's defense of socialism is his wedding a model of market socialism with democratically run, worker-owned firms (Lange, Lerner, although Burczak uses arguments from the contemporary Austrian school, which fits well with Hayek) with a welfare analysis based on human flourishing (Aristotle, Sen), and perhaps most uniquely, a defense of markets inspired by the extremely right-wing, Nobel prize winning economist Friedrich Hayek. This potent mixture of ideas is a welcome alternative to the usual contemporary defense of socialism, which is based either on know-nothing populist sloganeering or reliance on the ancient German philosophers of socialism of the Nineteenth Century---especially Marx and his brainy intellectual followers, whose obvious Hegelianism reverberates nil with the modern mind (Marx said that he was "Hegel turned on his head." What he forgot was that an upside down Hegel is still Hegel, just upside-down, just as an upside-down chicken is just a chicken, upside down).

In Burczak's Lange-Sen-Hayek trinity, traditional economic theory is used to defend market socialism and democratic worker ownership (Samuel Bowles, John Roemer, Pranab Bardhan and I were working in this area when Burczak was working on his doctorate at the University of Massachusetts), to defend

egalitarianism on the basis of Sen's notion that human welfare depends on developing capabilities, not on simply getting material things, and to defend a Postmodern philosophical position on the basis of Hayek's theory of knowledge.

Burczak's treatment is highly sophisticated, but I am afraid I am not persuaded. The absolutely central and bottom-line problem is that an economy consisting of worker-owned and democratically controlled firms would impose a significant static efficiency loss on the economy and would severely retard scientific and entrepreneurial innovate. I say this with pain and regret, because I and my colleagues work for almost ten year to devise a workable market socialism, but my final conclusion (I'll let the others speak for themselves) is that our models are more applicable to promoting self-employment of poor farmers in developing countries (see Pranab Bardhan, Samuel Bowles and Herbert Gintis, "Wealth Inequality, Credit Constraints, and Economic Performance", in Anthony Atkinson and Francois Bourguignon (Eds.) Handbook of Income Distribution (Dortrecht: North-Holland, 2000):541-603).

The main problem facing democratic worker control of firms is that the workers must be residual claimants on the profits and losses incurred by the firm, or the workers will have no reason to adopt efficient technology and work practices. Lenders will not willingly lend to worker-controlled firms because they cannot maintain sufficient influence over the firm's policies in this case (Herbert Gintis, "Financial Markets and the Political Structure of the Enterprise", Journal of Economic Behavior and Organization 1 (1989):311-322). John Roemer and Pranab Bardhan (Pranab Bardhan and John Roemer, "Market Socialism: A Case for Rejuvenation", Journal of Economic Perspectives 6,3 [Summer] (1992):101-116) worked out a sort-of "pari-mutual" betting plan that would direct public funds to the most promising firms, but it is implausible that such a plan, were it workable, would not succumb to political forces in a way to which private capital markets, based on the inviolability of private property, are virtually immune. Moreover, firms based completely on outside finance are extremely overleveraged and would inevitably collapse when even small threats to their viability arose.

The conclusion is that democratic firms must be almost wholly worker-owned, meaning that virtually all of the firm's capital stock is owned by the workers. However, there are severe problems with worker ownership. Most important, the capital per worker in the average firm is greater than the total wealth of the average worker in that firm. If the worker were given a share in the firm outright, he would prefer to sell it to diversify his asset holdings. Indeed, all the workers would prefer to sell out to a capitalist enterprise so they would become less vulnerable to the vicissitudes of the market. Indeed, there are several cases in which land redistribution to the peasants failed because the peasants sold the land right back to their previous landlords! Of course, this could be prevented by law, but the economic inefficiency of having a workforce of highly exposed individuals would be extreme. Moreover, if the workers own the firm, they will not want to expand employment in the firm, because the new workers would get a share of the value of the firm. Of course, new workers could be forced to buy a share in the firm, but few would willingly do so. Finally, the idea of worker ownership might be feasible for some highly stable and technologically developed sectors, but a vibrant economy is based on entrepreneurial innovation, and this is incompatible with workplace democracy.

If the contribution of workplace democracy to social welfare were sufficiently great, perhaps some of these severe problems could be overcome. But in fact, workplace democracy and popular ownership of capital are not fundamental values, but rather are instrumental values. Of course, in the minds of truly committed socialists they become ends in themselves, but I do not think such an idea can be sustained, even using Sen's notion of capacities. Socialists talk of "wage-slavery," but working for a boss is not slavery by a long shot. There are good and bad bosses, good and bad workplaces, but there are also good and bad teachers, and this does not imply that all authoritarianism should be abandoned in the educational process. Market socialists like to compare workplaces to communities, asking why we should have democratic communities but not democratic workplaces. This is a good question, but the fact is that our democratic communities work because we have a traditional market economy to draw upon. Moreover, while it is clear that a liberal democratic national constitution is a must, it is not clear that there would be something completely unacceptable about having corporations run communities, as they now run some schools and prisons.

I think the most creative insight in this book is the relationship between Hayek and Postmodernism. I love Hayek and I am deeply put off by Postmodernism, so I am certain that the melding of the two must

be carefully executed to maintain continuity with Hayek's thought. But it is interesting food for thought, one of many Burczak offers us in Socialism After Hayek.

Merchants of Doubt *by Naomi Oreskes*

Really eye-opening and engaging historical material — Rating: 4/5

It is well known and undeniable that over the years there has been a strong political element to public debate about many scientific issues, including the chlorination of domestic water supplies, the harmfulness of smoking and of second-hand exposure to cigarette smoke, to the harmfulness of acid rain and the existence of global warming, to mention a few. It is certainly not distressing that there be debate over public policy dealing with such social problems, but it is indeed distressing that the scientific evidence is manipulated by political advocates rather than simply accepting the scientific consensus and debating policy issues on moral grounds.

What is not well known, but it proved with a barrage of statistics and historical data by Oreskes and Conway, is that the science-deniers have been a quite small but extremely influential scientists who moved from one policy to another in support of right-wing political positions favoring the unimpeded operation of competitive markets and consistently oppose state intervention to solve social problems. This right-wing philosophy has major social philosophers and policy analysts among its supporters, and the intellectual debate surrounding the proper role of government is on-going and important. But the simple fact is that the vast majority of citizens and voters in all the liberal democratic market economies have historically demanded that the state intervene in correcting the negative social effects of competitive markets. Indeed, it is hard to see how modern capitalism could have survived without the decisive intervention of the state in such areas as the welfare state, occupational safety and health, social security, regulating trade, finance, and pharmaceuticals, as well as setting standards for consumer safety.

Given the popular support for state intervention, the fundamentalist right-wing market libertarians appear to have required the obfuscation of scientific evidence to slow down the pace of state intervention. Prevention of such intervention in the long run has proven impossible, and probably will continue to do so in the future.

What is puzzling to me is why the same set of people became involved in so many different areas of economic regulation. Of course, these men had great prestige. Frederick Seitz, whom Oreskes and Conway single out repeatedly, is a solid state physicist who had worked on the Manhattan project, is an ex-president of the National Academy of Sciences and has worked with the President's Science Advisory Committee. He and a few others of similar stature have been at the center of virtually every major science-denial initiative. Why is there not more diversity in the leaders of the Merchants of Doubt, and why, after being defeated on one initiative (e.g., denying the harmfulness of tobacco) are the same men considered credible in dealing with a different issue?

This book is a major contribution to resource material on science policy dynamics. I am not sure there isn't a reasonable reply defending the actions of the Merchants of Doubt. These obfuscators never denied the importance of scientific evidence, and they played the game of policy analysis pretty fairly. How many times have "scientists" unanimously, or close to unanimously, offered a solution to a social problem in situations where they were just wrong. Consider, for instance, eugenics, scientific racism, psychoanalytic theories of mental illness, and the repressed memories movement. It is also important to recognize that in virtually every case, scientific truth triumphed in the end. The future is likely to be more of the same, provided liberal democratic institutions provide a level playing field for expressing public controversy.

Emergent macroeconomics *by Domenico Delli Gatti*

An Important Contribution to Agent-Based Macroeconomics — Rating: 4/5

The theory of macroeconomic fluctuations has been a pathetic mess for a long time. Indeed, forever. The central model of the economy, the Walrasian general equilibrium model, is a purely equilibrium model, and no one has been able to derive an out-of-equilibrium mechanism of price and quantity adjustment that renders market equilibria dynamically stable, despite more than a half century of trying (see my paper, "The Dynamics of General Equilibrium", Economic Journal 117 (2007):1289-1309 for details and a proposed solution), and despite blistering attacks from within the economic establishment. See, for instance, Alan P. Kirman, "Whom or What does the Representative Individual Represent?" Journal of Economic Perspectives 6 (1992):117-136, and Franklin M. Fisher, Disequilibrium Foundations of Equilibrium Economics (Cambridge, UK: Cambridge University Press, 1983). In a recent paper (Herbert Gintis, "The Dynamics of General Equilibrium", Economic Journal 117 (2007):1289-1309) I showed using agent-based modeling techniques that the problem with the Walrasian model lies in the assumption that agents never interact, but rather that each makes decisions independently from a given system of prices. I also showed that the assumption that there exists a price structure accepted by all agents in the economy ("public prices") accounts for the chaotic nature of disequilibrium in the standard Walrasian disequilibrium models. Instead, when each agent has his own set of "private prices," even though market competition leads to a very low standard deviation of private prices (I call this situation "quasi-public prices"), such prices tend strongly to equilibrate the market system in the long run. Finally, I showed that plausible learning processes in the economy lead the system sporadically to make large excursions from equilibrium even in the absence of any global stochastic shocks (I called these "local resonances").

Because of the lack of dynamics in the standard Walrasian model, macroeconomic theories that depend on this model must perform massive simplifications in order to investigate out-of-equilibrium behavior. The reason these models are such a mess is that they take it for granted that public prices exist (they do not) and that we can analyze the market economy as if individuals never interact, but rather interaction only with private prices. This, of course, is completely incorrect, as I explain above. However, with this assumption, it is clearly permissible simply to aggregate all economic actors of the same type into a "representative agent" having the average characteristics of that type of agent. From this is born the Keynesian consumption, investment, and government sectors, from which the standard Keynesian models flow. For the rational expectations macro models, we have a similar aggregation, with the completely crazy assumption that an aggregate "representative agent" will satisfy the condition of "rational expectations" theory, as though the aggregation of "rational agents" is prima facie an aggregate rational agent. The intellectual value of these assumptions is rather meager.

This fine book, which was in preparation at the time of appearance of my Economic Journal paper, is quite in agreement with my findings, laying blame on the "representative agent" assumption, and using agent-based modeling (abm) to investigate macroeconomic dynamics. However, whereas I took individuals as the unit of analysis, the authors allow firms to fill this role. They use empirical data on within-industry firm heterogeneity to model the population of firms, and assume asymmetric information among firms. This leads them to a financial accelerator model of financial fragility with great similarity to a model proposed by Greenwald and Stiglitz in 1993 (Bruce Greenwald and Joseph E. Stiglitz, "Financial Market Imperfections and Business Cycles", Quarterly Journal of Economics (1993):77-114). Finance is central in their model because the absence of forward markets forces firms to rely on credit to finance investment that matures only across time periods.

Based on careful industry research, the authors' abm is populated with firms whose size distribution take the form of a power law density (Zipf's Law), and firm growth rates follow a Laplace (double exponential) rather than a normal distribution. Such a distribution has `fat tails' that imply more instability than in a system with normally distributed growth densities. Indeed, they show that normally distributed shocks give rise to power law distributions and a Pareto shaped firm size distribution. This is a quite nice finding, and surprising given the degree of aggregation of their agent-based economy (they assume only two sectors, firms and banks, and no individual agents). Clearly individual interactions underlie the power law assumptions concerning firm size and the Laplace distribution of growth rates.

Fault lines *by Raghuram Rajan*

This is an Absolute Must Read! — Rating: 5/5

This book, one of the slew of publications dealing with the financial meltdown of 2007, is very attractive. It is well-written, authoritative, thoughtful, succinct, well-rounded, and incisive. Moreover, it may well be correct. The author, who is Professor of Finance at the University of Chicago Business School, lays out the complete argument in the first chapter, the succeeding chapters expand on each of his major points, and he closes with well-thought-out recommendations for reform. Also attractive is the fact that Rajan's interpretation is as unique as it is persuasive, and is neither right, left, or middle-of-the-road.

Rajan argues that there is no one single "cause" of the crisis, but rather that there are several major strains ("fault lines") in the world economy that render such crisis virtually inevitable, and that without easing the strains through major world restructuration, there is little doubt but that more crises await us in the future. It is useless, he maintains, simply to improve our ability to forecast financial crises, because forecasting is simply not a problem. "The problem was not that no one warned about the dangers; it was that those who benefited from an overheated economy...had little incentive to listen...each one of us did what was sensible given the incentives we faced. Despite mounting evidence that things were going wrong, all of us clung to the hope that things would work out... Collectively, however, our actions took the world's economy to the brink of disaster..." (p. 1, 4) How true! A top banker at one of the collapsed investment house was recently asked why they didn't pull out of the spiral sooner. "Hey," he answered, "when the music plays, we dance. That's our job." So it was with all of us.

Fault line 1, according to Rajan, is the stress in the advanced capitalist countries caused by the need for unrestricted competition to generate growth and innovation, all the while leading to extreme income and wealth inequality---inequality that is hard to contain in a political democracy. Rajan notes, for instance, that in the USA, more than 50% of all wealth increases in the current century accrued to the top 1% of wealth holders. Not wanting to constrain the competitive engine of growth, politicians relieved the strain by engineering easy credit for the masses, without worrying about what would happen when the chickens came home to roost. This argument is of course the darling of the free-market right-wing ideologues, who blame Fannie May and Freddy Mac, as well as the implicit government guarantee that large firms are "too big to fail," for the crisis of 2007 (see, for instance, Thomas Sowell's book The Housing Boom and Bus; Sowell is usually cogent and insightful, but this book is a froth-at-the-mouth diatribe against the welfare state).

Except that Rajan does not conclude that the government and its welfare state should be dismantled. Recognizing that political democracy spawns welfare states as a matter of course, Rajan concluded that we must have serious educational reform in the United States and other countries that allow a greater fraction of citizens to share in the wealth. Rajan devotes whole chapters to laying out this message.

Fault line 2, Rajan says, involves structural imbalances between the developed market economies and the newly-industrializing countries. In an earlier period the newcomers borrowed heavily from the West to finance development, and were repeatedly burned when international market conditions blocked their ability to meet debt obligations. In response, more recently developing economies have modernized their export sectors, but let their domestic sectors stagnate, mired in oligopoly, special privileges, and corruption. As a result, these economies (think China, Japan) exported their profits rather than consuming them domestically. Add to this a flood of money from oil-rich countries with no interested in helping their own poor, starving masses, and we see a West that is totally awash in foreign investment funds. This financial surplus allowed the US Federal Reserve to maintain absurdly low interest rates for long periods of time, which of course contributed mightily to the overheating of the housing sector. "in a regulatory coup de grace," says Rajan, "the Fed chairman, Alan Greenspan, effectively told the markets in 2002 that the Fed would not intervene to burst asset-price bubbles but would intervene to ease the way to a new expansion if the markets imploded. If ever financial markets needed a license to go overboard, this was it." (p. 15)

Fault line 3 for Rajan is the structural discrepancy between the open and "arms-length" nature of finance in the US and other advanced economies, and the old-boy and nepotistic organization of finance in the countries that lend to the West. This situation led foreign investors to take at face value the claims of borrowers in America and Europe, without subjecting them to the usual financial scrutiny. This,

together with the Fed's encouragement of the financial sector, created a climate in which the stunning stupidities of the subprime housing market could spread furiously without check.

Rajan stresses repeatedly that the financial sector must be given a long leash in the interests of innovation and growth, but he does recommend more "transparency" in the financial sector, in the form of heightened regulation and accountability. The only actors who can really change to make a better system, says Rajan, are governments! To control the fault line associated with inequality, he suggests more and better education. To deal with excessive foreign lending of the newly industrializing countries, he recommends reform of their domestic production sectors. Rajan's proposals are presented lucidly and without much hype (although I'm afraid his faith in a reformed educational system is not likely justified by the realistic prospects for success), but it is clear that whatever is done, it must not unduly harness the creativity of the market. I don't have Rajan's expertise, but I have come to the same conclusion in recent years.

The role of the state in preventing economic collapse has increased by an order of magnitude since the Great Depression. The idea that sound monetary policy alone can control breakdowns is just fantasy, as is the notion that if you leave the market alone it will auto-generate stability. If the Obama administration had not stepped in as decisively at it did, I am certain the world economic would have take four or five times a large a hit, leading to the overthrow of governments and the reorganization of international alliances. There will always be crises, as long as the engine of social well-being depends on the creativity of business, which is likely for a very, very long time. Meanwhile, we must assiduously fight off the free-market crazy who would paralyze government if it could, and the left-wing dimwits who would regulate markets until they choked to death. We must live with our social fault lines no less than with our geological fault lines for the foreseeable future.

Expansion of Economics *by Christopher Clague*

A Pioneering Contribution to Integrating Sociology and Economics — Rating: 4/5

In the mid-1930's, Talcott Parsons began a sustained attempt to integrate sociology and economics into a unified theory of human action. The attempt produced some brilliant works, including The Structure of Social Action (1937), but eventually foundered when Parsons moved from social action theory to structural functionalism, and produced nothing more profound than the notion that economics deals with "rational" choice and sociology with "non-rational" choice, and sociology focuses on `integration' and `latency' in Parsons' AGIL structural functional framework, while economics dealt with `adaptation.' Edward O. Wilson initiated a more formidable attempt at integration of all the social sciences, natural sciences, and even the humanities, in his brilliant Consilience (1998). However, Wilson's attempt was more philosophically inspiration than concrete tools for forging and integrated system of knowledge. A third attempt, more substantive than either of the above, was the attempt of economist Gary Becker to extend the principles of rational action from the market place to such spheres as the family, education, crime, drug addiction, and other concerns normally attended to only by sociologists and economists. So successful was the research of Becker's and his University of Chicago associates that the buzz-word for much of the 1980's and 1990's was the `threat of economic imperialism,' with the tools of neoclassical economics reaching out to gobble up the surrounding fields of sociology and social psychology.

Gary Becker made a sustained effort to engage sociologists during this period, to the extent of teaming up with the great sociologist James Coleman, who came to Chicago and taught courses with Becker. In the early 1980's, Becker and Coleman ran an interdisciplinary seminar on rational choice. In 1989, Coleman founded the journal Rationality and Society, which to this day serves as an outlet for rigorous sociological research in an interdisciplinary setting. The culmination of Coleman's effort was his piece de resistance,' The Foundations of Social Theory (1990). This book was poorly received by sociologists (I read some ten reviews in sociology journals, not one of them in the least favorable) and completely ignored by economists. While this thrust to unite economics and sociology foundered after 1995, it had made indelible marks on applied sociology, including the theory of the family and domestic relations, feminism, the analysis of crime and addiction, and several other areas.

In this book, Grossbard-Shechtman and Clague attempt to revive the spirit of integrating economics and sociology by collecting numerous theoretical and applied papers, each of which exhibits the gains to be made from an integrated approach. The papers are of uneven quality and some are now a bit dated, though this volume is essential reading for anyone concerned with the integration of sociology and economics. As with Becker and Coleman, the authors interpret their task as showing that rigorous analytical modeling of rational actors who are motivated by self-interest in all areas of social life. Their treatment is sensitive and thought-provoking, leading this book to be a fine contribution to the admittedly meager literature on the integration of the social sciences. Most important, the contributors in this volume almost completely abandon the attempt to identify `rationality' with `self-interest,' an identification virtually characteristic of the work of Parsons, Becker, and Coleman.

It is curious to me that these great thinkers could confuse rationality with selfishness. It is true that Parsons did not have the benefit of the Savage (1954) codification of the rational actor model, which clearly shows that rational choice does not depend on the content of preferences, so long as they are transitive and complete. But both Becker and Coleman surely knew that `rationality' does not preclude other-regarding arguments in the individual's objective function. At any rate, Coleman pushed the equation of rationality and self-regarding preferences to a bizarre limit in The Foundations of Social Theory, rendering this work fully deserving of the criticism heaped upon it by the sociological readership. Gary Becker has had much less invested in this equation, so not surprisingly, in recent years he has be supportive of efforts to apply the rational actor model to sociological areas in which the idea that all motives are self-regarding is clearly inapplicable. As for the future of the integration of sociology and economics, see my book The Bounds of Reason (Princeton 2009), where I sketch fairly fully how this integration might take place.

Most important, I do not think there is any danger of economics gobbling up sociology is any future merger. There are central principles of sociology, including the notion of norms, and of social psychology, including the notion of the internalization of norms, that economics must learn from these other disciplines. Moreover, once the bloom of youth fades from game theory, it will be realized that the Nash equilibrium concept is far too weak to serve as a general principle of social equilibrium, and more complex notions will centrally involve forms of reasoning that violate the methodological individualism of which classical game theory and neoclassical economics in general are so proud. Econommics imperialism in the behavioral sciences does not appear to have very much of a future.

Post Walrasian macroeconomics *by David C. Colander*

A Taste of the Future--But just a Taste — Rating: 4/5

David Colander is an intelligent, principled, and indefatiguable proponent of alternatives to the received wisdom in economics. This book lays out a cogent critique of standard macroeconomic theory and proposes directions for empirically-grounded alternatives.

It is easy to critique the three main traditional branches of macroeconomics, Walrasian, Keynesian, and New Classical. The Walrasian model is purely an equilibrium model with no known analytically-based dynamics. Because macroeconomics deals centrally with disequilibrium and dynamical phenomena, it is perfectly useless for macroeconomic dynamics, and this has been well-known for fifty years. The Keynesian and New Classical models are "toy" models with "representative agents" and single markets in investment and consumption. The Keynesian model makes assumptions concerning individual irrationality that it claims underly the volatility of the market economy, and the New Classical model makes even more bizarre assumptions concerning rationality and market clearing. These models are, to my mind, so incredibly stupid that it is unbelievable that reasonable economists would hold any credence in them.

In fact, most economists don't really buy the standard models, but they are more or less in agreement with the policy implications of these models. This is lamentable, because it is clear that their policy implications are reasonable as often as unreasonable (although I must say that the New Classical policy recommendations are sometimes even stupider than the theory from which they are derived, and the Keynesian recommendations are often just social democratic crap---I tend to prefer the latter as the

lesser of two really, really, distateful evils). I also think a great case can be made for the argument that many Nobel prizes awarded to New Classical ideologues are due to the right-wing zeal of Nobel Prize Committee's august chairman. The idea that Lucas, Prescott, et al. have made "scientific discoveries" is just one big joke.

What about alternatives? Let me say first that Colander has made a big mistake in identifying the reigning wisdom in macroeconomics as "Walrasian," and his proposed alternatives as "post-Walrasian." As Alan Kirman clearly states in the Forward to this book, not a single one of the attributions to Walras of the "post-Walrasians" is even remotely correct. Here are just a single example, others being scattered throughout the volume. "Walrasians assume high-level information processing capability and a rich information set." (p. 2) In fact, agents in the Walrasian general equilibrium model are price takes who know nothing but their own personal consumption/production/ownership characteristics.

By the choice of Colander's contributors, it is possible to infer that he sees two distinct directions for what he calls post-Walrasian macroeonomics. The first is what I would call "Walrasian Dynamics," which treats the economy as a complex dynamic nonlinear system, and uses techniques from complexity theory, especially agent-based modeling and analytical models with "fat tail" error distributions. This is ably represented by Leigh Tesfatsion, Robert Axtell, and Blake LeBaron. For the interested reader, my paper "The Dynamics of General Equilibrium" (Economic Journal, 2007) lies in this area and is the first to demonstrate both the quasi-stability and excessivel volatility of a dynamic version of Walrasian general equilibrium. The second is vector autoregression techniques that attempt to do without a specific "representative agent" model of the macro economy. I have no faith in the possibilities of such models, but the reader can judge for himself.

This book does not deliever the goods, but it is inspirational for those who are hardy enough to attempt to forge an alternative to the ghastly macro models that monopolize the field these days.

Trust theory *by Cristiano Castelfranchi*

Excellent Contribution, Marred by Ignorance of Behavioral Game Theory — Rating: 4/5

The authors are part of a leading Italian cognitive psychology work group. Castelfranchi's publications are many and highly insightful. This book is likely to represent a key reference work for many years, and I recommend it highly for researchers in cognitive and computational psychology areas. I will limit myself to criticisms and suggestions for elaboration.

The major weakness of the volume is its almost complete lack of reference to supporting empirical material. This absence renders the volume more like a classical philosophical text than a piece of scientific research. Moreover, though the title stresses computation, there is virtually no elaboration of or testing of computational models.

For instance, the authors repeatedly assert "trust is the glue of society," but they never give either argument or empirical support for this notion. There are, of course, whole fields that dewith the nature of human society that never mention trust at all, or at best consider it an optional phenomenon. The concept does not exist in standard economic or biological theories, and most anthropological accounts of social life never mention trust. The authors may be correct (I would say "a glue" rather than "the glue"), but they have gone zero distance in proving this fact.

The authors are critical of all previous models of trust, which they declare "pernicious" (p. 7), and set the goal of providing "a general, abstract, and domain-independent notion and model of trust." (p. 7) Seeking such generality, however, presumes that trust has some "essential" meaning, rather than being a term with several very loosely related meanings, as a Wittgensteinian treatment might suggest. If there is no essence, there is no general model. I doubt that there is such an essence. For instance, the concept of trust in "I had no choice but to trust his good will" is very different from the concept in "I exposed myself to harm by opting to trust his good will," and is different from the concept in "I trust the capacity of my mathematical software to solve this problem accurately."

The authors' negative evaluation of domain-specific models of trust leads them to reject the very best models, and the most persuasive evidence available to us. The whole research tradition initiated by

Elinor Ostrom, James Walker, Toshio Yamaguchi and others on trust in common pool resource and public goods games is rejected for being too "restricted." (p. 26) On the other hand, they somewhat unexpectedly argue that "only a cognitive agent can trust another; only an agent endowed with goals and beliefs." (p. 38) The appears to imply that trust cannot be modeled most animal interactions. Of course, trust means something differentn applied to fish that scavenge the mouths of larger fish, but it is not clear that this behavior is not in the "family meaning" of the term trust.

I suspect that the authors' rejection of the standard behavioral game theoretic literature on trust is due to its mathematical nature. The authors do have some equations in the book, but they never use mathematics for the purpose of drawing conclusions from a set of postulates. Rather they use equations to describe their ideas, much as they use diagrams with boxes and arrows. They certainly show nothing but hostility to the behavioral game theoretic literature on trust, which they refer to as "economic." The whole of Chapter 8 is devoted to a critique of this literature. I do not believe their critique has a single element of validity. Their main argument is that the behavioral game theory (bgt) research is "reductivist." I submit that this is just name-calling---one can engage in it without having any substantive argument at all.

Their first specific point is that the literature is self-contradictory: for the bgt researcher "trust is the belief that Y will choose and will behave in a non-rational way," and hence that "the entire society is grounded on the irrationality of the agents." (p. 236) They arrive at this attribution by noting that bgt finds that agents exhibit other-regarding preferences, which the theory explicitly argues are rational although not selfish. The authors go to note that the trust behavior discovered in bgt is in fact not irrational, thus completely undermining their central point. Indeed, it is quite clear from their argument that they have learned the distinction between rationality and selfishness from behavioral game theory research. Whom do they think they are kidding in offering this lame critique?

The authors would have done better to have taken a more catholic attitude towards behavioral game theory trust research. Recognizing its obvious strengths, they would have done better to develop the behavioral game theoretic model for their readers, and then, in a spirit of respect and inclusiveness, noted its limitations, and devoted their efforts a developing a more inclusive explanatory framework.

The Coming Crisis of Western Sociology *by Alvin Ward Gouldner*

Sad but True: Gouldner as Bearer of Zeitgeist — Rating: 3/5

A key event in the trivialization of sociology as a discipline was the bitter critique and rejection of Parsonian theory in the late 1960's and early 1970's. Almost no sociologist lamented the demise of Parsons' contributions and virtually every well-known sociologist of the day delighted in partaking of the crime and feasting on the corpse. Of course, rejecting Parsons' attempt to fuse the insights of Pareto, Weber, and Durkheim into a general theory of social order, and offering nothing of substance in its place, sociological theory wended its moribund way into the present. In this present, sociology is like fine art. Just as every painter creates his own aesthetic from an unshared private world, so the sociological theorist today weaves a complex story that does not build upon, nor does it have positive synergy with, the work of his predecessors. The situation would be amusing---so many intelligent men and women huffing and puffing and saying worth noting and building upon---where it not so tragic.

I have spent some of my time over the past few years trying to figure out how this sad situation came about. It became clear through the rereading of Parsons' major works that the path towards a cogent sociological theory that he began to forge in the writing of The Structure of Social Action (1937) he abandoned in the post-world-war II period, first by replacing a voluntaristic notion of action in favor of the notion of the individual as a compliant conformist to social norms, internalizing whatever the social system placed in from of him in the form of cultural structure, and second by locating the roots of social order in the functioning of institutions rather than in the active embracing of social norms by a critical and active body of social actors. This was a terrible mistake on his part, probably induced by Parsons' witnessing the astounding descent into abject conformity in the United States, and in a different by equally powerful way in the Soviet Union. The 1950's were indeed the era of the Man in the Grey Flannel Suit in the United States, and the paranoid apparatchik in the Soviet Union. We might forgive Parsons

for abandoning an emancipatory social theory in favor of the soporific edifice that was structural-functionalism. Until the Viet Cong beat up the French, Rosa Parks sat in the front of the bus, and Daniel Cohn-Bendit's student movement almost brought Europe to its moldy knees, it was not completely implausible to believe in the unmitigated power of the ruling order to suffocate all creativity.

I now feel that if the world could have cut directly from 1945 to 1965, Parsons' own work would have taken a more fruitful turn. First, in politics we have the rise of emancipatory movements in the advanced world. Second, we have the rise of sociobiology, which when applied to humans, rejects the notion that people can be socialized in any arbitrary manner, but rather that there is a core of human nature, together with a core of universal human morality, that yearns for freedom, democracy, and autonomy, and hence will attempt to throw off the yoke of any oppressive culture, however ubiquitous, if it has the material means and social space to do so. Third, with the rise of behavioral game theory and its attendant implications for the rationality of prosocial and altruistic behavior, Parsons would have seen that the distinctions between the structures of self-regarding and other-regarding action (inherited from Pareto) are arbitrary, and therefore there is a deep link between economic rationality and moral social action.

Even without these insights, Parsons' contributions were monumental, and it remains to explain why they were so roundly rejected, rather than simply amended to correct their obvious weaknesses and biases. This is the tack I took in my Ph.D. dissertation (Harvard, Economics, 1969) which I dedicated to Talcott Parsons and Karl Marx, with the head quote: "Things are getting better and better; it's people I'm worried about." (Mose Alison) But even I abandoned the task of integrating Parsons into a defensible social theory, and doubtless behaved no better that the leading lights of sociology in dealing with Parsonian theory. My excuse: I was a kid behaving like a kid and they were grown-ups behaving like kids.

There were four major reactions to the demise of the Parsonian system. The first, and most productive, was the "retreat" to so-called Middle Level Theory (Merton et al.). Middle level theory has been very successful in my opinion. The number of absolutely brilliant and still insightful contributions to the analysis of specific social problems by middle level applied sociologists is large and growing. The second and completely unsuccessful reaction was the attempt by individual theorists to erect a complete alternative theory that denied all the insights of Parsons' synthesis. Homan's exchange theory, Giddens' structuration theory, and Coleman's rational choice sociology fit into this category. The case of James Coleman is particularly poignant. Coleman was a first rate middle-level applied sociologist whose analysis of social tensions in the United States were deeply penetrating and creative. His late-in-life attempt at doing high-level theory (The Foundations of Social Theory) was an embarrassing disaster. The third reaction was a "let one hundred flowers bloom" attempt to turn sociological theory into the History of the Great Masters of Sociology, with no attempt to adjudicate among these masters. Turner (J. H.) is probability the acknowledged master of this approach.

Gouldner's The Coming Crisis is the fourth approach, that of denying the status of objective science to sociology, criticizing Parsons for his 1950's-style conservatism, and arguing that the whole "problem of social order" reeks of an oppressive, anti-emancipatory conservatism. Gouldner was certainly not alone in taking this tack in the criticism of Parsons, but he was the most dedicated an eloquent. To any objective observer, Parsons hated Nazism and Communism bitterly and loved liberal democracy. If this is oppressive conservatism, then I am proud to join ranks with Parsons. Who are the Good Guys of the period: those who hated and fought against fascism and Communism. Who are the Bad Buys of the period: those who did not. It is that simple. Calling Parsons and his functional sociology "conservative" does a grave disservice to Parsons. Parsons consistently lent his weight to emancipatory social change, so long as it lay within the institutional boundaries of liberal democracy.

Gouldner's position is that Parsons' whole attempt at doing `objective' sociology is wrong-headed, because there can be no objective sociology. "Sociologists must surrender the human but elitist assumption that others behave out of need whereas they believe because of the dictates of logic and reason." (p. 26) This is an ancient idealist position that would be resurrected and blown into a full-fledged rallying-cry some years later by the Postmodernists. To my mind, this position is not beneath contempt. It is quite deserving of contempt. The observation that for each of us, the assessment of truth and falsity is biased by personal prejudice and social perspective is surely correct. However, a statement

concerning social reality becomes accepts by a body of scientists only after the evidence in its favor is publicly vetted and accepted by all (or at least the overwhelming majority of) knowledgeable parties. Even then, it is not impossible that the collectively shared prejudices of the judges may lead to a false assessment, which is why it is important to have an open and non-exclusionary process of recruiting individuals into a scientific community.

Gouldner's subjectivist position is widespread in sociology, and it is poisonous indeed. Why bother pretending to learn the scientific method if objectivity is impossible? Why make mathematical models if they are just personal ideology in disguise? Why search for truth when it is so much easier just to express your opinions and heap invective on your enemies? Why find out the hidden structure of social life when you can so much more easily just join the ranks of the Socially Committed? Only a hypocrite believes in truth, anyway---or so the Gouldnerites and their supporters would have us believe.

The reason I spend so much time on this point is that Parsons' central goal was to solve the "problem of social order." Gouldner interprets this goal as one of trying to maintain the status quo. The goal could have no other purpose because there is no such thing as an objective solution to the problem of social order. But, this is just false. I deeply admired Parsons' theory of social order even when I was a radical Marxist SDS activist in the civil rights, anti-war, and student culture movements of the late 1960's and 1970's. I did not believe that his theory was correct, but I believed it was part of a correct theory, whatever the political differences between myself and Talcott Parsons. In order to be a good scientist, one must separate one's political, cultural, and social prejudices from the quest for objective truth, and one must be tolerant of others with whom we disagree. Why? Because they might be right, and if you give them the time, space, and courtesy, they may convince you.

In the present case, I gave Gouldner plenty of time and space (the book is over 500 pages long). I am not convinced.

Darwin's Dangerous Idea *by Daniel C. Dennett*

Wonderfully mature exposition of evolutionary theory and current controversies —

Rating: 5/5

I bought this book in 1995 and really hated it. But ten years later I couldn't remember why I had such negative feelings about the argument, so I purchased another copy in 2006, but just got around to rereading it. It is a wonderful book, offering the beginning reader a mature exposition of basic evolutionary theory and the expert an insightful interpretation of recent controversies among biologists, often offering highly persuasive resolutions to arguments that have shed much more heat than light in the biology and philosophy journals. I cannot imagine the source of my earlier negative feelings, except perhaps his treatment of gene-culture interaction, to which I return below.

One could summarize the interpretive part of the book by saying that in disputes between Richard Dawkins et al. on the one hand and Stephen Jay Gould et al. on the other, Dennett almost always sides with the former, supplying more cogent arguments than Dawkins himself, and aptly countering the latter, despite the brilliance of their argumentation. Most important, Dennett strongly defends an adaptationist view of evolution against the spandrels/just-so-stories critique as presented in the famous paper by Stephen Jay Gould and Richard C. Lewontin, "The Spandrels of San Marco and the Panglossian Paradigm: A Critique of the Adaptationist Programme", Proceedings of the Royal Society of London B 205 (1979):581-598. Dennett likens evolution to a nexus of algorithms, so that natural selection is a form of engineering. The interpretation of phenotypic characteristics as adaptations is then just a plausible form of "reverse engineering." Dennett thus asserts, correctly I believe, that "Gould and Lewontin's fabled refutation of adaptationism is an illusion." (p. 261).

After dealing with the critique of adaptationism, Dennett devotes an additional chapter to Stephen Jay Gould's various other critiques of "Darwin fundamentalism," including Gould's critique of Darwinian gradualism and his "punctuated equilibrium" alternative. Gould's strategy in presenting iconoclastic alternatives was generally to write books and article for the general public rather than presenting detailed professional expositions in biology journals. This earned the ire of many academic biologists and paleontologists, and in the charged atmosphere created by Gould's attempt to "run around" the

biological establishment, it was not surprising that the professional assessments of his arguments were generally negative and even derisive. Dennett in 1995 soberly and dispassionately reviews the evidence, uniformly to Gould's detriment. I believe more recent evidence is even more hostile to Gould's various claims. Steven Jay Gould was a brilliant and talented biologist, but not the radical innovator he so desperately desired to be.

Dennett is especially critical of Gould's critique of the "gene's-eye view" of evolution as presented in Dawkins' brilliant The Selfish Gene (1976). Dennett defends Dawkins exposition of gene-centered evolutionary theory, but argues that Dawkins' inference concerning human altruism and cultural malleability are severely overdrawn. He then draws on Dawkins' argument concerning "memes" in The Extended Phenotype" (1982) to make the case that the gene's-eye view in the case of humans does not have the depressing right-wing implications Dawkins relishes in espousing in The Selfish Gene. A more modern argument is that gene-level selection, individual-level selection, and even group-selection models will all give the same answer if the proper accounting relationships are obeyed. The difference among the three approaches is that for different analytical purposes, one or another of the three approaches may be simpler and more insightful. For instance, in social species the structure of social life becomes a key contributor to the enhanced fitness of group members, so that a multi-level selection approach in which the accounting relations take the costs and benefits of behavior to be a function of social organization is more insightful than a lower-level approach that simply takes the costs and benefits as given.

Dennett also has a careful chapter in which he shows that Dawkins' concept of a meme can be used as a counterbalance to a purely genetic approach to human evolution. "The primary difference between our species and all others," he reports, "is our reliance on cultural transmission of information, and hence on cultural evolution. The unit of cultural evolution, Dawkins' meme, has a powerful and underappreciated role to play in our analysis of the human sphere." (331)

I think the meme concept is a loser because it is too detached from the gene concept to render a mimetic analysis evolutionarily coherent. The correct theory is that of gene-culture coevolution, as developed by several authors, including Cavalli-Sforza and Feldman: Marcus W. Feldman and Luigi Luca Cavalli-Sforza, "Cultural and Biological Evolutionary Processes, Selection for a Trait under Complex Transmission", Theoretical Population Biology 9,2 (1976):238-259, .Luigi Luca Cavalli-Sforza and Marcus W. Feldman, Cultural Transmission and Evolution (Princeton, NJ: Princeton University Press, 1981), Boyd and Richerson: Robert Boyd and Peter J. Richerson, Culture and the Evolutionary Process (Chicago: University of Chicago Press, 1985) and Dunbar: Robin M. Dunbar, Grooming, Gossip, and the Evolution of Language (Cambridge, MA: Harvard University Press, 1996). Unfortunately, and inexplicably, the names of these authors do not even appear in the text or bibliography.

Sociobiology *by Edward Osborne Wilson*

Totally Awesome! — Rating: 5/5

This book is, to my mind, the most important single book on social behavior in animals and humans, edging out Darwin's The Expression of Emotions in Man and Animals (1872), as well as Maynard Smith's Evolution and the Theory of Games (1982). Only 30 of the book's 575 pages are devoted to Homo sapiens, but this is the part I am interested in, and the part I will discuss in this review.

I recently reread Wilson's Sociobiology because I had only a vague memory of what exactly he said about human sociobiology, but numerous writers alluded to the crudeness and inaccuracy of Wilson's analysis. It is well known that Wilson's sociobiology of our species was bitterly critiqued by liberals and Marxists for its "reductionism," and "biological determinism." It is well known that sociobiology has shed these criticisms in recent years, but some have alleged that the radical's critique of Wilson's early contribution to human sociobiology is, regretfully, well-deserved.

To my surprise, upon rereading I found this charge to be quite without merit. We may know much more about human sociobiology today than a third of a century ago, but Wilson's general exposition is virtually flawless. Wilson's central point is that human genetic development has created a species that

enjoys a plasticity of social organization orders of magnitude more flexible than that of other species. Human genes, so to speak, liberate us for a panorama of cultural life-worlds. Reductionist this is not. Genetic determinist this is not. Wilson speculates that genes promoting flexibility in social behavior are strongly selected on the individual level, but he follows Darwin in speculating that group selection may have been important in making us who we are.

Of course, Wilson decisively rejects the "tabula rasa" view that the human mind can be successfully indoctrinated into any arbitrary cultural system (the devout wish of the social engineers of the political left and right)."Although the genes have given away most of their sovereignty," he asserts, "they maintain a certain amount of influence in at least the behavioral qualities that underlie variations between cultures. Moderately high heritability has been documented in introversion-extroversion measures... neuroticism... depression, and the tendency toward certain forms of mental illness such as schizophrenia." (p. 550) Wilson suggest that the field of "anthropological genetics" could lead us to a valid model of the biological foundations of human nature. Wilson describes two widely disparate methods of anthropological genetics. The first uses laboratory experiments to identify the individual units of human behavior, for instance Abraham Maslow's hierarchy of needs and George Homans' behavioral moral theory. The second is phylogenetic analysis, in which we compare and contrast humans with other related species. At the time Sociobiology was written, this method was popularized by Konrad Lorenz, Robert Ardrey, Desmond Morris, Lionel Tiger and Robin Fox, and others. Wilson is (rightly) skeptical of this body of research, preferring to derive genetic predispositions by establishing "the lowest taxonomic level at which each character shows significant intertaxon variation." (p. 551)

"Human societies have effloresced to levels of extreme complexity because their members have the intelligence and flexibility to play role of virtually any degree of specification, and to switch them as the occasion demands." (p554) In sociological theory, Emile Durkheim and Talcott Parsons had developed socialization theories in which individuals internalize social norms, and thus become "indoctrinated" with values that lead them to behave prosocially even when it is not in their material interest to do so. Wilson attributes this idea to Campbell (1972), and discusses the possibility that group selection is involved in this sophisticated aspect of human psychology. This, of course, has become a major theme in contemporary sociobiology.

"Scientists and humanists should consider together the possibility," says Wilson, "that the time has come for ethics to be removed temporarily from the hands of the philosophers and biologicized." (p. 562) Wilson's discussion of this issue is incisive and nuanced. Today we would say simply that human ethics is a central aspect of human evolution, and that morality is the product of a gene-culture coevolutionary dynamic that must be studied in a purely scientific manner. Wilson clearly understands that human culture sets the stage for human genetic evolution just as much as the converse.

In sum, I could find no hint of the reductionism and biological determinism that critiques have charged permeates Wilson's treatment of human sociality. Rather, I find a sophisticated and nuanced analysis that includes most of the theoretical tools that were to be developed over the succeeding four decades. Wilson's judgment here is deeply moderate and considered, leading me to believe that his bitter critics simply recoiled at the reasonable suggestion that there are biological foundations to human behavior and morality, and hence limits to the extent that humans can be indoctrinated into extreme anti-humanistic ideologies. The true enemies of human freedom are those who yearn for a system of totalizing culture that is capable of eliminating individual will and reducing people to cogsS in an immense social machine. Probably such enemies of freedom cannot succeed in the long run, but they certainly have the capacity to ruin the lives of millions in the attempt.

Biolinguistics *by Lyle Jenkins*

Lot's of Talk, Limited Exploration — Rating: 2/5

This is a very important topic on which much path breaking work is currently being done. Unfortunately, this book is mostly a rehash of old debates, a homage to Chomsky, and an intemperate diatribe against those with other views (especially Pinker, Dennett, Maynard Smith, and the people Jenkins calls Ultra-Darwinists).

There is an ancient insight that the less people know about an important issue, the more likely they are to stake out opposing positions and argue themselves silly of which is correct. This book conforms to this insight, but also has the added un-attraction of often taking and defending really silly positions. Thus, I found most of this book a complete waste of time. If, dear reader, you don't know the past controversies in biolinguistics, you may disagree. Indeed, you may even relish the barrage of misdirected arguments and almost willful obfuscations, which lend a rather Gothic novel tinge to the book.

Let us first be clear that there a paucity of real information about the evolution of human language. Towards the end of the book, Jenkins approvingly quotes molecular geneticist and science author Robert Pollack who speculates on the origin of the language facility: "Even as we begin to understand the biology of thought and language, we must acknowledge how little we know..." (p. `176) Jenkins comments: "Although we may be some years from the answers to the questions Chomsky and Pollack raise..." (p. 177) Well, if you don't have the answers, why don't you just shut up and get down to work, Professor Jenkins?

Because of the absence of real findings, Jenkins gives us long expositions on topics we do know something about, however tangential to the issue of the evolution of language. We learn about Turing machines, the Turing-Zhabotinsky diffusion process, symmetry breaking, quantum mechanics, and the problem of unification in the natural sciences. For this reason, the reader is advised to start with Chapter 3, a third of way through the book. This chapter presents the "principles and parameters" model of language acquisition that Jenkins favors, but instead of presenting the evidence, he refers us to Jusczyk (1997) and Mehler and Dupoux (1994), two very interesting and recent reviews of the empirical literature.

I believe Jenkins' treatment of "Ultra-Darwinism" is just plain wrong. He depicts Ultra-Darwinism as believing human language is explained either by "natural selection" or by "God's will." (p. 178) I think a more plausible representation of the view (which I share) is that the characteristics of such complex biological configurations as the human brain, the human eye, and human language, are either miracles, or are the product of some combination of natural selection and drift, given the laws of physics and developmental biology, the latter supplying the costs and benefits of alternative mechanisms for achieving functional goals. Moreover, if some characteristic of a complex configuration is costly for the organism to maintain and would degenerate and become non-functional through natural mutations, then its persistence suggests that selection rather than drift is accountable for this fact.

Jenkins does not critique this reasonable view, and indeed does not even present it. Being the bottom-feeder that he is, he finds the most partial and indefensible parts of the position and subjects them to unrelenting criticism. This is really, really boring. Jenkins does not seem to know the difference between an efficient cause and a final cause. Natural selection is always a final cause when it is at work, never an efficient cause. The fact that something is the product of natural selection is not an alternative to a causal analysis of chemical and biological processes through which natural selection works.

To give but one example, we can figuratively say that some features of an organism are the "consequences of developmental constraints rather than selection" (p. 194), such an assertion is just shorthand for the following: "some feature of the organism are byproducts of selection on other features, chosen because of their low cost of production in terms of the physiology and developmental structure of the organism." For instance, bilateral symmetry may be least-cost, given certain developmental constraints, so given these constraints, bilateral symmetry is not itself the product of selection. However, in cases where asymmetry, despite being relatively costly to produce, has positive fitness enhancing effects (e.g., the hermit crab's claw, the functional differentiation of the two hemisphere of the brain), asymmetry will be either directly selected, or will be a byproduct of selection on other traits that are more efficiently achieved through bilateral asymmetry. The issue here is very clear, and a competent writer should be able to sort this out, without giving us a tirade of superficial critiques of an untenable view that cannot be seriously maintained.

Perhaps the interested reader would do better with Jusczyk (1997) and Mehler and Dupoux (1994), both available from Amazon. For an exciting current project, see Bickerton and Szathmáry (MIT, 2009).

Darwinian populations and natural selection *by Peter Godfrey-Smith*

Enough New Material to Make Worth Reading — Rating: 3/5

Peter Godfrey-Smith is among the very best of a new breed of philosopher of biology whose contributions are very strong both in the biological sciences and the philosophy thereof. This book reviews some major controversies in evolutionary biology over the past half-century, with the author's own attempt to adjudicate among the contestants.

It is not clear to me to whom this book is targeted. Godfrey-Smith describes the controversies at too high a level for a novice reader, but the descriptions are too detailed and labored for a reader who has followed the debates. His own contributions are very powerful in some cases, while in others he more or less follows the lead of others, supplying little that is new at all.

His most important point is that the replicator/vehicle approach to Darwinian evolution was motivated by paradigmatic controversies unleashed by Dawkins' The Selfish Gene, and is really a step backward. He shows rather definitively that the standard definition of Darwinian evolution by Lewontin and others is both adequate and much broader than that proposed by the replicator/vehicle proponents. Indeed, he gives examples of Darwinian evolution where there are no replicators at all. Godfrey-Smith also claims that the replicator/vehicle approach often embraces and ``agential" view of genes, endowing them anthropomorphically with "plans" and "objectives." He does not make clear why this is a problem. I do not believe it is. There is nothing wrong with game-theoretic behavioral models in which different alleles at a locus are associated with different phenotypic behaviors. This "phenotypic gambit" has allowed evolutionary biology to develop very powerful models of strategic interactions within species.

Godfrey-Smith also presents a novel and interesting critique of the "gene's-eye view" approach to Darwinian evolution (which is of course closely related to the replicator/vehicle view). While recognizing that sometimes the gene's-eye view is the correct way to view the problem, it is not correct in general because the notion of a "gene" is simply not sufficiently well-defined to serve as a "Darwinian population." While this critique is novel and interesting, I do not think it is more powerful than the traditional critique that genes evolve only as part of gene complexes, and the highly non-linear interaction among genes renders the idea that we should always model evolution at the level of the gene implausible

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The use and abuse of biology *by Marshall Sahlins*

A Partially Valid Critique of Early Sociobiology — Rating: 2/5

Marshall Sahlins is one of the finest anthropologists of the post-WW II period. Edward O. Wilson, the butt of his critique in this slim volume, is perhaps the most celebrated living naturalist and animal behaviorist. The bone of contention, Wilson's monumental Sociobiology (1975) was the opening shot of a forty year (to date) attempt to create a theory of social organization relevant to all social species, not just humans. Wilson is well equipped for this task, as the leading world expert on ant societies. Sociobiology, the book, dealt almost exclusively with ant societies, but the final chapter broached the subject of human society. The chapter is brilliant and still worth reading, although I think overly influenced by Robert Ardrey, Konrad Lorenz, Desmond Morris, Lionel Tiger, Robin Fox, and others who attempted to explain war, aggression, and other anti-social but typically human behavior in terms of primordial emotions and behaviors we share with other animals. Sociobiology has matured in succeeding years, sometimes under the rubric of evolutionary psychology, or behavioral ecology, and more recently, gene-culture coevolutionary theory.

The reaction of mainstream social scientists to Wilson's suggestion that biology might have something to do with human behavior was enormous and mostly viciously critical. You can read about this debate in Ullica Segerstrale's beautiful and exciting book, Defenders of the Truth: The Battle for Science in the Sociobiology Debate and Beyond (Oxford 2001). Sahlins is no less critical of Wilson that Science for the People, Richard Lewontin, or Stephen Jay Gould, but in this nicely written, witty, and insightful book, the author tries to present a dispassionate critique---light rather than heat. By and large he does so in

the first three quarters of the book, only to descend into inanity in the last quarter, which argues that sociobiology is an ideological defense of capitalism. "Sociobiology," Sahlins proclaims, "contributes primarily to the final translation of natural selection into social exploitation." (p. 73) Many social theorists shared this sentiment because the early sociobiological models dealt with competition and conflict rather than cooperation and altruism. This one-sidedness has been completely reversed in recent decades, especially since the recognition that multicellular organisms are themselves cooperative societies, as well as the publication of John Maynard Smith and Eors Szathmary's great book, The Major Transitions in Evolution (1997). At any rate, I believe there is no place in scientific debates about modeling social organization for dwelling on such irrelevancies as the ideological impact of a doctrine, so I will not discuss this part of Sahlins' argument.

Sahlins' main argument is that sociobiology treats human culture as a simple side-effect of human biological organization, and hence reduces the social sciences to biology. "In place of a social constitution of meanings, [sociobiology] offers a biological determination of human interactions with a source primarily in the general evolutionary propensity of individual genotypes to maximize their reproductive success." (p. x) Sahlins asserts emphatically that "biology...is completely unable to specify the cultural properties of human behavior or their variation from one group to another." (p. xi) For E. O. Wilson, by contrast, "any Durkheimian notion of the independent existence and persistence of the social fact is a lapse into mysticism. Social organization is rather, and nothing more than, the behavioral outcome of the interaction of organisms having biologically fixed inclinations." (5) This critique does really hit the mark. Until quite recently the denigration of culture and the critique of social theories for which human culture are central and independent variables was characteristic of sociobiology and its offshoots. Even E. O. Wilson's recent insightful attempt at integrating the behavioral sciences, Consilience: The Unity of Knowledge (1998) amounted to little more than reducing culture to biology.

Tragically, but no surprisingly, Sahlins simply reverse Wilson's causal order. "The structure of determinations is a hierarchical one set the other way round," he says, meaning that in humans, biological issues are strictly subordinate to cultural issues. Moreover, he asserts "I am making no more claim for culture relative to biology than biology would assert relative to physics and chemistry." (p. 63)

This view, to my mind, is the cardinal sin of pre-sociobiology social science: relegating human genetic composition to a purely infrastructural role in human behavior. The correct position, I believe, was articulated by Luigi Luca Cavalli-Sforza and Marcus W. Feldman, Cultural Transmission and Evolution (Princeton, NJ: Princeton University Press, 1981); Robert Boyd and Peter J. Richerson, Culture and the Evolutionary Process (Chicago: University of Chicago Press, 1985); Robin M. Dunbar, "Coevolution of Neocortical Size, Group Size and Language in Humans", Behavioral and Brain Sciences 16,4 (1993):681-735 and other gene-culture coevolutionists. Because of the importance of culture and complex social organization to the evolutionary success of Homo sapiens, individual fitness in humans depends on the structure of social life. Because culture is both constrained and promoted by the human genome, human cognitive, affective, and moral capacities are the product of an evolutionary dynamic involving the interaction of genes and culture. We call this dynamic gene-culture coevolution. This coevolutionary process has endowed us with preferences that go beyond the self-regarding concerns emphasized in traditional economic and biological theory, and with a social epistemology that facilitates the sharing of intentionality across minds. Gene-culture coevolution is responsible for the salience of such other-regarding values as a taste for cooperation, fairness, and retribution, the capacity to empathize, and the ability to value such character virtues as honesty, hard work, piety, and loyalty.

When environmental conditions are positively but imperfectly correlated across generations, each generation acquires valuable information through learning that it cannot transmit genetically to the succeeding generation, because such information is not encoded

in the germ line. In the context of such environments, there is a fitness benefit to the epistatic transmission of information concerning the current state of the environment; i.e., transmission through non-genetic channels. Several epistatic transmission mechanisms have been identified, (Eva Jablonka and Marion J. Lamb, Epigenetic Inheritance and Evolution: The

Lamarckian Case, Oxford: Oxford University Press, 1995), but cultural transmission in humans and to a lesser extent in other animals (John Tyler Bonner, The Evolution of Culture in Animals, Princeton, NJ: Princeton University Press, 1984; and Peter J. Richerson and Robert Boyd, "The Evolution of

Ultrasociality", in I. Eibl-Eibesfeldt and F.K. Salter (Eds.) Indoctrinability, Ideology and Warfare, New York: Berghahn Books, 1998:71-96), is a distinct and extremely flexible form. Cultural transmission takes the form of vertical (parents to children) horizontal (peer to peer), and oblique (elder to younger), prestige (higher status influencing lower status), popularity, and even random population-dynamic transmission, as in Stephen Shennan, Quantifying Archaeology (Edinburgh: Edinburgh University Press, 1997) and James M. Skibo and R. Alexander Bentley, Complex Systems and Archaeology (Salt Lake City: University of Utah Press, 2003).

The parallel between cultural and biological evolution goes back to Thomas Huxley (1955), Karl Popper (1979), and William James (1880)--see Alex Mesoudi, Andrew Whiten and Kevin N. Laland, "Towards a Unified Science of Cultural Evolution", Behavioral and Brain Sciences 29 (2006):329-383for details. The idea of treating culture as a form of epigenetic transmission was pioneered by Richard Dawkins, who coined the term "meme" in The Selfish Gene (1976) to represent an integral unit of information that could be transmitted phenotypically. There quickly followed several major contributions to a biological approach to culture, all based on the notion

that culture, like genes, could evolve through replication (intergenerational transmission), mutation, and selection.

I do not know what Sahlins would think if he returned to view the current state of sociobiology, which is much more balanced than the fragments that existed in 1976. He might well be as hostile as ever, but his grounds for criticism would have to be considerably different from those presented in this volume.

The Oxford Handbook of Rationality (Oxford Handbooks in Philosophy) *by Alfred Mele and Piers Rawling (eds)*

Rationality made Boring — Rating: 2/5

Rationality means many different things, and is not a field of study. Not surprisingly, a "handbook" of rationality reads more like an eclectic set of dictionary entries. There are some fine authors represented in this collection, but I found the subjects I know idiosyncratic and perfunctory, the authors managing to to make exciting topics seem boring. The subject I know less well or not at all I found bland and superficial. In no sense are these chapters reviews of the their respective fields. Rather, they are relatively narrow essays on particular topics.

Working together *by Amy R. Poteete*

An inspiration for Transdisciplinary Researchers — Rating: 5/5

This book, which is based on the several decades of research by Nobel award winning political scientist Elinor Ostrom and her talented colleages, vigorously asserts two messages with equal fervor. The first is that "it is possible for individuals to act collectively to manage shared natural resources on a sustainable basis." (215) The second message is that the existing structure of academic disciplines in the system of higher learning deeply handicaps researchers from attaining true insights of this type. The possibility of people managing their own common pool resources through democratic and egalitarian participation was determined through research "based on field studies, laboratory and field experiments, game theory, and agent-based models," and no discipline recognizes the legitimacy of models that span such a broad range of statistical, qualitative thick description, formal analytical and computer simulation methods.

This book shows dramatically how seriously the feudal structure of the behavioral scientific disciplines is harming our ability to advance useful knowledge in the area of social and economic policy. The well-known story of the seven wise men each exploring a different part of the elephant and coming up with seven different, equally absurd, "theories" of the creature is a fairly literal depiction of what happens when economists, sociologists, political scientists, psychologists, and anthropologists address the issue

of the regulations of the commons, or virtually any other complex social problem. Each has important insights that are ignored or negated by the others. In the words of Poteete, Janssen, and Ostrom, "Unfortunately, there are still considerable `battles' among scholars who rely on different methods or assumptions. Some scholars engaged in in-depth descriptions of cases challenge the usefulness of efforts to seek general patterns, while some who do large-N observational research do not recognize the value of case studies or experiments in untangling causal process. Likewise, scholars from different disciplines or theoretical perspectives often hold different assumptions about the world works, or disagree about priorities, both in research and in policy." (266)

Not only researchers, but funding agencies such as NSF and NIH should be encouraged by the stunning results reported in this volume to redouble their efforts to create a truly unified and transdisciplinary ensemble of behavioral science disciplines.

The invisible hook *by Peter T. Leeson*

The Economics of Piracy---and Less — Rating: 4/5

This is a completely captivating account of the "great age of piracy" (1716-1726) and surrounding years, by an economist who loved pirates as a boy, has had an economics supply and demand diagram tattooed to his bicep since he was 17, and who proposes to his girl friend Ania in the dedication, declaring that if she turns him down, he will join the legion of pirates about whom he writes.

Leeson correctly notes that most historians do not know economics and hence cannot deal with important parts of the piracy phenomenon. Throughout the book he stresses that the supply of pirates is a function of the wage and level of demand for "legitimate" seamen, which is itself a function of the level of inter-country hostilities. He notes that the penchant of pirates for torturing their captives was limited to those who refused to divulge the whereabouts of the booty or who resisted capture. Torture was thus just a reputation-making device that lowered the cost of doing business for pirates. Leeson also stresses that pirates had much better working conditions than legitimate seamen, who were subject to the arbitrary and often cruel and bitterly selfish authority of the ship's captain.

In one important respect, Leeson is putting one over on the innocent reader. He suggests that the democratic structure of the pirate ship can be understood in terms of standard economic theory of the rational self-interested actor. A democratic ship was a preferred work environment for pirates, so they instituted political democracy (electing and recalling pirate captains) because they controlled the organization of production on the pirate ship. This may well be true, but this is hardly what we learn in standard economic theory. First, why would a rational self-interest pirate bother to attend meetings, listen to speeches, and vote for a captain? Assuming one vote cannot change the outcome of the election with more than infinitesimal probability, voting is an altruistic act, not a self-interested act.

Now of course perhaps it could be argued that pirate ships only have a maximum of 500 pirates, so the probabilities, costs, and benefits indicate that democratic participation is a self-regarding act of a rational pirate. But Leeson says nothing about this at all, leaving it to the unsophistication of the reader not to notice the problem.

Moreover, standard economic theory of the firm suggests that informational and agency issues lead to a set of owners virtually disjoint from the set of producers; i.e., since Alchian and Demsetz at least, firms have managers hired by owners, and managers hire and control workers. The idea of democratic worker control flowing from the standard theory is bizarre, to say the least. Leeson does address the principal-agent problem, saying "On the pirate ship, then, the principals were the agents." (p. 41) But this quite misleading. In the principal agent model there is a single principal, not a group of principals. The model does not work at all unless the principals, supposing they are a plurality, can somehow be aggregated into a single decision-maker. Moreover, the fact that the principals are the agents in no way solves the principal-agent problem---each agent still has an incentive to shirk, indeed almost as great an incentive as when there is a single, separate, owner of the ship serving as agent.

I conclude that there is still a lot more to be said about the organization of piracy than is touched on in this book. But Leeson has given us an exciting start.

The mermaid's tale *by Kenneth M. Weiss*

Elementary and Elegant — Rating: 4/5

There was a time when evolution meant competition, and critics of Darwin from the Left berated the theory's natural implication that competitive capitalism was a natural order. A lot has happened since then. I think the watershed was John Maynard Smith and Eors Szathmary's The Major Transitions in Evolution (1997) and Laurent Keller's Levels of Selection in Evolution (1999), although I must say that when I first began studying population biology in about 1993, it was for the purpose of understanding cooperation in humans and other social species, not competition. Perhaps utimately, it was E. O. Wilson's Sociobiology (1975) that began the shift in evolutionary theory towards a balanced study of cooperation and competition.

Weiss and Buchanan have written an elementary introduction to evolutionary and developmental biology that is not suited for the classroom, but rather for casual reading by the intelligent layperson. Their claim to fame is that it stresses cooperation rather than competition, and development as well as evolution. The book is beauitifully produced and nicely written. The figures are instructive, and it gets away without any serious genetics or population dynamics.

The Corruption of Economics (Georgist Paradigm series) *by Mason Gaffney*

A sloppily produced, rag-tag, intelletual mess — Rating: 1/5

Henry George was a late-nineteenth century politician and economic theorist who believed, with John Locke, that people own what they produce or create, as well as what they acquire in exchange, but that "natural" contributions to production, especially land, belong equally to all members of society. He argued in Progress and Poverty (1987) that the only just tax is on land, and that a single land value tax would be extremely egalitarian. There are not many Georgians around these days, but I suppose they would extend the land tax to gas, oil, and other natural resources. With this extension, there are some contemporary "oil economies" that come close to the Georgist ideal, but the idea is rarely suggested in the advanced industrial societies.

If one could separate the primordial value of natural resources from their value after people have invested in their improvement, the single land tax would have the attractive feature of being non-distortionary. However, this separation cannot easily be made, any more than an individual worker's productivity can be divided between innate ability and the results of human capital investment. Moreover, there are strong ethical grounds for taxing individuals at least proportional to their income or wealth, independently of the source of the income or wealth. For these and other reasons, the single land tax is of marginal relevance in contemporary economic policy.

This is not judgment of the authors, who claim that Henry George was right, and powerful landed interests paid a generation of scholars to confuse the masses by inventing neoclassical economics, which makes the elementary mistake of conflating land with capital. "Those who opposed Henry George's vision of The Good Society" we are informed (p. 8), "paid money to by scholars to bend the truth - to prevent people from insisting on their democratic rights." Gaffney faults professional economists for spurning their duty as scientists in order to reap the profits of toadying to the landed interests. "Systematic, universal brainwashing is the crime," he asserts, "tendentious mental conditioning calculated to mislead students, to impoverish their mental ability, to bend their minds to the service of a system that funnels power and wealth to a parasitic minority." (p. 15) Most of the rest of the book is a description of a series of encounters of late-nineteenth century economists with Henry George and his proposals.

I did not find the book's arguments very plausible. A century of neoclassical economics has passed since Henry George was active, the neoclassical doctrine is the standard theory taught around the world, and most modern economists have no idea who Henry George is or what he stood for. It is not plausible that

the neoclassical dog is wagged by the Georgian stump of a tail. Moreover, neoclassical economics does not conflate land with capital, and at any rate is value-neutral on issues of the proper distribution of income and taxes. According to the Fundamental Theorem of Welfare Economics, any distribution of welfare society deems just can be achieved through the appropriate system of lump-sum taxes. If anything, this theorem is simply Henry George writ large, and has all the defects of the Georgian land value tax. Once and for all lump sum taxes are non-distortionary but are completely infeasible in practice and do not meet the cannons of justice, either.

The explanation of the demise of George's political economy ideas is that rich men paid smart men to confuse the masses, and this hoodwinking of the public continues today. The idea is really quite ludicrous, and reminiscent of the religious fundamentalist Creationists who believe all evolutionary biologists are atheists in the pay of the devil.

I feel in reading and reporting on this book that I have done a public service. It was painful every step of the way and has led to a very bad taste in my mouth. Of course, when the landed interests in my town read this review, they will probably send me bundles of money and make me head of the economics department at Harvard University or Amherst College. I can't wait.

What Darwin got wrong *by Jerry A. Fodor*

A Poor Attempt at Discrediting Natural Selection Theory — Rating: 2/5

When I went to college, Sartre, Freud, Marx, and Darwin were the Great Thinkers. I studied them avidly, even learning German, French, and Biology to do so. Now Sartre, Freud and Marx have been reduced to human size, if not completely discredited. Will Darwin follow in their footsteps? Fodor and Piattelli-Palmarini do not take so extreme a position. Rather, they affirm the Darwinian genealogy of species (the so-called tree of life), but hold that natural selection is vacuous and hence should be thrown into the dust-bin of history---the same dust-bin, I imagine, that is currently occupied by existential nausea, penis envy, and historical materialism.

Fodor and Piattelli-Palmarini's argument is not relevant to the voguish religiously inspired critique of evolutionary theory, which centers on whether our species descended from earlier species or is the product of "special creation" by an "intelligent designer." By contrast, the issue addressed by Fodor and Piattelli-Palmarini is "by what process does an ancestor species differentiate into its descendants," (1-2) the Darwinian answer to which is: natural selection. The authors actually rarely discuss speciation directly, but rather deal with the population biology version of the problem, which they characterize as that of "explaining how the phenotypic properties of populations change over time in response to ecological variables." (3)

I am rarely enthusiastic about a philosopher's critique of a scientific discipline, or of a member of one discipline's critique of the standard practices or beliefs of another. However, when such critiques are successful, they can be particularly rewarding, as Bishop Berkeley's critique of the use of infinitesimals by Newton, and the psychologist Daniel Kahneman's critique of the economist's version of rational choice. So I suffered through this blessedly slim volume hoping for useful insights. I did not find any. Fodor and Piattelli-Palmarini have blown the famous "spandrels" analysis of Stephen Jay Gould and Richard C. Lewontin ("The Spandrels of San Marco and the Panglossian Paradigm: A Critique of the Adaptationist Programme", Proceedings of the Royal Society of London B 205 (1979):581-598) from a short story into a gothic novel, and what was an admonition against unwarranted belief in "just-so stories" for Gould and Lewontin becomes a rejection of the whole theory of natural selection for Fodor and Piattelli-Palmarini. The Gould-Lewontin analysis was a brilliant cautionary tale aimed at the explanatory excesses of some brands of evolutionary psychology. Fodor and Piattelli-Palmarini's magnification of the argument is painful, tendentious, and unconvincing.

Perhaps this close connection between Gould and Lewontin's spandrel critique of adaptationism and this book's critique of natural selection explains Richard Lewontin's cautiously favorable review of this book in the New York Review of Books (May 27, 2010). "If you make a living by inventing scenarios of how natural selection produced, say, xenophobia and racism or the love of music," Lewontin observes,

"you will not take kindly to the book. Even biologists who have made fundamental contributions to our understanding of what the actual genetic changes are in the evolution of species cannot resist the temptation to defend evolution against its know-nothing enemies by appealing to the fact that biologists are always able to provide plausible scenarios for evolution by natural selection. But plausibility is not science. True and sufficient explanations of particular examples of evolution are extremely hard to arrive at because we do not have world enough and time...Even at the expense of having to say "I don't know how it evolved" most of the time, biologists should not engage in idle speculations. "

Lewontin's defense of Fodor and Piattelli-Palmarini is tendentious and incorrect. I am certainly one of those people who makes a living in part by developing mathematical models of evolutionary processes, calibrated to real, historical, social processes using the best estimates archeology and paleontology have to offer us, that might have led to the emergence of behavioral traits observed in social animals today. I always say "I don't know how this evolved, but here is a plausible scenario." To call this idle speculation is absurd. Are biologists to develop models of the evolution of RNA or DNA, or the double helix guilty of idle speculation? Of course not.

The authors characterize natural selection as follows: "(a) Phenotypic variation `expresses' genotypic variation; (b) Genotypic variation from one generation to the next is the effect of random mutation; (c) Macromutations are generally lethal; (d) The phenotypic expression of viable mutations is generally random variation around population means." (15-16) Only points (a) and (b) are central to natural selection. Point (c) is true but not of central importance, and point (d) is a assumption of some population genetic models, may well be true if by "phenotypic expression" we mean "fitness effects," but almost certainly false if in some qualitative phenotypic space. It follows that Fodor and Piattelli-Palmarini's critique of (c) and (d) are not very pertinent, and I will not go over them.

The authors accept (a), but they aim their heavy guns at (b), arguing that mutations are not "random," but rather are closely structured by the constitution of the organism. In making this argument, they compare Natural selection to Skinnerian behaviorism, which, like Natural selection, is driven by "random variation" followed by selection. For behavioral psychology, there was no looking into the "black box" of the mind, whence all changes in behavior were considered either novel and hence "random," or were reinforced or extinguished previously random variations, governed by the principle of effect. Fodor and Piattelli-Palmarini point out that cognitive psychology discredited behavioral psychology by showing that there are substantive cognitive processes governing the learning process in the mind of the individual thinker, so that it is false that individual psychology is simply the selection among randomly generated variation. Similarly, they argue, natural selection makes genetic change a "black box" summarized by "random variation," so that species are characterized by the way they have become accommodated to their environments. It is this that the authors call "adaptationism."

In this analysis, however, the authors have used an improper definition of "random." By "random," in natural selection theory is meant "non-teleological"; i.e., not preconceived by a planner, as would be the case of an engineer redesigning some aspect of a mechanical system. "Random" in natural selection theory does usually include "random with respect to fitness," although there are now documented cases where at least the rate of mutation is a function of the opportunities for fitness-enhancement of the organism. But the natural selection conception of "randomness" does not include random with respect to the physical and chemical forces operating within the organism. The notion of randomness as independent from the dynamics of the organism would indeed be as indefensible as is the behavioral psychologist's idea that there are no "structural psychological constraints" on behavior. But natural selection theory does not depend upon the notion that the array of mutations generated in an organism is independent from the internal physical and chemical structure of the organism. Fodor and Piattelli-Palmarini thus incorrectly critique natural selection by claiming that the dependence of gene frequency change on the constitution of biological organisms undermines its plausibility. "In essence," they proclaim, "we report cases when optimal structures and processes have been found in biological systems. There are naturally occurring optimizations, probably originating the laws of physics and chemistry. We think other self-organization processes by autocatalytic collectives are almost sure to be elucidated in the near future." (xvii--xviii). It is astounding to me that a serious scientist could consider this observation to be a critique of natural selection theory, but in fact a good deal of the book is devoted to such arguments. The authors even consider the fact that specific gene complexes are conserved

through millions of years of evolution a strike against natural selection theory, which they incorrectly assert requires that any phenotypic trait be generated by a wide variety of genetic mechanisms.

Fodor and Piattelli-Palmarini's attempt to discredit natural selection by comparing it to behavioral psychology is a scientific critique (although wrong). But the "randomness" argument is not Fodor and Piattelli-Palmarini's central charge against natural selection theory. Rather, the authors' main critique is based on the concept of "intensional explanation" and the role of "counterfactuals" in scientific explanation. The authors argue that "there is at the heart of adaptionist theories of evolution, a confusion between (1) the claim that evolution is a process in which creatures with adaptive traits are selected and (2) the claim that evolution is a process in which creatures are selected for their adaptive traits. We will argue that; Darwinism is committed to inferring (2) from (1); that this inference is invalid...; and that there is no way to repair the damage consonant with commitments to naturalism" (xv).

This argument is unpersuasive in part because the notion that natural selection is intensional is not correct. Without going into the philosophy of logic, the authors critique in this respect comes down to the assertion that if two traits are perfectly correlated and both evolve, there is no way to assert which of the two traits was "selected for." For instance, suppose all hearts are noisy. Then there is no way in principle for natural selection to distinguish between the two traits. Thus, the assertion that "the heart was selected for its blood-pumping ability" and the assertion that "the heart was selected for its noise-making ability" cannot be distinguished from each other on scientific grounds. This argument is completely specious. It may be difficult to distinguish between the two assertions, and indeed, both pumping ability and noisiness may contribute to the adaptive value of the heart. Natural selection can distinguish between perfectly correlated traits because natural selection is a cause, scientific process. The Fodor and Piattelli-Palmarini intensionality critique is thus just smoke and mirrors.

Even were the intensionality critique correct, Fodor and Piattelli-Palmarini's argument would not be cogent. All that is needed for the validity of natural selection theory is that creatures with adapted traits be selected. Claim (2) is not needed at all. Of course traits are not necessarily selected for their adaptive traits, although they may be. Natural selection depends on adaptive traits being selected, not necessarily selected for. Fodor and Piattelli-Palmarini here set up a straw man and knock him down.

Consider one of their favorite examples. Suppose hearts pump blood and make noise (p. 100). Because the correlation between pumping blood and making noise is perfect, we cannot say that hearts evolved through natural selection because of the fitness advantage they bestow upon organisms. It could equally well be that hearts evolved because they make noise. There is simply no causal analysis that can distinguish between these two explanations, they proclaim. They are correct, of course. Hearts could have evolved because they were noisy, scaring away predators (for instance), and developed a network of oxygen supplies to provide for vigorous noise-making. In later times, when the fitness advantage supplied by noisy hearts ebbed, hearts could have been retained because they supplied oxygen to other organs. This scenario is not very plausible, but it would in no way compromise natural selection theory. The current function of (read fitness advantage conferred by) the heart need not be responsible for its evolutionary emergence. Indeed, it could have been (but probably was not) that the developmental genes responsible for forming the heart "hitch-hiked" on nearby genes that were fitness enhancing for unrelated reasons, the heart being a sort of tumor going along for the ride. Nothing in the theory of natural selection suggests the impossibility of this situation. Of course, if a phenotypic trait does evolved by hitch-hiking, and that trait is costly in fitness terms, it is likely that mutations that lead to the breakdown of the developmental process leading to the expression of the trait will entail the disappearance or consignment to residual status of the trait. Fodor and Piattelli-Palmarini do not question this.

Adaptations could always be spandrels without undermining natural selection. Were this the case, the process of ascertaining the facts concerning evolution would be vexingly complicated, but natural selection would not be compromised.

Complexity: A Guided Tour *by Melanie Mitchell*

A well-rounded, accessible introduction to complexity — Rating: 4/5

This book is subtitled "A Guided Tour," and that is exactly what it is---a guided tour of the ways and byways of complexity theory written by an expert who is perfectly at home with the subject and yet uncommonly capable of making contact with the novice reader and drawing him or her along with the tour.

Mitchell's goal is not to turn the reader into a complexity researcher---a far more rigorous treatment of computer science, mathematics, physics, and the behavioral sciences would be required for that. Nor is her goal to explain advanced professional-level contributions made possible by agent-based modeling and neural networks. Rather, she has succeeded in revealing to the reader some dimensions of physical and social reality that they may have never known existed.

As several reviewers have asserted, there is nothing better in the literature for a balanced view without hype and oversell.

Grooming, Gossip and the Evolution of Language *by R.I.M. Dunbar*

A Classic, Still Exciting and Highly Informative — Rating: 5/5

The field of sociobiology leaped into our consciousness with the seminal volume by that name, written by the famous naturalist and expert on ant societies, Edward O. Wilson. Wilson was pilloried by social scientists and political activists, who considered any biological perspective on human society to be a sacrilege (see the beautiful and stirring account of Wilson's travails in Ullica Segerstråle, Defenders of the Truth: The Battle for Science in the Sociobiology Debate and Beyond. Oxford University Press, 2000). Sociobiology is founded on the insight that that there are many social species, not just humans, and that the structure of social life is a major force in the tempo and pace of genetic change in social species.

In humans, social life is embodied in cultural forms that can be elaborated upon and passed from generation to generation. Thus sociobiology applied to humans leads to gene-culture coevolutionary theory, which studies the dialectical interaction between hominid genetic structure, the cultural evolution based on this genetic structure, and the effect of new levels of cultural sophistication on continued genetic evolution ---see Luigi Luca Cavalli-Sforza and Marcus W. Feldman, Cultural Transmission and Evolution (Princeton University Press, 1981) and Robert Boyd and Peter J. Richerson, Culture and the Evolutionary Process (University of Chicago Press, 1985).

One aspect of gene-culture evolution in hominids is the continual increase in brain size and complexity from hominid origins to the present. Large brains are extremely costly to evolve and maintain. Large brain size required costly restructuring of the human birth canal and led to neoteny---birth before fetal maturation---which entails extended child-rearing and protection. Moreover, the brain requires ten times the energy of the average bodily organ, and uses about 20% of total calories consumed. What could counterbalancing advantages of large brains be?

The conventional answer to the riddle of the large brain was the capacity to use tools skillfully, and the value of communication in facilitating mutualistic cooperation. Richard Byrne and Andrew Whiten --- Machiavellian Intelligence: Social Expertise and the Evolution of Intellect in Monkeys, Apes, and Humans (Clarendon Press, 1988)--- deepened the explanation by adding that there are severely conflicts of interest among members of a social group, and a large brain will help a group member to form alliances and understand complex social forces that might well increase his biological fitness. This insight is both correct and quite valuable, but it seems to imply that large brains confer no group-level fitness benefits, but merely consist of an expensive "arms race" the hurts the species as a whole.

Robin Dunbar's contribution in this book is flows from a statistical relationship described graphically on page 63: There is a very strong correlation between neocortex ratio and mean group size in different genera of anthropoid primates (monkeys, apes and humans). Dunbar argues that there is survival value in larger groups, probably because larger groups can better defend territories and survive cataclysmic events, such as contagious disease and war. However, the complexity of group interactions increases with group size, and a large brain provides individuals with the raw materials for forging strong social

ties that permit the group to overcome the purely Machiavellian tendencies described by Witten and Byrne. Language, for Dunbar, is not hypertrophied through the need to deceive, but is appropriate to the task of allowing groups of individuals to make clear subtle and conditional promises, threats, and social descriptions.

What about grooming and gossip? There is strong evidence from observation of monkey and ape behavior that grooming is a major source of group cohesion. It is carried out for many hours a day, the animals love to be groomed, and grooming solidifies cooperative alliances with great regularity. Now humans have no fur, so they cannot groom. Dunbar suggests that gossip performs the same role in humans as grooming in monkeys and apes: both are functional mechanisms for social bonding. I find it hard to take this explanation seriously---it is the sort of just-so story for which evolutionary psychology is routinely criticized (e.g., Stephen Jay Gould and Richard C. Lewontin, "The Spandrels of San Marco and the Panglossian Paradigm: A Critique of the Adaptationist Programme", Proceedings of the Royal Society of London B 205 (1979):581-598.) The costs of a large brain are extreme, and the complex adaptations required to facilitate human communication through language and gesture are intricate and costly. It is implausible that an amorphous group-level function such as "group cohesion" could not have been ensured in a far more direct manner.

However, Dunbar suggests a second mechanism, far more concrete, that was offered for the function of gossip by Magnus Enquist and Olle Leimar, "The evolution of cooperation in mobile organisms," Animal Behaviour 45:747-757, 1993. Enquist and Leimar suggest that gossip may serve to maintain social cooperation by allowing individuals to develop good reputations for their altruistic contributions to the group and bad reputations for selfish and free-riding behavior. A good reputation is personally valuable and even fitness enhancing because others will want to form alliances (including marriage) with those who consistently behave altruistically and will shun and isolate those who are selfish and opportunistic.

Of course, if the behavior of each individual were observed by all others, gossip would be unnecessary---each group member could judge for himself. But such is rarely the case. More generally, one or a few individuals will observe the behavior of a group member, and the member's reputation can be formed accurately only if his behavior is transmitted truthfully to the group. This is what truthful gossip does. If the Enquist-Leimar-Dunbar theory of gossip is correct, and I will argue below that it is, we have a very strong function for gossip, perhaps even strong enough to justify the immense costs of language acquisition.

The key point in the reputational theory of gossip is that unless gossip is almost always truthful, it will not be believed, and hence it will not be performed. But why should individuals gossip truthfully, as opposed to simply saying whatever suits the personal needs at the time (as assuredly some people do---witness the Shakespearian tragedies King Lear and Othello)? This is an important and deep question that is not yet fully answered. I believe there is a two-part answer. First, there is an evolved human predisposition to tell the truth; people will of course lie, but most will lie only when the costs of truth-telling are fairly high. Indeed, were this not the case, human language and gestural communication could not have developed: why bother communicating if people simply tell you what is in their best interest to have you believe. Truth-telling is thus a precondition of the physiology and psychology of human linguistic and gestural communication. Second, humans are very good at detecting lies, so it is difficult for a habitual prevaricator to maintain his credibility---see Leda Cosmides, "The Logic of Social Exchange: Has Natural Selection Shaped how Humans Reason? Studies with the Wason Selection Task", Cognition 31 (1989):187-276.

We thus have a tight causal loop involved with human gene-culture coevolution: hominids developed the ability to detect cheaters and the altruistic predisposition to punish anti-social behavior. This led to a vast increase in the value of linguistic and gestural communication, whence the evolution of an elaborate human communicative physiology (see my treatment in "Gene-Culture Coevolution and the Nature of Human Sociality, special issue on Human Niche Construction, Proceedings of the Royal Society B, forthcoming, available on my web site). This capacity for sophisticated and accurate information transmission led to an increased value of gossip as a mechanism of social control, and thence to a further articulation of human cooperative institutions.

The experimental evidence in favor of this view has mushroomed in recent years. First, several studies showed that humans are consummate "indirect reciprocators," willing to cooperate with others who

have the reputation for honesty and altruism in collaborative affairs. For a recent overview of the evidence, see M. Milinski, D. Semmann and H.-J. Krambek, "Reputation Helps Solve the 'Tragedy of the Commons' ", Nature 415 (2002):224-226 and Karthik Panchanathan and Robert Boyd, "A Tale of Two Defectors: The Importance of Standing for Evolution of Indirect Reciprocity", Journal of Theoretical Biology 224 (2003):115-126. The role of gossip in promoting reputation-building and indirect reciprocity is demonstrated in a recent article by Ralf D. Sommerfeld, Hans-J"urgen Krambeck, Dirk Semmann and Manfred Milinski, "Gossip as an Alternative for Direct Observation in Games of Indirect Reciprocity," Proceedings of the National Academy of Sciences 104,44 (2007):17435-17440.

So, all in all, Dunbar's book is highly innovatory and basically correct, well worth reading even if the reader is up to date on gene-culture coevolution and indirect reciprocity.

Meltdown *by Thomas E. Woods*

No Empirical Basis for the Authors' Bizarre Claims — Rating: 1/5

Update, February 2013. There is increasing evidence that underregulation, not overregulation was responsible for the financial meltdown of 2008. From the New York Times, February 8, 2013: "the boom in subprime lending was financed by investors who were told they had supersafe securities. The bubble would not have happened without S &P [the autditing firm] and its peers [the other mega-auditing firms]." S & P is now being sued

The first question is: why were corporations allowed to choose their own auditors? The "free market" argument is that auditors will be diligent and truthful to preserve their "reputations." But if the audited firms hire the auditors, the relevant "reputation" will obviously be for giving the company favorable reports. The second question is: why did investors believe the auditors' reports when they knew (or should have known) that the incentives for the auditors are perverse? I have no answer for this. Ultimately, the problem is: who should appoint the auditors if not the audited firms? There are simple answers for other industries---e.g., zoning, health and safety regulations, tax reporting. Similar measures should be implement for financial auditing.

Update, July 2011: Much more empirical work has been done on this topic since my review, and it supports the position I took in this review. See Paul Krugman's summary (Google "Fanny Freddy Phooey") and follow the links therein to their sources. Ast it turns out, default rates on Fanny Mae and Freddy Mac were about the same as the average for all home mortgages, and about 1/3 as high on subprime mortgages.

The thesis of this slim volume is that "The current crisis was caused not by the free market but by the government's intervention in the market" (2) Author Thomas E. Woods argues that "Fannie Mae and Freddy Mac, government-sponsored enterprises (GSEs) that enjoy various government privileges alongside their special tax and regulatory breaks, were able to draw far more resources into the housing sector than would have been possible on the free market." (2) In addition, says Woods, "the greatest single government intervention in the economy, and the institution whose fingerprints are all over our current mess [is] America's central bank, the Federal Reserve System." (2-3) Woods holds that Federal Reserve monetary policy artificially fosters high-level economic activity by maintaining artificially low interest rates, thus encouraging unsustainable credit expansions, the long-run effects of which are financial bubbles such as that of 2007. Moreover, instead of reacting to the financial crisis by allowing the free market to restore a normal interest rate structure, the Obama administration bailed out the financial sector by further flooding the market with artificially-induced liquidity, thus ensuring the perpetration of the crisis. They took this tack, says Woods, because the administration is in the pay of the securities and investment industry: "Congressmen who voted in favor of the bailout when it appeared before the House on September 29 had received 54 percent more money in campaign contributions from banks and securities firms than had those who voted against it." (5)

Woods acknowledges that not only the political influence of the securities and investment industry, but also dominant macroeconomic monetary theory, is involved in the perpetration of government policies that make financial crises inevitable. By contrast, Woods holds that the Austrian School of economic

thought, founded by Ludwig von Mises and Friedrich von Hayek and others in the late nineteenth and early twentieth century, correctly predicted the sad events of 2007: "perhaps 10 or 12 of the country's 15,000 professional economists saw the economic crisis coming... but hundreds of economists who belong to Mises' Austrian School of economic thought sure saw it... And the primary culprit, from their point of view, is the Federal Reserve." (8)

Woods' recommendations for preventing future distress situations in the financial sector include setting a policy of non-intervention ("Let them go bankrupt", p. 147), abolishing Fannie Mae, Freddy Mac and other government-sponsored enterprises in the housing market, ending government manipulation of the money supply and either abolishing the Federal Reserve or seriously restricting its latitude for regulatory intervention.

How are we to assess Thomas Woods' claims? First, Woods is completely disingenuous and entirely misleading in suggesting that "hundreds" of Austrian-school economists foresaw the events of 2007. The truth is that Austrian school economists have a theory that says that excessive state intervention in interest rate formation leads to financial crises and thence to economic downturns. But they did not predict this crisis. Moreover, there have been periodic financial crises in American economic history, and only a fool would predict that we have seen the last of them (although Federal Reserve chairman asserted that he was completely dumbfounded by the crisis of 2007, and hence must have believed that credit crises were consigned to the history books). In this sense, any reasonable economists would have said in 2006 that there will be a financial crisis at some time in the future---which is neither more nor less than what the Austrians might have said.

Second, Woods' implication of the GSEs in the subprime meltdown is seriously overdrawn. It is based on the notion that the government has implicitly guaranteed stockholders investments in the GSEs, putting them in a no-lose situation in which they can take great risks with subprime mortgages and reap the profits when things go well, but can offload their losses to the taxpayer when things go bad. However, Fannie Mae and Freddie Mac stockholders have been clobbered by the financial meltdown, and stock prices in these two institutions have fallen to near zero. Stockholders could not have plausibly expected that their stock values would be immune from steep decline.

Moreover, Federal regulations placed serious restraints on the ability of the GSEs to assume high-risk debt. Indeed, by definition these GSEs did not engage in subprime lending because their legal statutes prohibited them from issuing mortgages without substantial down payments and closely validated assurances concerning family income and wealth. Indeed, Fannie Mae and Freddie Mac began to recede from the forefront of mortgage lending when the housing bubble emerged in the years after 2003. Fannie Mae and Freddie Mac executives panicked when their positions in mortgage markets began to deteriorate, and they introduce questionably legal procedures ("expanded approval" for Fannie Mae and "A minus" for Freddie Mac) to recapture market share. But these efforts were basically unsuccessful because the GSE lenders were saddled with fixed-rate loan structures. The share of GSEs in the mortgage market faded rapidly in the latter years of the housing bubble.

Third, there is absolutely no empirical evidence suggesting that Woods' policy alternatives might work. There is considerable debate concerning the nature of credit crunches and the Austrian school story is perhaps in the running in explaining them (most economists think the Austrian explanation is bizarre and wrong-headed---Paul Krugman once compared it to the phlogiston theory in chemistry), but there is no support for the notion that an advanced capitalist economy would do better adhering to the gold standard and foregoing active monetary intervention. Moreover, there is widespread opinion among monetary economists, based on a century of experience in financial regulation, that an economic downturn is always a period of excess demand for liquidity, that the financial sector cannot supply such liquidity in a downturn, so the best monetary policy is to flood the economy with liquidity, to whatever degree is required to satisfy the demands of industry. This of course flies in the face of the Austrian theory that it is an excess of liquidity that leads to the downturn, but I believe the historical experience supports the conventional wisdom over the Austrian school.

The Austrian school has had many years to provide the evidence in favor of its model of the free market economy, and it has failed abjectly to do so. The Austrian school founders were notorious for their contempt for empirical evidence, claiming that economic principles are praxeological--self-evident and purely logical in principle, but subjective and highly complex in the human individual, and hence

inaccessible to empirical analysis. This argument has little merit, in my estimation---I spend a good part of my time gathering and analyzing evidence concerning human (and other animal) behavior so as to better understand social dynamics and the realm of the possible in social policy. What the Austrians consider logical appears to the rest of the world (and most assuredly to myself) as the ponderous prejudices of free-market fundamentalists for whom science based on evidence is replaced by faith based on wishful thinking.

The lack of evidence for the Austrian theory does not mean that it is wrong. There is little evidence in favor of any of the competing macroeconomic theories (Keynesian and rational expectations schools being the most prominent). Indeed, to my mind these are not theories at all, but rather toy models so severely stripped-down from the complex reality of a market system as to bear no relationship whatever to the reality they purport to model. Of course, traditional macroeconomists do care intensely about empirically verifying their models, but they all are very poor predictors, rarely doing any better than simple extrapolations from the recent past.

The fact is that the evidence does not support any of the alternative macro models out there, which is why the Austrian policy prescriptions could possibly work. The fact is that they have never been tried. All modern economies use fiat money, have extensive financial controls, and intervene regularly in the operation of the market system. I prefer the standard approaches to monetary policy because they have worked in the past, and only a near-fanatical belief system, such as that cherished by the Austrian school, could believe that a free-market system without government intervention might work in the future.

I am often asked why macroeconomic theory is in such an awful state. The answer is simple. The basic model of the market economy was laid out by Leon Walras in the 1870's, and its equilibrium properties were well established by the mid-1960's. However, no one has succeeded in establishing its dynamical properties out of equilibrium. But macroeconomic theory is about dynamics, not equilibrium, and hence macroeconomics has managed to subsist only by ignoring general equilibrium in favor of toy models with a few actors and a couple of goods. Macroeconomics exists today because we desperately need macro models for policy purposes, so we invent toy models with zero predictive value that allow us to tell reasonable policy stories, the cogency of which are based on historical experience, not theory.

I think it likely that macroeconomics will not become scientifically presentable until we realize that a market economy is a complex dynamic nonlinear system, and we start to use the techniques of complexity analysis to model it. I present my arguments in Herbert Gintis, "The Dynamics of General Equilibrium", Economic Journal 117 (2007):1289-1309.

Signals *by Brian Skyrms*

David Lewis Redux — Rating: 3/5

A steady stream of philosophers, from Epicurus to Quine and Russell, objected to the convention theory of language (the arbitrary character of the designator) by questioning the dynamic by which a convention is established without a pre-existing language through which the convention is articulated. This problem was answered by David Lewis in his 1969 book "Convention." Lewis's contribution was brilliant, but his exposition is somewhat confused, and it is not clear that he had a solid understanding of game theory. The same cannot be said of Skyrms, a renown philosopher and game theorist who presents an up-to-date version of Lewis' argument, foregoing most philosophical commentary in favor of analytical exposition of signaling theory.

This book is an elaboration on Skyrms' 2006 Presidential speech to the Philosophy of Science Association. It is highly accessible to readers with no background in philosophy, game theory, mathematics, or anything else, for that matter. On the other hand, it presents only a very small subset of the behavioral science literature on signaling games. Moreover, it presents only a couple of examples from the abundant animal behavior literature on signaling. For an up-to-date treatment of animal signaling, the reader might try Searcy and Nowicki (2005). I don't know of a generally accessible book

on signaling game theory, but a very nice recent overview is provided by economist Joel Sobel (2007) at [...].

The setting for the conventional theory of signaling is the coordination game: a number of agents each chooses and action, and all receive the same payoff, which is a function of the actions taken by the various agents. All agents benefit equally from coordinating their signals so as to achieve the highest possible payoff for all. Thus, in a group of monkeys, all benefit equally from knowing that there is a snake or a hawk in the area, but the benefit depends on their knowing which of the two is the case. It is purely conventional which vocalization the monkeys use to indicate "snake" as opposed to "hawk." Problems arise when the various agents do not have the same payoffs. Indeed, in the diametrically opposed case, the so-called "zero-sum game," what one player gains the other players lose, and hence there is no form of truthful signaling that can evolve. However, groups can evolve the capacity to change a zero-sum game into a different game in which all can gain from some appropriate cooperative behavior. Skyrms does not discuss this issue.

As it turns out, there are very few zero-sum games in reality, and there are equally few pure coordination games. Thus Skyrms misses most of the real action, which lies in understanding the conditions under which signaling equilibria emerge even when agents do not have identical interests. This is most acute in human societies in which individuals routinely stand to gain from transmitting untruthful messages. But it is equally important in animal societies in which males gain from transmitting incorrect messages concerning their reproductive fitness to females, who use such information to guide their choice of mates. There is a brilliant literature on this topic, based on contributions by Ronald Fisher, Michael Spence, Amos Zahavi, and Alan Grafen, but this literature is not touched upon in Skyrms' exposition.

The elements of investing *by Burton Gordon Malkiel*

Listening to these experts can save you from the financial sharks — Rating: 5/5

Malkiel's Random Walk Down Wall Street is one of the best finance books ever written. It is still a pleasure to read. This book is more nuts-and-bolts, but the advice is absolutely first rate. Here are their four main points:

1. Save regularly and start early.

2. Use company- and government-sponsored retirement plans to supercharge your savings and minimize your taxes.

3. Diversify broadly over different securities with low-cost "total market" index funds and different asset types.

4. Rebalance annually to the asset mix that's right for you.

5. Stay the course and ignore market fluctuations; they are likely to lead to serious and costly investing mistakes. Focus on the long term.

I think point 4 is way overstated, however. I would rebalance every ten years, or maybe even twenty years, unless there is a real reason for doing so. Rebalancing is costly.

Here is an example of the savings from using low-cost mutual funds (point 3 above). Suppose you put $1000 every year for 30 years into stocks. The average rate of return, historically, is about 8.6%, so if there are not brokers' fees, you would have $138,420 at the end of 30 years. With yearly brokers' fees of 1.15% (the industry average), you end up with $103,890 after 30 years, which means the brokers get 25% of the total. Moreover, had you invested in Treasury bills for the same period, you would have earned about $55,000, so the total increase in your wealth from using the broker is $103,420 - $55,000 = $48,420. of which the broker gets $34,530, or 70% of the net gain from using the broker.

When you buy domestic index mutual funds, you need never pay more than one fifth of one percent in overhead per year. International mutual funds, you will have to violate this rule, however. At this rate, after 30 years you will have $134,447 and the broker will earn $3,972, or about 5% of the net gain from using the broker.

Don't buy only index stocks. Also index bond funds.

Anyone who tells you he can beat the market without being an expert is a liar or a fool. Even an expert can only beat the market by a tiny bit with "inside information" and an understanding of market dynamics.

Malkiel and Ellis tell it all. Give this book to your parents if you want to inherit in your old age, and to your children if you want them not living with you in their middle-fourties.

What Is Sociology (European Perspectives: a Series in Social Thought and Cultural Ctiticism) *by Norbert Elias*

What Sociology is, but Should not Be? — Rating: 3/5

Norbert Elias, born in 1987, was a German Jew of middle class background. He is a true political intellectual of his time. He volunteered for the German army in World War I and was employed as a telegrapher. He was an active member of the German Zionist movement, where he met Erich Fromm, Leo Strauss, and other young Zionists. In 1933, Elias left his family for good, fleeing the Nazis, and stopping for two years in Paris. In 1935, he moved to England where he wrote his most famous work, The Civilizing Process. In 1940 Elias, like other German citizens, was detained by the British at internment camps (talk of bureaucratic stupidity). In 1941, the year his mother died in Auschwitz, Elias taught classes in Cambridge, Leicester and elsewhere, and trained as psychoanalyst. He then taught in the Sociology Department in Leicester until he retired in 1962. He travelled and taught in Africa and in universities throughout Europe, and died in 1990.

What is Sociology was written in 1970, but published in English only in 1978. This book is upbeat and optimistic, not reflecting in any obsessive way with fascism or communism, and quite devoid of any sense of Zionist spirit. Elias is here the public intellectual of the late twentieth century. His basic message is (a) sociology is a science; (b) sociology is relatively autonomous from natural science and biology; and (c) sociology deals with the emergent properties of human society (we would now say "as a complex system"). Like Simmel, Weber, Durkheim, Parsons, and other major sociological theorists, Elias is concerned with the long-term social dynamics that make modern society possible and determine its character.

I found the first seventy pages of this 175 page book a rather tedious argument outlining the above three points---all this stuff is well-worn argumentation. Of course, this argument does not distinguish sociology from the other behavioral disciplines, such as economics and anthropology, but Elias nowhere goes into this issue. In chapter 3, "Game Models," Elias makes the strikingly fruitful argument that society requires its own theorizing because humans engage in strategic interaction, something missing from natural science, human biology, and even psychology. "This is the reason why sociology cannot be reduced to psychology, biology, or physics: its field of study---the figurations of interdependent human beings cannot be explained if one studies beings singly." (p. 72)

The term "figuration" is key here. In the place of the overarching view of a totalizing social system, characteristic of Durkheim and Parsons, Elias sees society as a mosaic of overlapping and interrelated "figurations" that individuals come to understand and learn to operate within. It is interesting that Elias never defines the term "figuration," but rather shows pictures with complex arrays of lines and arrows with almost no labeling, leaving the reader to piece together what the term means. Elias here reminds me of Bourdieu's treatment of his pet idea, that of the habitus, which is equally central to Bourdieu's thought yet treated systematically in a nebulous and impressionistic manner. The reason, I believe, is that we cannot analytical define a "social frame" outside the rational actor model, epistemic game theory, and the social-psychological theory of norms (see my argument in my book, The Bounds of Reason). Elias gets so close to game theory, placing it front and center in his delineation of the specificity of sociological theory, but never getting to the point of actually using game theory as more than an allusional device. Of course, Elias is merely following standard sociological tradition in this respect: the decrepit state of sociological theory can be attributed precisely to the unwillingness of its practitioners to bite the bullet and go to full game-theoretic, rational actor route.

Elias' treatment of "figuration" is by hand waving. "Examples," he asserts, "may help to convey the meaning of the concept of figuration as it is used here. It can be applied to relatively small groups just as well as to societies made up of thousands or millions of interdependent people. Teachers and pupils in a class, doctor and patient in a therapeutic group, regular customers at a pub, children at a nursery school---they all make up relatively comprehensible figurations with each other." (p. 151) I teach my students to use examples, but never define by example. Elias doesn't have the analytical capacity to follow this advice.

Elias perpetrates another weakness of standard sociology, that of severely downplaying the importance of studying the behavior of non-human organisms towards explaining human society. He makes the standard argument that outside of humans, social arrangements are purely genetically determined, whereas the differences among human societies are due virtually completely to cultural differences. Therefore, he concludes, the organization of social life in non-human species is of no interest for us. Of course, modern sociobiology denies all of this. Elias makes the reasonable distinction among brute physical matter, the lowest level of organization, biological multicellular species, the next higher level of organization, and human society, the highest level. However, sociobiology has shown us that complex social organization occurs in many species, and the prime question in understanding human society is how our social organization differs from that of other species. This question is of the same order of importance as why different human societies display distinct forms of social structure, culture, and human dynamics.

I won't go through Elias long defense of the standard sociological notion that sociology can do without biology. It is as well done as it is incorrect. We can forgive him for not having read E. O. Wilson's great 1975 book Sociobiology, Elias' book having been published in 1970, and the ideological battles over sociobiology not abating until recently. This forgiveness does not, of course, extend to contemporary sociologists, whose ignorance of sociobiology is as deep and as fatal as their ignorance of game theory and the rational actor model.

This book is worth reading if you want a historical vignette of the incredible contrast between the insightfulness and intellectual vigor of a great sociologist and the deplorable absence of theoretical content to which this insightfulness might be fruitfully attached.

The Evolution of Physics *by Albert Einstein and Leopold Infeld*

Overall Brilliant — Rating: 5/5

The book has three parts: classical physics, relativity, and quantum physics (there wasn't much particle physics or cosmology in 1938, after all). The classical treatment is an extended examination of Galilean invariance, and is both brilliant and nicely presented (without equations). The special relativity theory part explains the twin principles of inertial frames and the constancy of the speed of light. It is very nicely done, although it has to be mysterious for the reader when even the simplest algebra is off limits. The general relativity part is presented as the extension from inertial to arbitrary frames, from with gravity is introduced via the equivalence of inertial and gravitational mass. I suspect this is mostly mysterious for the reader, but I'm not sure.

The quantum section is the least successful. The authors center on particle energy discreteness, but do not really get into the strange and mysterious aspects of quantum mechanics. Nor do the explain spin, fermions, bosons, etc.

Specialization and Trade *by Arnold Kling*

Free-Market-Biased Special Pleading — Rating: 2/5

Kling gives free market ideologists what they are looking for---a critique of scientific regulation of the market economy. He rejects standard economic theory by trivializing it (e.g., he says economists think

of the economy as a machine, and they lack the most fundamental insights into how economies work) rather than explaining exactly what it says and how it defends its ideas.

As a result, this book is not for the thinking, critical reader. Rather, it is baby food.

This is not to say that some of Kling's ideas are not insightful---some are. In particular, he follows closely Hayek's brilliant 1942 AER paper, which is a powerful critique of the notion that planners can replace the price mechanism. He also mirrors Milton Friedman's perceptive critique of Keynesian theory and his pessimism concerning the possibility of active counter-cyclical government spending and taxation policies. These are very useful critiques, and well worth emphasizing.

Kling's critique of macroeconomics is by and large correct. He stresses that macro models predict poorly, which is quite true. Macroeconomic theory is rather a mess. But macro policy should not aim at prediction, and it can be wildly successful with zero capacity to predict. The macro economy is healthy when it has institutions that allow the economy to recover quickly from shocks. The free market economy with unregulated (or lightly regulated) financial institutions does not have this capacity. Kling basically advises that regulatory institutions abandon the quest for promoting stability. The is a fatal error. The advanced economies around the world are developing regulations that promote financial stability (e.g., by requiring transparency, separating industrial and commercial banking, and increasing reserve requirements of large banks).

The underlying problem is that Kling does not give the reader the tools necessary to make informed judgments as the the potential efficacy of proposed interventions. He provides no systematic analysis of either market failures or state failures. There is no discussion of regulating environmental externalities, ensuring consumer safty, regulating interstate commerce, providing public goods, or fostering public health and social security. The reader who leans only what Kling teaches gets only half a story.

Most of Kling's judgments are useful, if one-sided. But some are bizarre and absurd. The notion that inflation is a purely subjective phenomenon unrelated to the money supply is one. The notion that central banks have no effect on the economy is another. If Kling had his way, I suspect, we would still be in the financial crisis set off in 2008.

The Large, the Small, and the Human Mind *by Roger Penrose*

Hasty summary with lackluster commentaries — Rating: 3/5

This book is hard to rate. It might rate four or five stars if you have never read Penrose before, although I think the arguments might then be close to incomprehensible. If you have read Shadows of the Mind, this book is a throwaway. Most of the text is a rehash, practically cut and paste. The comments are not much worth reading---like the comments at a workshop, perhaps.

The Age of Acquiescence *by Steve Fraser*

Eloquent history, but backward-looking nostalgia and absence of socio-political analysis — Rating: 3/5

Steve Fraser is a talented historical journalist. If you don't know much about the history of class relations in American, you can learn a lot from his lively prose. His message is that we have passed from an age of egalitarian class struggle to one in which the working class has "acquiesced" to the power of capital and the moneyed interests. This of course is largely correct. The questions are : why, and if we are displeased with this development, what can we do to reverse it?

Of course, unless we answer the "why" question, we are unlikely to have a cogent and answer to the "what can we do about it" question. Fraser, however, makes no serious attempt to answer the why question. He speaks of the corruptness of union officials, the rise of consumerism, and several related factors. But this is surely no answer, especially since the decline in the power of unions is a world-wide phenomenon, and quite prominent in Europe as well as the United States. Because he cannot answer

the why question, his desultory attempt to provide a remedy, which is simply that we must build on Occupy Wall Street to revive consciousness, is not very plausible.

I believe there is a relatively simple answer to the "why" question. Unions are powerful in sectors that are not internationally competitive, so that domestic firms can make superprofits that can be redistributed to workers through collective bargaining. With the growth of the international economy, virtually no sectors dominated by semi-skilled blue-collar workers fit into this mold. There are no superprofits in manufacturing any more, and firms can freely move production anywhere in the world. Therefore unions cannot gain by redirecting monopoly profits to themselves. This is why in the United States the only successful unions are in the public sector and other service sectors that lie outside the international economy.

One possible way to increase the power of the traditional working class is protectionism: simply place high tariffs on internationally traded goods. The main problem with that is that most Americans gain from international trade, both as employees and as consumers, so are unlikely to support strongly protectionist strategies. A second problem is that when domestic firms are protected from foreign competition, the lose the incentive to innovate and they tend to enter into tacit collusion to protect themselves from change. This was the situation with the American auto industry prior to the onslaught of Japanese and German firms some fifty years ago. A third problem is that strong industrial unionism creates a "labor aristocracy" of highly paid workers, which is a politically untenable and inegalitarian situation.

There is no plausible harking back to the past. Industrial unionism did not acquiesce. Rather, it has become superannuated. We must look elsewhere for new egalitarian directions. I can think of several such directions. First, a serious increase in the use of earned income tax credits, or at least an increase in the minimum wage. The latter is less desirable that the EITC because it most likely reduces low-skilled employment. Second, charter schools and voucher programs for poor and low-income communities. The teacher's unions, which consistently protect poor teachers, are the enemy here. Third, more vocational education for boys who are not destined for four-year colleges. Girls are doing much better than boys these days, and it may have something to do with male culture or gender-specific hormonal conditions. More generally, we should explore the whole category of what Samuel Bowles and I call "egalitarian productivity-enhancing redistributions," which are social policies that both level the income distribution and improve economic productivity.

Einstein: A Life of Genius *by Alexander Kennedy*

Short, plainly written, and informative — Rating: 4/5

This biography of Einstein is short, plainly written, and informative. It is accessible to young teenagers, and demands no instruction in physics. It is long on Einstein's personal life and social tribulations. I found it interesting reading, even though I have read much about Einstein and appreciate his philosophical side.

A Darwininian Left: Politics, Evolution, and Cooperation *by Peter Singer*

Interesting, well written, and partially compelling — Rating: 4/5

Peter Singer's book has many virtues, not the least of which is that it is succinct, lucid, straightforward and touches only on the main and most important points. He argues that Marxism is no longer the theoretical basis for a Left vision of the good society (if it ever was). The most important two failures of Marxism were first, its reliance on the working class and trade unions as the basis for social change, and second, its acceptance of the notion if infinite psychological malleability of human beings.

On the inadequacy of the working class as the basis for social change Singer does not have much to say, although of course he is perfectly correct. On the weaknesses of trade unions he is right on the mark, writing "When barriers to imports are removed, nationally based trade unions are undermined.... The

only way for unions to maintain their clout would be for them to organise internationally; but when the discrepancies between the living standards of workers are as great as they are today between, say, Europe and China, the common interests for doing so are lacking." Contemporary Leftists are completely blind to this crystal clear logic. Of course, Leftists could argue for protectionism so unions could avoid wage competition with the rest of the world, but this would not be a popular argument, as it benefits union members only, not the general public. Unions are nowadays both anachronistic and anti-efficiency special interest groups.

Singer waxes eloquent on the fact that there is a biologically evolved human nature, and that infinitely malleability of the human mind is radically false. He notes: "In one of his celebrated 'Theses on Feuerbach' (VI), Marx had written: '. . . the human essence is no abstraction inherent in each single individual. In its reality it is the ensemble of the social relations.' It follows from this belief that if you can totally change the 'ensemble of the social relations', you can totally change human nature. This claim goes to the heart of Marxism and of more broadly marxist (with a small'm') thinking. As a result, it affects much of the thought of the entire left...Belief in the malleability of human nature has been important for the left because it has provided grounds for hoping that a very different kind of human society is possible. Here, I suspect, is the ultimate reason why the left rejected Darwinian thought. It dashed the left's Great Dream: The Perfectibility of Man."

Singer argues that true Left values (and his values) are utilitarian---people should act to improve the lot of the greatest number, and the downtrodden are the most easily improved group because of the declining marginal utility of income. "My own ethical position, " he writes, " is utilitarian, and the imperative of reducing suffering flows directly from that position. Although as a utilitarian I do not value equality for its own sake, I am very conscious of the principle of diminishing marginal utility, which tells us that while a given sum of money, say £ 100, makes very little difference to the utility of someone who already has a lot, it may make a huge difference to the utility of someone who has very little."

He then argues that Darwinian evolution has given humans a predisposition to cooperate and help others, and the Left can draw on this predisposition to create a more equal and humane society. He writes: "I want to suggest that one source of new ideas that could revitalise the left is an approach to human social, political and economic behaviour based firmly on a modern understanding of human nature. It is time for the left to take seriously the fact that we are evolved animals, and that we bear the evidence of our inheritance, not only in our anatomy and our DNA, but in our behaviour too. In other words it is time to develop a Darwinian left."

Singer presents very little empirical support for this position, citing only a couple of rather out-of-date authors. But there is much contemporary support for the notion that humans are predisposed to be both cooperative and (conditionally) altruistic. You can find many references to the literature in one of my books, say The Bounds of Reason (Princeton, 2009) and on my website http://people.umass.edu/gintis. He writes: "would a Darwinian left really have to accept Hardin's Cardinal Rule that we should never ask people to act against their own self-interest? Is it really impossible for the left to seek to promote a society in which there is a strong feeling of concern for the good of others, and opportunities for people to work for the good of the whole society or, even more broadly, for the welfare of human and nonhuman sentient beings wherever they may live? Altruism – not just kin altruism, or reciprocal altruism, but genuine altruism toward strangers – does exist."

How should we evaluate Singer's interesting argument? Most important is his analysis of the weaknesses of Marxism. Marxism's strategy of basing progressive social change on the working class is simply antiquated and irrelevant. Labor unions are just another interest group, and to my mind a generally distasteful one. Teachers' unions impede the dismissal of bad teachers and police unions protect bad cops. An so on.

What about basing a Left politics on Darwinism? Well, evolutionary biology is scientifically true and the past few decades have done much to elucidate the biological bases of human nature. No matter what your politics are, except for the dogmatic fundamentalist religious idiots who promote creationism, you should accept Darwinian analysis, just because it is true. Moreover, it can help you understand what sorts of alternatives are possible and which are not. But, as Singer stresses, Darwinism has absolutely no

ethical implications. Its just science. Moreover, there are plenty of modern politically conservative Darwinists who deny none of the truths that Singer (and I) accept. Try Larry Arnhart, for instance.

The real problem with Singer's argument is that he accepts without the slightest argument that there exists an alternative to capitalism based on cooperation instead of competition. He writes: "Building a more cooperative society Any human society will show some competitive tendencies and some cooperative ones. We cannot change that, but we may be able to change the balance between these two elements. America in the twentieth century has been the paradigm of a competitive society, in which the drive for personal wealth and to get to the top is widely seen as the goal of everything we do." The problem is that there is no known alternative that shifts the balance to any serious degree in the direction advocated by Singer. Worker-owned firms have been a suggestion---one that I espoused for many years. But for many reasons, they jut do not present a serious alternative to the capitalist enterprise. See Why Democratic Socialism Does not Work, on my website, under You Must Read This!

The idea that Darwinism will save the Left is just wishful thinking.

The Myth of the Rational Voter: Why Democracies Choose Bad Policies *by Bryan Kaplan*

An Illogical Muddle Perpetrated Upon the Reader — Rating: 1/5

I would give this book three stars for the amount of information conveyed if the book were not so compromised by the author's arrogance and lack of the capacity for logical thought.

The argument that voters are irrational as opposed to simply uniformed is never made. The evidence that voters are uniformed takes the form of saying that they disagree with economic theory. What else is new? Voters disagree with global warming and Darwinian evolution.

The argument that voters are uniformed and therefore it is better to leave decisions to experts is not cogent, because experts can be corrupted when they are the sole arbiters of policy. Moreover, the experts may have their own internal dynamics leading them to be wrong in systematic ways.

The notion that voters are irrational because rational agents have no incentive become informed about political and social issues is obviously illogical. Self-interested rational voters will be uninformed, not irrational. But rational self-interested voters will not vote. But people do vote. Even if they are irrational, why should they do that? The whole thing is just a muddle.

The Price of Inequality *by Joseph Stiglitz*

Inequality is Not the Problem — Rating: 3/5

Joseph Stiglitz is one of the greatest economists of our time, a Nobel Prize winner, former head of the World Bank and Chairman of the President’s Council of Economic Advisors. He is also seriously concerned about poverty and inequality in America. I remember well hearing him on NPR radio being interviewed on the day he was informed that he was awarded the 2001 Nobel Prize in Economics: he spoke passionately and almost exclusively about the need for eradicating poverty in America and around the world.

The economic argument for policies that favor the poor over the rich are very simple, being based on the universally accepted principle of the declining marginal utility of income. What that means is that one dollar is worth a lot more to a person who makes $20,000 a year than it is to a person who makes $200,000 a year. Thus a policy that gives $1 to the poorer and reduces the income of the richer by the same amount will increase general social welfare. Some people have argued that this is a value judgment rather than a fact, but that is just wrong. It is a fact, pure and simple.

The bottom half of the income distribution in America earns only 12% of total income. Why don’t they just vote to take money from the top 1% of earners, who capture about 20% of total income? If voters

took away half of the earnings of the top 1% and gave it to the bottom 50%, each recipient household would receive about $14,000, a not insignificant sum.

I do not know why voters do not expropriate the rich (both supporters and opponents in the Eighteenth and Nineteenth centuries certainly expected that to happen upon the advent of democracy with universal suffrage), but there is one strong arguments against expropriating the rich: to the extent that high incomes motivate the talented to acquire and exercise skills and to take risks, excessive taxation will lead to economic stagnation.

In fact, my observation of American politics leads me to a very simple understanding of voter sentiments: people care about injustice but not about inequality. The current wave of anger at the top 1% is not fueled by resentment against inequality, but rather against the injustice of the people at the top gaining while others are losing jobs and houses due to the economic elite's anti-social and greedy machinations.

There are of course societies where people care about inequality per se. But those are invariably relatively poor, clannish societies. For instance, in hunter-gatherer societies without forms of material wealth, when one family is very successful, others who are less successful will demand sharing the bounty. This of course eliminates the incentive to be successful and entails enduring social poverty of the group. In rich societies such as our own, people are used to congratulating the successful, whether sports stars, movie stars, real estate wheeler-dealers, and other celebrities. People object only when they feel success was based on some form of injustice, or the well-off are behaving uncharitably. Inequality per se is simply not something people think is wrong (except, of course, for a fringe of super-liberals, who are politically irrelevant).

Stiglitz draws precisely on this sentiment in this spirited call to action for income redistribution towards the less well off. Recounting the well-established fact that the very rich have done extremely well in the past few decades while the fortunes of those below the top 10% have stagnated, Stiglitz argues that the good fortune of the winners is indeed unjust, being a reward for their inveterate rent-seeking rather that their contributions to society. Stiglitz writes: "This book is not about the politics of envy: the bottom 99 percent by and large are not jealous of the social contributions that some of those among the 1 percent have made, of their well-deserved incomes. This book is instead about the politics of efficiency and fairness. The central argument is that the model that best describes income determination at the top is not one based on individuals' contributions to society… Much of the income at the top is instead what we have called rents. These rents have moved dollars from the bottom and middle to the top…In the United States the "Occupy Wall Street" movement echoed the same refrain. The unfairness of a situation in which so many lost their homes and their jobs while the bankers enjoyed large bonuses was grating."

Stiglitz recognizes that because the increase in inequality is due to rent-seeking rather than inexorable "market forces," it can be reversed by ending the rent-seeking---in effect by changing tax laws. He writes "while we may be able to do only a little to change the direction of market forces, we can circumscribe rent seeking. Or at least we could, if we managed to get our politics right." Much of the book consists of suggestions to this end. These include curbing the financial sector, stronger pro-competition and anti-trust laws, limiting the power of CEOs, eliminate "corporate welfare" in the form of subsidies to privileged sectors of the economy, improve access to education, institute comprehensive and universal health care, follow a vigorous full-employment fiscal policy, expand affirmative action for minorities, and restore the power of workers' unions.

Perhaps Stiglitz' most ambitious suggestion is his proposal for curbing the inegalitarian effects of globalization. He writes, "Globalization and technology both contribute to the polarization of our labor market, but they are not abstract market forces that just arrive from on high; rather, they are shaped by our policies. We have explained how globalization— especially our asymmetric globalization—is tilted toward putting labor in a disadvantageous bargaining position vis-à-vis capital. While globalization may benefit society as a whole, it has left many behind— not a surprise given that, to a large extent, globalization has been managed by corporate and other special interests for their benefit. Too often, the response to the threat of globalization is to make workers even worse off, not just by cutting their wages but also by lowering social protections. The growth of the antiglobalization movement is, under these

circumstances, totally understandable. There are myriad ways in which globalization could be brought back into a better balance."

It strikes me that Stiglitz' analysis and his policy recommendations are closely tailored to what progressive Democrats in America are thinking, and to what seasoned politicians believe it is possible to attain politically. However, and while I fully agree with many of his policy recommendations, I disagree with some crucial recommendations, and there are important policy options that he does not discuss.

Most important, I think it is likely that the increase in before-tax inequality that we have experienced in the past few decades is in fact market-driven rather than rent-seeking-driven. This is because there are similar trends in all the advanced market economies, the increases in income accrue to members of high-skilled professions, such as law, medicine, and management, and the most income-skewed sector, finance, as grown exponentially through increased public demand for financial services. I should note that Stiglitz himself admits that his rent-seeking thesis is more or less untenable, and he accepts it for reasons of personal taste. He writes: "It is essentially impossible to single out any one factor's relative contribution, given how intertwined the various forces shaping inequality are; there can be honest differences of opinion. But… markets don't exist in a vacuum. They are shaped by our politics, often in ways that benefit those at the top. Moreover, while we may be able to do only a little to change the direction of market forces, we can circumscribe rent seeking. Or at least we could, if we managed to get our politics right."

This admonition reminds me of the old saw about the economist looking for his lost keys one evening under a lamppost despite the fact that he dropped them in the bushes, explaining that there is more light under the lamppost. More to the point: if the problem isn't rent-seeking, then you can't reverse it by curbing rent-seeking! It would be more plausible to say that before-tax income inequality has been caused by market forces, but could be corrected by higher taxes on the rich (think of avoiding taxation as a form of rent-seeking). The problem is that the well-off already pay most of the taxes. The top 5% of the income distribution, who receive 45% of national income, pay 71% of all federal income taxes, while the bottom 50%, who receive 12% of national income, pay only 2% of all federal income taxes. There is not likely much leeway for increasing tax rates on the rich much more without generating very strong tendencies for tax avoidance and reduced economic participation of the economic elite.

Another indication of Stiglitz' adherence to the agenda of the Democratic Party is his pandering to unions. Public sector unions are especially great contributors to the Democratic Party coffers, but it is not clear that they are in any way a force for the mitigation of inequality. Take for instance the teachers' unions, which are inveterately hostile to competition in education, and which must be pulled kicking and dragging even to allow the firing of incompetent teachers. Stiglitz repeats several times in the book that teachers are underpaid, but never mentions the fact that incentive pay is virtually impossible without serious educational reform. He does not include charter schools or education voucher plan in his recommendation for progressive policy reform.

I have an alternative vision for progressive reform in America. It is not predicated on redistribution through tax laws, strong unions, or crippling the power of business and banking leaders. It is through what Samuel Bowles and I have called "productivity enhancing redistributions" (PEDs) These are policies that both improve the productivity of the economy and at the same time materially benefit the less-well-off. To the extent that a more competitive educational system contributes to the work skills and attitudes of poor youth, it is a productivity enhancing redistribution. The Earned Income Tax Credit (EITC) is a productivity enhancing redistribution, as are on-the-job apprenticeship programs, support for some forms of job retraining, and support for community health programs. Probably most such policy endeavors can be implemented without increasing tax rates.

Perhaps the political types are correct in believing that productivity enhancing redistribution are not politically feasible, but I cannot imagine why not.

The Work Versus Welfare Trade-Off: 2013 *by Michael Tanner and Charles Hughes*

Careful and Informative Statistical Analysis — Rating: 4/5

In 1995, the Cato Institute published a groundbreaking study, The Work vs. Welfare Trade-Off, which estimated the value of the full package of welfare benefits available to a typical recipient in each of the 50 states and the District of Columbia. It found that not only did the value of such benefits greatly exceed the poverty level but, because welfare benefits are tax-free, their dollar value was greater than the amount of take-home income a worker would receive from an entry-level job.

Since then, many welfare programs have undergone significant change, including the 1996 welfare reform legislation that ended the Aid to Families with Dependent Children program and replaced it with the Temporary Assistance to Needy Families program. Accordingly, this book, which is really just a long paper, mostly consisting of table after table of numbers, examines the current welfare system in the same manner as the 1995 paper. The authors find that welfare benefits continue to outpace the income that most recipients can expect to earn from an entry-level job.

Welfare, they find, currently pays more than a minimum-wage job in 35 states, even after accounting for the Earned Income Tax Credit, and in 13 states it pays more than $ 15 per hour. Only 2.6 percent of full-time workers are poor, as defined by the Federal Poverty Level (FPL) standard, compared with 23.9 percent of adults who do not work. Even part-time work makes a significant difference; only 15 percent of part-time workers are poor.

Contrary to stereotypes, the authors argue, there is no evidence that people on welfare are lazy or do not wish to work. Indeed, surveys of welfare recipients consistently show their desire for a job. At the same time, however, the evidence suggests that many are reluctant to accept available employment opportunities. Although it would be nice to raise the wages of entry-level service workers, they maintain that government has no ability to do so, attempts to mandate wage increases, such as increases in the minimum wage, primarily result in increased unemployment for the lowest-skilled workers.

I am an economist, but not an expert in this area. The authors research is highly professional, but I do not agree at all with the authors' conclusion that an increase in the minimum wage would lead to widespread unemployment of low-skill labor. I think it is worth raising the minimum wage, as well as extending on-the-job skill training to low-skilled workers, as a supplement to community college and vocational training.

Solomon's Knot: How Law Can End the Poverty of Nations *by Robert Cooter and Hans-Bernd Schafer*

Solid, Simple, and Wise — Rating: 4/5

The story of economic growth when I learned economics was technical change and human/physical capital accumulation. Never mind that even fifty years ago Dennison's growth accounting results showed that this story must be false. Never mind that the failure of state socialism suggests that there is something about markets and competition that foster economic development.

But what is the true story? The answer is honesty, integrity, meritocracy, and the rule of law. The enemy of the sorts of cooperation that foster technical change and economic growth are corruption and old-boy networks that impede competition.

Cooter and Schaefer's book lays out the story in highly digestible form for those who are movers and shakers in the lest developed world. They should be studied closely and followed with diligence.

Misbehaving: The Making of Behavioral Economics

Full of great ideas and a wonderful writing style — Rating: 5/5

This book is a great way to learn about behavioral economics, and it has the added attraction of being written by one of its most creative practitioners. The best way I can convey the power of this book is with some examples. Let me start with the case of the beer at the beach. Two friends are at the beach on a hot afternoon and one says to the other "I'm going to the hotel to get a beer. I'll first try the little stand

run by a local, and if it is closed, I'll go to the bar in the hotel. In either case, I will be right back with the beer. How much is the most you will pay from the little stand for a cold Corona, and what is the most you will pay from the hotel bar for the same drink?" The second friend replies, "I'll pay up to 2 dollars at the stand and up to 4 dollars at the bar." Now this sounds quite reasonable but it is easy to see that it is completely irrational according to traditional economic theory. If the beer is worth 4 dollars from the bar, how could the same exact product be worth 2 dollars from the stand? Behavioral economics is about such well-experienced phenomena that are poorly represented by traditional economic theory.

Here is a second example. An experimenter gives you 10 dollars and tells you that there is another subject in the next room. You must offer his some part of the 10 dollars, and if he accepts, you split the money accordingly. If he reject, you both get nothing. The experiments comments that you will never see the person in the next room, and you will have no chance to repeat the experiment with this person or any other. Standard economic theory says that if you think the other guy is rational and if you offer him any positive amount of money, he will take it, because something is better than nothing. So you offer him one dollar, he rejects, and you go home poor. The game, called the Ultimatum Game, has been play in the lab and in the field hundreds of times, and even with very large stakes, such as three month's salary. Offers of less that 30 percent of the pie are very often rejected. This is completely at odds with traditional economic theory.

Now, why did the other guy reject your offer? A variety of experiments that I won't describe here (see my book The Bounds of Reason, Princeton University Press, 2009) make it clear that the guy thinks your offer unfair, and he rejects because it is worth more to him to punish your unfairness than to get 1 dollar.

The point is that people are motivated by morality, not just self interest. This is shown again and again in behavioral economic experiments.

Now, what is the relationship of the second example to the first? THEY ARE THE SAME! The thirsty beach vacationer thinks it is unfair to charge more that two dollars from the little stand, which has low costs, but will pay up to four dollars from the bar, which pays high rent to the hotel. The vacationer is willing to go beer-less to punish the little stand owner for overcharging.

I want to stress something that Thaler says often, but not often enough: most the behaviors he describes are not at all irrational---far from it. They don't fit the standard model, but there is certainly nothing irrational about acting morally! Otherwise the only rational people would be sociopaths!

Let me give an example. A friend of his was fighting with her young daughter, who refused to wear dresses to school, preferring pants and tee-shirts. The mother fussed that she spent good money for three nice dresses at the beginning of the school year, anb by Lord, the little girl had to make good use of them. The mother ask Thaler to intercede in the tiff. Thaler asked if the mother had anything against pants and tee-shirds, an she said no. He then explained the concept of "sunk costs," which are expenditures in the past that support an investment that is currently expected to be unprofitable (it is called the Concorde Effect in Europe---guess why). The correct advice is "don't throw good money after bad." In this case, the money you spent for the dresses is gone, and you can't get any benefit for you or your daughter by making her wear them.

Now, there are certainly many cases in which people fall prey to the sunk cost fallacy, but I have found that in almost every case, this behavior is quite rational. On reason is that you might want to discipline yourself to be more careful about investments in the future, so sticking with a bad investment is just a therapeutic holding your feet to the fire. Another reason is that someone else is paying the costs, and if you fail you will be blamed. In the case of the mother and daughter, I bet anything that the little girl wanted the dresses at the beginning of the school year, and just changed her mind later. The mother is simply disciplining the girl.

A third example: why do popular restaurants put up with long waiting lists of people who want to eat there? The "rational" solution is the raise prices at the restaurant at peak hours, so supply equals demand. But a restaurateur explained to Thaler that people judge the quality of a meal taking into account its price, so even though people would pay more, they would recall that the meal was not that good, probably without even realizing that they took the price into account in making that judgment. I

can swear that I behave exactly 8in this way, yet I did not understand the phenomenon until I read it in this book. Wow! Super wow!!

The only weakness of the book is Thaler's incessant theme of "traditional economics, bad---behavioral economic, good." This is simply false, and most people understand that this is the case. Moreover, behavioral economics has swept the field in the past two decades. This is greatly to the credit of economists as scientists. There have been many criticisms, but that is welcome and necessary in the evolution of economics as a discipline.

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The Great Escape: Health, Wealth, and the Origins of Inequality

Authoritative, Brave, and Critical — Rating: 5/5

This book authoritatively presents what we know about the causes and pace of improvement in health across the world in the past few centuries. The argument is replete with reference to the literature that the reader can follow up. His message is that we have the technology and the will to reduce health inequalities around the world, but simple charity and aid to poor countries are part of the problem, not part of the solution. Deaton does present some important ways the rich healthy countries can help the poor, who are mostly oppressed by dictators and corrupt regimes. He shows clearly in the final, and most important chapter of this book (it appears that many of the reviewers on Amazon did not get that far) that the cost of dramatically improving the health of the poor around the world is absurdly low, but transfers from rich to poor countries go into the pockets of the criminal oligarchies that run the poor countries. This is not the first book to recognize, document, and reveal this sat situation, but it is to my mind the most authoritative. Angus Deaton is a truly remarkable scientist. I have nothing but contempt for his ignorant and superficial detractors.

Faith Versus Fact: Why Science and Religion Are Incompatible

Very beautifully pesented argument---and correct! — Rating: 4/5

Coyne is an anti-accommodationist, which means that he believes that if accept science, you must reject religion. This is a deep claim, because prima facie, it is obviously false. There are many great scientists who believe in Christianity in one form or another---including Isaac Newton, who believe in the literal truth of the Bible. Of course, after Darwin and modern archeology, such literalism is difficult to sustain. But Francis Collins and many other scientists are religiously devout.

Coyne also recognizes that some religions never contradict modern science, including Catholicism and many forms of Buddhism.

What, then, does he mean? The answer is in the book's title: science accepts no truths that cannot be validated, at least provisionally and never with absolute certitude, on the basis of empirical evidence. Religion, by contrast, accepts many things as true on the basis of faith. The weakness of faith as a criterion of truth is that every religion has its own peculiar idea of what "faith" tells us is true. They cannot all be right, and there is no way to adjudicate among them, except perhaps by the sword.

An what sorts of things do religions tell us. Adam and Eve and the snake? Moses and the burning bush? Jonah and the whale? Noah's arc and the flood? What a bunch of fanciful fairly tales! What about not turning on an electric heater on the Sabbath? Wearing dreadlocks and four-foot tall black hats. It would funny thinking about these things if they were not so often tragic.

Faith is an empty shell of an abode for our spirit, which is wondrous at the miracles of nature and human consciousness. Awe, by all means. Faith? Not a chance.

Why not just let the faithful alone in their blithering delusions? Because many powerful religions make claims that counter what we know is justified scientifically (e.g., faith healing, Adam and Eve, creationism). But why not go for accommodationism in the form of: science won't make anti-faith claims and religions won't make anti-science claims? Coyne rejects this tack, but his arguments are not cogent. I can reject faith as a criterion of truth and yet let people go to church and anoint their children. And I can do science perfectly well without denying the existence of the supernatural.

Coyne is also s special kind of scientist---one who accepts some things on faith himself! Most important is "determinism," when means that all of reality as we know it evolves completely deterministically according to physical laws. How could he know this? What evidence could he have for this? I cannot imagine. All my equations have random error terms. I don't know if they are random, or just some sorts of forces, perhaps non-physical, that I don't (yet) understand (and may never understand). Quantum mechanics is fundamentally non-deterministic. If you believe the many-worlds version (which I tend to think is most plausible), our universe is a superposition of a hugely vast number of quantum states, yet our consciousness is firmly attached (as far as we know) to exactly one of these states. When a quantum event occurs, more superimposed states, and our consciousness becomes superimposed as well. Is this what we mean by determinism? I think not. The fact is, there may be phenomena that affect the course of the universe that are not physical in the way we think of physical. Who knows? To be a determinist is not to be agnostic about this possibility, but to actively reject ti. That is fail in action.

On special form of determinism is rejecting free will. Coyne certainly rejects free will, on the grounds of naturalistic determinism: the brain makes decisions, the brain is physical, physical is causally deterministic. Hence no free will. Personally, I am agnostic. I cannot predict how humans will behave in any given situations (I have spent much of my life on studying human behavior), so how can I be sure that the physical nature of the brain is sufficient to explain behavior? Denial of free will is an act of faith, pure and simple.

For instance, Coyne is fond of saying that the theory of evolution proves that the emergence of our species is completely determined by physical law. Perhaps. But perhaps not. Who knows? If some guy with a pasta strainer on his head claims that we were steered into existence by a God who likes steamed noodles, I can simply shrug.sical nature of the brain is sufficient to explain behavior? Denial of free will is an act of faith, pure and simple.

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Galileo's Middle Finger: Heretics, Activists, and the Search for Justice in Science

Highly readable memoire from someone in the trenches — Rating: 4/5

Alice Dreger is my kind of scientist. She describes herself, like Galileo, as "pugnacious, articulate, political incorrect, and firmly centered in the belief that truth will save me, will have to save us all." The truths she has to reveal from her personal experience and her research has professional historian of science include (a) how frequently what should remain at the level of scientific discourse and dispute ends up transforming into disgusting and unprofessional ad hominem arguments that seriously tarnish the reputations of even highly talented researchers; (b) "how badly most people want simple stories of make and female, nature and nurture, good and evil"; and (c) "So long as we believe that bad acts are only committed by evil people and that good people do only good, we will fail to see, believe, or prevent these kinds of travesties [of scientific discourse]."

Alice Dreger learned something very important when she interviewed the great anthropologist Napoleon Chagnon when he was treated disgracefully by the politically correct post-modern honchos of the American Anthropological Association. However low they stoop to defame your character, never respond in kind. Just stick to the issues and present the evidence. It may take years, but the evidence almost always wins out.

Some of my favorite behavioral scientists come out poorly in Dreger's account (though none is a major actor) of the transgender issue. I will have to ask them for their side of this fascinating story.

American Dreams: Restoring Economic Opportunity for Everyone

Lots of good, innovative ideas. Some important wrong-headed ideas. — Rating: 4/5

Republicans have been worried for some time that their standard ideology speaks only to middle-aged middle-class white males. Demographics are turning against them, so may conservatives have been exploring new directions. This books is a deeply knowledgeable contribution to this process.

All of the traditional ideology of American Conservatism (the centrality of tradition, adherence to Christian fundamentalism, wild-west individualism, glorification of the minimalist state, opposition to welfare) are chucked by Rubio. There are a couple of right-wing ideas he champions that I find objectionable, including opposition to gay marriage and a sustained attack on the Affordable Care Act.

Rubio speaks directly to struggling Americans, and proposes social policies to help them succeed. The most imaginative is the Wage Enhancement credit, which is like the Earned Income Tax Credit, but based on individual income not family income. This overcomes a weakness in the EITC that gives poor couples an incentive not to marry. Rubio also champions online education, and faults the bureaucratic accreditation boards for creating a monopoly of mortar and brick schools that thwarts low-cost high-quality higher education.

Rubio's objection to gay marriage is not religious at all. He believes gay marriage "weakens the family." I think exactly the opposite is the case.

There is a lot of fluff in this book, but it is basically entertaining reading and its social-science based ideas are a breath of fresh air.

Does Altruism Exist?: Culture, Genes, and the Welfare of Others (Foundational Questions in Science)

An Excellent Introduction to Human Prosociality — Rating: 5/5

Are humans basically selfish yet browbeaten by society into curbing their instincts, or are they basically altruistic yet corrupted by unjust societies? This question has been the perennial subject of learned disquisitions. It is relatively new that they are now asked by behavioural scientists using scientific evidence. Evolutionary biologist David Sloan Wilson's Does Altruism Exist? is a brilliant contribution to this contemporary branch of sociopolitical discourse.

Applying scientific principles to human society is hard. Society is a perfect example of a complex dynamical adaptive nonlinear system. Moreover, it is non-ergodic: rapid technical change, increased population density and globalization mean that we cannot reliably predict the future from the past. Even human nature, forged in the remote Pleistocene, turns out to be stunningly plastic.

Wilson's question is: does altruism, or actions mainly benefiting unrelated others at personal cost, exist? How could anyone doubt it? We give to charity, vote for public education even when we have no children, volunteer to fight and die in war. People regularly conform to social norms even when no one is looking, and sanction the anti-social behavior of others even when it is costly to do so. Yet for decades a countervailing theory has held in biology and economics.

Richard Dawkins, in his wildly popular The Selfish Gene, reflects the current opinion among biologists in 1976: \\"Let us try to teach generosity and altruism, because we are born selfish.\\" Some 45 years later, in a letter to Nature, 134 prominent evolutionary biologists petitioned that \\"natural selection leads organisms to become adapted as if to maximize their inclusive fitness\\" -- meaning that even in the most highly social species, individuals limit helping others as much as possible to genetic relatives. In fact, natural selection does nothing of the kind. Inclusive fitness maximization is a pious wish of many population biologists that has never been validated in theory or fact.

Wilson has struggled for decades against this received wisdom. His basic principle, delivered in a joint 2007 paper with Edward O. Wilson, is the group selection credo: \\"Selfishness beats altruism within groups. Altruistic groups beat selfish groups. Everything else is commentary.\\" So within each social group, selfish individuals will do better than their altruistic counterparts, but groups with many altruists can outcompete groups with few. As Darwin noted in Descent of Man (Murray, 1871), a hunter-gatherer band with many brave, altruistic soldiers will triumph over a group with mostly selfish cowards, even though the best thing of all for an individual is to be a coward surrounded by brave compatriots. The mathematics supports this scenario.

It is fashionable to question this view, but the difficult theoretical issues have been resolved for decades. I go through the details in my article \\"Inclusive Fitness and the Sociobiology of the Genome,\\" Biology & Philosophy 29,4 (2014):477-515. Groups do not mate or produce offspring, and hence do not have biological fitness. Rather, the particular social organization of a species, its mating patterns and social groupings, is inscribed in the genomes of members of the species. Groups with more successful social organization tend to enhance the fitness of their members, whose genomes code for this social organization. Altruism can evolve in such groups provided altruists tend to be grouped preferentially with other altruists, in which case their biological fitness can on average be at least as high as that of selfish types.

As Wilson shows, another important source of our success as a species is that human cultures stress cooperation within the group, and so punish antagonistic individuals. This has led to humans \\"domesticating themselves\\", favoring a human nature that is relatively docile and dependent upon the company of and approvalof others. You can find the details in Ann Gibbons, \\"How we Tamed Ourselves-and Became Modern,\\" Science 346,6208 (2014):405-406. But Wilson's book stands alone as a great introduction to the subject of human cooperation and prosociality.

Moreover, humans have evolved to be collaborative, coordinating their behaviour through each member of a team \\"reading the minds\\" of the others and identifying with common goals. This is described well in Michael Tomasello, A Natural History of Human Thinking (Harvard University Press, 2014).ns, \\"How we Tamed Ourselves-and Became Modern,\\" Science 346,6208 (2014):405-406. But Wilson's book stands alone as a great introduction to the subject of human cooperation and prosociality. Moreover, humans have evolved to be collaborative, coordinating their behaviour through each member of a team \\"reading the minds\\" of the others and identifying with common goals. This is described well in Michael Tomasello, A Natural History of Human Thinking (Harvard University Press, 2014).

Feeling Smart: Why Our Emotions Are More Rational Than We Think

A tour de Force of Science and Humanities — Rating: 5/5

This book is a synthesis of the humanistic study of human emotions, the economic theory of rational choice, the experimental evidence on human choice behavior, and Darwinian evolutionary theory. It is a deeply insightful, sensitive, and revealing book that completely justifies the notion that the humanities and the science each grows with the proper association with the other. This is not a self-help book, but if you are an aspiring artist or writer, you will learn much about human nature from this book.

Feeling Smart brought to mind for me one of Yeats' most poignant yet enigmatic poems, An Irish Airman Foresees His Death. Here is how it goes:

I know that I shall meet my fate

Somewhere among the clouds above;

Those that I fight I do not hate,

Those that I guard I do not love;

.....

Nor law, nor duty bade me fight,

Nor public men, nor cheering crowds,

A lonely impulse of delight

Drove to this tumult in the clouds;

I balanced all, brought all to mind,

The years to come seemed waste of breath,

A waste of breath the years behind

In balance with this life, this death.

We are told that we should make rational, deliberate choices, and the emotionality is the enemy of good choices. Make a list of pros and cons---balance all, bring all to mind. We are also told to follow our heart, to go for our dreams---Faint heart neuer wonne faire Lady. There is, in fact, a deep Aristotelian truth in the notion that wise choices result from an intimately intertwining of reason and emotion---which is why the young are all too often incapable of making wise choices, while the old are incapable of implementing wise choices.

Winter makes excellent use of laboratory game theory, which is a development of the past few decades that links the rational actor model to behavioral game theory in an effort to tease out the varieties of human preferences, reasoning patterns, and systematic strengths and weaknesses. But Winter always relates the results of experiments back to his personal experience and the larger humanist tradition. He also makes it clear that our emotions are the product of evolution. Some of our emotions are quite primitive, including fear and anger, while others, such at shame, guilt, and embarrassment are probably purely human.

As Winter shows us, anger can serve as a mechanism for creating credible commitment, enabling us to improve our strategic positions in interactions with others. ... However, although anger is intended to benefit us from an evolutionary perspective, often it also harms us—not only because of the mental suffering that anger can cause, but also because of the implications it can have on our relationships with those toward whom we express our anger. We are often limited in our ability to control our anger in situations in which it does not serve us or even harms us.

Also, Winter shows us how in some cases, the evolutionary advantage of certain emotions can be overwhelmed by their disadvantages in the modern world. Blushing provides a very interesting example. Regret, which has very clear evolutionary advantages, is also an emotional reaction that can

have negative effects, sometimes leading us to make suboptimal decisions. If we never felt regret for any of our actions, we would doubtless be quite miserable, doomed to repeat the same mistakes over and over again.

Winter concludes that the border delineating the twin spheres of emotional and rational systems is very thin and convoluted. In most of the occasions in which we are called upon to make decisions, whether those are monumental life-changing decisions or the most mundane, that border is liable to become so blurred that it may disappear entirely. The two systems become intertwined around each other so tightly that they become inseparable. In many cases our emotions are there to enable us to arrive at rapid and nearly automaticdecisions, but in other cases, especially when weighty issues are at stake, our emotions challenge our rational thought processes.decisions, but in other cases, especially when weighty issues are at stake, our emotions challenge our rational thought processes.

Evolution and the Mechanisms of Decision Making (Strüngmann Forum Reports)

A Mixed Bag of Insight and Straw-man Bashing — Rating: 3/5

Peter Hammerstein and Jeffrey R. Stevens (eds.), Evolution and the Mechanisms of Decision Making (The MIT Press, 2012).

This volume is the result of a Strüngmann Forum workshop. The Strüngmann Forum is the successor to the very influential Dahlem workshop series, and like the Dahlem workshops, it is dedicated to bringing together high-profile researchers from a variety of behavioral science disciplines for a week-long series of discussions and interactions on a particular interdisciplinary theme, culminating in a book published by The MIT Press. Several of these volumes have been produced and are worthy contributions to the literature.

This volume contains some incisive syntheses of the literature by Alex Kacelnik, Nick Chater, Jessica Flack, David Krackaur, Peter Hammerstein, and Robert Boyd. Some of the collective summary chapters, however, are needlessly combative, misrepresent classical decision theory, and offer illogical arguments supporting the capacity of evolutionary biology to displace the rational actor model in contemporary decision theory.

In the opening pages the authors write: “We propose … the goal of initiating an alternative to the existing axiom-based decision theory by developing a theory of decision making founded on evolutionary principles.” The authors call this ‘Darwinian decision theory’ and assert that this is a theory of “substantive rationality” (p. 3) because evolutionary fitness is an “external standard” for measuring rationality. I should explain to the reader (Nick Chater does this very nicely in his chapter on basic decision theory) that “formally rational” means that the choice system is internally consistent (mostly that it exhibit transitive preferences over alternatives), while “substantively rational” means that the choice system is optimally geared towards achieving some external goal, such as biological fitness, individual well-being, or foraging efficiency.

This argument is needlessly combative because there are many very well documented applications of classical decision theory (I will call this the ‘rational actor model’) in biology, economics, and the other behavioral disciplines, and the mathematical decision theory based on a few simple axioms is extremely elegant and powerful. There are situations where the rational actor model appears not to apply, especially if we ask too much of it (e.g. both time inconsistency and prospect theory fit into the rational actor framework, although they require appropriate specifications of the choice space---the traditional models simply do not work in these cases). This does not mean that evolutionary theory is irrelevant in these cases. Indeed, I have spent many years using evolutionary theory to explain why humans have the particular preferences they do (especially other-regarding, moral, and political). But in most cases the rational actor model is complemented and deepened, not replaced by, evolutionary models.

In cases where the rational actor model fails so that a decision-maker exhibits inconsistent choices, in the sense that he prefers A to B, he prefers B to C, yet he prefers C to A, of course we need a new model of choice behavior, and perhaps evolution can suggest one. But there are almost no such cases in the

literature except where subjects are forced to make choices about things they really don't know much about and concerning which they have no developed preferences. I explain this in "A Framework for the Unification of the Behavioral Sciences", Behavioral and Brain Sciences (2007) and in the final chapter of my book The Bounds of Reason, Princeton University Press (2009) . Even where the rational actor model fails, an evolutionary approach may help us understand why, but it does not and cannot supply an alternative model. The collective authors simply do not supply real analytical model of "irrational" behavior. Imprecise verbal "why" arguments cannot serve the job of providing "how" models of choice behavior.

There is one very interesting situation in which we might expect decision-makers to display inconsistent preferences. This is where an object to be chosen varies on several different dimensions, such as accuracy, weight, longevity, size, and the like. If different parts of the brain "vote" on the agent's choice, the Arrow Paradox may kick in: something like majority rule can easily lead to choice-inconsistency. I speculate that this is more likely, the less experience the decision-maker has with the object in question. I do not know what this has to do with evolution, though.

The disparaging opening arguments are supplement by a long Chapter 7, written by nine participants, the major claim of which is that "In some cases, irrational behavior might be adaptive." In fact, they give no examples of adaptive irrational behavior, if irrational means a violation of the axioms on which the rational actor model is based. The authors present the von Neumann-Morgenstern version of these axioms (p. 101), although the more relevant version would have be the much more cogent Savage (1954) axioms. They then argue that "the axiomatic approach fails on both conceptual and empirical grounds" (p. 104). The first conceptual problem is that the theory does not say why people have the preferences they do. This is a truly silly objection, like criticizing Newton's Second Law for not saying why the force is what it is. The point is that it does not matter why---the theory is valid for all consistent preference orderings. The second conceptual problem, they say, is that the theory assumes that "agents are able to maximize their utility functions." I kid you not---they really do put this up as a conceptual objection! In fact, theory proves that if the axioms hold, then decision maker act as though they are maximizing something. The supposed conceptual problem is simply non-existent. If there is something wrong with one of the axioms, the authors should say what it is. The third objection is that "decisions are typically made in a highly structured environment." But this is no objection at all. The structure of the decision-making environment is captured by the available choice set and the probability structure of the model. Finally, our august nine authors suggest that people might get the probabilities wrong. Well, of course they might. The theory does not say that the decision-maker's subjective prior over the implications of their choices are objectively correct probabilities.

I will not go into any detail concerning the supposed empirical weakness of the rational actor model. Except for regret theory, they all are wrong (such as saying that time-inconsistent preferences cannot be fit into the rational actor model) or simply do not apply (such as when agents are making dynamic choices over time in which they can learn more about the outcomes and the relevant probabilities). To be clear: the rational actor model is not a model of learning over time at all.

The rational actor model can easily withstand the fumbling and ill-considered criticism proffered in this volume. This of course is not to that evolutionary theory has nothing to tell us, but rather that it is an important tool in the behavioral scientist's repertoire, along with many other tools, including the rational actor model, game theory, agent-based modeling, ethnography, and many others."why" arguments cannot serve the job of providing "how" models of choice behavior.

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I will not go into any detail concerning the supposed empirical weakness of the rational actor model. Except for regret theory, they all are wrong (such as saying that time-inconsistent preferences cannot be fit into the rational actor model) or simply do not apply (such as when agents are making dynamic choices over time in which they can learn more about the outcomes and the relevant probabilities). To be clear: the rational actor model is not a model of learning over time at all.

The rational actor model can easily withstand the fumbling and ill-considered criticism proffered in this volume. This of course is not to that evolutionary theory has nothing to tell us, but rather that it is an important tool in the behavioral scientist’s repertoire, along with many other tools, including the rational actor model, game theory, agent-based modeling, ethnography, and many others.

More Heat than Light: Economics as Social Physics, Physics as Nature's Economics (Historical Perspectives on Modern Economics)

A Failed Postmodernist Experiment — Rating: 2/5

Philip Mirowski, More Heat than Light: Economics as Social Physics, Physics as Nature's Economics. Cambridge: Cambridge University Press, 1990.

Philip Mirowski is a talented, widely read, exceptionally broad thinker with excellent training in the natural and social sciences as well as the humanities and philosophy. He is well equipped to contribute fruitfully to the history and interpretation of economic theory. In fact, as I explain below, his substantive claims are mostly wide of the mark, and even egregiously so. But first, we must understand what led him to take the shockingly intemperate and arrogant tone exhibited in virtually every paragraph of this long work?

I will spare the reader an account of the ungenerous stance Mirowski assumes facing both physics and economics, but rather recall two reviews of this book. The first appeared in Methodus by UC Davis economist Kevin Hoover. Hoover writes “I hold no special brief for neoclassical economics. ... Yet, reading this book gave me a slowly rising feeling of outrage. Taken as a whole, it is an outrageous book: neither the history nor the methodology is persuasive; the scholarship is often slapdash; the tone is intemperate; and the style is often obnoxious. Mirowski's hatred of neoclassical economics borders on the pathological... Mirowski strikes a flashy, bullying tone throughout the book, patronizing the reader, economists and physicists.”

The second review, by D. A. Walker, appeared in the Economic Journal. Walker writes “Mirowski portrays neoclassical economics as a conspiracy to delude the public hatched by prevaricating fools... A dispassionate critique of the work of the neoclassicals, both old and new, would not destroy the perception that they were scientists. Scientists, after all, have often been wrong, but have nonetheless been scientists. To destroy the perception it would be necessary to demolish the neoclassicals'

legitimacy, moral authority, and prestige in the mind of the reader, and to do that it would be necessary to destroy their dignity. That is the effect, if not the intent, of Mirowski's presentation. Whereas the reader would refer to their scientific dedication, their search for truth, their research papers and scholarly debates, Mirowski refers to their 'tiffs and squabbles', their 'contretemps over marginal productivity, periodic shouting matches over capital theory, pothers over supply curves and empty boxes, and pouts over the superfluity of the firm and the entrepreneur' (page 284). At best their work had a superficial resemblance to science; they 'were dazed into incoherence' by it; but they pretended to be scientific (page 271). As Mirowski tells the story, the neoclassicals' motives, sincerity, and veracity were questionable. They 'smuggled' assumptions; they made 'gambits'; and even the modern neoclassicals engage in 'one big shell game' (pages 273-4). Paul Samuelson, for example, is disingenuous and deliberately misleading on the relation of his work to physics (pages 378-85). The neoclassicals may have used mathematics 'to browbeat and hoodwink their colleagues' (page 249), and they concocted their theories 'surreptitiously, generally under the guise' of one or another pretense (page 273). Of uncertain mental health, they 'clutched neurotically' to their field theory of value (page 275; cf. pages I97, 243). Emerging from the pages of Mirowski's script as petty and childish, they are given to throwing tantrums, 'breast-beating, wailing, crowing, and soul-searching' (page 356), and to 'calumny and cacophony' (page 28i). They 'squirm in a most apprehensive and guilty manner' (page 287), but are also prone to 'smug satisfaction and self-congratulation' (page 356). 'Lost in the funhouse' (page 377), they caper and emote, by turns coy and assertive, naive and cunning (pages 279, 367-8, 37I). Thus, under Mirowski's expert direction, they perform exactly as he wants, deftly reduced to the undignified statusof buffoons in an animated cartoon."

To understand Mirowski's stance, we must recognize the author as experimenting with a mode of analysis known as postmodernism, which Wikipedia describes as "a late-20th-century movement in the arts, architecture, and criticism that was a departure from modernism [i.e., Enlightenment thought]. Postmodernism includes skeptical interpretations of culture, literature, art, philosophy, history, economics, architecture, fiction, and literary criticism. It is often associated with deconstruction and post-structuralism because its usage as a term gained significant popularity at the same time as twentieth-century post-structural thought."

The most important tenet of postmodernist treatments of science is that all truth is socially constructed. In particular, theories create their own criteria for truth, and the Enlightenment method of testing theories against exogenously given "facts" is completely discredited. It follows that one cannot compare theories by assessing their relative ability to explain the facts, because different theories explain different sorts of facts. The historian of science Thomas Kuhn is often drawn on for support of this position, although he was in fact a strong critique of this interpretation of his work.

If theories produce their own facts, then the scientist who follows the Enlightenment method is of necessity deluded and even complicit in hiding the true nature of the scientific enterprise. Therefore it is perfectly appropriate to consider scientists as fools and scam artists, and to treat their "discoveries" as deceptions no different from that of the astrologist and reader of tea leaves. Whence comes Mirowski's intemperate and arrogant tone.

Postmodernism is today mostly discredited, although it leaves a powerful residue in the older members of university faculties throughout the world. It was an interesting experiment, but its limits were carefully revealed in the literature prior to 1990. The Enlightenment method of comparing theories against empirical reality reigns supreme in most areas of natural and behavioral science. For this reason, Mirowski's work now seems bizarre and embarrassing. If I had written this book, I would apologize. I might ask that the book be read as an exercise in (academic) mob psychology, however.

Neoclassical economics does some things right and some things wrong. I have outlined my take on the theory in my book The Bounds of Reason (Princeton 2009), which includes strong support for the rational actor model, and my work with Antoine Mandel, which shows how to handle the many weakness of the standard general equilibrium model. My critique of Mirowski is very simple: the only effective critique is one that (a) shows explanatory weaknesses in some area and (b) provides a theory that conserves the correct parts of the old theory and modifies the incorrect parts so as to explain the area in question and (c) explains new, previously unanticipated, phenomena.in an animated cartoon."

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Group Agency: The Possibility, Design, and Status of Corporate Agents

Recent Contribution to Collective Choice Theory — Rating: 3/5

In behavioral theory (economics, biology, etc.) an agent must have sensory inputs allowing it to assess its environment, as well as organs and other means of interacting with its environment. In addition, an agent must be capable of choosing among various available behaviors in a given context based on it store of knowledge plus the sensory information available to it. An agent must have sufficient unity as an actor that it has transitive preferences; i.e., under identical environmental conditions and internal states, if an agent chooses action A over action B when both are available, and chooses action B over action C when both are available, the when both A and C are available, the agent will choose action A over action C. When this property fails, there is no meaningful sense in which the entity can be described as an agent seeking to attain certain goals subject to its material and informational constraints.

List and Pettit include all of the above criteria in their definition of an agent, confining their analysis to groups of humans that must make a single choice in a situation in which each member of the group has a preference ordering over the choice. Their concern is discovering a set of conditions under which the group's choice represents in some meaningful sense the preference orderings of its members. This of course is the classic setting of the Arrow Impossibility Theorem. In his doctoral dissertation and later a

book Social Choice and Individual Values (1951), Kenneth Arrow showed that when group members have at least three distinct available choices alternatives and member preferences are arbitrarily heterogeneous, no aggregation of individual preferences can be Pareto efficient (no alternative to the group choice can better satisfy the preferences of some members without hurting some other members) and satisfy the independence of irrelevant alternatives (the ranking of any two choices is the same regardless of what other choices are available) unless it is dictatorial (i.e., the group choice is that of a single one of its members).

This book explores the more recent literature on alternatives to the Arrow axioms that might permit "corporate agency," by which they mean that the group choice does reflect individual preferences in meaningful ways. The literature on this is technical and tedious mathematically, but not particularly deep or interesting to non-specialists (in my humble opinion). The answers they provide are of a simple form: if we restrict the range of preferences of group members, then corporate agency is possible. For instance, if membership in the group requires that all members have certain beliefs and goals, then it is reasonable to attribute attitudes and beliefs to the group. This is fairly obvious, but nonetheless a significant result because it delegitimizes many forms of social bias and bigotry, such as attributing beliefs to all members of an ethnic group on the basis of the collective behavior of some subset of members of the group.lable) unless it is dictatorial (i.e., the group choice is that of a single one of its members).

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Consciousness and the Social Brain

Compelling Advance in Modeling Consciousness — Rating: 4/5

Michael S. A. Graziano, Consciousness and the Social Brain (Oxford University Press 2014)

There are two major problems in understanding consciousness. The first is: how do we account for the qualia of consciousness---the sensation of seeing a sunset, feeling pain, hearing a symphony or a bird call. This is often called the hard problem. The second is accounting for the brain mechanisms that are responsible for being conscious. This is often called the easy problem. Of course, the easy problem is extremely difficult; it is just easy compared to the hard problem.

If you are concerned with the hard problem, this is not the book for you. Indeed, I know of no scientific treatment of the problem of accounting for qualia. If you do, dear reader, please inform the rest of us. I know of no plausible philosophical treatment either, but I am not very interested in philosophical treatments.

If you are interest in the easy problem, this book has a lot to offer. I am generally uneasy about neuroscientists who watch the brain light up and then try to tell us the nature of the human spirit. They remind me of actors who play TV doctors, to whom many fans turn for medical advice. But this book is extremely judicious and informative. Indeed, the book is rare in that it gets more interesting as you move into later chapters. So don't despair if you find the first few chapters less than satisfying.

Graziano identifies consciousness with awareness. He begins with the notion of attention. The mind, inundated with much more sensory information that it can handle, must select out at any point in time a small subset of signals to process intensively. This is attention. He then identifies awareness with a

reconstructed model of attention in others and in oneself. The basic question is: why do we need a model of attention at all? What is consciousness for?

Graziano argues that attention plus low-level cognitive processing (I suppose he means the stimulus-response and operant conditioning so loved by behavioral psychologists) are sufficient for many purposes and do not require awareness. But there is often a huge fitness gain to an organism that can decipher the nature of it environment more subtly.

For instance (my example, not the author's), take the awareness of pain. Basic behavioral psychology explains why a brain might register pain and learn to avoid conditions that give rise to pain. But consider preparing food with a sharp knife. The first time you cut yourself, your behavioral brain might instruct you to keep away from knives, but it cannot do more than that. But suppose we have brains equipped with expert systems that make high level models of the networks of complex causality involved in cooking a meal. Suppose that when we cut our finger while chopping, our attention turns to this expert system and we become aware of the multiple possibilities for adjusting our behavior so as to reduce the probability of cutting our fingers in the future. No system of operant condition could handle this adjustment process, but if we focus our attention on this expert system (i.e., if we become conscious of being in pain), then we might be able to work out a superior coping mechanism. This, for Graziano, is the essence of consciousness.

I find this a very compelling analysis. Of course, it does not explain the qualia of feeling pain, but that is a bit too much to ask. Moreover, it is a purely functional explanation. It does not tell you at all what brain processes are involved. Graziano does talk about the regions of the brain in which the mechanisms producing consciousness are located, but this is extremely poorly known.

This book might be supplemented by another the tracks the biological roots of consciousness. We know that members of some non-human species are conscious, including probably many birds, most mammals, and all primates. But I know of no study that attempts to explain the evolutionary process of the emergence of consciousness in animals. Perhaps some erudite reader can help me here. Of course some will say that we can't know that an animal is conscious. True, but I can't know you are conscious, either. We can however, list some behavioral and physiological conditions that appear to be associated with awareness of the environment and high-level problem solving. The biological roots of these conditions would be nice to know in some detail.xplain the evolutionary process of the emergence of consciousness in animals. Perhaps some erudite reader can help me here. Of course some will say that we can't know that an animal is conscious. True, but I can't know you are conscious, either. We can however, list some behavioral and physiological conditions that appear to be associated with awareness of the environment and high-level problem solving. The biological roots of these conditions would be nice to know in some detail.

Our Mathematical Universe: My Quest for the Ultimate Nature of Reality

From Terra Firma to Way Beyond the Wild Blue Yonder — Rating: 3/5

The first half of this book is an inspired and highly accessible overview of modern astrophysics, marred only by really bad photos and cramped figures. I would have preferred if this section of the book were twice as long with better graphics, and the second half of the book offered as Online Supplementary Material.

I will not go over Tegmark's speculative metaphysics, the subject of the second half of the book, as other reviewers have done this quite well. I was not convinced in the least by Tegmark's justification of the idea that the universe is a mathematical object. Rather than a sophisticated used of information theory to arrive at this result, he offers a thought experiment in which both we and aliens from another universe have completely different sensory attachment to the real world, so share only their mathematical theories, which Tegmark takes to be sets of logically consistent rules rather than a unified set of principles based on a small set of axioms. Since both we and the aliens experience the same real world, the only think this experience could be is the mathematical system itself. The problem is that we

and the aliens may share much more, such as sensitivity to electromagnetic radiation and thermal activity (heat). It is probably true that evolutionary beings all share a set of sensors that are preconditions of successfully evolved creatures.

The one think I learned from this book was a really neat interpretation of Everett's many worlds interpretation of quantum uncertainty. This led me to reread Everett's short and elegant dissertation with new eyes. Tegmark's idea is that human consciousness is subject to quantum superposition, but the qualia of consciousness are localized differently in each entangled state. In other words, when we observe quantum entanglement, all possible eigenstates become associated with a distinct copy of your conscious identity. Thus it is not that there are really "many worlds" but rather "many entangled consciousness." I don't know why this might be true, but it is an intriguing idea.

Tegmark's inconsistencies are sometimes a bit annoying. On the one hand he defends constructive mathematics in which even the real numbers and Hilbert spaces do not exist (I agree with him on this) and there is no such thing as a "realized infinity." On the other hand, he argues that with probability one there are exact copies of yourself in other parts of the universe, or in other parallel universes. This argument depends, however, on realized infinities. I doubt that there are exact copies of me and my bowling team on some BetaCentauri XXVIII.

This book draws you in with excellent descriptions of what we know, and leads you Pied Piper-like into LaLa Land. Good fun.34;many entangled consciousness." I don't know why this might be true, but it is an intriguing idea.

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What Have We Learned?: Macroeconomic Policy after the Crisis (MIT Press)

Highly Informative and Equally Tentative — Rating: 3/5

If you are looking for definitive answers to the book's title, you won't find them here. That of course is a blessing, since anyone that offers definitive answers is overstepping the current state of knowledge concerning macroeconomic regulation.

Most of the papers in this volume are written by seasoned high-level financial regulation experts, not academic theoreticians. Most of the insights are generalization from history in the large or personal experience over the past few decades. These insights are extremely useful, and the authors give excellent references to the literature (the individual chapters are mostly just a dozen pages long and even fewer). Academic economists have produced a number of first rate empirical/historical studies of financial instability since the financial melt-down of 2007/2008. I urge the interested read to dive into these illuminating studies. But of course, don't forget the writings of Hyman Minsky, whose take on financial crises, although formed many decades ago, is still quite prescient and not at all outdated.

The summing up section of the book includes rather incisive short papers by George Akerlof and Joseph Stiglitz. Akerlof correctly stresses how effective was the US response to the crisis and how misled the US public has been in underrating this effectiveness and overstating its cost to taxpayers. Akerlof estimates the benefit-cost ratio as 1000 to one and that sound right to me. Siglitz, the ultimate bottom-liner, argues that we have learned from the crisis what many of us already knew: markets are not stable, efficient, or self-correcting. That of course should be obvious, but is denied by the free-market fundamentalist (who to my mind vie with flat Earthers for empirical cogency). Stiglitz also takes a well-

directed swipe at real business cycle theory, which treats exogenous shocks as the source of instability. Stiglitz correctly notes that the recent financial crisis was completely endogenously generated by the housing bubble. I should note, however, that the housing bubble may have been caused or significantly deepened by Federal Reserve low interest rate policies; see John B. Taylor's provocative paper in the American Economic Review of May, 2014.ted by the housing bubble. I should note, however, that the housing bubble may have been caused or significantly deepened by Federal Reserve low interest rate policies; see John B. Taylor's provocative paper in the American Economic Review of May, 2014.

Complexity and the Art of Public Policy: Solving Society's Problems from the Bottom Up

Best Book on Public Policy in Years — Rating: 5/5

I want to begin my review of this marvelous and compelling book by outlining what economists have known concerning public policy for at least fifty years. This is a prelude to discussing what is wrong with this received wisdom, and what is new in the complexity approach to modeling the market economy that is advocated and explained in this book.

I was taught public economics by Richard Musgrave, who in 1959 wrote the classic textbook on the subject, The Theory of Public Finance. Surprisingly, many prominent figures and public intellectuals today profess an understanding of the economy yet know nothing about public economics. They regularly assert the truth of principles that have been discredited for half a century. Colander and Kupers have very important corrections to the standard theory, but one must first recognize the status of standard public economics as the foundation stone on which complexity theory does, and must, rest.

Public economics analyzes the conditions under which market exchange leads to imperfect outcomes that might be corrected by non-market institutions and policies. Complexity theory has, to my knowledge, no quarrel with these principles Rather, complexity theory alters our understanding of what forms of non-market economic interventions are likely to be effective in improving economic efficiency and promoting economic growth.

There are two distinct roles for economic policy: regulating market dynamics (e.g., stabilizing business fluctuations and preventing catastrophic breakdowns) and influencing the equilibrium allocation of economic resources (e.g., financing social infrastructure, providing public goods, and regulating industrial effluents).

The analysis of market dynamics is based on the so-called Walrasian market economy, in which there are households that own the factors of production (land, labor, capital, resources) and firms that rent these resources from households (e.g., they hire labor for a wage and borrow funds at an interest rate), and produce goods and services that they sell back to the households. In this model, the capital and resources owned by the firm are simply assigned to the firm's owners.

The Walrasian economy is in equilibrium when the price structure for goods, services, and factors of production is such that supply and demand are equal in all markets. In the 1950's, economists Gerard Debreu, Kenneth Arrow, and others

proved the existence of general equilibrium, under rather mild assumptions. This means that there always exists a set of positive prices at which all markets clear. However, economists have been quite unable to develop a plausible model of how the market economy behaves out of equilibrium. Hence economists cannot say whether the market economy, under particular institutional arrangements, fragile or robust in reacting to such exogenous shocks as new technologies, financial speculation, and socio-political turmoil. For a discussion of the history of attempts to develop a dynamic model of Walrasian economy, see my paper "The Dynamics of Pure Market Exchange," which is available on my website: people.umass.edu/gintis.

Because of this stunning failure of basic economic theory, all of our understanding of market dynamics is based not on established analytical principles on smoke and mirrors, known as macroeconomic

theory, and journalistic posturing. Macroeconomists do not like to admit this, but in fact we know nothing systematic concerning market dynamics.

Historically, the most important type of economic dynamics have dealt with the business cycle. Every market economy has regulations aimed at smoothing the business cycle, including monetary and fiscal policy (increasing government expenditure and reducing taxes during a downturn, and doing the opposite during an upturn), and automatic stabilizers (e.g., unemployment compensation, progressive taxation) that automatically move net government debt in the opposite direction as aggregate demand in the private sector. Because, as Colander and Kupers stress, the market economy is a complex nonlinear dynamic adaptive system, no one can prove that automatic stabilizers work, but they appear in practice to do for the economy what shock absorbers to for motor vehicles.

As I write, financial instability is the key dynamical instability problem facing advanced economies, and the standard economic models (Keynesian and rational expectations models) are incapable of handling the problem because the financial sector is simply not represented in the standard macroeconomic models. Of course, intensive work by economists is now under way to correct this problem, but it will be several years before an adequate model is developed. It is unlikely, for reasons explained by Colander and Kupers, that any model that ignores complexity will survive.

In the popular press, conservatives blame the financial crisis on over-regulation and liberals blame the crisis on under-regulation. The notion that the financial sector of a market economy needs little regulation and is robust in the absence of extensive intervention is simply an article of faith unsupported by theory or experience. I know only a handful of economists who embrace the free-marketeer's faith in the stability of unregulated markets, and they are all ideologically motivated thinkers whose arguments I find to be without merit. The notion that the financial sector may be under-regulated is probably false and is dangerous because simply slapping on intuitively desirable regulations threatens to dampen the financial sector's contribution to economic growth and technical progress. The correct position is that the crisis was due to improper regulation, itself in part a failure to understand the economy as a complex dynamical system.

If the traditional theory of business cycle regulation is a rather complete failure, the traditional theory of when markets produce the most efficient pattern of production inputs (resources,labor, and capital) and production outputs (consumption and investment goods) is much more successful. The basic question of when free markets are the most effective instruments of economic efficiency was worked out in the post World War II period, and remain valid today, a half century later. This theory is called the theory of market failure.

Market Failure I: Increasing returns to scale sectors. In some goods, the optimal efficient firm size is so large that competition is precluded. For instance, water to a city may be supplied by a single reservoir and a unified system of delivery and waste removal. There is simply no room for multiple firms to compete, so the service is supplied by the government. Many municipal services are of this form. The problem can sometimes be handled by requiring firms to share the resource that accounts for increasing returns, such as railroad tracks or an electric grid.

Market Failure II: Public goods. Some goods are non-exclusionary---they are consumed equally by many or all individuals (although they may be valued differently by different individuals). For instance, national defense protects all equally, and many forms of public health measures affect the incidence of diseases for the entire population. Public goods must be publicly provided in most cases.

Market Failure III: Externalities. Some goods are produced using technologies that release waste products into the environment at zero or low cost to the producer but that impose high costs on everyone else. Economic theory suggests that the costs imposed by these effluents be charged to producers, or in some cases that the release of effluents be prohibited by law (e.g., making it illegal to release chemical waste into a river or lake).

Market Failure IV: Ensuring product quality: In many industries in which the quality of a product cannotbe ascertained until after purchase, and in which reputation effects are not sufficient to ensure a minimum quality level, quality can be maintained only by legal regulation. For instance, most countries have health standards for restaurants and quality standards for hotels (perhaps rated by one to five stars, or some such) that prevent an upstart from profiting at the expense of consumers and the high

quality firms. Similarly, professionals may be licensed (e.g., medical and legal services), and pharmaceuticals may be regulated for safety and effectiveness.

Market Failure V: Merit goods: There are some goods that are not permitted to be bought and sold on markets for ethical reasons. Examples are votes and body parts.

Of course, just as there is market failure, so there is state failure, which means that the regulating agencies fail to operate in the public interest because of corruption, special interest lobbying, incomplete and inaccurate information, and the like. For this reason, is often better to leave imperfect markets unregulated, or lightly regulated, rather then regulate them heavily or replace them with government production.

The notion of state failure was completely ignored when I was a graduate student in the mid-1960's. I recall asking the famous Keynesian Nobel prize-winning economist James Tobin, at a talk to the Harvard economics department on business cycle stabilization, why the government could be expected to act the way his model suggested it should. I was treated as though I had transgressed the boundaries of propriety in posing such a question.

But the question was a fair and important one. State failure was stressed by Milton Friedman in his critique of Keynesian economics. Friedman argued that when a legislative body is called up to change the tax system, members will fight interminably over exactly who will bear the burdens and benefits of the changes, and by the time they have come to an agreement, the business cycle will have moved on to another phase.

But Friedman was a pariah at that time in Cambridge Massachusetts and most other economics departments. James Buchanan and Gordon Tullock introduced rent-seeking into the literature in their 1962 volume The Calculus of Consent, and Mancur Olson provided an economic theory of special interest pleading in the Logic of Collective Action in 1965, but the general notion of state failure was not recognized by economists until the mid-1970's, with the collapse and discrediting of Keynesian models of the macroeconomy.

The second major weakness of the neoclassical policy framework was its assumption, maintained to this day, that the government has at its disposal all the information concerning the operation of the economy that is available to private agents. In particular, the price system and production technologies were assumed to be public information. To appreciate how unrealistic is this key assumption of neoclassical economics, I might point out that in the great continental "Sozialismusdebatte" (socialism debates) of the 1930s, the market socialists Enrico Barone, Fred M. Taylor, Oskar Lange, Abba Lerner and others used the neoclassical general equililbrium model to argue that a state-run economy could at least be as efficient as a capitalist economy. All that was needed was for government planners to use the price system to simulate the role of Walras' auctioneer in setting prices to induce market clearing in the market economy. The state could then simply own all the property, hire managers to run firms, and instruct these managers to maximize profits. The return to capital could then be used by the state on behalf of its workers and citizens in an egalitarian and just manner. The opponents of the market socialists, members of the Austrian school of laissez-faire economics, led by Ludwig von Mises and Friedrich Hayek, were no match for this high-tech neoclassical-turned-socialist analysis, which convinced even so stalwart a champion of capitalism as Josef Schumpeter to predict the eventual triumph of state socialism. This indeed is the message of his famously misguided contribution Capitalism, Socialism and Democracy (1942).

His defeat at the hands of the market socialists convinced Hayek that neoclassical theory must be abandoned, for it was incapable of explaining why private property and entrepreneurial initiative were superior to centralized state socialism. He published his definitive break with neoclassical economics in his famous American Economic Review paper "The Uses of Knowledge in Society" (1945). In this paper he asserted that information is extremely decentralized in a private property market economy, and a government agency simply will not have the information to perform the massive number and range of calculations necessary to run an efficient and innovatory economy. Hayek wrote (p.\ 519): "What is the problem we wish to solve when we try to construct a rational economic order? If we possess all the relevant information,\ldots the

problem which remains is purely one of logic.\ldots This, however, is emphatically not the economic problem which society faces.\ldots The problem of a rational economic order is determined precisely by the fact that the knowledge of the circumstances of which we must make use never exists in concentrated or integrated form, but solely as the dispersed bits of incomplete and frequently contradictory knowledge which all the separate individuals possess."

I know that this has been an unusually long preface to the review of a book, but it does teach us some important lessons. First, neoclassically inspired public economics provides a very powerful and largely correct framework for analyzing when markets work well and when they fail. Second, markets are often fragile and easily destabilized unless properly regulated. Third, markets and regulating institutes are not alternatives but rather complements. Fourth, neoclassical economics cannot model state failure, and therefore overstates the latitude for government intervention in stabilizing the economy and correcting market failures. On reason for this failure is that government is subject to political forces that lead it to favor special interests rather than the general good. What Colander and Kupers tell us is that there is a second reason: the market economy is a complex, dynamic, and adaptive system more like a natural ecology than a man-made machine.

The complex economy cannot be controlled, as the planners would like, but it can be influenced by very carefully formulated and judiciously applied "rules of the game" that move market dynamics in preferred directions. In this respect, traditional planners are like the Queen of Hearts in Through the Looking Glass who cannot stand the fact that she cannot order the flowers in her garden to heed her bidding, and employs a bevy of "gardeners" to paint the flowers to her specifications. The situation is worse for an economy because there is no regulatory counterpart to painting the flowers. "The [effective] government does not impose norms, or even force individuals to self-regulate. Instead it attempts to encourage the development of an econstructure that encourages self-reliance and concern about others." (p. 9).

Complexity theory helps us understand that the moral rules that govern everyday life cannot be imposed, but must emerge from the dynamics of everyday life. Horace long ago noted that "laws without morality are useless." Some two thousand years later Colander and Kupers similarly write "A government... must be a moral strength... not a coercive strength that attempts to control." A great example of this insight is the life-work of the great Nobel prize winner Elinor Ostrom, who has shown that local community initiatives can effectively controlcommon pool resources (e.g., the ecology of waters that provide sustenance to fishing communities, or forests to lumbering communities) where the market is no help and the central government is more often the exploiter than the preserver of such resources. The government can best achieve efficient resource use given the complexities of common pool resource management by setting conditions under which local community control can thrive.

Kudos to David Colander and Roland Kupers for this fine book.ement, the business cycle will have moved on to another phase.

But Friedman was a pariah at that time in Cambridge Massachusetts and most other economics departments. James Buchanan and Gordon Tullock introduced rent-seeking into the literature in their 1962 volume The Calculus of Consent, and Mancur Olson provided an economic theory of special interest pleading in the Logic of Collective Action in 1965, but the general notion of state failure was not recognized by economists until the mid-1970's, with the collapse and discrediting of Keynesian models of the macroeconomy.

The second major weakness of the neoclassical policy framework was its assumption, maintained to this day, that the government has at its disposal all the information concerning the operation of the economy that is available to private agents. In particular, the price system and production technologies were assumed to be public information. To appreciate how unrealistic is this key assumption of neoclassical economics, I might point out that in the great continental "Sozialismusdebatte" (socialism debates) of the 1930s, the market socialists Enrico Barone, Fred M. Taylor, Oskar Lange, Abba Lerner and others used the neoclassical general equililbrium model to argue that a state-run economy could at least be as efficient as a capitalist economy. All that was needed was for government planners to use the price system to simulate the role of Walras' auctioneer in setting prices to induce market clearing in the market economy. The state could then simply own all the property, hire managers to run firms, and instruct these managers to maximize profits. The return to capital could then be used by the state on

behalf of its workers and citizens in an egalitarian and just manner. The opponents of the market socialists, members of the Austrian school of laissez-faire economics, led by Ludwig von Mises and Friedrich Hayek, were no match for this high-tech neoclassical-turned-socialist analysis, which convinced even so stalwart a champion of capitalism as Josef Schumpeter to predict the eventual triumph of state socialism. This indeed is the message of his famously misguided contribution Capitalism, Socialism and Democracy (1942).

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Religion without God

Spirituality Without God would be more Accurate — Rating: 4/5

I remember when I was five or so, my father was telling my grandfather that he had to go to Newark, which was fifty miles away, and he could drive at a speed of 25 miles per hour, so it would take him two hours to get to Newark. I recall thinking: distance, speed, time---I know what they all are. But there is a relationship between the three---that is absolutely incredible. I had perhaps my first feeling of awe at the inscrutable unity of the world we live in.

I remember that one Saturday when I was about twelve, I went to the Philadelphia Public Library and took out a book called Analytical Geometry. I had no idea what this could mean, although I knew what geometry was, and looking at the equations I saw that "analytical" meant algebra, which I also knew (and loved). When I got the book home, I came to a picture of circle in the plane with a caption that said that the circle was the solution to the equation x-squared + y-squared = 1. When I figured out what that meant, I had overwhelmingly strong spiritual experience of awe and reverence. I still feel this awe and reference when I deal, either in my work or teaching, with mathematics that represents reality.

I recall when I first realized that the voluptuously gorgeous Orchid I gave my prom date was a member of a species that arose through evolution in dense forests where the only creature the flower had to attract was a flying arthropod. This idea took longer to sink in, but the resulting feeling of awe and reverence was all the deeper for it in my breast.

My life, like that of Ronald Dworkin, Albert Einstein (who appears to have inspired Dworkin to write this book), and many other scientists, is full of such mysteries of the universe. They bombard me virtually daily with feelings of awe and reverence. My very existence, and my poignant consciousness of my existence, continually bombard me with feelings of awe and reverence. And gratitude.

The point of all this is that I believe I feel exactly what Dworkin describes as "religion without God," except that, unlike Dworkin, I am not an atheist. I do not have an active belief in the non-existence of God, but rather doubt that the wonder of the universe, and our place in the universe, could be explicable unless we are the product of an intelligence of higher order than ourselves. One of Dworkin's most ingenious arguments is that the fact of God's existence has no moral implications, for the much the same reason as given by Hume for the fallacy of passing from fact to value.

What Dworkin calls "religion" I believe is better expressed as "spirituality," which is a human capacity, much as our physical, cognitive, aesthetic, and moral capacities. Moreover, when we think of spirituality as a dimension of human awareness that allows us to fell awe and reference in experiencing the universe, I believe the argument for the validity of our assessment that the spiritual world is a real realm of being becomes easier to state. Indeed, Dworkin makes exactly such an argument, and with great force. The argument is that spirituality is a human capacity as much as cognition (and aesthetic appreciation), so there is no more reason to question its reality than that of the product of our cognitions, and in particular, than the reality of the physical world around us. Of course we could be wrong on one or both counts, but it is a denial of our sense to deny the existence of the spiritual dimension of our lives. You can no more convince me that the spiritual world is imaginary than you can convince me that colors do not exist.

I have one problem with Dworkin's analysis. Dworkin considers morality to be a part of "religion" as he conceives it (I would call it spirituality), whereas I think morality is the product of human evolution. The capacity for moral conception is a distinctly human capacity and has nothing to do with our spiritual capacity. Many people are deeply spiritual (religious) but horribly and grotesquely immoral, and many deeply moral people virtually never operate on a spiritual plane. Some established religions have falsely claimed to have authority over moral judgments, but that appears to me to be just stupid. The idea that what I am allowed to eat as moral person is dictated by some God is pretty absurd and petty.

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Touching a Nerve: The Self as Brain

A Relentless and Dogged Search for Truth in Defiance of the Spin Doctors — Rating: 5/5

Churchland, who is both neuroscientist and philosopher, tries to accomplish two goals in this book. The first is to tell us what modern neuroscience has to tell us about the brain and its relationship to human behavior and consciousness. The second is to do so in a popular language that conveys the information accurately without the professional message delivery system as found in the professional journals. Now, I have nothing against the professional manner of communication, but it in fact as difficult to understand as some of the biochemical terminology that is known only to those who deal with it every day in the lab.

For an instance of successful communication, Churchland says to the reader, "You are not just a big rat," by which she means that studies of neuronal structure and hormonal pathways that describe rat behavior do not necessarily transfer to humans. You have to be really dense not to understand this. Otherwise, why could she possibly want to tell us something that we all obviously know. None of her readers has fur, whiskers, and a tail. Nevertheless, you will rarely find in an academic article a sentence like "humans are not just big rats," and for good reason.

Like many people, I am deeply fascinated by the nature of the brain and what it tells us about human nature and behavior. As a young academic, I turned to the French phenomenology philosopher Merleau-Ponty, who analyzed the neurological science of his time with prescience. When Oliver Sacks came along, and the incredible movie Awakenings (Robert de Nero and Robin Williams), and I have followed the literature ever since. With increased popularity, however, has come a huge amount of what one might call "neuro-woo," literary and romantic excesses of interpretation that mix a few facts from scientific studies with a large dollop of the author's own half-baked prejudices and wishful-thinkings. Readers are not well served by neuro-woo. Churchland is a sustained antidote to neuro-woo.

Now some readers have faulted Churchland with being a "reductionist" because of her avoidance of neuro-woo. I think this is a misdirected criticism. Of course the brain is a complex dynamic adaptive system with emergent properties beyond mere communication among synapses, just as a computer is more than a bunch of electrons shuttling back and forth among solid state devices. However, we can say exactly how a computer goes beyond electron dynamics because we have well-developed models of computer architecture and dynamics. We know virtually nothing about the larger structure of the human brain.

Where is consciousness located in the brain? Churchland's discussion of consciousness in mammals, and its specialization in humans, is authoritative and very enlightening. Consciousness is, however, distributed over the whole brain, and we haven't the faintest idea how that works. We can locate a single structure in the thalamus that, when disabled, deactivates consciousness, but that is about it. Churchland conveys this quite clearly. However, her presentation of the comparative anatomy in the brain of mammals strongly supports the notion that the origins of consciousness go back to the evolution of the class Mammalia, and all the major known brain areas involved in consciousness have remained essentially conserved over this evolutionary period.

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Churchland is a delight to read, she is very informed in several fields, and unless you have some sort of personal chip on your shoulder, you will appreciate this book.

Braintrust: What Neuroscience Tells Us about Morality

What Neuroscience Tells us about Morality--Not! — Rating: 4/5

"Morality seems to me to be a natural phenomenon--constrained by the forces of natural selection, rooted in neurobiology, shaped by the local ecology, and modified by cultural development." So Churchland summarizes this book. I am totally in sympathy with this view, which Churchland supports with clear and logical argument supported by copious notes and references. Churchland's own formulation of human morality is not original and subject to some dispute. For instance, she grounds human morality in empathy/compassion as it develops in the family. There is no evidence, however, that human family life is very different from that of many other species, including several primates and many passerine birds. The notion that the capacity to cooperate with strangers, which is surely a foundational element in our success as a species, flows from empathy and compassion as generated in the family is almost certainly wrong. For plausible alternatives, see E. O. Wilson's book The Social Conquest of Earth, not to mention many papers and books mentioned on my web site, as well the work of Sarah Hrdy and her colleagues on cooperative breeding. Churchland knows this material well and refers to it in later chapters, but does not consider these perspectives to cast doubt on her empathy/compassion story.

This book rates high for its cogency and transparency in presenting and critiquing the literature on the sociobiology of morality, but the title is misleading to the point of being false advertising. Neuroscience may in the future tell important stories concerning human morality, but in its current state, it can do no more than asserting that this or that portion of the prefrontal cortex lights up under this or that situation of moral choice. I do not understand why we should care what region lights up under what conditions. Of course, if the disgust region and the contempt region seem to be the same, this might suggest some evolutionary pathway through which disgust (a non-social emotion shared with many omnivorous mammals) becomes contempt (a social emotion shared with few if any other species). But to say that Churchland's insights flow from her understanding of neurobiology is quite far-fetched. Indeed, the most important contribution of her training in neuroscience is to deconstruction popular interpretations of recent brain discoveries, such as the notion that human mirror neurons explain human theory of mind. This is very useful material indeed.(a non-social emotion shared with many omnivorous mammals) becomes contempt (a social emotion shared with few if any other species). But to say that Churchland's insights flow from her understanding of neurobiology is quite far-fetched. Indeed, the most important contribution of her training in neuroscience is to deconstruction popular interpretations of recent brain discoveries, such as the notion that human mirror neurons explain human theory of mind. This is very useful material indeed.

How Reason Almost Lost Its Mind: The Strange Career of Cold War Rationality

Shoddy and Chaotic Scholarship — Rating: 2/5

The message of this book is eloquently expressed by a blurb on the back cover of the book: \\"In the wake of World War II, a generation of self-proclaimed 'action intellectuals' fought to save the world from nuclear Armageddon. They nearly destroyed it. This extraordinary book explains how and why a generation of American social scientists reconceived human reason as algorithmic rationality---and how, when they did, they delivered us into a world that remains anything but rational.\\"

In fact, and despite the almost unethically misleading title, the book does no such thing. Indeed, it could not because there is no systematic discussion of actual Cold War nuclear policy in the book, and the academics involved did not advocate disastrous policies at all. The issue of algorithmic rationality was extremely important for defense reasons, because nuclear alerts were signaled by computers with sophisticated sensors. But the rational decision theorists and game theorists did not suggest that rule-bound computers should dictate when to launch thermonuclear war.

The book does suggest that these \\"action intellectuals\\" conceived of the Cold War as a prisoner's dilemma in which the only rational action was to defect (launch the bombs), but in fact (a) the Cold War was closer to a game of chicken than a prisoner's dilemma; (b) most of the intellectual participants recognized this fact; and (c) very few, except the extreme hard-liners, motivated not by a crazy academic theory but rather by their hatred of Communism, suggested a preemptive nuclear attack.

It would be difficult for me to convey to you, dear reader, the vast gulf between the intellectual credentials of the authors of this book and the quality of the final product. A couple of chapters are perceptive and well written, but most are just a hodge-podge of mundane description and speculative excess. The book should not have been published, and Chicago University Press should be censured for allowing so misleading a title.lowing so misleading a title.

Evolutionary Restraints: The Contentious History of Group Selection

Are we Doomed to Repeat History--Endlessly? — Rating: 3/5

George Santayana one famously said \\"Those who cannot remember the past are condemned to repeat it.\\" Perhaps even those who remember the past may be condemned to repeat it, unless they learn sufficiently from it. Borrello adds a bit to the well-known history of the debate over levels of selection, but he does not help us understand what the real issues are, and how they might be resolved. Perhaps it is not his fault: the whole issue seems to be a hopeless muddle even in the hands of the most adept contemporary thinkers--present company excepted, of course. ;)

Biologists have debated the nature and status of group selection since the early twentieth century. The debate continues. Curiously, there have always been both extremely eminent supporters and equally eminent detractors of group selection, such as J. B. S. Haldane vs. Ernst Mayr (early years), John Maynard Smith vs. Stephen Jay Gould (recent past), and most recently Edward O. Wilson vs. Richard Dawkins. So pitched has this debate been that in reviewing Wilson's book The Social Conquest of Earth (which eloquently defends and extends group selection arguments), Richard Dawkins (who treats such arguments with characteristic distain) wrote \\"To borrow from Dorothy Parker, this is not a book to be tossed lightly aside. It should be thrown with great force.\\" My more temperate and supportive review of Wilson's book, by the way, is published in BioScience and entitled The Clash of the Titans The paper is available from my web site.

To add fuel to the fire, in a response to a paper in Nature in 2010 by Wilson and coauthors Martin Nowak and Corina Tarnita that trashes inclusive fitness and extols group selection, some 150 well-known biologists wrote a vitriolic reply in a letter to Nature in 2010, resoundingly rejecting Wilson and coauthors' arguments. More heat, in my estimation, but less light.

I am an outsider to this debate. My training and most of my research until a couple of decades ago was in mathematics and economics. But I have come to work in biology as an adult, a situation that may have allowed me to avoid the emotional baggage attached to the dispute.

The group selection dispute shows the immaturity of contemporary population biology. No mature scientific dispute can sustain itself at so a high level of emotion and so low a level of progress for over a century without resolution. Indeed, most participants to the dispute agree that one can describe sociobiological behavior equally validly at the level of the gene, at the level of the individual (in a sexually reproducing species with a sequestered germ plasm), or at the group level (in species that live in groups engaged in social interaction). This admission, surprisingly, does not stop the disputants from intemperate diatribes at each other's expense.

Borrello's book does a competent if breezy and non-technical overview of this controversy, with some historical emphasis on particular papers presented by the disputants at different times. He does, however, seriously underestimate the importance of R. A. Fisher in laying the groundwork for the position of the Oxford school in this research area, and he has a long, unoriginal, and irrelevant analysis of Lamarckism. However, Borrello makes no attempt to cut through the verbiage and miscommunication to put the issue into insightful theoretical perspective. History, for Borrello, is not one damn thing after another---it is the same damn thing over and over!

So let me here explain what is really going on in the controversy over group selection. Population biology is based on careful accounting at the level of the gene (this is why Ernst Mayr criticized J. B. S. Haldane's work as \\"beanbag genetics\\"). Indeed, all of Darwinian evolution can be analyzed, at least in principle, in terms of changes in gene frequencies and correlations among genes in the genome. The two sides to the debate over group selection differ as to how correlations among genetic loci in the genome are to be treated. In the tradition of Fisher and Haldane, inspired by the mathematics of heredity developed to deal with animal husbandry, only the additive component of a gene's contribution to the fitness of its carriers need be analyzed because \\"evolution only sees the additive component.\\" Those in the tradition of Ernst Mayr and Theodosius Dobzhansky, by contrast, consider the genome itself as a unit that is subject to natural selection, and it is the cooperative interaction of genes in the genome that governs its evolutionary success.

This distinction is then carried over from interactions among genes in the genome to interactions among individuals in a social species: inclusive fitness theorists, the heirs to the Fisher-Haldane gene's-eye view, reduce complex interactions among individuals in a social species to simple influences at single genetic locus (inclusive fitness), whereas the heirs to the Mayr-Dobzhansky tradition take social cooperation to involve complex dynamical and nonlinear interactions (multi-level selection). The inclusive fitness adherents argue that the genome cannot be an object of selection because it is broken up in every generation through meiosis and crossover, while the gene is conserved intact over many generations. The multilevel selection adherents claim that inclusive fitness analysis ignores all the substantive complexities of social interaction that in fact account for the evolutionary success of a social species.

My own studies have provided me with a third perspective. First, inclusive fitness analysis is extremely important and valid under almost all circumstances in dealing with sexually reproducing populations. Its strength comes from the fact that its reasoning is on the level of a single genetic locus. Popular expositions obfuscate this point by implicitly, without argument, treating a complex social behavior as governed by a single genetic locus---the so-called \\"phenotypic gambit.\\" The correct analysis, that proposed by William Hamilton in 1964, shows that genes are utterly selfish in the sense popularized in Dawkins' great book \\"The Selfish Gene.\\" What this means is that the conditions for the evolutionary success of a gene are distinct from the conditions under which it promotes the fitness of the reproduction population. Thus individual genes have absolutely no regard for the evolutionary success of the species in which they reside.

For instance, take the basic inclusive fitness equation, Hamilton's Rule. This says that if an allele at a genetic locus causes a behavior in the individual (the donor) that costs the individual a fitness loss c, and provides a fitness benefit b to another individual (the recipient), then the allele will increase in frequency provided b r > c, where r is the degree of relatedness between the donor and the recipient. The total contribution of the allele to the population is then b-c, which must be strictly positive provided that the degree of relatedness is a probability (the usual case), and b,c > 0. This is because b - c = b(1-r) + br - c > b(1-r), which is non-negative. However, there is no reason to limit the analysis to b, c, and r having particular signs. Hamilton's rule holds no matter what the sign of the cost c (which becomes a

benefit when less than zero) and the benefit b (which become a cost when b is less than zero). Thus Hamilton's rule says that a selfish gene that helps its carrier by hurting other members of the population is just as capable of evolving as an altruistic gene that induces its carrier to take a fitness hit in order to confer a fitness benefit on others, despite that the former reduces mean population fitness while the latter increases mean population fitness.

For instance, suppose b and c are both negative, which occurs when the allele helps its carriers by hurting other members of the population. In that case b - c, the fitness contribution to the population, will be negative unless individuals interact almost exclusively with their genetic relatives. For instance, suppose b = -0.4, c = -0.3, and r = 1/2. Then b-c = -0.1, which is negative, but b r - c = 0.1, which is positive, so Hamilton's rule is satisfied.

The validity of inclusive fitness theory allows us to formulate the central problem of sociobiology as follows: Individual genes are utterly selfish, yet evolutionarily successful species consist of genes that predominantly cooperate with one another (this is the reason there is an \\"appearance of design\\" in multicellular organisms), and evolutionary successful social species consist predominantly in individuals who cooperate in a manner furthering their joint biological interests. By the very fact that inclusive fitness theory abstracts from interactions among loci, this theory cannot help solve the central problem of sociobiology.

The irony in the debate over group selection is that the theorists involved in the debate fight endlessly over it even though they know that there is nothing to fight about, while the onlookers, such as those tempted to read this book, believe the debate must be over something real and of momentous importance. Usually, onlookers think the debate is about whether \\"biological altruism\\" can exist, and more specifically, whether human society is based on self-interest or truly moral behavior. That is a very important question, to which Samuel Bowles and I devoted a whole book: A Cooperative Species (Princeton University Press, 2011). We conclude that our success as a species is based on the essential morality embedded in human nature. But this has nothing to do with the group selection debate as it is properly formulated. We argue in this book that the fact that humans evolved in small groups (hunter-gatherer societies) is central to the evolution of human morality, but our analytical models are equally well described in terms of inclusive fitness (applying the phenotypic gambit) and multi-level selection. Indeed, the models themselves use neither concept, but are simply sets of equations that represent plausible dynamics underlying the current constitution of the human genetic structure.ocus---the so-called \\"phenotypic gambit.\\" The correct analysis, that proposed by William Hamilton in 1964, shows that genes are utterly selfish in the sense popularized in Dawkins' great book \\"The Selfish Gene.\\" What this means is that the conditions for the evolutionary success of a gene are distinct from the conditions under which it promotes the fitness of the reproduction population. Thus individual genes have absolutely no regard for the evolutionary success of the species in which they reside.

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For instance, suppose b and c are both negative, which occurs when the allele helps its carriers by hurting other members of the population. In that case b - c, the fitness contribution to the population, will be negative unless individuals interact almost exclusively with their genetic relatives. For instance, suppose b = -0.4, c = -0.3, and r = 1/2. Then b-c = -0.1, which is negative, but b r - c = 0.1, which is positive, so Hamilton's rule is satisfied.

The validity of inclusive fitness theory allows us to formulate the central problem of sociobiology as follows: Individual genes are utterly selfish, yet evolutionarily successful species consist of genes that predominantly cooperate with one another (this is the reason there is an \\"appearance of design\\" in multicellular organisms), and evolutionary successful social species consist predominantly in individuals who cooperate in a manner furthering their joint biological interests. By the very fact that inclusive fitness theory abstracts from interactions among loci, this theory cannot help solve the central problem of sociobiology.

The irony in the debate over group selection is that the theorists involved in the debate fight endlessly over it even though they know that there is nothing to fight about, while the onlookers, such as those tempted to read this book, believe the debate must be over something real and of momentous importance. Usually, onlookers think the debate is about whether \\"biological altruism\\" can exist, and more specifically, whether human society is based on self-interest or truly moral behavior. That is a very important question, to which Samuel Bowles and I devoted a whole book: A Cooperative Species (Princeton University Press, 2011). We conclude that our success as a species is based on the essential morality embedded in human nature. But this has nothing to do with the group selection debate as it is properly formulated. We argue in this book that the fact that humans evolved in small groups (hunter-gatherer societies) is central to the evolution of human morality, but our analytical models are equally well described in termsof inclusive fitness (applying the phenotypic gambit) and multi-level selection. Indeed, the models themselves use neither concept, but are simply sets of equations that represent plausible dynamics underlying the current constitution of the human genetic structure.

Just Babies: The Origins of Good and Evil

Sympathetic and Nuanced Report of Contemporary Research on Moral Behavior —

Rating: 5/5

Paul Bloom is a psychologist who studies moral behavior in infants and young children. Much of the field consists in finding ways to tailor games developed for adults (the prisoner's dilemma, the trust game, the public goods game, the ultimatum and dictator games) for very young children. This research is ingenious and extremely interesting.

Bloom argues that humans have an innate moral sense in the same way that we have innate predispositions for many other social behaviors, such as communicating with language, living in families, and cooperating effectively with strangers. The basic material in support of this idea comes from laboratory and field work with human groups (see my edited volume, Moral Sentiments and Material Interests, MIT Press, 2005 for description and bibliography). Bloom argues that even very young children have moral sensibilities, and that these grow with age not only because children are taught to be moral, but also through the maturation of the brain as a child grows into adulthood, and through the use of reason as an adult.

Bloom depends on his authoritative knowledge about children to press his message, but in fact after the first two chapters, most of the experimental evidence involves adults, and he insightfully discusses may issues inspired by everyday social observation. I found his social analysis very well written and often insightful. Bloom never simply regurgitates the received wisdom on a topic, but constantly supplies his own interpretation, which is often superior.

When I began studying social theory, the accepted wisdom was that we are born purely selfish, with morality being a convenient social veneer that hides are fundamentally sociopathic selves. The only reason people act morally, I learned, is because they are afraid of getting caught acting immorally. Moreover, I learned that every society has is own moral rules, and such rules have no communality across societies. The bulk of research in the past twenty years has shown that both of these notions are incorrect. There is a such thing as human morality, this morality has a common substrate across all societies, and we (sociopaths and other wrong-doers excepted) are predisposed by our nature as human beings to express and affirm these moral principles. Indeed, as Samuel Bowles and I show in our book A Cooperative Species (Princeton 2011), and Edward O. Wilson shows in his The Social Conquest of Earth (Norton, 2012), our success as a species depends integrally on our moral constitution. There is no better

place to start in appreciating the psychological side of human morality than Paul Bloom's fine book.he past twenty years has shown that both of these notions are incorrect. There is a such thing as human morality, this morality has a common substrate across all societies, and we (sociopaths and other wrong-doers excepted) are predisposed by our nature as human beings to express and affirm these moral principles. Indeed, as Samuel Bowles and I show in our book A Cooperative Species (Princeton 2011), and Edward O. Wilson shows in his The Social Conquest of Earth (Norton, 2012), our success as a species depends integrally on our moral constitution. There is no better place to start in appreciating the psychological side of human morality than Paul Bloom's fine book.

A Natural History of Human Thinking

Major Contribution in Understanding Human Society: Modeling Networked Minds —

Rating: 5/5

Michael Tomasello is a behavioral and evolutionary anthropologist who heads the Max Planck Institute for Evolutionary Anthropology in Leipzig, Germany. His major contributions deals with the ways in which human thinking goes beyond that of other primates not simply quantitatively (we have bigger brains that can do more computations faster) but especially qualitatively (we can think in ways that are not available at all even to the great apes).

Tomasello derives his conclusions from careful and close study in the laboratory of differences in behavior of adult and child humans on the one hand, and non-human primates, especially the great apes, on the other. He shows that there are three types of human cognition, only one of which, individual rationality ("me-thinking") is shared with the great apes (and a fortiori with other animal species).

Individual rationality is exemplified by the economist's utility maximizer. Individual rationality can be purely selfish, in which individuals are sociopaths who care about others only as objects that may help satisfy their personal needs, but can also include elements of empathy in which individuals care about the suffering of others, and also elements of negative hostility in which individuals gain pleasure from hurting and punishing others who have displeased them..

A second kind of human cognition is what Tomasello calls "collective intentionality," Tomasello writes: "Modern humans became cultural beings…by creating…cultural conventions, norms, and institutions built not on personal but on cultural common ground. They thus became thoroughly group-minded individuals." (p. 80) This sort of human cognition is extremely well-known, as developed in sociology by Emile Durkheim, George Herbert Mead, Talcott Parsons and many others. Tomasello offers the reader an informative overview of this aspect of human cognition. He stresses that humans obey social norms altruistically when they are considered legitimate, even at personal cost, and humans spontaneously punish others who are observed violating social norms for selfish gain (for a more expansive treatment, see my paper with sociologist Dirk Helbing, "Homo Socialis" available from my web site). He adds to the standard repertoire of arguments the contention that this sort of cognition is absent even in the great apes. He writes: "Although great apes retaliate for harm done to them, they do not punish other individual for acts toward third parties. In contrast, three-year-old children enforce social norms on others even when they are not personally involved…" (p. 87)

Tomasello's unique and quite stunning contribution is his analysis of what he calls "joint intentionality." The idea here is that two or more humans can "collaborate" in accomplishing a goal. Collaboration is more complex than cooperation, which merely involves all participants in a task carrying out their part the process of achieving some end. For instance, chimpanzees cooperate in catching monkeys, but they do not collaborate. Each chimpanzee wants to catch the monkey and eat as much as he can before the other swarm him demanding a share. Each chimpanzee does better in catching monkeys when surrounded by other chimpanzees equally intent on catching the monkey because when a number of hunters chase their prey at the same time, there are fewer avenues of escape for the monkey. But this form of cooperative hunting is pure "mutualism:" the chimps are each out form himself, and each chimp is oblivious to what is going on in other chimps' minds and does not modulate his activity strategically

by anticipating what the other chimps are about to do. Such cooperative hunting is pure individual rationality me-thinking “parallel play,” as is observed in very young children in a sandbox.

Collaboration goes way beyond cooperation by linking the minds of the collaborators together in a form of networked minds with consciousness and intentionality distributed across the minds of the participants. Joint intentionality is “we-thinking,” a form of cognition that even children understand, and is quite unavailable to other animals. Tomasello’s analysis of we-thinking is, to my mind, completely convincing, and quite new in the literature on human cooperation.

The notion of joint intentionality can be dramatically illustrated by reference to a very simple example from game theory (Tomasello does not use this example). Consider a game in which Bob and Alice each receive 100 when both say “Up,” and 1 when they both say “Down.” If they say different things, they both get 0. The joint intentionality solution is that both say “Up.” However, pure individual rationality cannot predict what Bob and Alice will do. The game has two Nash equilibria in pure strategies, and either player will choose “Down” if he or she believes that is what the other will do. It take social rationality for Bob to reason as follows: “Alice is socially rational and therefore she understands what a collaborative effort is. Alice will see that we are involved in a collaborative effort in which we have a common payoff and by considering the rationality involved in joint intentionality, Alice will know that I expect her to choose Up, and therefore she will choose Up. Therefore my best play is Up.” Alice will analyze the situation in the same way, and both will choose the high-payoff strategy Up.

Note that in this example, both Bob and Alice have perfectly selfish preferences and their behavior is completely amoral. All they share is a common social rationality that allows them to predict what each other is thinking, and therefore what each other will do.

I first came across the notion of collective intentionality in the works of such philosophers as John Searle, Michael Bacharach, Margaret Gilbert, Raimo Tuomela and Nathalie Gold, and the economist Robert Sugden. However, I was quite unpersuaded by their arguments.

Consider John Searle’s contribution “Collective Intentions and Actions,” in a volume entitled Intentions in Communication. Searle argues (a) collective intentionality obviously exists, and (b) it cannot be explained as an aggregation of individual intentionalities, but rather "is a primitive phenomenon." His argument for (a) is that "It seems obvious that there really is a collective intentional behavior as distinct from individual intentional behavior. You can see this by watching a football team execute a pass play or hear it by listening to an orchestra." (p. 401) However, this is not only not obvious, it is plainly wrong. What is experienced in this and similar cases is highly coordinated cooperative behavior. In both cases, the role of each participant has been carefully marked out by a single agent, whom I will call the "choreographer," or perhaps a few interacting agents using a collective decision process to adjudicate differences among them in the content of the choreography, and conveyed to the members of the "team." A "pass play" in football is diagrammed, memorized by the players, and carried out on precise cue under objectively given conditions. A similar analysis holds for the interpretation of a musical score and its execution by the musicians.

Searle argues that we can see the collective intentionality in the idea that there is a collective goal to the group---winning the football match, and producing beautiful music. However, individual group members may place some value on this "goal," but are unlikely to be motivated thereby unless they are properly rewarded in other, usually more material, ways. Moreover, some group members may actually have the intention of out-performing other members, thereby gaining personally at the expense of the "collective intention" of the group. Similarly, group members may be performing solely for the pay, or for the chance to get a better job, or even to get a date with another group member. Perhaps Searle can introspect and discover that he has performed in a group with "collective intentional" behavior, but I have not. I am certain that I am not alone. Therefore, even should some people like Searle exist, it would be a miracle if they more than rarely constituted any real collectively interacting cooperative group.

Tomasello’s contribution is the reposition the concept of joint intentionality from the realm of collective behavior to that of social epistemology. Although Tomasello calls this form of cognition “joint intentionality,” it is really a high level cognitive representation in each participant of the mind of the other participants that can be used to predict their behavior in the face of the various contingencies involved in carrying out their collaboration. This way of thinking about the cognitive basis of collaboration might better be called “joint representation” of a task, which is an aspect of a larger

capacity of social cognition in humans, who have evolved in groups as networked minds with cognition distributed over this network. It is this aspect of the human mind that permits the forms of collaboration that has rendered our species so successful.

I have only one quibble with Tomasello's analysis: his attempt at a game-theoretic formulation of joint intentionality. A game has payoffs, strategies and information structure (see my book Game Theory Evolving, Princeton University Press, 2009). Game theory is based on pure individual rationality, although it can be extended to collective rationality by drawing upon other-regarding preferences and treating social norms as correlated equilibria (see my book, The Bounds of Reason, Princeton University Press, 2009, and with Samuel Bowles, A Cooperative Species, Princeton University Press 2011). Collaboration, by contrast, is a non-strategic coordination process closer to engineering that to strategic interaction. Tomasello tries to conceptualize joint intentionality in terms of the famous Stag Hunt game, in which hunters can gain a small reward by hunting hares individuals, but a large reward by hunting stag collectively. But this is a poor formulation. Collaboration is an instance of returns to scale through a complex division of labor, as first outlines by Adam Smith in his famous book The Wealth of Nations. It has little to do with the Stag Hunt Game.

Indeed, the most serious task facing collaborating individuals is that of dealing with "free riders" who shirk in cooperating, but still demand a share of the product of collaboration. There is a huge literature on how this problem is handled, and it is quite unpersuasive to argue that the Stag Hunt scenario is an alternative, to this analysis, which is traditionally, and correctly, I believe, rooted in the analysis of social dilemmas, of which the Public Goods Game is the most well known example.nts.

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Big Ideas in Macroeconomics: A Nontechnical View (MIT Press)

At Last! A Serious Presentation and Defense of Modern Macroeconomic Theory —

Rating: 4/5

It is easy to find excellent, accurate, accessible, and entertaining books that present the current theories and ideas in many fields, including law, physics, and biology. It is virtually impossible to find such books in economics. Sadly, when someone writes a book about economics, it almost always is an attempt to convince the reader that some politically motivated partial truth is the whole truth.

There are some books that present basic economic theory in an unbiased manner, and I review the ones I have found in an entry on my web site ([...] Click on You Must Read This! and look for \\"Books on Economics for Serious Beginners: Very Introductory Readings.\\"

But for the sort of advanced macroeconomic that guided policy makers and central bankers leading up to the financial meltdown of 2008, there has been virtually no serious accessible exposition without a political bone to pick. I love this book because it treats the reader as intelligent and discerning, presents the theory ably and in great detail, but avoids the mathematical detail that makes the material quite impenetrable to all but the expert who spends the bulk of his time devoted to the subject.

The reader who even cursorily inspects this book might consider me a biased observer because I contributed a blurb to the book jacket and the author graciously thanks me for my support in the introductory pages. The fact is that I consider this an exemplary exposition of modern macroeconomics, and I think his defense of the theory is as good as one can find anywhere, the theory is in fact so weak that nothing can save it. People continue doing it not because it is good theory, but because it is the only game in town. I believe a complete revolution in macroeconomic theory is in the process of being born, although it will take some years to take over as the mainstream theory.

Change in macroeconomic theory can be extremely rapid. Keynesianism displaced classical macroeconomics in just a few years after the end of WWII, and the reigning \\"rational expectations\\" macro displaced Keynesianism in just a few breathtaking years. This is a credit to economics as a discipline--given new evidence and given new economic conditions, young Ph.D. economists are quite willing to throw over the past, and in the best graduate schools, hiring of new faculty is based on how productive they are as researchers, not whether or not they agree with the reigning orthodoxy.

Macroeconomics has always been deeply political. After WWII in Europe and the US, the growth in organized labor led to cost-push inflation (higher wages --> higher prices) and unemployment caused by wages above the market-clearing level. Keynesianism blamed the unemployment on the market system itself and suggested deficit spending as the way to restore full employment and accommodating

higher prices by increasing the money supply. Of course, this is a stupid theory because it leads to chronic deficit spending and chronic inflation. With the decline in the power of organized labor (caused mainly by increased international competition eliminating domestic monopolies in internationally traded goods such as steel, mining, and automobiles), a resurgent right-wing macroeconomics, called rational expectations theory, displaced Keynesian macro by recognizing the fatal flaws in its reasoning, which contradicted economic rationality. Keynesianism remains today in an attenuated form that recognizes coordination failures and price inertia, but is mainly a liberal profession of faith.

The only virtue of rational expectations macro (RA macro), which Athreya explains so nicely in this book, is that it killed Keynesian macro. The theory itself is nothing but smoke and mirrors. It purports to be solidly based on widely-accepted microeconomic principles that accurately describe the market economy (the \\"rational\\" in rational expectations), but this is simply false. The market economy isin fact a complex dynamic system whose behavior can be simulated, much as the weather is simulated by supercomputers, but cannot be captured in a few recursive equations, as the RA macro supporters claim. Instead of a large number of economic actors, RA macro assumes there is one \\"representative agent,\\" and instead of large numbers of firms and industries, RA macro assumes there is one \\"production function.\\" The only source of volatility in such a world is technology shocks and the vagaries of \\"expectations\\" (which of course cannot be measured, because they don't really exist). All we end up with is smoke and mirrors, plus lots of abstruse equations.

Among the more bizarre modeling choices of RA macro is to assume that all markets clear instantaneously. This of course assumes away the coordination failures that really underlie macroeconomic fluctuations. Especially exotic is the assumption that there is always full employment! \\"Unemployed\\" workers are simply people who temporarily prefer not to work (they prefer \\"leisure,\\" in the parlance of macro theory). In fact what happens in a recession is that millions of jobs disappear. The displaced workers prefer their old or equivalent jobs at their accustomed wages, but these are gone. Of course, many could find work at a lower wage, but that is not always the rational thing to do because the worker may get locked into the lower wage occupational level.

This absurd sort of macro modeling would be okay if the resulting models predicted well, but they do not. RA macro long ago gave up econometric testing their equations in favor of \\"calibrating\\" them, which means just get the best fit you can, however poor. An poor they are.

Of course, prediction is not everything. Engineers cannot predict when a car will go over a bump, but they can model the effects of such a shock on the car and proposed mechanisms (shock absorbers) that allow the system (the car) to survive the shock with minimal damage. The same is true, to a much more limited extent in macroeconomics, where \\"automatic stabilizers\\" can lessen the effects of shocks to the economy.

The real problem with RA macro (and similarly of Keynesian macro) is the theory cannot deal with finance at all, and financial markets lie at the heart of contemporary economic instability. The Walrasian micro model on which RA macro is built simply has no place for money or finance. Graduate students in economic do not even study finance---that is left to the business schools.

Of course, all of that is now changing. Economists around the world are revamping their theories and developing the empirical data on finance so that a more useful theory is likely to be forthcoming. It is a very exciting time for macroeconomics. Athreya's defense of the current theory is quite brilliant and I urge the reader to learn from him. However, we all know the story of the silk purse and the sow's ear.in fact a complex dynamic system whose behavior can be simulated, much as the weather is simulated by supercomputers, but cannot be captured in a few recursive equations, as the RA macro supporters claim. Instead of a large number of economic actors, RA macro assumes there is one \\"representative agent,\\" and instead of large numbers of firms and industries, RA macro assumes there is one \\"production function.\\" The only source of volatility in such a world is technology shocks and the vagaries of \\"expectations\\" (which of course cannot be measured, because they don't really exist). All we end up with is smoke and mirrors, plus lots of abstruse equations.

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Love and Math: The Heart of Hidden Reality

Nice try — Rating: 3/5

The observation to which this book is a response is the fact that intelligent, educated, and sophisticated readers who take pride in the breadth of their knowledge, reveal with pride that they hate math. Those of us who use advanced mathematics integrally and intimately in our work have all heard this refrain. Why would someone take pride in their ignorance? Why would someone who would never say they hate art take pleasure in affirming their aversion to mathematics, which is doubtless and indisputably one of the most stunning achievements of human intellect?

Frenkel's answer is that students are not taught math properly in school. Students learn how to perform calculations, but are never exposed to the deep principles of symmetry and dynamics that embody the true beauty of mathematics. His response is to show how human an enterprise modern mathematical research can be. I read this book from cover to cover with some pleasure, but I do not think he has made his case. Frenkel tell us early of the insights of Galois and even explains with some effectiveness exactly what an incredible tour de force Galois theory is. Moreover, Galois proved something with his detour through group theory that is truly remarkable: there are no general solutions to polynomial equations of degree greater than four using the operations of arithmetic operating on integers and their various integral roots. Frenkel explains that the Langlands Program is a sophisticated and ambitious extension of Galois' project, but he fails in two ways. First, he introduces a plethora of mathematical constructs to which he gives a best vague descriptions, and gives no intuition as to why they are related to one another in interesting ways. Second, he gives us no concrete examples of how all of this high-level math solves some real-world problem of the sort that Galois theory addresses. Why all the huffing and puffing? All we are told is that some of the theory Is useful in banking and cryptography. How and why? Who knows?

In fact, probably most people who become mathematicians or use mathematics extensively actually like to solve rote problems. I know I did. I would spend hours and hours solving problems, deriving trigonometric identities, and integrating funny-looking rational functions. Moreover, I treat mathematics as very hard and exhausting---like running laps and lifting weights. The rewards are surely there, but it is simply hard work most of the time. Art and music are fun, not work. Of course, we must learn to appreciate art and music, but once the brain is prepared, it is all fun thereafter. Math is not like

that. Math is sweat and pain all the way. Struggling through a three page paper full of symbols is excruciating effort. The reward is surely there at the end---understanding something of ineffable majesty.

I still think that the beauty of mathematics can be explained to humanists, I'm not sure how, though.w and why? Who knows?

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Simpler: The Future of Government

Fine Follow-up to Nudge — Rating: 4/5

You might consider reading Thaler and Sunstein, Nudge, before going through this book. Basically, this is a follow-up that uses Sunstein's experience in government and the policy initiatives that have occurred of the \\"nudge\\" form, to lay down some principles of efficient government.

Sunstein is a brilliant intellectual and a fine writer who commands a broad range of exptert knowledge, but always presents issues in a lucid, straightforward manner. The book is a pleasure to read, and there are insights on every page.

Sunstein tells us that there are three main principles that he has learned. First, the experts that make regulations and laws should use cost-benefit analysis, all the science possible, and deliberate extensively. Special interests should be listened to for advice as how best to do this, but their desires should play no role in decision-making. Second, the public should be presented with simple choices that require no extensive deliberation, but people should have the freedom to reject the \\"default\\" choice if they so desire. Third, policy and regulation-makers should listen to the public because people often have ideas and information that the higher-ups do not have, and they many have preferences that decision-makers have not thought of.

If only all public servants had Sunstein's intelligence and moral character!

Do You Believe in Magic?: The Sense and Nonsense of Alternative Medicine

Maybe in a Young Girl's Heart.... — Rating: 4/5

There is no such thing as alternative medicine. There is medicine that has been tested under clinically controlled conditions for safety and effectiveness and has passed these tests, there are products that have failed these tests and therefore are not true medicine, and there are products that have not been tested. Calling the latter \\"alternative medicine\\" is a sick joke, and a contemptible one when those who profit from making groundless claims refuse to subject their products to controlled testing.

The following products have failed controlled testing funded by the National Institutes of Health and the National Center for Complementary and Alternative Medicine. Ginkgo bilboa, which is purported to treat dementia, does not. St. John's Wart, which is purported to treat depression, does not. Garlic is purported to treat high blood pressure. It does not. Saw palmetto is purported to treat prostate

enlargement. It does not. Milk thistle is purported to treat hepatitis C. It does not. Chondroitin sulfate and glucosamine are purported to treat joint pain. They do not. Echinacea is purported to treat colds. It does not work.

Despite their abject failure, these and other \\"alternative\\" treatments are avidly gobbled up by an over credulous public.

I am interested in this issue because I study why and how humans develop strong beliefs without there being any supporting evidence. Most curious is that when evidence contradicting these beliefs comes to light, people are often moved to deny the evidence rather than alter their beliefs. Taking a critical attitude towards evidence is healthy, but in many cases rejecting the evidence is quite irrational. A case in point is Offit's book. His critics reject the evidence, claiming (without evidence) that the author made it all up in the service of Big Pharma, for which he is rewarded with copious monetary payments. How completely predictable!

The main problem with this book is that the author is totally uncritical of standard medical treatments. This is a serious error. Doctors have several motivations to prescribe treatment that does not help, and may harm, the patient. People should always keep this in mind in assessing a doctor's recommendation.

First, doctors are often paid by the procedure, so they have an incentive to oversubscribe. Second, doctors almost universally practice \\"defensive medicine,\\" prescribing procedures solely to prevent law suits in the case they are wrong, even though the net effect of the treatment may be harmful to the patient (e.g., because of excessive numbers of false positives). Third, doctors do not study probability theory and do not usually understand the meaning of a diagnostic test. Rather, they tend to accept all false positives and false negatives as though they were the truth. Finally, doctors prescribe treatments because that's what the patient wants, even if the doctor knows the treatment is counterindicated.

This book is very well written and fun to read, even if you already believe the message, and even if you have read much of this in your daily newspaper or professional journals.or is totally uncritical of standard medical treatments. This is a serious error. Doctors have several motivations to prescribe treatment that does not help, and may harm, the patient. People should always keep this in mind in assessing a doctor's recommendation.

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Human Capitalism: How Economic Growth Has Made Us Smarter--and More Unequal

Solid, Thoughtful, Well Written — Rating: 4/5

We live in an age where most passionate political activists have limited vision, the right being passionate about the horrors of government income redistribution and need to avoid budget deficits, and the left being passionately alarmed about increasing income inequality favoring the ultra-rich, and the need to counter the austerity policies that protect the big banks against losses brought about by their reckless lending practices. I must admit that I am not much concerned with either of these threats, but rather with the growing cultural rift between the intelligent, motivated, and talented upper middle class and the increasingly dysfunctional lower middle class, and especially its male integument, which seems to have lost its way in a society that increasingly values drive, creativity, and capacity for abstract thought over pure upper body strength and physical stamina.

It is interesting that the phenomena is increasing recognized as a serious problem by conservative writers, such as Charles Murray and the author of this fine book, Brian Lindsey, whereas the liberal pundits cannot cease for a moment from wringing their hands about the excesses of the ultra-rich. Lindsey is a senior fellow at the Cato Institute, which is a very, very conservative institution, although one whose analyses of society are usually worth paying attention to. The title of this book, Human Capitalism, refers to the fact that increasingly the goodies go to those who have \\"human capital,\\" which is the result of investing in the development of individual skills and ability to address and solve social and technical problems. This development has long been anticipated, most eloquently in Michael Young's 1958 book The Rise of the Meritocracy.

Of course, conservatives love meritocracy (except when it interferes with the inheritance of wealth), while liberals hate the idea (having no faith in the abilities of the `lower classes' and an exalted estimation of labor unions). However, as Lindsey shows, the current meritocratic dynamic is destroying the working class family and leading to a generation of hard-working white collar women with loafing and indolent lovers and husbands. The situation is well described statistically with a minimum of tables and graphs, based on the brilliant research of David Autor, Susan Mayer, and others. This book can be read with pleasure by those who do not care to go into great statistical detail, and the references lead those who do to the proper sources.

Certainly this situation, especially the differential effects of modern business organization and technology on men versus women, was not foreseen by Michael Young and the early students of the meritocracy revolution, bit Lindsey shows that it is quite real, and he presents thoughtful suggestions as to how to deal with this situation through social policy.wever, as Lindsey shows, the current meritocratic dynamic is destroying the working class family and leading to a generation of hard-working white collar women with loafing and indolent lovers and husbands. The situation is well described statistically with a minimum of tables and graphs, based on the brilliant research of David Autor, Susan Mayer, and others. This book can be read with pleasure by those who do not care to go into great statistical detail, and the references lead those who do to the proper sources.

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The Folly of Fools: The Logic of Deceit and Self-Deception in Human Life

Most of the material not on topic — Rating: 2/5

I have no idea why the eminent biologist Robert Trivers wrote this book. There is lots of interesting material for the uninitiated, but very little on self-deception, and certainly nothing like a proof of his assertion that self-deception serves the evolutionary purpose of being better at deceiving others.

Nature's Oracle: The Life and Work of W. D. Hamilton

e/c = mc, pv = kT, and now... b r > c: About the guy who gave us Hamilton's Rule — Rating: 3/5

William Hamilton was one of your ordinary brilliant scientists, grappling with fundamental questions in sociobiology all his life. His claim to fame is a single article that he published in the Journal of Theoretical Biology in 1964, \\"The Genetical Evolution of Social Behavior I.\\" This article gave rise to the terms \\"inclusive fitness,\\" \\"kin selection,\\" and \\"Hamilton's rule,\\" three terms that are explained in every sociobiology article and book. He of course did other things of interest, but in everything else, he was just another brilliant scientist, of whom you might not be inclined to read a long biography. Segerstrale claims correctly that many consider Hamilton the Darwin of the Twentieth

Century. Indeed, Hamilton is like Darwin in having shown the world a simple idea that explains an immense amount of biological dynamics. Unlike Darwin, however, Hamilton did not write a Great Book, his simple idea is in fact extremely subtle and not available to the critique of such dimwits as Creationists and Intelligent Design blowhards. This book will not appeal to the casual reader, as might a Life of Charles Darwin.

Ullica Segerstrale is a talented and insightful historian of biological thought. Her 2001 book \\"Defenders of the Truth: The Sociobiology Debate,\\" covering early clashes between sociobiologists, especially Edward O. Wilson, and their critics, especially Stephen Jay Gould, Marshall Sahlins, and Richard Lewontin, is a well written and exciting documentary of this fascinating period. There is no question concerning her sympathies in this book: she gives a rather manachean account where the sociobiologists are Good and their critics are Pathetic.

This book is well worth reading, but it is not up to the standards of \\"Defenders of the Faith.\\" Part of the problem may be with me: I really don't care about Hamilton's childhood, or where he sends his kids to school, or how he behaves at dinner parties. Moreover, his recurrent disputes with journal editors and his dismay at his treatment by article reviewers, stressed repeatedly in this book, is supremely uninteresting. Every academic has such experiences, and they are so common that they are not even worth mentioning.

Hamilton is not the sort of Lovable Creature that we associate with the likes of an Einstein or a Freud. He's just your typical brilliant scientist. Moreover, Segerstrale spends only a small portion of the book dealing with Hamilton's substantive contribution, inclusive fitness, and a much larger portion deal with how his other ideas fared---which was about average for a big thinker like Hamilton. She should have elaborated on the development of his ideas in the larger field of population biology and sociobiology. More important, Segerstrale does not appear to understand inclusive fitness theory that well, never deals with the substantive intellectual debates surrounding this theory (most of which are misunderstandings, not by Hamilton), and just acts as a rah-rah booster for William Hamilton. One might describe this book as a Readers Guide to the Narrow Roads of Gene Land (Hamilton's book about his own work).

Hamilton's 1964 article is a masterpiece. Indeed, in my study of inclusive fitness theory, have never seen anything in print with the analytical power and depth of Hamilton's original article (I explain this in my paper \\"Inclusive Fitness and the Sociobiology of the Genome, which is on my web site). Before I read Hamilton's 1964 article, I could not even make sense of standard expositions of his theory, because they misstate and overinterpret it. His article, on the other hand, is extremely opaque, despite that fact that he uses only simple algebra. I arrived at an understanding of his model only by starting with the basic equations, and working backward to determine the underlying model. This model is a paradigm of rigor and clarity.

Karl Marx once said, after hearing some of the claims made on his behalf by so-called supporters, \\"Je ne suis pas Marxiste\\" (I am not a Marxist). William Hamilton could say the same thing when encountering the bizarre claims of some of his supporters: \\"I am not a Hamiltonian.\\" By God, he'd better not be!y so-called supporters, \\"Je ne suis pas Marxiste\\" (I am not a Marxist). William Hamilton could say the same thing when encountering the bizarre claims of some of his supporters: \\"I am not a Hamiltonian.\\" By God, he'd better not be!

Computability and Logic

Brilliant and Authoritative — Rating: 5/5

If you want a rigourous and fairly thorough introduction to the ideas of Tarski, Goedel, Skolem, et al., and you never really understood the Loewenheim-Skolem theorem or Tarski theory of truth, this is the book for you.

Do you understand why a logical system that proves its own consistency must be inconsistent? If not, and you think this is an interesting question, this is the book for you.

The Behavioral Foundations of Public Policy

Great Material, but Uneven — Rating: 3/5

Behavioral contributions to public policy have become a growth industry. Eldar Shafir is a great experimentalist, but this collection is rather uneven, with lots of dry, government report-style writing. The references will point you in the right direction, though.

Naked Statistics: Stripping the Dread from the Data

Highly recommended — Rating: 4/5

The psychologist Gerd Gigerenzer has suggested that we drop trigonometry from the high school math curriculum and add probability theory and elementary statistics. This is a first-rate idea, because only engineers and physicists use trigonometry, but we all must understand basic statistics to evaluate claims in the daily newspaper. Besides, probability theory is great fun, and trigonometry is pretty boring (until you get to de Moivre's formula, Fourier series, and the like).

Charles Wheehan wrote a first-rate introduction to economics (Naked Economics). This book is not, to my mind, quite as exciting, but it is very nicely done and well worth reading. I would have liked a serious treatment of Bayes Rule and conditional probabilities, because here is where people really get things mixed up. For instance, even professional physicians are often confused by the probability of testing positive if you have the disease, and the probability that you have the disease if you test positive. The former can be very close to one, and yet the latter can be very close to zero, if the disease is rare in the population.

Naked Economics: Undressing the Dismal Science (Fully Revised and Updated)

Clear, Witty, Lots of Information, Accurate — Rating: 5/5

Most books on economics for the layperson are written with some political axe to grind. These books are universally worthless. There are a few books that simply present what economists know, and basically agree that they know. There is a lot more that economists know than might be gleaned from reading the newspaper or following political debates. Most political hacks (and anyone who says \\"I am a committed liberal\\" or \\"I am a committed conservative,\\" is a political hack in my opinion, because issues general benefit from insights from both camps) simply ignore the laws of economics. There are a few informative and unbiased expositions for the layperson, which I have reviewed on my web site (under \\"You Must Read This!\\", Books on Economics for Serious Beginners. Naked Economics is probably better than any of these, simply as a balanced literate exposition.

Wheelan explains the benefits and limitations of markets, the benefits and limitations of government interventions, the basics of finance (especially, how to avoid the costly errors that about 50% of investors are prone to make, such as believing they can pick winners), and the role of international competition. There is nothing that Wheelan asserts that I think is not 100% correct, including his exposition of development economics and globalization. Highly recommended.

Intellectuals and Society: Revised and Expanded Edition

Sowell is a Biased, Opinionated, Klutzy Intellectual — Rating: 2/5

Thomas Sowell is a gifted applied economist with much of importance to say about the larger issues in social policy and government regulation of economic affairs. I have reviewed several of his books and recommend them to the reader.

Sowell, however, has two failings. First, he has no heart for the plight of the poor, so his work in this area is illuminating for the false ideas he debunks, but does not contribute in any way to dealing with the problem of poverty. Second, he is a thorough-going right-wing ideologue, who is often cogent in his critique of liberal ideas, but is blind to similar, indeed often parallel, problems with conservative ideas. This book suffers especially from the second of these weaknesses. The book endlessly repeats the errors of left-wing intellectuals (especially in the Cold War era, when many embraced some form of socialism, with totalitarian forms of Communism heavily represented), but says nothing about the errors of right-wing intellectuals (many of whom embraced fascism and even Nazism, and argued in favor of tolerating racial segregation and gender discrimination, as well as the abolition of government regulation of food and drug quality).

Sowell's book adds fuel to a right vs. left dialog that is petty, vituperative, Manichean, and unilluminating. The social division between left and right persists throughout democratic societies and will doubtless continue to do so. The reason is that both types of political world-views have strong positive contributions to make, but both are deadly and destructive when pushed too far. Sowell encourages pushing the right too far by his lack of insight into the virtues of liberalism.

Sowell knows applied economic theory quite well, but he never presents the balanced model of government-market interaction that has been taught to graduate students of economics for half a century, and has no serious critiques in the professional literature. This is because this model of \\"public economics\\" does not fit the conservative free market ideology. This ideology has no scientific validity and cannot even be formulated in an intellectually rigorous form. It is simply wrong.

Sowell has no understanding of information economics. He follows Hayek on the distributed nature of information, but he never confronts the literature that deals with the transformation of private information into public information. The importance of public information, central for instance to Durkheim and Aumann, is completely ignored in his treatment of government regulation.

This book preachs to a right-wing choir, a wordy version of the radio talk-show hucksters I so regularly avoid. There are many factual gems and cogent insights in this book, but they are smothered in invective. If you want to be preached to, this is the book for you. If you want insight, look elsewhere.\\"public economics\\" does not fit the conservative free market ideology. This ideology has no scientific validity and cannot even be formulated in an intellectually rigorous form. It is simply wrong.

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Death from a Distance and the Birth of a Humane Universe: Human Evolution, Behavior, History, and Your Future

Five Stars for What is Included, Three Stars for What is Left Out — Rating: 4/5

Paul Bingham is a primarily a biochemist and molecular biologist of considerable talent, and teaches in the Department of Biochemistry and Cell Biology at Stony Brook University. In the year 1999, I came across an extremely innovative article that Bingham wrote on the same topic as this book, \\"Human Uniqueness: A General Theory\\", Quarterly Review of Biology 74,2 (1999). I was writing an article on human altruism at the time, which eventually appeared as \\"Strong Reciprocity and Human

Sociality\\", Journal of Theoretical Biology 206 (2000). This paper showed that altruistic punishment could evolve in humans provided the cost of punishing transgressors is not too high. I was very excited by Bingham's paper, because he explained cogently, on the basis of the evidence of several key anthropologists, why the cost of punishment is so low for humans as opposed to other species (e.g., our primate cousins). I even explored with him the possibility of his joining my research network, but this never happened (I can't remember why---I think perhaps because he was too busy with his \\"day job\\" in microbiology).

The Bingham-Souza argument is simple and powerful: \\"...ancestors of the first humans evolved, inadvertently, the capacity to kill or injure conspecifics...from a substantial distance. .... This ability arose, in turn, from the evolution of human virtuosity at accurate, high-momentum throwing. No previous animal could reliably kill or injure conspecifics remotely...For the first time, natural selection could now \\"reward\\" individuals who actively suppressed conflicts of interest in others and responded to this suppression from others.\\" ... Ancestral humans evolved a new ability that brought these enforcement costs down drastically, and uniquely human economic systems (kinship-independent social cooperation) became possible. ... Everything else that distinguishes us from other animals flows from this utterly simple trick of enforcing social cooperation in spite of conflicts of interest.

Lethal weapons have played such a key role not only in prehistory, but through our modern history as well. Souza and Bingham write \\"Moreover, it produced a long sequence of ever more sophisticated adaptive revolutions in the two million years since the evolution of the first humans. These revolutions represent all the major transitions in human history including the behaviorally modern human revolution, agricultural revolutions, the rise of the archaic and modern states, and the currently ongoing consolidation of pan-global human cooperation. Each of these adaptive revolutions has precisely the same underlying logic on our new theory--the self-interested application of relatively inexpensive coercion resulting in sustained social cooperation. This fundamental logic is merely applied at ever-larger scales with each historical transition.\\"

The notion that the technology of warfare determines the political structure of a society was argued long ago by Aristotle, who said: \\"There are four kinds of military forces---the cavalry, the heavy infantry, the light armed troops, the navy. When the country is adapted for cavalry, then a strong oligarchy is likely to be established [because] only rich men can afford to keep horses. The second form of oligarchy prevails when the country is adapted to heavy infantry; for this service is better suited to the rich than to the poor. But the light-armed and the naval elements are wholly democratic... An oligarchy which raises such a force out of the lower classes raises a power against itself." (Politics IV). Souza and Bingham argue, correctly, I believe that \\"Modernity emerges from the barrel of a gun... artillery stabilizes the hierarchical state,\\" and \\"handguns democratize the modern state.\\" The second of these is perhaps controversial, but it was defended admirably by Samuel Finer in Charles Tilly's excellent volume The Formation of National States in Western Europe (1975).

Theauthors' basic thesis on the importance of lethal weapons on human affairs is thus correct and systematically understated in the standard literature on human evolution and politics, in my view. However, they make three mistakes. First, they believe that lethal weapons alone explain human society. This may be true, but it is likely one of a few key factors, other including collective child-rearing, long-distance trade, and the invention of fire, each of which has huge implications for the nature of Homo sapiens. Second, the authors insist that human nature is basically self-interested, which is demonstrably false. A reasonable model of gene-culture coevolution [Herbert Gintis, \\"Gene-culture Coevolution and the Nature of Human Sociality\\", Proceedings of the Royal Society B 366 (2011)] explains why humans have evolved other-regarding preferences. The notion that society could work without this is flat wrong, however much vaunted by the \\"selfish gene\\" group. Third, the authors insist that they were the first to have these ideas. This is just flat wrong.

I suspect Souza and Bingham really believe this. Consider the following tale. A couple of years ago Robert Boyd, Samuel Bowles and I improved our model of costly altruistic punishment by showing how collective punishment could work when uncoordinated punishment is too costly because, for instance, the offender's family might retaliate against lone or uncoordinated punishers. This appeared in Science as \\"Coordinated Punishment of Defectors Sustains Cooperation and Can Proliferate When Rare\\", Science 328 (2010). Paul Bingham and Joanne Souza were very critical of our paper, despite the fact

that our ideas are very close. They wrote a letter to Science which said \\"We have two serious concerns...First, these investigators continue to rely on models dependent on doubtful group selection processes...[Second,] the authors invoke "increasing returns to scale" for coercion here for the first time in their long association with group selection models. This approach to modeling coercion is apparently borrowed (without attribution) from our earlier analysis...\\"

In our reply (Science 30 April 2010), we held that our model does not depend on \\"group selection,\\" (by the way, gene-culture coevolution has nothing to do with group selection) and that the notion of increasing returns to scale in conflict is well-know and goes back to antiquity. Specifically, we wrote their claim that we failed properly to attribute their contribution \\"misstates the novelty of their contribution to this literature; the commonplace idea that a group's probability of success in conflict may be subject to economies of scale is as old as the expression \\"divide and rule\\" and has been formalized using \\"contest success functions\\" developed by Jack Hirshleifer and other economists prior to and independently of Bingham and Souza. The mathematical modeling of these relationships goes back to Lanchester's work in 1916, which we cited in our supporting online material, and such models were used in evolutionary biology prior to Bingham and Souza's work. What was novel about the valuable contribution of Bingham and Souza was their exploration of the important role of projectile weapons in human evolution, not the observation that economies of scale might govern the outcome of conflicts. But economies of scale do not require the use of projectile weapons. Ethnographic evidence suggests that many forms of punishment in band-level societies do not involve projectile weapons (for instance, shunning, ostracism, and enforcement of penalties), and there are good reasons to think that increasing returns apply to these forms of punishment as well.\\" I bring this up because the interested reader might want to follow up this literature after reading Bingham and Souza's fin book.

By the way James Woodburn, \\"Egalitarian Societies\\", Man 17,3 (1982) argued the Souza-Bingham position many years ago, but not as successfully, I believe. For my own recent contribution, see \\"The Origins of Human Hyper-Cognition,\\" on my web site.iation with group selection models. This approach to modeling coercion is apparently borrowed (without attribution) from our earlier analysis...\\"

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Is Behavioral Economics Doomed? The Ordinary versus the Extraordinary

Get the other side of the argument — Rating: 4/5

David Levine is a fine, lucid, relaxed writer who conveys complex information in a straightforward manner without compromising the fundamental issues.

I quite agree with his argument that substantive rationality is shortchanged in many behavioral economics papers and books. I have argued this position at length in my book The Bounds of Reason (Princeton, 2009).

I have three problems with his argument.

First, who are these \\"behavioral economists\\" whom he critiques? He mentions the neuroeconomists (but only a couple). Is Vernon Smith on his Bad Guy list? Am I? Who exactly is? Is Ernst Fehr? Do NO \\"behavioral economists\\" escape his critique? If so, who escapes? Without such a list, Levine is making the mistake of appearing bigoted (everyone who belongs to a certain group has a particular quality) and of disliking the evidence. Theorists should NEVER critique experimentalists except for running bad experiments in a true science.

Second, Levine seriously underestimate the importance of social preferences. This is just a scientific error and it does not further his argument because he agrees that social preferences can be rational.

For instance, his analysis of voting is just silly. He shows in voting experiments in the laboratory that the participation rate can be explained by simple self-interest. However, people vote in elections because they have social preferences for democracy and collective political solidarity. Levikne overgeneralizes from his experiment that social preferences and morally-based incentives are not relevant to voting. In fact, voting in a democracy is a perfect example of the deep importance of our moral constitution. Why on earth would he want to deny this, or even diminish it as an important social fact? I cannot imagine.

Third, he confuses rationality with common knowledge of rationality in your discussion of backward induction. He should know better than this, and if you doesn't, he can read my paper on the topic on my web site (or Bounds of Reason).he can read my paper on the topic on my web site (or Bounds of Reason).

The Moral Foundation of Economic Behavior

A Solid and Insightful Contribution to the Theory of Economic Morality — Rating: 4/5

The standard model in economic theory assumes that arbitrarily complex contracts can be written at zero cost, and contractual arrangements can be enforced by a third party (the judiciary) at zero cost to the contracting parties. When these conditions hold, it is impossible for agents to cheat successfully, and no moral issues are involved in executing their side of the contract. When there are aspects of performance for one of the partners to a contract that cannot be third-party enforce, principal-agent models suggest that the principal can costlessly set complete incentives for the agent that induces optimal performance, so the principal is indifferent to the moral character of the agent.

The assumptions that imply the irrelevance of moral character in market exchange are, however, widely violated, and often gravely violated. For instance, an employer may prefer an honest and trustworthy worker to a self-interested worker, because the cost of monitoring will be lower and the level of effort and care delivered by the worker will be higher if the worker behaves morally. Similarly, when two firms contract for services, the honesty and trustworthiness of each may be a prime concern of the other because it is infeasible to write complete contracts.

The proof of the importance of morality is that economies in which the moral element is absent will generally operate at a low level of efficiency. Corruption and malfeasance do not mere transfer benefits from the moral to the immoral agents, they are contagious: integrity unravels when moral individuals see that they are being scammed, and respond by in turn abandoning their moral high ground. This is known as the unraveling of cooperation.

David Rose's fine analysis of the morality of economic behavior is inspired by the economist Friedrich Hayek, who stressed that information in the economy is radically decentralized and distributed across economic agents (see his American Economic Review paper of 1945), as well as the philosopher

Immanuel Kant, who stressed that moral behavior is based on adhering to moral rules, not acting benevolently on behalf of others. For Kant and Rose, and I think this is the correct view, is that one is not honest because one cares about one's exchange partner, but because being honest is the right thing to do.

Rose's support for the Kantian position is not philosophical, but psychological. In very small societies, one can care about all of one's trading partners, he argues, but in modern society, in which one has many trading partners and one does not really know more than a few personally, contract enforcement cannot be expected to depend on mutual positive feelings, he argues.

One of the attractive features of this closely argued book is that Rose argues that trust is not a moral virtue, but that trustworthiness is. He correctly notes that in a society in which individuals generally trustworthy, then even amoral agents will be trusting, and there is nothing moral about trusting others in a generally untrustworthy environment.

My only quibble with Rose's argument is that it is just too Kantian. Rose argues that honesty and trustworthiness must be unconditional, whereas I believe that no moral value is truly unconditional. This is because moral behavior is in fact governed by the rational actor model: individuals behave morally because this maximizes their utility. Individuals in general will trade off some moral values against others, and will even trade off moral behavior against selfish interests. When the cost of behaving morally is very high, individuals will abandon their morality. In fact, we do not expect unconditional compliance from exchange partners, but rather only generally dependable integrity.paper of 1945), as well as the philosopher Immanuel Kant, who stressed that moral behavior is based on adhering to moral rules, not acting benevolently on behalf of others. For Kant and Rose, and I think this is the correct view, is that one is not honest because one cares about one's exchange partner, but because being honest is the right thing to do.

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The Black Swan: The Impact of the Highly Improbable (Incerto)

Might be a nice twenty page essay, but a bomb of a book — Rating: 1/5

For Taleb, a Black Swan (a) lies outside the realm of regular expectations, (b) carries an extreme impact, and (c) human nature makes us concoct explanations for its occurrence after the fact, making it explainable and predictable. Taleb gives many examples of events satisfying (a) and (b), and the \\"explainable\\" part of (c). However, he fails to show that the \\"predictable\\" part of (c) is common or ubiquitous. Of course, there are always individuals who have crazy ideas and try to sell them by claiming that they explain and predict high-impact unforeseen events.

For instance, in the case of the US financial crisis of 2007, a major focus of Taleb's, I have read several books that claim to explain and to have predicted the crisis, all coming from what I consider to be unfounded, and politically motivated, models of financial market competition and its regulation by the

Securities and Exchange commission. However, this is surely not part of \\"human nature\\" because if you read the economics journals and many other books, the claims of \\"explanation\\" are tentative and muted, and there are no claims of \\"predictability.\\" My own view is that the bursting of the housing bubble was completely predictable, its impact on the series of banking crises is explainable in hindsight, and if we had the information in 2006 that we have now (especially about auditing irregularities and the marketing practices surrounding the selling of subprime mortgages) we might have predicted the possibility of bank failures.

Taleb supports the validity of the \\"predictable' part of (c) by providing, at best, anecdotes. But the plural of anecdote, so the saying goes, is not data. I, for one, do not believe that there is a failing of human nature that propels to see predictability in hindsight where predictability prior to the event was absent.

\\"It is easy to see,\\" says Taleb, \\"that life is the cumulative effect of a handful of significant shocks....The inability to predict outliers implies the inability to predict the course of history, given the share of these events in the dynamics of events.\\" This is of course quite true, and I know of no one who has ever doubted this. However, Taleb goes on to say \\"But we act as though we are able to predict historical events, or, even worse, as if we are able to change the course of history.\\" In fact, very few of the serious scholars I have known or known about has claimed the ability to predict the course of history. Moreover, we \\"act as though we are able to change the course of history\\" because we in fact can, through both individual and collective action.

Consider for example Taleb's treatment of the terrorist bombing of the World Trade Center in 2002. \\"What did people learn from the 9/11 episode? Did they learn that some events, owing to their dynamics, stand largely outside the realm of the predictable? No. Did they learn the built-in defect of conventional wisdom? No. What did they figure out? They learned precise rules for avoiding Islamic prototerrorists and tall buildings.\\"

This is, of course, exactly wrong. The United States and other threatened countries reacted to the 9/11 episode by overthrowing the Taliban in Afghanistan, which had supported the training operations of Al Qaida. The Saudi's attacked and destroyed Al Qaida at home, and the US armed services began long-term planning for counterinsurgency operations around the world. The current regime in the US has mounted a quite successful attack on the international Islamist terrorism network. No one sane person claims to have \\"predicted\\" 9/11, and most involved researchers do not think we have even \\"explained\\" the rise of Islamist terrorism. But there has been strong reaction to parts (a) and (b) of the Black Swan trilogy, contrary to Taleb's argument.

Another of Taleb's claims is that social scientists have an incorrect and falsely optimistic model of risk. Almost all social scientists, he claims \\"for over a century, have operated under the false belief that their tools could measure uncertainty. For the applications of the sciences of uncertainty to real-world problems has had ridiculous effects; I have been privileged to see it in finance and economics....This problem is endemic in social matters.\\" I believe that standard financial economics suffers precisely from such an incorrect model, but I do not know of any other important examples in the social sciences. Most important, this is not a failure of economic theory in general, but of a particular branch of economic theory---indeed, one that not even taught in economics departments (although it clearly should be, and will in coming years).

Taleb's distorted sense of social science leads him to make absolute absurd claims concerning the value of analytical modeling. For example, I have in my house ...a wall full of books on statistics and the history of statistics, books I never had the fortitude to burn or throw away; though I find them largely useless outside of their academic applications ...I cannot use them in class because I promised myself never to teach trash, even if dying of starvation.\\" This is a completely incorrect assessment of the role of statistics in the social sciences. Statistical reasoning is quite central to all of social theory and the evaluation of evidence for and against particular social science models, including the evaluation of pharmaceuticals, modeling the demographics of disease, testing products for beneficial and harmful effects, and a host of others. Taleb's generalization from the weakness of standard financial economics to the whole of mathematical discipline is quite unwarranted. However, he does not stop there. All of academia is tarred with his brush of hypocrisy and irrelevance. \\"...almost all academic papers,\\" he claims, \\"are made to bore, impress, provide credibility, intimidate even, be presented at meetings, but

not to be read except by suckers (or detractors) or, even worse, graduate students.\\" Note that he claims not simply that academic papers \\"bore,\\" but that is what they are made for! And he claims that academic papers \\"are not to be read except by suckers\\"! Taleb's writing is filled with unsubstantiated and improbable statements of this type.

To his credit, Taleb offers \\"Ten Principles for a Black Swan Robust Society.\\" Some of them are quite reasonable, and are indeed part of the solution to preventing financial crises in the future, although their relevance to other improbable event scenarios is questionable. Principle 2 says that there should be no \\"socialization of losses\\" and \\"privatization of gains\\", Principle 4 says people in sensitive positions should have the proper incentives to carry out the duties, Principle 6 says that ordinary citizens should have simple and useful financial instruments at their disposal, and \\". Complex financial products need to be banned because nobody understands them, and few are rational enough to know it. We need to protect citizens from themselves, from bankers selling them \\"hedging\\" products, and from gullible regulators who listen to economic theorists.\\" Principle 7 says that Ponzi schemes should be outlawed and Principle 8 says that we must legislate against the tendency of financial institutions becomes overleveraged.

Most of Taleb's suggestions are quite reasonable, but they do not depend on the Black Swan syndrome. Most economists would certainly subscribe to Taleb's principles, although a couple are quite difficult to implement, such as Principle 1, which says that. \\"Nothing should ever become too big to fail.\\"

I did not like this book at all. Taleb is pompous and arrogant, making wild accusations that cannot possibly be supported by the fact. Moreover, there is nothing new here, although if you have not thought before about the vagaries of history, you might find many eye-opening episodes described here.ims \\"for over a century, have operated under the false belief that their tools could measure uncertainty. For the applications of the sciences of uncertainty to real-world problems has had ridiculous effects; I have been privileged to see it in finance and economics....This problem is endemic in social matters.\\" I believe that standard financial economics suffers precisely from such an incorrect model, but I do not know of any other important examples in the social sciences. Most important, this is not a failure of economic theory in general, but of a particular branch of economic theory---indeed, one that not even taught in economics departments (although it clearly should be, and will in coming years).

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An Engine, Not a Camera: How Financial Models Shape Markets (Inside Technology)

A Thick Ethnography of American Futures and Options Markets — Rating: 4/5

MacKenzie's thesis in this book is well known and worthy of consideration: financial models such as Black-Scholes are not simply tools of the finance industry, they actually constituted a new social order, and one in which the risk of catastrophic failure is systematically underestimated, thus increasing the frequency and depth of such failures.

But this is an old story told many times, although never better than MacKenzie, who is a fine writer with a historian's flair for detail and the theoreticians's curiosity about What It All Means. The true value of this book is the institutional detail and the insights into the minds of the key players, as revealed by extensive interviews.

This is modern sociology at its best, a Granovetter-style voyage through the complex networks of individual and institutional linkages that make the financial system the dynamic, innovative, yet fragile system it is.

MacKenzie's analysis actually as much more nuanced than his major thesis, which is really just a hook for getting the reader interested in his historical exposition. In particular, he does not believe that most movers and shakers in the futures and options industry believed the Black-Scholes model after 1987. He also believe that the leaders in the industry only used mathematical models as one tool among many in making important decisions. His more interesting thesis, and I believe worthy of considerable additional research, is that the fragility of finance is caused by the tendency of traders to follow the lead of the successful to a degree that is individually rational but dangerous to the stability of the financial system. He also argues that behavioral finance may be correct in its depiction of the trading public as basically irrational (e.g., prospect theory when applied to personal portfolio management is pretty silly), but he argues that professional traders offset these irrationalities in ways that stabilize the market and fatten their pocketbooks.ocketbooks.

Explaining Social Behavior: More Nuts and Bolts for the Social Sciences

Rich and Provocative, but not always Correct — Rating: 4/5

Jon Elster's strength is his deep understanding of behavioral science as well as the classical writers on human nature and human society. In the past several years, his goal has been to join the two, throwing in the natural sciences, to explain more fully the nature of society. He says (p. 246) \\"In a common view, the scientific enterprise has three distincti parts or branches: the humanities, the social sciences, and the natural sciences...but...a rigid distinction may prefent cross-fertilization...the social sciences can benefit from the biological study of human beings and other animals...interpretation of works of art and explanation are closely related enterprises.\\" I think he is largely successful, and that this is a very useful approach for humanists and social scientists (although not for natural scientists). The number of insights per page in this book is prodigious, and it should be widely read.

I have several criticisms of Elster's exposition. In part, our differences may have narrowed or disappeared, as this book was published in 2007 and doubtless written a few years before that.

Elster's treatment of altruism is very Kantian. An act is altruistic if it benefits another at a cost to oneself, and one was motivated to undertake the act in order to benefit the other person. This, I believe, is absurd. If I really care about another person's welfare, then it pleases me to help this person. It is in my self-interest to behave altruistically. Very often I use the term self-regarding rather that self-interested, precisely because a truly moral person has a self-interest in being other-regarding. Part of my satisfaction in performing the altruistic act is that so doing is morally right, and I get satisfaction from behaving in a morally correct manner. But it may not. I may think there is nothing especially moral about being helpful or considerate or loyal--it just gives me satisfaction. Similarly, I may punish bad acts of others not because I want to change society for the better, but because I am personally very angry at the behavior. If I scream at a bad driver on the road, I am not trying to improve his driving behavior; I am trying to make him feel bad, and I might not care a whit whether it affects his behavior.

Elster's treatment of rational choice is fquite knowledgeable and sophisticated. But he presents the theory in a manner that renders it empirically incorrect, and gives no way to improve upon it, except to talk about emotions and irrationality. Rational choice theory assumes agents have a subjective prior over the effect of their choices on outcomes (beliefs), a set of transitive, consistent preferences over outcomes (preferences), and the face constraints in making their choices (such as limited information and resources). A rather strong form, but which I think is generally acceptable, is that rational agents update their subjective prior using something equivalent to Bayes rule. That is all. Elster insists that \\"rational choice theorists want to explain behavior on the bare assumpton that agents are rational.\\" (p. 191) This I call the fallacy of methodological individualism, which is rampant in economics, and is empirically false (see my book Bounds of Reason, Princeton 2009).

A stripped-down version of rational choice theory is both compatible with the facts, and extremely useful, as much of applied economics attests to. The main weakness of the theory, I believe, is the assumption that beliefs are personal (subjective prior), when in fact beliefs are generally the product of social linkages among complexly networked minds, and probabilities are resident in distributed cognition over this network. Elster's discussion of beliefs is again very rich, but he does not present the networked character of minds and the relationship of such networks or the formation and transformation of beliefs.

Elster's description of game theory is very useful and his suggested readings are excellent. However, he criticizes game theory for \\"predictive failures\\" (p.337), including behavior in finitely repeated games that are subject to analysis using backward induction. These games include the repeated prisoner's dilemma, the centipede game, and the traveler's dilemma. In all cases, backward induction gives a result that is very far from how people play the game. For instance, in the repeated prisoner's dilemma and the centipede game, backward induction says to defect on the first round, whereas in fact in a long game, people generally cooperate until near the very end of the game. However, the use of backward induction, while very common in game theory, cannot be justified by rationality alone. Rather, you need the common knowledge of rationality (CKR), which I believe is a very suspect epistemological condition---see Bounds of Reason, or the paper on CKR on my web site (under submission).

I think Elster should subject this book to a bit of rewriting, but meanwhile is is about the best book available on the topic.ted readings are excellent. However, he criticizes game theory for \\"predictive failures\\" (p.337), including behavior in finitely repeated games that are subject to analysis using backward induction. These games include the repeated prisoner's dilemma, the centipede game, and the traveler's dilemma. In all cases, backward induction gives a result that is very far from how people play the game. For instance, in the repeated prisoner's dilemma and the centipede game, backward induction says to defect on the first round, whereas in fact in a long game, people generally cooperate until near the very end of the game. However, the use of backward induction, while very common in game theory, cannot be justified by rationality alone. Rather, you need the common knowledge of rationality (CKR), which I believe is a very suspect epistemological condition---see Bounds of Reason, or the paper on CKR on my web site (under submission).

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Fragments of an Anarchist Anthropology (Paradigm)

I'll wait for the David Potter movie version — Rating: 4/5

James Woodburn (\\"Egalitarian Societies\\", Man 17,3 (1982):431-451) offers the following general description of a large number of extant hunter-gatherer societies: \\"Social groupings are flexible and constantly changing in composition...People are not dependent on specific other people for access to basic requirements\\" and \\"relationships between people, whether relationships of kinship or other relationships, stress sharing and mutuality but do not involve long-term binding commitments and dependencies.\\" (p. 434) These societies, he suggests, are \\"profoundly egalitarian... [they] systematically eliminate distinctions--other than those between the sexes--of wealth, of power and of status... relationships between men and women are quite variable in these societies, although in all of them women have far more independence than is usual in [modern societies].\\"

Christopher Boehm concurs with Woodburn in his famous book Hierarchy in the Forest (2000). He observes that we humans share with other primates the striving for hierarchical power, but hunter-gatherers successfully countered the dominance aspirations of \\"bullies\\" by what he calls \\"reverse dominance hierarchy.\\" By this he means that hunter-gatherers do not accept being controlled by an alpha-male, and are extremely sensitive to attempts of group members to accumulate power. When an individual appears to be stepping out of line by threatening or killing group members, he will be warned and punished. If this behavior continues and he cannot be ostracized, the group will delegate one or more members (usually including at least one close relative of the offender) to kill him. Boehm's message in Hierarchy in the Forest is that \\"egalitarianism...involves a very special type of hierarchy, a curious type that is based on antihierarchical feelings\\" and that we are genetically predisposed to exhibit these antihierarchical feels, because individuals with excessively pro-hierarchical feelings have tended to be underrepresented in the gene pool through the process of reverse dominance hierarchy.

These societies are anthropologist David Graeber's inspiration for this short and engaging book on the possibilities for an anarchist society. \\"The basic principles of anarchism---self-organization, voluntary association, mutual aid,\\" he correctly asserts, are \\"forms of human behavior [that have] been around as about as long as humanity.\\" (p. 3) Moreover, he suggests that we can go back to older and simpler forms of social organization: \\"The West may have introduced some new possibilities, but it hasn't canceled any of the old ones out.\\" (p. 51)

What Graeber does not tell us is that the highly egalitarian societies of which he approves are virtually universally \\"immediate-return\\" societies. In immediate return societies group members obtain direct return from their labor in hunting and gathering, with food lasting at most a few days. The tools and weapons they use are highly portable. The alternative to immediate-return societies are \\"delayed return\\" societies in which the group recognizes that individuals hold rights over some sorts of valuable assets. The main types of such assets are valuable means of production, such as boats, nets, and beehives, processed and stored food or materials, and herds of animals. In delayed-return societies this egalitarianism gives way to highly inegalitarian forms of social stratification akin to those in modern societies: lineages, clans, chiefdoms and the like.

As commentator mtraven pointed out to me, Graeber does touch on this issue, as follows;

\\"There have been all sorts of successful experiments: experiments with worker's self-management, like Mondragon; economic projects based on the idea of the gift economy, like Linux; all sorts of political organizations based on consensus and direct democracy...\\"

However, these experiments have being going on for more than a century and have never amounted to more than a blip on the economic charts. Linux, Mozilla Foxfire and other voluntary contribution software initiatives have become megolith profit-maximizing firms. Except for a few outliers, like the Apache server and Aptana Studio, professional software developers use commercial software. Worker self-management, which I championed for many years, only works in firms with very low capital per head (such as law firms) or where the capital is extremely marketable (such as airlines) and where the degree of differentiation of the work force is very low. Moreover, successful worker-owned firms hire

labor in the second generation and become capitalist owners themselves. All this is well described in the literature.

I am not sure exactly why delayed-return societies have been able to overcome the innate egalitarian morality of which Graeber is so wistfully fond. Most likely the basis for egalitarianism in hunter-gatherer groups with lethal weapons (knives, spears, poisoned arrows, and the like) is the ability of any man to kill any other, if only by taking him by surprise or in his sleep. This capacity, by the way, is completely lacking in other primate species, which therefore rather prefer either solitary life or a social dominancy hierarchy with an alpha-male who rules by virtue of force alone. In delayed-return societies, there are forms of wealth that an aspiring despot can use to forge durable alliances protecting him from the masses whom he exploits.

My conclusion is that only delayed-return societies can support a high level of material well-being, and such societies have the military power to control or marginalize any immediate-return society that might arise. Even if all societies magically became egalitarian and stateless, a mutant with an eye towards exploiting the weak could use delayed-return techniques to grow and eventually control and supplant egalitarian immediate-return societies.

Anarchism is thus anachronistic, except for a small group of people who want to opt out of the world system and live in its social interstices. This does not mean that one cannot be an egalitarian. Indeed, the rise of liberal democratic capitalism and representative government have shifted the balance of power, even in delayed-return societies, to the masses---at least by contrast with the despotic and corrupt systems in the poor countries of the world today, and by equally strong contrast with the despotic and totalitarian systems of the past.

The anarchists are disillusioned with liberal democratic capitalism because it is so unequal, and it leave so much poverty to itself while the rich and privileged wallow in obscene luxury. In fact, the only corrective for this situation is more democracy and more control over the aspirations of despots.

The history of freedom is indeed U-shaped.. Our immediate-return hunter-gatherer ancestors were dignified and free, but life still was nasty, brutish and short. With the rise of delayed-return societies (agriculture, settled trade, bureaucratic state institutions), social dominance hierarchy was reestablished, but the democratic collective action of the masses of subjects since the mid-eighteenth century has turned the tide in favor of democracy and welfare-state capitalism.ed to more than a blip on the economic charts. Linux, Mozilla Foxfire and other voluntary contribution software initiatives have become megolith profit-maximizing firms. Except for a few outliers, like the Apache server and Aptana Studio, professional software developers use commercial software. Worker self-management, which I championed for many years, only works in firms with very low capital per head (such as law firms) or where the capital is extremely marketable (such as airlines) and where the degree of differentiation of the work force is very low. Moreover, successful worker-owned firms hire labor in the second generation and become capitalist owners themselves. All this is well described in the literature.

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Coming Apart: The State of White America, 1960-2010

Good Up To, but not Including, the Last Drop — Rating: 4/5

This book has been so widely review that I will assume the potential reader knows Charles Murray's analysis. I will just add a few comments.

A lot of the social history is very nicely narrated, with a fine sense of style and pacing. I do not find any of Murray's facts implausible. Like many readers, I do not believe Murray's conclusions are in the least justified by the analysis. Most important, Murray attributes the decline of morality in the working classes to the nefarious influence of the welfare state. \\"The simplest way in which the advanced welfare state will lose attractiveness is the looming bankruptcy of the European welfare state.\\" (p.296)

In fact, there are just many European countries that have avoided the moral decay that Murray has described, including unambiguously the Nordic countries, France, Germany, Austria, and Switzerland. They are not all strong economic performers (e.g., France is not), but they have avoided social pathologies in their core \\"majoritarian\\" ethnic groups. The fact is, the high achievers in world set their sights much higher than the dole, and some societies seem quite capable of maintaining both a welfare state and a moral, high-achieving populace.

Moreover, as S. Maxwell notes in a comment on this review, \\"contrary to what Murray writes, EU counties are not on the verge of bankruptcy due to their generous social programs. Some of the EU nations that have the most generous social programs, like Sweden and Germany, are in much better economic shape than those with less generous programs. Prior to the recession, Ireland was praised by conservative commentators for low government debt and for prudent investments in education and infrastructure. Ireland's government debt exploded during the recession not because of social programs but because the government chose to guarantee the debt of private sector banks that had borrowed far more money than they could repay. Stupid decisions by Irish capitalists, not generous social programs, are responsible for the Irish sovereign debt problem.\\"

Charles Murray's notion that the welfare state must be abandoned before morality can be found may be true, but there is no good evidence in favor of this view. Moreover, destroying the welfare state is more likely to lead to the unravelling of the social contract and a serious increase in social pathologies.

I suspect, however, that Murray is correct in saying that in the US today, one can simply refuse to play the middle-class game and still lead a rewarding life, if only hedonistically speaking. Drugs, music, television, safe sex, emergency rooms in hospitals, all contribute to simply becoming marginal yet having lots of fun. I think we will just have to live with that. No big deal, except the burden placed upon children of having deadbeat and ignorant parents. My own preferred solution to this problem is more state intervention in shoring up the quality of family life, not less, as Murray would suggest.

The liberal response to Murray's argument is also not plausible. The argument is that the state of the working class in America is not due to the welfare state, but the lack of high-paying low skill manufacturing jobs, which have fled to other countries. There are plenty of jobs out there for people who are willing to invest in education and skill training. Indeed, women have done very well in the new

economy by following this strategy., are responsible for the Irish sovereign debt problem.\\" Charles Murray's notion that the welfare state must be abandoned before morality can be found may be true, but there is no good evidence in favor of this view. Moreover, destroying the welfare state is more likely to lead to the unravelling of the social contract and a serious increase in social pathologies. I suspect, however, that Murray is correct in saying that in the US today, one can simply refuse to play the middle-class game and still lead a rewarding life, if only hedonistically speaking. Drugs, music, television, safe sex, emergency rooms in hospitals, all contribute to simply becoming marginal yet having lots of fun. I think we will just have to live with that. No big deal, except the burden placed upon children of having deadbeat and ignorant parents. My own preferred solution to this problem is more state intervention in shoring up the quality of family life, not less, as Murray would suggest. The liberal response to Murray's argument is also not plausible. The argument is that the state of the working class in America is not due to the welfare state, but the lack of high-paying low skill manufacturing jobs, which have fled to other countries. There are plenty of jobs out there for people who are willing to invest in education and skill training. Indeed, women have done very well in the new economy by following this strategy.

The MIT Encyclopedia of the Cognitive Sciences (MITECS)

Outdated by Wikipedia — Rating: 2/5

In 1999, when this was published, there was not much high-quality online material of this type. Now there is lots, including Wikipedia. I purchased this to read the overview papers, which I found elementary and pedagogical---not useful for research. I read a sampling of entries and found them fragmented and rather elementary. Thus, this book (like many other 'encyclopedia' type books, are superannuated. I will donate my copy to charity.

The Better Angels of Our Nature: Why Violence Has Declined

A Modern-day Classic — Rating: 5/5

Steven Pinker has always been a brilliant and insightful author, ably bridging the gap between behavioral science research and the audience of intelligent laypersons. The Better Angels of Our Nature, however, is by far his most ambitious and successful book---a book destined for greatness. Like most great books, the message is simple and clear, and the author spends most of his time and energy defending and elaborating on a few key points. Immensely knowledgeable in all the behavioral sciences, and possessing considerable statistical skills, Pinker ranges over a huge swath of modern research, virtually every page overflowing with factual information.

The last book that I read that I admired almost as much as this was Jared Diamond's Germs, Guns and Steel: The Fates of Human Societies (1997). I loved Diamond's book even though I had some reservations concerning the validity of his explanation of the distribution of poverty and wealth in the modern world. I have even more reservations concerning Pinker's explanation of the dramatic decline of violence in modern society, but this does not diminish the value of his contributions in my eyes (and it certainly should not in yours, dear potential reader).

Pinker begins by tracing six major turning points in human history (he calls them, rather inaccurately, \\"trends\\"). First was the transition from hunter-gather to sedentary and agricultural living some 10,000 years ago (yes, it was that recently!). The second was the transition from feudalism to modern society in the Middle Ages, which initiated a five hundred year \\"Civilizing Process\\" (to use the words of the great sociologist Norbert Elias) leading to a ten to fifty-fold reduction in the amount of violence in society. The third was the European Enlightenment and the Age of Reason that this unleashed, leading to the virtual elimination of socially sanction forms of violence (e.g., torture, public hangings, dueling, witch burnings, cruelty to animals). The fourth transition was the end of international war among the great powers after World War II, and the fifth was the decline in civil wars, genocides, and repression by autocrats since the end of the Cold War. Pinker's final transition is the widespread expression of faith in human rights embodied in the 1948 Universal Declaration of Human Rights.

Pinker ascribes the decline of violence to \\"four better angels,\\" that form part of the psychological repertoire of Homo sapiens. These are empathy, self-control, a moral sense, and the faculty of reason. A fair fraction of the book is devoted to showing that we in fact have these \\"better angels,\\" using modern behavioral game theory and experimental psychology and economics. The rather quaint notion, fashionable until just a couple of decades ago, that humans are basically selfish and uncaring except for close kin, and that humans have a natural and irrepressible instinct for aggression and mayhem, is eloquently and effectively contradicted by contemporary social science research.

The better angels of our human nature do not operate, however, in a social vacuum. Rather, Pinker asserts, there are five historical forces that have led to the triumph of empathy, self-control, a moral sense, and the faculty of reason over the equally powerful human thirst to exploit and dominate other groups, and to take revenge against those who have offended us with no sense of self-control, temperance, or forgiveness. The first of these historical forces he calls \\"Leviathan\\" (following Hobbes)---the rise of the state and judiciary that enforces a monopoly of coercion, and funnels disputes between individuals and groups through the judicial apparatus. The second is commerce, the globalization of which starting in the sixteen century, which changes international relations into a positive sum game that is crippled by war. The third historical force is feminization, through which the interests and values of women are increasing respected and generalized to both sexes. The fourth is cosmopolitanism, including literacy, mobility, and mass media, which lead people increasingly to understand the mind-sets and desires of others unlike themselves, and to expand their circle of sympathy to larger and larger groupings of individuals. The fifth, says Pinker, is the \\"escalator of reason,\\" through which people can learn from the past the futility of acting out their primitive urges, and rather turn to peaceful solutions to their problems.

Perhaps the most surprising, and welcome, aspect of Pinker's new work is that it is implicitly a devastating nail-in-the-coffin critique of the brand of evolutionary psychology with which Pinker has identified for many years. The brand of evolutionary psychology initiated by Lida Cosmides and John Tooby began with with a high-precision and effective attack on mainstream psychology and sociology, which they called the Standard Social Sciences Model (SSSM). According to the SSSM, the human mind is a blank slate at birth (nota bene: the title of one of Pinker's books was The Blank Slate), and individual psychological characteristics are determined purely by the dominant culture in which the individual is raised. \\"Human nature,\\" as Karl Marx proclaimed in the Theses on Feuerbach, \\"is the sum of social relations\\" (Marxism and mainstream social theory agreed on this central tenet). Thus, in a culture that approves of violence there will be lots of violence, which in a culture that approves of pacific relations, there will be peace. In a society that recognizes differences between the sexes, there will be exhibited exactly those differences so recognized. And so on.

The SSSM would be a mixed blessing if it were true. On the one hand, we could engineer culture to produces people who are kind, considerate, and helpful to one another. On the other hand, a totalitarian state could produce people who willingly follow the dictates of Big Brother, inevitably rat on the deviations of their friends and family members from the Socially Desirable Behavior, and live on hay and cider while their masters dined on caviar and Champagne (Yves Montand one sang \\"Il faut une chasuble d'or pour chanter Beni Createur. Nous en tissons, grands de l'Eglise, et nous, pauvres canuts, n'ont pas de chemises.\\")

However, the SSSM is surely not true, as we have learned from the work of Cosmides and Tooby, followed by a few decades of behavioral economic and psychology. Just a Marx's materialism is Hegel's idealism \\"stood on its head,\\" so Cosmides and Tooby's evolutionary psychology is the SSSM stood on its head: genes are everything and culture is a palsied epiphenomenon, the instantaneous representation of the human gene pool.

However, Pinker's explanation of the remarkable decline in violence that hallmarks human prehistory and history has an explanation in which genes and culture interact in a rather balanced manner (this is called \\"gene-culture coevolution\\"). Humans have empathy and a moral sense not because these virtues are impressed upon us as blank slates, but because we evolved in such a manner that those with empathy and a moral sense had more offspring that the sociopaths, and they passed the genes that precondition empathy and morality on to their offspring. Culture is thus not an epiphenomenon that is completely subservient so social structure, but a driving force in the transformation of social structure.

The problem with Pinker's argument is that it leaves us with a sense of post hoc propter hoc. Humans became nicer in many different ways at once over the years (the Civilizing Process) and we really cannot say why it came out the way it did. I think Pinker's stress on the role of the state in reducing violence is undoubtedly correct, but why did the growth of state power not lead to the sort of totalitarian despotism that was so feared in the early twentieth century, and so hoped for by the Communists, Nazi, and Fascist states of the world? Why has cosmopolitanism led to the spread of liberating information technologies, rather than highly efficient despotic control of information by an authoritarian state?

One could answer that the human drive for freedom and dignity, a legacy from our hunter-gatherer past, accounts for the control of the means of coercion by the mass of citizens (note that in a fully efficient coercive state, there is no violence at all--although there might be some ineluctable \\"reeducation\\")? I think the answer probably lies in the nature technology.

The egalitarian nature of simple hunter-gatherer societies was predicated on the existence of lethal weapons, making it impossible, in an age before property, for an individual to control the group through force, because anyone can kill anyone else, catching him by surprise, at low persona cost. With the advent of sedentary and agricultural communities, private property permitted a ruling class to control the masses by force, and primitive egalitarianism was completely eclipsed in the human world. Only with the development of the handgun and bored rifle in the eighteenth and later centuries prevented the hegemony of a ruling class of mounted warriors. The age of democracy was at the same time the age of foot soldiers and the infantry-based army.

In thinking about Pinker's argument, I am led to think that he understates the role of information technology in the decline of violence. When my Jewish ancestors were murdered in Polish pogroms, their tormenters were told that Jews sacrificed Christians on their Holy Days, and their unleavened bread was an admixture of wheat and Christian blood. My mother-in-law recounted to me the following story. As a young bride, she took the bus every Saturday to visit her husband where he was stationed. After a couple of weeks, she became friendly with another young bride in the same situation, and thereafter they sat together passing the time talking during the trip. One day my mother-in-law mention that she was Jewish. Her friend, completely horrified, pushed her away in disgust, and asked her where her horns were, which her priest had assured her all Jewish women had under the kerchiefs. My point is that now you just can't get away with manipulating people into believing such falsehoods because there is no power so despotic as to be able to shields its people from the truth.embers from the Socially Desirable Behavior, and live on hay and cider while their masters dined on caviar and Champagne (Yves Montand one sang \\"Il faut une chasuble d'or pour chanter Beni Createur. Nous en tissons, grands de l'Eglise, et nous, pauvres canuts, n'ont pas de chemises.\\") However, the SSSM is surely not true, as we have learned from the work of Cosmides and Tooby, followed by a few decades of behavioral economic and psychology. Just a Marx's materialism is Hegel's idealism \\"stood on its head,\\" so Cosmides and Tooby's evolutionary psychology is the SSSM stood on its head: genes are everything and culture is a palsied epiphenomenon, the instantaneous representation of the human gene pool. However, Pinker's explanation of the remarkable decline in violence that hallmarks human prehistory and history has an explanation in which genes and culture interact in a rather balanced manner (this is called \\"gene-culture coevolution\\"). Humans have empathy and a moral sense not because these virtues are impressed upon us as blank slates, but because we evolved in such a manner that those with empathy and a moral sense had more offspring that the sociopaths, and they passed the genes that precondition empathy and morality on to their offspring. Culture is thus not an epiphenomenon that is completely subservient so social structure, but a driving force in the transformation of social structure.
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Thinking, Fast and Slow

Lots of Truth, Too Much Hype — Rating: 4/5

I was privileged to have Daniel Kahneman for many years as a member of my research group \\"MacArthur Network on the Origin and Nature of Norms and Preferences,\\" where I came to appreciate his dedication, intelligence, and friendship. At last Kahneman has written a book for the public, and is already a widely discussed best seller. I am convinced that the contributions of Kahneman and his coauthor Amos Tversky are fundamental and lasting, but I am concerned that his work not be seen as conveying the general message that \\"people are irrational.\\"

I was motivated to write these hasty comments by the review of the book by Jim Holt in the New York Times Book Review (11/27/2011), p. 16ff. Holt writes \\"Although Kahneman draws only modest policy implications... others... go much further. [David Brooks, NY Times editorial writer], for example, has argued that Kahneman and Tversky's work illustrates `the limits of social policy'; in particular, the folly of government action to fight joblessness and turn the economy around.\\" Of course, nothing of the sort follows from Kahneman and Tversky's work.

I know Kahneman and Tversky's work (hereafter KT) very well, but I am going through this book slowly, so I will add to my comments as they accumulate.

Psychologists have known for many years that humans make systematic visual mistakes, called \\"optical illusions.\\" This does not elicit the general pronouncement that humans systematically error in their visual judgments. The same should apply to KW's results: the results are correct, but they should not be sloppily interpreted as saying that people are general illogical and error-prone decision-makers.

First main point: I believe KW's work does not at all suggest that people are poor at making logical inferences. The experiments which might suggest this are generally misinterpreted. A particularly pointed example of this heuristic is the famous Linda the Bank Teller problem, first analyzed in Amos Tversky and Daniel Kahneman, \\"Extensional versus Intuitive Reasoning: The Conjunction Fallacy in Probability Judgment\\", Psychological Review 90 (1983):293-315. Subjects are given the following description of a hypothetical person named Linda: \\"Linda is 31 years old, single, outspoken, and very bright. She majored in philosophy. As a student, she was deeply concerned with issues of discrimination and social justice and also participated in antinuclear demonstrations.\\" The subjects were then asked to rank-order eight statements about Linda according to their probabilities. The statements included the

following two: \\"Linda is a bank teller\\" and Linda is a bank teller and is active in the feminist movement.\\"

More than 80\% of the subjects---graduate and medical school students with statistical training and doctoral students in the decision science program at Stanford University's business school---ranked the second statement as more probable than the first. This seems like a simple logical error because every bank teller feminist is also a bank teller. However, there is another interpretation according to which the subjects are correct in their judgments. Let p and q be properties that every member of a population either has or does not have. The standard definition of \\"the probability that member x is p\\" is the fraction of the population for which p is true. But an equally reasonable definition is the probability that x is a member of a random sample of the subset of the population for which p is true.' According to the standard definition, the probability of p and q cannot be greater than the probability of p. But, according to the second, the opposite inequality can hold: x might be more likely to appear in a random sample of individuals who are both p and q than in a random sample of the same size of individuals who are p.

In other words, the probability that a randomly chosen bank teller is Linda is probably much lower than the probability thata randomly chosen feminist bank teller is Linda. Another way of expressing this point is that the probability that a randomly chosen member of the set \\"is a feminist bank teller\\" may be Linda is greater than the probability that a randomly chosen member of the set \\"is a bank teller,\\" is Linda.

I believe my interpretation is by far the more natural. Moreover, why would the experimenters have included information about Linda's college behavior unless it were relevant? This behavior is completely irrelevant given KW's interpretation of probability, but wholly pertinent given a \\"conditional probability\\" interpretation. The latter can be colloquially restated as \\"the conditional probability that an individual is Linda given that she is a feminist bank teller is higher than the conditional probability that an individual is Linda given that she is a bank teller.\\"

Second Main Point: Many of the examples of irrationality given by KW are not in any way irrational. Consider for example the chief investment officer described by Kahneman (p. 12). This man invested tens of millions of dollars in Ford Motor Company stock after having visited and automobile show and having been impressed with the quality of the current offering of Ford vehicles. Kahneman says \\"I found it remarkable that he had apparently not considered the one question that an economist would call relevant: I Ford stock currently underpriced?\\" In fact, there is no objective measure of a stock being \\"underpriced,\\" and no known correlation between a measure of \\"being underpriced\\" and subsequent performance on the stock market. Moreover, the executive may not have revealed all of the reasoning involved in his decision, but rather only a \\"deciding factor\\" after other considerations had been factored in.

Third Main Point: We have long known that people do not generally act in their own best interest. We have weakness of will, we procrastinate, we punish ourselves for things that are not our fault, we act thoughtlessly and regret our actions, yet repeat them, we become addicted to cigarettes and drugs, we become obese even though we would like to be thin, we pay billions of dollars for self-help books that almost never work. KW have not added much, if anything, to our understanding of this array of bizarre behaviors. Of course, they do not claim otherwise. However, commentators regularly claim that this behavior somehow contradicts the `rational actor model' of economic theory, which it does not in any way. Economic theory explores the implications of human choice behavior without claiming that the choices people make are in some sense prudent or even desirable to the decision-maker (we cannot choose our preferences).

Economic theory is in general supportive of the notion that people should get what they want, but has included the notion of \\"merit goods\\" that society values or disvalues for moral or practical reasons that counterindicate consumer sovereignty. For instance, we regulate pharmaceuticals, we prohibit racial discrimination in public places, and we outlaw markets in body parts.

Fourth Main Point: KW are right on target in asserting that people make massive errors in interpreting statistical arguments (e.g., the base rate fallacy, or the interpretation of conditional probabilities). This has nothing to do with \\"illogicality\\" or \\"irrationality,\\" but rather the complexity of the mathematics itself. For instance, KW have shown that physicians routinely fail to understand what the statistical accuracy of lab tests mean---the fact that at test is 95% accurate is compatible with the fact

that it is wrong 95% (or any other, depending on the incidence of the condition that is test for) of the time.

The psychologist Gerd Gigerenzer has shown that if conditional probabilities are reinterpreted as frequencies, people have no problem in interpreting their meaning (see the discussion \\"Risk School\\" in Nature 461,29, October 2009). Gigerenzer has be promoting the idea that trigonometry be dropped from the high school math sequence (no one uses it except surveyors, physicists, and engineers) and probability theory be added. This sounds like a great idea to me.

Of course, if people do not do well a formal statistical analysis, how are to we defend the rational actor model, which is thoroughly Bayesian and implicitly assumes people are infinitely capable statistical decision-makers? The answer is not to abandon the rational actor model, which in general has had exceptional explanatory power---see my book, The Bounds of Reason (Princeton 2009) and my review of Ken Binmore's Rational Decisions (Economic Journal, February 2010). Rather, I believe the answer lies in replacing the subjective prior assumption of the rational actor model with a broader assumption that individuals make decision within networks of minds that are characterized by distributed cognition, much as social insects, except of course on a much higher level, using language instead of pheromones, with the cultural construction of iconic rather than pheromonic signals. But, that is the subject to be explored in the future. One of the payoffs of KT research is to make it clear how insufficient the standard economic model of decision-making under (radical) uncertainty really is.our fault, we act thoughtlessly and regret our actions, yet repeat them, we become addicted to cigarettes and drugs, we become obese even though we would like to be thin, we pay billions of dollars for self-help books that almost never work. KW have not added much, if anything, to our understanding of this array of bizarre behaviors. Of course, they do not claim otherwise. However, commentators regularly claim that this behavior somehow contradicts the `rational actor model' of economic theory, which it does not in any way. Economic theory explores the implications of human choice behavior without claiming that the choices people make are in some sense prudent or even desirable to the decision-maker (we cannot choose our preferences).

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Evolutionary History: Uniting History and Biology to Understand Life on Earth (Studies in Environment and History)

Elementary Initiation into Evolutionary Theory — Rating: 3/5

If you don't know anything about evolutionary biology or Darwinian theory as applied to humans, this is a very nice place to start (5 stars for this audience). If you do know evolutionary theory but want to find out how it applied to history a discipline, there is one relevant chapter, but mostly the book will be a waste of time.

Perhaps a quote from the Conclusion (p. 151) says it all: \\"I hope this book has convinced you of five ideas. First, evolution is ubiquitous. Second, people have shaped the evolution of populations of human and non-human societies. Third, anthropogenic evolution has shaped human as well as natural history. Forth, human and non-human populations have coevolved... And fifth, uniting the insights of history and biology in evolutionary history enables us to understand the past more fully than either discipline does alone.\\"

Keynes Hayek: The Clash that Defined Modern Economics

Entertaining but Over-Interpreted — Rating: 3/5

This book is quite nicely written and has little trouble engaging the attention of the reader. The two eminent economists certainly had extremely divergent ideas, Keynes representing modern liberal interventionist social policy, and Hayek representing the classical laissez-faire position so characteristic of the Austrian school. The problem with the book is that the two figures really did not much interact, either in words or in real life, and each was preoccupied with a major battle that did not involve the other. Keynes' polemic was against the received wisdom in British and American economics, which held that economic downturns are self-correcting, provided the monetary authority maintained the value of the currency and did not run exorbitant deficits. Of course the Austrian school believed this too, but this school was practically unknown in Anglo-American circles. Hayek was concerned with business cycle theory, but his contributions were exceeding arcane and unpersuasive. Rather, Hayek was the dedicated enemy of central planning of the state socialist variety.

Hayek's major clash with the socialists occurred in the mid-1930's in the so-called economic calculation debates with the market socialists, most notably Oskar Lange. The market socialists clearly won this debate, in which all parties assumed the validity of neoclassical economic theory. Curiously, the great Josef Schumpeter concluded that socialism was inevitable (he develops this theme in Capitalism, Socialism, and Democracy, 1942), while Hayek concludes (correctly) that it is neoclassical theory that is wrong. Hayek spent the next decade developing his own extremely cogent critique of central planning, writing his most important article: F. A. Hayek, \\"The Use of Knowledge in Society\\", American Economic Review 35,4 (1945):519-530. This is one of the greatest pieces of economic analysis of all time.

The Road to Serfdom, which Wapshott interprets as a diatribe against the Keynesians, is to my mind nothing of the kind. Rather it is a \\"slippery slope\\" argument against centralized socialist planning.

I think the world of both Keynes and Hayek, the former as a wise practitioner whose economic theory is completely ridiculous (it took Hicks, Samuelson, and other serious economists to \\"make sense\\" of Keynes' impenetrable prose---\\"make sense\\" not by clarification of Keynes' ideas, but rather by offering an alternative analytical framework in which underemployment equilibrium is possible), and the latter as brilliant intellectual who was almost destroyed (despite his Nobel prize) by his adherence to the bizarre and irrelevant doctrines of the Austrian school, whose economic theory was dogmatically dictated by its paranoid fear of state intervention.

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The End of History and the Last Man

Apocalypse Not — Rating: 4/5

The Enlightenment view of history is the triumph of the rule of Reason, which operates in the realm of ideas. Hegel produced a dynamic and material version of Enlightenment history by stressing the dialectic between ideas and materiality, whereby each stage in the development of Reason is instantiated and codified in a concrete social formation in which the reigning ideal Zeitgeist is the motive force driving history forward. Marx accepted Hegel's view of history (actually he \\"turned Hegel on his head,\\" but Hegel upside down is still just Hegel), and located the motive force in class struggle. Many European intellectuals saw clearly that Marx's communism was just one peculiar moment in the general move from autocracy to democracy, by which they meant not a schema of majority rule and political freedom, but rather rule by and for the masses. This was the end of history.

Nietzsche saw and lamented this turn of history in Marx's time, and Heidegger and many others followed in Nietzsche's path in the twentieth century. Others, like the brilliant Russian-French philosopher Alexandre Kojève, saw clearly and triumphantly that Marx was indeed a footnote to Hegel, and in the long run the end of history would culminate in a general emancipation of the masses.

Fukuyama is a student and admirer of Kojève. The collapse of the Soviet Union became for him the occasion for writing this energetic and apocalyptic defense of modern liberal democratic capitalism, as well as some warnings concerning the implication of the `end of history.' The collapse of the Soviet empire, the transformation of Chinese Communism into a capitalist system with an authoritarian state, the withering away of socialist and trade union forces in Europe and America, and the success of Pacific Basin capitalism all solidified liberal democratic capitalism as they only viable emancipatory wealth-generating social form. Fukuyama carries this train of thought deep into the future by claiming that modern technology is uniquely suited for liberal democracy, obviating any possibility of an alternative system arising in the foreseeable future. He recognizes that there will be all sorts of rear-guard actions, such as unstable dictatorships backed by military force and religious ideology, but these must eventually give way to liberal democracy.

The cautionary dimension in Fukuyama's argument is indicated by the \\"Last Man\\" notion present in the book's title. Fukuyama is sympathetic to the Nietzsche-Heidegger argument that true individuality and creativity is incompatible with mass democracy. Here Fukuyama expresses a key worry of mid-twentieth century American intellectuals, such as Daniel Bell (The End of Ideology, 1960), Sloan Wilson (The Man in the Grey Flannel Suit), and Herbert Marcuse (One-Dimensional Man), who were reviled by the shallowness and vapidity of popular culture, and longed for a return to the high culture of Voltaire's salon and the Wiener Kreis coffeehouse ruminations.

I often find Fukuyama a pedestrian writer, but this book is inspired, and Fukuyama's energy spills out onto the pages in into the reader's heart. I would love it if his argument about liberal democracy were correct, although I don't believe the one-dimensional man argument at all. However, there is one major and one minor problem with his analysis. The minor problem is that technological change in the future

could either destroy civilization altogether or render capitalism anachronistic for one reason or another (e.g., intelligent robots take over the role of innovation and entrepreneurship, or people tire of more and more material goods). This possibility is remote at the present time, of course.

The major problem is simply that Hegel's theory of history is only a half-truth, and a misplaced half-truth at that. History is indeed an interplay between human aspirations and human technology, but human aspirations are not based on Reason but rather upon a human nature that is the product of gene-culture coevolution, and as such, is imbued with certain preternatural values. Most important is that humans desire freedom, dignity, and the capacity to control their social world through association with others as co-equals. To appreciate the centrality of evolved human nature, suppose some termite species (order isoptera) had evolved large brains and complex societies as opposed to Homo sapiens (subtribe Hominina). Termite nature being inherently eusocial and hierarchical, the ideal yearnings of the mass of intelligent termites would include no element of social equality, personal dignity, or self-determination, but would likely center around the sublimely harmonious and completely ordered group mind and flawless bureaucratic structure. \\"Reason,\\" Hume once famously noted, \\"is, and ought only to be the slave of the passions.\\" It is the human passion for freedom and dignity that determines the thrust of emancipatory history, not the dictates of abstract Reason.

I do not consider this a major problem with Fukuyama's argument. Evolutionary biology gives the truth to Hegel, but this turning of Hegel on his head is no more revolutionary that Marx's, although obviously more descriptive of human reality (E. O. Wilson, when induced to read Marx to help understand the Marxist hostility to sociobiology, wrote in the margin of the Communist Manifesto \\"terrific theory, wrong species\\"). Much more important is that human technology, rather than being an unambiguous emancipatory force, is a seriously two-edged sword, in some eras liberating, and others enslaving, the human passions. Let me explain.

It is well known that the hunter-gatherer societies that defined human existence until some 10,000 years ago were extremely egalitarian, involving widespread sharing both communal child rearing (Sarah Blaffer Hrdy, Mother Nature: Maternal Instincts and How They Shape the Human Species, Ballantine, 2000; and Mothers and Others: The Evolutionary Origins of Mutual Understanding, Belknap, 2009) and hunting (Christopher Boehm, Hierarchy in the Forest: The Evolution of Egalitarian Behavior, Harvard University Press, 2000; and Samuel Bowles and Herbert Gintis, A Cooperative Species: Human Reciprocity and its Evolution (Princeton University Press, 2011). It is the human nature that emerged from this nexus of social institutions that defines contemporary human passions for emancipatory social institutions, of which liberal democratic capitalism is the contemporary most advanced form.

Why did hominids develop egalitarian societies while the other social primates, especially chimpanzees, gorillas, and bonobos retained hierarchical political structures based on personal power (bonobos appears to have a less linear hierarchy that the other social primates, but there is still a hierarchy based on physical strength of males and the coalitional capacities of females)? The answer is probably technological. Hominids developed lethal weapons at least 400,000 years ago, in the Middle Pleistocene (Harmut Thieme, \\"Lower Palaeolithic Hunting Spears from Germany\\", Nature 385,27 (1997):807-810). Most important were sharpened wooden thrusting and throwing spears developed for hunting, but quite effective in killing or maiming the strongest male while asleep or otherwise inattentive. Because of these lethal weapons, there was no possibility of maintaining a political hierarchy based on physical prowess alone. By contrast, non-human primates never developed weapons capable of controlling a dominant male. Even when sound asleep, an accosted male reacts to hostile onslaughts by awakening and engaging in a physical battle, basically unharmed by surprise attack.

The reaction of hominid political structure to the emergence of lethal weapons was, logically, either to sustain leaderless social coalitions, or to find some other basis for leadership. The superior survival value of groups with leadership doubtless led to the demise of leaderless hominid social formations, and the consolidation of new hominid social relations based on novel forms of leadership. What might these may be? Clearly, if on cannot lead by force, one must lead by persuasion. Thus successful hominid social bands came to value individuals who could command prestige by virtue of their persuasive capacities. Persuasion depends on clear logic, analytical abilities, a high degree of social cognition (knowing how to form coalitions and curry the favor of others), and linguistic facility. For this reason, the social structure of hunter-gatherer life favored progressive encephalization and the evolution of the physical and mental

prerequisites of effective linguistic and facial communication. In short, 400,000 years of evolution in the presence of lethal weapons gave rise to Homo sapiens.

If this argument is correct, it explains the huge cognitive and linguistic advantage of humans over other species not as some quirk of sexual selection (the favorite theory through the ages of Charles Darwin, Ronald Fisher, Geoffrey Miller and many others), but rather as directly fitness enhancing, despite the extreme energy costs of the brain: increased cognitive and linguistic ability entailed heightened leadership capacities, which fellow group members were very willing to trade for enhanced mating and provisioning privileges.

With the development of settled trade, agriculture, and private property some 10,000 years ago, it became possible for a Big Man to gather around him a relatively small group of subordinates and consorts that would protect him from the lethal revenge of a dominated populace, whence the slow and virtually inexorable rise of the state both as a instrument for exploiting direct produces and for protecting them against the exploitation of external states and bands of private and semi-state-sanctioned marauders. The hegemonic aspirations of states peaked in the thirteenth century, only be driven back by the serious of European population-decimating plagues of the fourteenth century. The period of state consolidation resumed in the fifteenth century, based on a new technology: the heavily armed cavalry. In this case, as in some other prominent cases, technology becomes the handmaiden to oppression rather than emancipation.

In Politics VII, Aristotle writes \\"there are four kinds of military forces---the cavalry, the heavy infantry, the light armed troops, the navy. When the country is adapted for cavalry, then a strong oligarchy is likely to be established [because] only rich men can afford to keep horses. The second form of oligarchy prevails when the country is adapted to heavy infantry; for this service is better suited to the rich than to the poor. But the light-armed and the naval elements are wholly democratic...An oligarchy which raises such a force out of the lower classes raises a power against itself.\\"

The use of cavalry became dominant in Europe through the success of the Parthians in the Roman-Persian wars that lasted from the late Hellenistic period until the Middle Ages. The Romans armored infantry could not stand up to the Parthian cavalry and the Romans adjusted by adopting the practices of their enemies. The increased strategic role of cavalry was enhanced by the emergence of new breeds of horses engineered for the battlefield, and deployed adeptly by the Germanic invaders and the Islamic warriors. From this, enhanced by the development of the wraparound saddle, stirrup, and spurs, the preeminence of cavalry in the Middle Ages was assured, whence the oligarchic character of European feudalism, which centered around a knightly cavalry.

The history of warfare from the Late Middle Ages to the First World War was the saga of the gradual increase in the strategic military value of infantry armed with longbow, crossbow, hand cannon, and pike, which marked the recurring victories of the English and Swiss over French and Spanish cavalry in the twelfth to fifteenth centuries. Cavalries responded by developing dismounted tactics when encountering infantry, using heavy hand weapons such as two-handed swords and poleaxes. These practices extended the viability of cavalry to the sixteenth century in the French and Spanish armies, but gradually through the Renaissance, and with the rise of Atlantic trade, the feudal knightly warlords gave way to the urban landed aristocracy and warfare turned to the interplay of mercenary armies consisting of unskilled foot soldiers wielding cannon and other weapons based on gunpowder. Cavalry remained important in this era, but even in the eighteenth and nineteenth century, cavalry was used to execute the coup de grace on seriously weakened infantry.

The true hegemony of the foot soldier, and hence the origins of modern democracy, began with the perfection of the hand gun, with its improved accuracy and greater firing rate than the pistols of a previous era. Until that point, infantry was highly vulnerable to attack from heavy artillery. By the early twentieth century, the superiority of unskilled foot soldiers armed with rifles was assured. World War I opened in 1914 with substantial cavalry on all sides, but mounted troops were soundly defeated by men with rifles and machine guns, and thus were abandoned in later stages of the war. As Samuel Bowles and I showed in Democracy and Capitalism (Basic Books, 1985), the strength of the political forces agitating for political democracy in Twentieth Century Europe was predicated on the strategic role of the foot soldier in waging war and defending the peace.

It is clear today that the material basis for liberal democracy is no longer the armed infantry but rather a combination of the willingness of ordinary people to rise up, fight, and die for freedom, together with modern communications and transport technologies that are virtually impossible to suppress, especially if authoritarian states have an interest in promoting economic development. Fukuyama is wholly correct on this point. An oil-rich outlier state like Saudi Arabia is not constrained by goals of economic development, but their security extends only as far as oil remains in high demand, which will not be for long. For the most part, modern technology is highly emancipatory.

Where his wrong, however, is in not contemplating the possibility of new technologies capable of controlling masses of people by a powerful few, as envisioned by the apocalyptic anti-Communist writers Aldous Huxley (Brave New World), 1984 (George Orwell), Darkness at Noon (Arthur Koestler), and cinematographers like Jean-Luc Godard (Alphaville). The totalitarian ambitions of the Soviet state foundered on the new technologies that were too synergistic with modern industrial life and private incentives, but there is no reason that a progressive economic system like that of the Chinese might not find new technological means of controlling masses of affluent workers and even middle-class entrepreneurs over the long run. There is no extant technology that would facilitate this control, and those of us who value freedom and democracy must struggle to promote emancipatory over enslaving technologies in coming decades. Even should we survive nuclear Armageddon, global warming, and other byproducts of emancipatory, it is not at all the \\"end of history.\\"ue of groups with leadership doubtless led to the demise of leaderless hominid social formations, and the consolidation of new hominid social relations based on novel forms of leadership. What might these may be? Clearly, if on cannot lead by force, one must lead by persuasion. Thus successful hominid social bands came to value individuals who could command prestige by virtue of their persuasive capacities. Persuasion depends on clear logic, analytical abilities, a high degree of social cognition (knowing how to form coalitions and curry the favor of others), and linguistic facility. For this reason, the social structure of hunter-gatherer life favored progressive encephalization and the evolution of the physical and mental prerequisites of effective linguistic and facial communication. In short, 400,000 years of evolution in the presence of lethal weapons gave rise to Homo sapiens.

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Schrödinger's Rabbits: The Many Worlds of Quantum

Spirited Defense of an Implausible Idea — Rating: 3/5

In the nineteenth and early twentieth centuries, many natural philosophers believed that the laws of the Universe could be derived from Reason. For instance, Galilean invariance gave us Newton's Laws, and similar invariance conditions give rise to special and general relativity. Quantum mechanics changed all that because many quantum mechanical phenomena violate one or more 'reasonable' assumptions, such as the impossibility of action at a distance. This is really why Einstein never accepted quantum mechanics as more than a provisional theory.

It is tempting to be dismissive of quantum mechanics because it only deals with phenomena at extremely sub-microscopic dimensions, and classical mechanics and electrodynamics can get alone without it perfectly well at 'human' dimensions. Both reasons are faulty. First, quantum mechanics explains quantum tunneling, which is central to solid state devices such as transistors, and more generally, quantum effects can be amplified without difficulty to the human level (this is the famous Schrödinger's Cat problem, to which the title of the book alludes. Second, there are deep antinomies in classical electromagnetic theory, including the prediction that the energy in blackbody radiation goes to infinity as the wavelength of the energy goes to zero.

There are many strange and beautiful quantum phenomena. Perhaps the two most famous are wave/particle duality and entanglement. Wave-particle duality is well illustrated by the famous two-slit experiment. Photons are directed towards an absorbing wall with two vertical slits some macroscopic distant apart. The few photons that go through one of the slits hit a clear photographic film that records the absorption of the photon by coloring the impact point black. If photons are particles, there should be two widely separated masses of black dots whose location can be calculated using simple geometry. If photons are waves (like waves in a pond), it is not hard to show that there should be alternating bands of light and dark on the photographic plate, corresponding the interference pattern of the two parts of the wave that pass through the distinct slits. If you do this experiment, photons act wave-like. However, if you measure the passage of the photon through a slit, you always find it went through either one or the other, but not partly through both. This shows the photon is a particle. Moreover, if you can measure which slit the photon went through, the interference patter on the plate disappears, and the photon leave a black spot on the plate.

Early interpreters of this weir phenomenon argued that by measuring the photon, you interfered with its normal path, as explained by classical signaling theory, so the phenomenon is just poor experimental design. For a variety of reasons that you can read about, this explanation is faulty. The widely accepted explanation (the so-called Copenhagen theory, named after Neils Bohr) is that the photon is indeed a wave, as described by Schrödinger's famous equation or Planck's relativistic version. These equations describe not where the photon is, but rather a probability distribution over its possible locations. When observed, the wave 'collapses' to a particular location, the location being proportion to its relative probability.

This experiment and its interpretation calls into question the nature of objectivity and subjectivity in a highly radical form. What does it mean to be 'observed'? By whom? What if it is 'observed' by a machine and you do not have access to the machine's memory? The two-slit and related experiments, as explained by the Copenhagen school, simply divides reality in to nature plus observer, where observer means a human or an instrument that can be read and recorded, accessible to a human. This is fine for all practical purposes, because that's how we humans do science. But its ontological status is highly compromised.

A secondweird phenomenon involves 'entanglement.' Electrons have 'spin,' which when measured in any direction, is either 'up' or 'down.' When electrons are generated in pairs, they may be entangled in the sense that after they are separated, if one measures 'up' in a particular direction, the other must measure 'down.' However the state of spin is a probability distribution that collapses to a particular up or down when you measure it. Suppose the entangled electrons move apart until they are a light-second apart, and then the spin of one is measured in some direction. Then immediately, not a second later, the other measures the opposite direction. This is not a relativistic time effect, and it has been repeatedly verified in the laboratory. It is called a violation of locality.

Einstein and his colleagues Podolsky and Rosen (1935) used a similar argument to show that there must be something wrong with quantum mechanics, but it turns out that that is just the way the world works, like it or not.

Most physicists do not care why quantum mechanics works the way it does, but some do, and many of those think that there must be a better model that the Copenhagen collapse theory. One is the Many Worlds Interpretation (MMI), which Bruce explains and defends in this book. The MMI says that whenever there appears to be a collapse of the quantum wave, the Universe really branches into a large number of alternative Universes, side-by-side, each of which captures one of the possible states. So, for instance, if you set up an apparatus that kills you if a certain photon is measured as having spin up, and

does nothing if the spin is down. Then the whole Universe splits into two Universes, in the first of which you are alive and the other of which you are dead.

This theory does explain most of the queerness of quantum mechanics, and it could be true. But there is no evidence that it is true. Nor has anyone ever suggested an experiment that would determine its truth value (Bruce suggests some possibilities, but they are far-fetched). Moreover, the theory itself is completely outlandish, far weirder than the phenomenon it is supposed to explain. The fact is that reading this and other attempts to explain quantum weirdness are fun and challenging intellectually, but their real value is virtually zero. When someone tells me he believes a version of the MWI, I treat the person the same as if they told me they believed in transubstantiation or the tooth fairy.

Nevertheless, quantum mechanics is certainly not a \\"true\\" theory, if only because it makes no room for gravity. The string and quantum gravity theorists attempt to repair this fault, but they produce theories that are as yet untested, although possibly testable.

But I think there is a deeper problem. Quantum mechanics represents a particle (e.g., a photon) as a point in Hilbert space, which is an infinite dimensional vector space. I don't believe there are `real' infinities, and hence this representation must be an approximation of the true, finite, model. We should be looking at finite or countable models of particle physics, not hugely overpopulated continuous models. Richard Feynman registered his discomfort with nonconstructible, continuous models, in the following words (quoted by Bruce, p. 242): \\"It always bothers me that, according to the laws as we understand them today, it takes a computing machine an infinite number of operations to figure out what goes on in no matter how tiny a region of space, and no matter how tiny a region of time...\\" I have often make the hypothesis that ultimately physics will not require a mathematical statement, that in the end the machinery will be revealed, and the laws will turn out to be simple, like the checkerboard with all its apparent complexities.\\"

I realize many readers will not share my skepticism concerning infinite models. But they should, because it is the only reasonable position. Countable models are fine, because we can attain any element of a countable model in finite time. But uncountable models are just a useful human construct, probably not corresponding to anything real in the world. At any rate, reading Bruce's book conjures up all sorts of cute ideas that are fun to think about while taking a break from the real world.ver, the theory itself is completely outlandish, far weirder than the phenomenon it is supposed to explain. The fact is that reading this and other attempts to explain quantum weirdness are fun and challenging intellectually, but their real value is virtually zero. When someone tells me he believes a version of the MWI, I treat the person the same as if they told me they believed in transubstantiation or the tooth fairy. Nevertheless, quantum mechanics is certainly not a \\"true\\" theory, if only because it makes no room for gravity. The string and quantum gravity theorists attempt to repair this fault, but they produce theories that are as yet untested, although possibly testable. But I think there is a deeper problem. Quantum mechanics represents a particle (e.g., a photon) as a point in Hilbert space, which is an infinite dimensional vector space. I don't believe there are `real' infinities, and hence this representation must be an approximation of the true, finite, model. We should be looking at finite or countable models of particle physics, not hugely overpopulated continuous models. Richard Feynman registered his discomfort with nonconstructible, continuous models, in the following words (quoted by Bruce, p. 242): \\"It always bothers me that, according to the laws as we understand them today, it takes a computing machine an infinite number of operations to figure out what goes on in no matter how tiny a region of space, and no matter how tiny a region of time...\\" I have often make the hypothesis that ultimately physics will not require a mathematical statement, that in the end the machinery will be revealed, and the laws will turn out to be simple, like the checkerboard with all its apparent complexities.\\" I realize many readers will not share my skepticism concerning infinite models. But they should, because it is the only reasonable position. Countable models are fine, because we can attain any element of a countable model in finite time. But uncountablemodels are just a useful human construct, probably not corresponding to anything real in the world. At any rate, reading Bruce's book conjures up all sorts of cute ideas that are fun to think about while taking a break from the real world.

Cultural Evolution: How Darwinian Theory Can Explain Human Culture and Synthesize the Social Sciences

Great on Cultural Evolution, Awful on Synthesizing the Social Sciences — Rating: 4/5

When I began thinking about an evolutionary approach to culture, in about the year 1993, there were perhaps a half dozen people working in the field. The major works were Luigi Luca Cavalli-Sforza and Marcus W. Feldman, Cultural Transmission and Evolution (Princeton: Princeton University Press, 1981), who also published a dozen first-rate papers on the subject between 1973 and 1985, as well as Robert Boyd and Peter J. Richerson, Culture and the Evolutionary Process (Chicago: University of Chicago Press, 1985), which was considerably broader and came from an anthropological rather than biological perspective, and William H. Durham, Coevolution: Genes, Culture, and Human Diversity (Stanford: Stanford University Press, 1991). Mesoudi's book is a testament to the explosion of theoretical and empirical material on cultural evolution.

Mesoudi's treatment is fastidious yet relaxed. There are many definitions of culture, and different definitions are appropriate for different purposes. Mesoudi's definition of culture is perfectly suited to a population biology approach: \\"culture is information that is acquired from other individuals via social transmission mechanisms such as imitation, teaching, or language.\\" (p 2) Other definitions of culture, I believe, are either subcategories of Mesoudi's definition or are analytically meaningless. The definition's power draws from the analogy with genetic evolution. We know that genes are sequences of DNA base pairs, which are simply chemically encoded digital information for protein building. Genetic inheritance is thus information transfer from parents to offspring. Cultural inheritance is broader, including vertical transmission from parents to offspring, horizontal transmission from peer to peer, and oblique transmission from non-parental elders to youth (e.g., religious and technical instruction).

Charles Darwin, William James, and many others prior to Cavalli-Sforza and Feldman commented on similarities in the dynamics of genes and culture. Genetic evolution is based on the fact, as Mesoudi explains in Chapter 2, that genes can make accurate copies of themselves (reproduction, inheritance), but there are continual mutations that introduce variety in the gene pool (mutation, variation), and genes must compete for the ability to reproduce (selection, completion). The same is true for culture. Mesoudi carefully examines the strength of the analogy between genes and culture, never pushing it beyond what appears reasonable given our empirical information.

The basic analytical expression of Darwin's principle of survival of the fittest is the so-called replicator equation in dynamical systems theory. In my book, Game Theory Evolving, I derive this equation four different ways, one of which can be interpreted as purely cultural. The parallel between genes and culture is pretty stunning, mathematically. In Chapter 3, Mesoudi motivates this cultural dynamical system without any equations, making it accessible to people who don't like or don't trust equations. In Chapter 4, Mesoudi applies this methodology to particular cases of cultural macroevolution taken from the archeological and anthropological literature. He follows this with two extremely informative chapters on cultural evolution in the laboratory and in the field.

Mesoudi is a major contributor to the field of evolutionary culture, and his expert treatment of this recently emerging field is highly welcome. The author's second goal, as expressed in the book's subtitle, is \\"how Darwinian theory can ... synthesize the social sciences.\\" This part of the book is, I think, completely incorrect and betrays Mesoudi's lack of understanding of economics, and his lack of appreciation for the insights of sociology, psychology and anthropology. His basic idea is that all of economic theory can be replaced by evolutionary and behavioral economics, and Darwinian cultural theory can replace all of the other social sciences. This is just incorrect. There is no room in Mesoudi's intellectual world for the rational actor model, for game theory, for theory of social norms and the psychology of socialization. There is accordingly no role for morality or reason in his treatment of human society. What he presents as a model for synthesizing the social sciences I just an embarrassing recitation of his principles of cultural evolution. Cultural evolution is important, but it isn't everything that is important, by a long shot.al sciences. This is just incorrect. There is no room in Mesoudi's intellectual world for the rational actor model, for game theory, for theory of social norms and the psychology of socialization. There is accordingly no role for morality or reason in his treatment of human society. What he presents as a model for synthesizing the social sciences I just an embarrassing

recitation of his principles of cultural evolution. Cultural evolution is important, but it isn't everything that is important, by a long shot.

The Fair Society: The Science of Human Nature and the Pursuit of Social Justice

A Valiant Attempt to Define a Liberal Vision of Social Justice in America — Rating: 4/5

Peter Corning is a distinguished evolutionary biologist who has spent much of his research life investigating the implications of evolutionary biology for human social life. This book is perhaps the most ambitious of his efforts, and draws on cutting research concerning evolution had human nature. Corning is very knowledgeable and his description and analysis of this research is highly informative.

Corning is a man of the Left, and this book is his attempt to construct a realistic, morally and politically compelling, set of principles for a just society. Corning is concerned with constructing economics and social institutions that (a) speak to the needs of the poor and dispossessed in our society; (b) foster meritocratic reward, entrepreneurship, and innovation, and (c) are socially stable in the sense of attracting a strong majority of voters in a democratic society. The goal is indeed a worthy one, as achieving social justice is the only liberal ideal that remains unrealized in contemporary society.

\\"A harmonious society,\\" observes Corning, \\"depends, absolutely, on fairness and social justice.\\" (p. 171) Corning's first principle of social justice is that \\"goods and services must be distributed to each of us according to our basic needs (in this there must be equality).\\" (p. 154) Corning devotes considerable space to defining \\"basic needs\\" and defending his definition against the many critics of the concept, based on the work of such experts as Amartya Sen, Ian Gough,Len Doyal, and many others. Corning's defense of basic needs is very persuasive. Moreover, it is clear that in an affluent society, it is very feasible to meet the basic needs of all citizens without much sacrifice on the part of the non-poor.

Corning's second principle is the meritocratic notion that \\"surpluses beyond the provisioning of our basic needs must be distributed according to \\"merit.\\" (p.154). Corning refuses to equate \\"merit\\" with the rewards accrued on capitalist markets, because he argues that not all market returns are \\"merited\\" (e.g., the exorbitant pay of CEO's). Corning's basic innovation in distributional justice is to propose stakeholder rather than shareholder capitalism, with the implication that the cost and profit structure of corporations would be more equally shared among owners, employees, and clients.

Corning recognizes that these two principles alone violate a basic human norm---that of reciprocity. This is because individuals will have their basic needs satisfied without contributing to society at all. For this reason he adds a third principle, \\"In return, each of us is obligated to contribute proportionately to the collective survival enterprise in according with our ability (there must be reciprocity).\\" (p. 154)

Corning argues carefully and eloquently that such an economy would be both feasible and politically acceptable to all but the rich, who can simply be outvoted. He also argues, based on an in depth analysis of how our species evolved from hunter-gather days to the present, that such an economic system would be deeply consistent with human nature. Indeed, he refers to his three principles as a \\"biosocial compact,\\" harkening back to the notion of a social compact in the works of Hobbes, Locke, Rousseau, and others. The distinctive feature of Corning's compact is that it is firmly rooted in a model of human nature, rather than being based on an abstract ethical theory.

I believe Corning's fair society is well worth thinking about, but there are some deep problems that would have to be overcome for it to work. Most important, the feasibility of this model flows from an analogy with hunter-gatherer societies, which were small and ethnically extremely homogeneous. In such societies, it is easy to determine who is contributing his fair share according to his ability and who is not. Moreover, in contemporary hunter-gatherer societies, a violator of the third principle(contribution according to ability) would be summarily ostracized or refused a share of the group's collective production. This of course violates the basic needs principle. Perhaps Corning has some idea of how to ensure that people contribute according to ability without depriving them of basic needs. I have no idea how this could be done.

I imagine that the fair society could simply require that each individual of sound mind and body who is at the bottom of society's labor hierarchy show up for work for a certain number of hours per week, but it is hard to see how individuals could be motivated to work hard and with due care without either threatening the withdrawal of basic needs satisfaction, by offering material incentives for high quality work that brings most if not all individuals into the \\"meritocratic\\" category. I do not find either of these alternatives feasible. Threatening the withdrawal of basic needs violates the first principle, and paying enough for unskilled labor that individuals prefer to provide quality labor under the threat of being reduced to the basic needs category is likely to be simply impossible. There is little doubt but that many individuals would opt out of the \\"meritocratic\\" system based on incentives, and build a satisfying life based on the satisfaction of basic needs alone. Indeed, I suspect that Corning's fair society would spawn many \\"basic needs\\" subcultures focusing on art, sports, religion, and the like. Of course, such individuals could be obliged to spend time \\"working,\\" but the cost of administrating a labor system without incentives where people are simply uninterested in hard, high quality work would be high, and because the reciprocity fairness condition would be widely violated, Corning's biosocial contract would quickly unravel.

I think Corning is correct in stressing the need for a solution to the problem of poverty in America, but I do not believe affording the poor a basic income and requiring them to work is the answer to the problem. I think the solution lies in understanding why there is poverty in the present economic system. Unlike the situation in many third-world countries, American poverty cannot be explained by predatory, corrupt governments and explicit laws and regulations excluding certain groups from gainful employment. Rather, poverty in America is either transient, as in the case of immigrant groups whose children received a good education and moral training from their parents, or it is chronic, and the result of a culture of poverty, in which children do not receive a decent education and are not taught proper work and study habits by their parents. If this is correct, then social policy should be geared towards creating healthy community alternatives to the culture of poverty ghettos that currently reproduce an unskilled underclass in America.tracized or refused a share of the group's collective production. This of course violates the basic needs principle. Perhaps Corning has some idea of how to ensure that people contribute according to ability without depriving them of basic needs. I have no idea how this could be done. I imagine that the fair society could simply require that each individual of sound mind and body who is at the bottom of society's labor hierarchy show up for work for a certain number of hours per week, but it is hard to see how individuals could be motivated to work hard and with due care without either threatening the withdrawal of basic needs satisfaction, by offering material incentives for high quality work that brings most if not all individuals into the \\"meritocratic\\" category. I do not find either of these alternatives feasible. Threatening the withdrawal of basic needs violates the first principle, and paying enough for unskilled labor that individuals prefer to provide quality labor under the threat of being reduced to the basic needs category is likely to be simply impossible. There is little doubt but that many individuals would opt out of the \\"meritocratic\\" system based on incentives, and build a satisfying life based on the satisfaction of basic needs alone. Indeed, I suspect that Corning's fair society would spawn many \\"basic needs\\" subcultures focusing on art, sports, religion, and the like. Of course, such individuals could be obliged to spend time \\"working,\\" but the cost of administrating a labor system without incentives where people are simply uninterested in hard, high quality work would be high, and because the reciprocity fairness condition would be widely violated, Corning's biosocial contract would quickly unravel. I think Corning is correct in stressing the need for a solution to the problem of poverty in America, but I do not believe affording the poor a basic income and requiring them to work is the answer to the problem. I think the solution lies in understanding why there is poverty in the present economic system. Unlike the situation in many third-world countries, American poverty cannot be explained by predatory, corrupt governments and explicit laws and regulations excluding certain groups from gainful employment. Rather, poverty in America is either transient, as in the case of immigrant groups whose children received a good education and moral training from their parents, or it is chronic, and the result of a culture of poverty, in which children do not receive a decent education and are not taught proper work and study habits by their parents. If this is correct, then social policy should be geared towards creating healthy community alternatives to the culture of poverty ghettos that currently reproduce an unskilled underclass in America.

Ideology: A Very Short Introduction

Completely Out of Date — Rating: 2/5

The author presents the main outlines of the theory of ideologies as I learned the theory in the 1960s. The main theorists are Karl Marx, Karl Mannheim, Hannah Arendt, Daniel Bell, and Antonio Gramsci, all long dead and theorizing about a long-gone era. The author's fairly novel point is that ideologies are good, not bad, because they unite people around common goals. Freeden does not deal with the long-standing critique of ideology by Karl Popper, Jurgen Habermas, and others, which holds that (a) ideologies are epistemically closed systems that are incompatible with the open society, which is predicated on the notion that the truth arises through principled discourse and mutual tolerance; (b) ideology is inherently Manichean, emotionally tying together \\"believers\\" in a deadly structure against \\"nonbelievers,\\" who are not only wrong, but evil.

Since the cognitive revolution in psychology, the really interesting question is why people believe in things for which they have no evidence, or for which the evidence is far weaker than the belief, and for which there are equally plausible alternative explanations. Why do many laymen believe the humans and dinosaurs lived together a few thousand years ago? Why do mothers believe the medical establishment is out to harm their children, leading them to refuse to have them vaccinated? How far can an ideology that harbors false beliefs go before it collapses? How can we foster democratic institutions that promote dialogue and synergy rather than hatred and intolerance? How can ideology thrive even though people often show themselves to be passionate about the truth, and damn their enemies by judging the untruthful? These are questions about ideology that are salient today, and this little volume does not even confront such issues.

The Honor Code: How Moral Revolutions Happen

Philosophising is no substitute for scientific explanation — Rating: 2/5

Perhaps the most stunning, and salutary, fact about human history is that it has a strong emancipatory thread. This emancipatory thread is based on Enlightenment the values of secularism, tolerance, meritocracy, republicanism, democracy, gender equality, and the structuring of social life around egalitarianism rather than hierarchical privilege. There are two powerful enemies of this emancipatory thread: the despotic state and welfare-reducing social practices, including the four studied by Appiah in this book (dueling, foot-binding, slavery, and sexism).

Appiah attempts to explain this emancipatory thrust in purely philosophical terms, using the concept of \\"honor\\" as the emancipatory force. Honor for Appiah is an intrinsic human moral quality that can be diverted, suppressed, and exploited, but eventually will triumph. There is simply no honor in dueling, foot binding,slavery, gender discrimination, and the other abominations that have served to oppress our species. Appiah is thus an inverted Hegelian, in which the driving force of the Idea is incorporated in an evolved human characteristic.

No scientist will place much credence in Appiah's story. Human society is a highly complex, dynamic, adaptive system that must be studied using the tools of behavioral science. Hand waving of the sort preferred by Appiah will not answer the big questions. I confess that I do not have a satisfactory alternative explanation of the emancipatory thrust of social history into which many of us have placed such great faith. I do have two points that I believe should be kept in mind in developing such a theory.

First, there is a very widespread human yearning for freedom and democracy (of course there are anti-democratic movements, but they are populated by small minorities that want to control the masses), and this arises from human prehistory as hunter-gatherers, where there was a socially enforced egalitarianism (see Christopher Boehm, Hierarchy in the Forest: The Evolution of Egalitarian Behavior). With

Second, there is no assurance that the emancipatory thread will not be extinguished by new ways of oppressing majorities. Perhaps the greatest emancipatory force for humans was the emergence of lethal weapons, including the hand axe and projectile weapons, which occurred some 300,000 years ago.

Because of these weapons, the hierarchical organization of power and influence in humans was undermined, simply because one man can easily kill another, however powerful, in his sleep or when his back is turned. All of human prehistory is predicated on the egalitarian power of lethal tools and hunting weapons.

With the emergence of settled agriculture and private property, it became once again possible to oppress majorities by force. The past 10,000 years thus represent an interplay of centralizing exploitative states and state-like groups on the one hand, and the constant pressure by the oppressed to find a way to destroy their oppressors. The most recent egalitarian event was the invention of the hand-gun, which lead to the preeminence of the foot soldier in war. Because of the hand gun, despotic states were obliged to extend political representation to the masses as a precondition of recruiting effective armies (see my paper with Samuel Bowles, \\"State and Class in European Feudalism,\\" in Charles Bright and Susan Harding (eds.), Statemaking and Social Movements: Essays in History and Theory (Ann Arbor: University of Michigan Press, 1984), and our book Democracy and Capitalism: Property, Community, and the Contradictions of Modern Social Theory, New York: Basic Books, 1986).

I conclude from this historical review that there is no inherent thrust towards emancipatory social life, but rather a back-and-forth movement propelled by technology. This does not mean that honor is not an important force is the social life of humans---I deeply believe that it is. However, it is a knife that cutsboth ways, and it is critical to remember this when planning and participating in emancipatory social change.both ways, and it is critical to remember this when planning and participating in emancipatory social change.

The Moral Landscape: How Science Can Determine Human Values

Infantile Philosophy, but Some Valuable Neuroscience — Rating: 2/5

Sam Harris has a Ph.D. in neuroscience from Stanford University, and the best parts of this uneven book are his explorations of the nature of human belief systems, as revealed through fMRI and other neuroscientific data gathering tools. I suspect that this book, which is mostly a philosophical diatribe against religious belief, started out as a serious book for the layman on what neuroscience has to tell us about the moral and ethical sides of our nature. However, for one reason or another, this task was detoured into a popular atheistic rant.

Chapter 3, \\"Belief,\\" is the only serious chapter of the book, although Chapter 2, \\"Good and Evil,\\" makes a half-hearted attempt at reviewing the behavioral literature on human social dynamics. Moreover, some of the footnotes in chapter 3 are clearly the most serious parts of the book. These footnotes often go on for more than a page, and are worth the price of the book. They were clearly at one time the heart of the book, but were relegated to footnotes when Harris decided to go after Believers.

For instance, a two-page footnote (number 35, page 241), Harris notes that \\"These results seem to pull the rug out from under one widely subscribed view in moral philosophy, generally described as \\"non-cognitivism.\\" Non-cognitivists hold that moral claims lack propositional content and, therefore, do not express genuine beliefs about the world. Unfortunately for this view, our brains appear to be unaware of this breakthrough in metaethics: we seem to accept the truth of moral assertions in the same way was we accept any other statements of fact.\\" This is really interesting and worthy of exploration.

Harris' critique of religion is very vigorous and full of epithets, but offers nothing new at all. Supposedly Harris has a \\"degree in philosophy,\\" which I guess means he studied philosophy as an undergraduate. At any rate, his philosophical arguments show his lack of training in this area. Personally, I also found his tone of argumentation arrogant and abrasive.ion arrogant and abrasive.

Reckless Endangerment: How Outsized Ambition, Greed, and Corruption Led to Economic Armageddon

Pleasant to the Ears of the Free Market Ideologues, but Not a Plausible Argument —

Rating: 1/5

I have written about an number of right-wing free market ideologues, stunned and shocked by the near-collapse of the US finance industry and irritated by the success of government intervention in saving the industry from its excesses, who insist that the whole problem is with the government, which refuses to let free markets work themselves out through their intrinsic inner logic.

Much of the book is historical, a diatribe against the liberal initiatives of Presidents Roosevelt, Johnson, and Clinton to extend home ownership in American to less well off families. Another goodly portion of their argument is a thorough critique of the government-sponsored mortgage agencies (GSE's), specifically Fanny Mae and Freddy Mac. Their excess are indeed a great example of government bureaucracy gone wild. However, this does not mean that the GSE's did any more than join the legion of government agencies that fleece the taxpayers when they can get away with it. In particular, the authors do not present any systematic evidence that either the housing bubble or the financial crisis were caused by, or even materially exacerbated by the GSE's. They certainly do not show that there is anything wrong in principle with using government regulations and finance to extend home ownership.

For a cogent critique of Morgenson and Rosner's argument, see the article by Jeff Madrick and Frank Partnoy in the October 27, 2011 issue of The New York Review of books. Also see my Amazon review of Thomas Sowell's, The Housing Boom and Bust. In that review, I noted that It is true that the NSEs have special privileges, among which are being exempt from state and local income taxes, Securities and Exchange Commission requirements and fees, and they have potential lines of credit with the Treasury of over $2.25 billion. In exchange, the President can appoint five of their eighteen board members. The most important effect of their Federal charters is, however, the implicit understanding that the Federal government would never permit Fannie Mae or Freddie Mac to fail, whatever the state of their portfolio.

This implicit guarantee might appear to place stockholders in a no-lose situation in which they can take great risks with subprime mortgages and reap the profits when things go well, but can offload their losses to the taxpayer when things go bad. Were this true, there is no doubt but that these the two GSEs would take on otherwise highly unprofitable levels of risk. This is the received wisdom, but in fact, stockholders have been clobbered by the financial meltdown, and stock prices in these two institutions have fallen to near zero. Stockholders understood that the institutions would be saved, but their stock values would not be immune from steep decline.

Moreover, just as housing prices began to increase rapidly several years ago, Federal regulators, responding to GSE accounting scandals, placed serious restraints on their ability to assume high-risk debt. Indeed, by definition these GSEs did not engage in subprime lending because their legal statutes prohibited them from issuing mortgages without substantial down payments and closely validated assurances concerning family income and wealth. [Professor Russell Roberts (Economics, George Mason University) commented on this point in personal communication: \\"As far back as 1999, Fannie and Freddie were using subprime mortgage purchases and the purchases of subprime backed MBS to satisfy their HUD requirements to purchase \\"affordable\\" mortgages, a requirement that began in the Clinton administration and that Bush continued with equal if not greater zeal. This has been documented by both the NYT and the Washington Post though without much detail. I've read through the annual reports of Fannie and Freddie where they admit in the early 2000s that subprime mortgages typically amount to 17% of their book of business--which amounts to hundreds of billions of dollars in some years.Edward Pinto, former CFO of one of them claimed in Congressional testimony that they were actually even more involved than this. I am skeptical of both of these claims to some extent. Informed folks have told me that the annual reports of Fannie and Freddie may be essentially fictional. And I'm not sure that Pinto's analysis is verifiable or accurate. Either way, it's clear and undeniable that Fannie and Freddie were non-trivial players in the subprime market. But how signficant is their involvement? Very hard to tell. While I've suggested that the above story may be important, it is mitigated (as is Sowell's story) by the fact that Ireland and Spain and South Africa (I think) also had housing bubbles. Did they have government-mandated expansion into the low-income sector? I suspect not. So all of the domestic explanations have to answer the magnitude question. Surely Fannie and Freddie contributed to the problem. But you have to establish the magnitude.] Indeed, Fannie Mae and

Freddie Mac began to recede from the forefront of mortgage lending when the housing bubble emerged in the years after 2003.

Fannie Mae and Freddie Mac executives panicked when their positions in mortgage markets began to deteriorate, and they introduce questionably legal procedures (\\"expanded approval\\" for Fannie Mae and \\"A minus\\" for Freddie Mac) to recapture market share. But these efforts were basically unsuccessful because the GSE lenders were saddled with fixed-rate loan structures. The share of GSEs in the mortgage market faded rapidly in the latter years of the housing bubble.

Note that before being taken over by the government, the GSEs were private, market-oriented, investor-owned companies, and their behavior in excessive risk-taken was, if anything, less pronounced that the rest of the private financial sector. Nor did any Federal legislation, including the Community Investment Act of 1977, require that banks take on subprime assets. As Richard Posner says in his recent book on the subject, \\"the pressure exerted by the government to lower lending standards was a case of pushing on an open door...Banks wanted to make risky mortgage loans.' Indeed, never during the housing bubble dynamics did they protest that they were forced to behave irresponsibly. \\"The critical role of government in the crisis,\\" Posner concludes, was one of permission rather than encouragement.\\" (p. 242) In other words, the financial meltdown of 2007 and after was a failure of coherent regulation, not government meddling.

In their review of this book, Madrick and Partnoy add the following facts. First, the GSE housing bubble losses were large, but they followed rather than led the house market collapse. Second, the GSE default rate was only 20% to 25% the rate of defaults in the private housing market.claimed in Congressional testimony that they were actually even more involved than this. I am skeptical of both of these claims to some extent. Informed folks have told me that the annual reports of Fannie and Freddie may be essentially fictional. And I'm not sure that Pinto's analysis is verifiable or accurate. Either way, it's clear and undeniable that Fannie and Freddie were non-trivial players in the subprime market. But how signficant is their involvement? Very hard to tell. While I've suggested that the above story may be important, it is mitigated (as is Sowell's story) by the fact that Ireland and Spain and South Africa (I think) also had housing bubbles. Did they have government-mandated expansion into the low-income sector? I suspect not. So all of the domestic explanations have to answer the magnitude question. Surely Fannie and Freddie contributed to the problem. But you have to establish the magnitude.] Indeed, Fannie Mae and Freddie Mac began to recede from the forefront of mortgage lending when the housing bubble emerged in the years after 2003. Fannie Mae and Freddie Mac executives panicked when their positions in mortgage markets began to deteriorate, and they introduce questionably legal procedures (\\"expanded approval\\" for Fannie Mae and \\"A minus\\" for Freddie Mac) to recapture market share. But these efforts were basically unsuccessful because the GSE lenders were saddled with fixed-rate loan structures. The share of GSEs in the mortgage market faded rapidly in the latter years of the housing bubble. Note that before being taken over by the government, the GSEs were private, market-oriented, investor-owned companies, and their behavior in excessive risk-taken was, if anything, less pronounced that the rest of the private financial sector. Nor did any Federal legislation, including the Community Investment Act of 1977, require that banks take on subprime assets. As Richard Posner says in his recent book on the subject, \\"the pressure exerted by the government to lower lending standards was a case of pushing on an open door...Banks wanted to make risky mortgage loans.' Indeed, never during the housing bubble dynamics did they protest that they were forced to behave irresponsibly. \\"The critical role of government in the crisis,\\" Posner concludes, was one of permission rather than encouragement.\\" (p. 242) In other words, the financial meltdown of 2007 and after was a failure of coherent regulation, not government meddling. In their review of this book, Madrick and Partnoy add the following facts. First, the GSE housing bubble losses were large, but they followed rather than led the house market collapse. Second, the GSE default rate was only 20% to 25% the rate of defaults in the private housing market.

The Cultural Animal: Human Nature, Meaning, and Social Life

The First Chapter is the Book — Rating: 3/5

Baumeister writes that his \\"initial project was to provide a summary and overview of human nature, based on current lab findings in social psychology.\\" After a year of hard work, he finished a draft of the book, and realized that it had no central theme, but rather was a compendium of scattered observations and partial, unintegrated, insights. Of course this is not surprising because the field of social psychology is just that---a bunch of unintegrated insights drawn together by insufferable pseudo-generalizations. Then, says Baumeister, \\"one day, sitting by a rooftop pool...I began to think that the giant mass of information really did seem to be ready for integrative explanation. The human psyche...was designed for something very specific. Inner processes serve interpersonal functions. What goes on inside the person is there to facilitate the types of relationships we have.\\" (p. viii) He goes on to say \\"Nature built us for culture. The human psyche is thus designed by natural selection to enable us to belong to a culture.\\"

Baumeister was chagrined to discover that this synthesizing theme would require a whole year of rewriting, \\"which involved a growing struggle with my own impatience,\\" he writes. A whole year? A year is a very short time to deal with such a big theme, especially since the idea itself is quite foreign to traditional social psychology. Unfortunately, Baumeister's impatience shows. Except for the first chapter, the book is filled with vapid and off-hand observations well known to all and hardly reflecting \\"current lab findings\\" in any serious way. Here is a typical, randomly chosen quote from the chapter How People Act and React: \\"In terms of money, rationality means doing what is best for the self in the long run.\\" (p.326) This of course is just false. It is rational to give to charity, to contribute to the struggle for democracy, civil liberties, and racial equality, to vote, and to reject positive offers in an ultimatum game. Baumeister continues: \\"Economic incentives do generally have a significant impact on human behavior. Economists often take this as a sign that people are generally rational.\\" The mind boggles at the banal superficiality of this statement, at its lack of references, and its ignorance of truly key considerations in the question of human rationality. He goes on to say \\"It would be an overstatement to say that people are always rational, but it is hard to dispute that basic economic rationality does succeed as a general principle for explaining and prediction (and controlling) a great deal of human behavior.\\" The book is full of such superficial and unsupported pseudo-reasoning.

Baumeister's first chapter, by contrast, is a gentle, insightful, and nicely written introduction to the theory of cultural evolution and gene-culture coevolution, although the author appears not to have read some of the important contributions to the field (where are E. O. Wilson, Marcus Feldman, Luca Cavalli-Sforza, Robin Dunbar, and William Durham, among others). Similarly, Baumeister does not refer to the extremely important literature on niche construction, of which gene-culture coevolution is a special case (see the works of John Odling-Smee, Kevin Laland, and Marcus Feldman). Finally, Baumeister's careful discussion of the meaning of `culture' does not recognize that human culture is a form of epistatic cross-generational transmission, and hence that culture is information the same way that genes are information. For a short introduction to this way of thinking (the only correct way of thinking, in my humble estimation) see my paper \\"Gene-culture Coevolution and the Nature of Human Sociality\\", Proceedings of the Royal Society B 366 (2011):878-888.

As a result of his not having read the relevant literature, Baumeister does not have a secure handle on the application of gene-culture coevolution to the nature of human sociality, which probably accounts for the superficiality ofthe remainder of the book.

The View of Life: Four Metaphysical Essays with Journal Aphorisms

Please, will somebody tell me what this means? — Rating: 3/5

This book has a beautiful picture of Georg Simmel on the front cover,and the back cover has blurbs by very famous people (Horkheimer, Park, Habermas). But they say how great Simmel is, not how good the book is.

I could not figure out what Simmel was trying to say. If someone told me Simmel was parodying the Germanic idealist literary tradition of the time, I would be prepared to believe it. Here is one sentence

chosen at random (p. 63): \\"The inorganic body is distinguished from the living one above all by this: the form that defines it is determined from outside... The organic body, however, produces its form from within.\\"

Well, I do declare! That is really deep and insightful. If you are about eight years old. The whole book reminded me of the movie \\"Being There\\" in which Peter Sellers is mentally retarded but everyone takes his pithy statements seriously because he dresses impeccably and has a perfect upper class British accent.

Perhaps some reader will tell me what this book is really all about.

Moral Clarity: A Guide for Grown-Up Idealists (Revised Edition)

Preaches to the Choir, but Not to Me — Rating: 2/5

The background for this book is the recent resurgence of American conservatism, and more specifically, the mood of the country that led to widespread support for President Bush's invasion of Iraq. The general feeling among American liberals in the latter part of the first decade of this century was that liberalism was in retreat, and liberal thinkers were racing around trying to find some anchor point for a resurgence. Most moved towards increasing stress on bottom line distributional issues, in particular advocating a redistribution of wealth from the upper to the middle classes. Others, like myself, who had little but contempt for such short-sighted money-grubbing, were left alienated from liberal politics, advocating some alternative moral vision.

My alternative vision was to recognize the stunning success of liberalism in the post-world war II period, which saw Medicare, Medicaid, Social Security, racial integration and the crumbling of racist ideology, legal abortion, gender equality, widespread of alternative lifestyles, including homosexuality and gay marriage. It is because of the success of the idealistic liberal vision behind these social institutions that we now have run out of steam. Personally, I would like to see my country committed to extending these fabulous accomplishments to other countries that routinely oppress their citizens, but I am not sure that this is a winning electoral strategy. I have been reading a lot of books to find out what might be an inspiring and feasible alternative.

Moral Clarity comes with great endorsements by Todd Gitlin, Michael Walzer, and Cornel West, saying how inspiring is the political and moral vision of this book by philosopher Susan Neiman. I'm sure it will indeed inspire readers who are convinced peaceniks and Eastern Establishment Liberals, but it left me quite cold. I don't appreciate spending my time reading about what Moses and Job can tell us about the modern condition, or why Kant is so important for idealist moral philosophy. There is absolutely nothing new here at all. Neiman informs us that conservatives are realists and liberals are idealists, conservatism is based on tradition and liberalism is based on innovative Enlightenment thought. I heard all that stuff fifty years ago. It may indeed be true, but that does not give us a vision for a better society, or a political platform that can both win voter approval and extend the blessing bestowed upon this country to other less fortunate peoples.important for idealist moral philosophy. There is absolutely nothing new here at all. Neiman informs us that conservatives are realists and liberals are idealists, conservatism is based on tradition and liberalism is based on innovative Enlightenment thought. I heard all that stuff fifty years ago. It may indeed be true, but that does not give us a vision for a better society, or a political platform that can both win voter approval and extend the blessing bestowed upon this country to other less fortunate peoples.

Economics: A Self-Teaching Guide

Strong on Economic History and Schools of Though in Macroeconomics — Rating: 3/5

I will discuss three useful books for beginners:

Sean Flynn, Economics For Dummies (Wiley, 2011)

Tom Gorman, The Complete Idiot's Guide to Economics (Penguin, 2003)

Steve Slavin, Economics: A Self-Teaching Guide (Wiley, 1999)

People often ask me what to read to learn the type of basic economic theory that is taught in university graduate and undergraduate courses. This is somewhat difficult because most writers for the general public have some sort of political axe to grind and present a one-sided version of the theory, or a complete alternative to the theory. I have nothing against such writers, but I will always suggest that readers also/instead of/before reading these political pleadings, find out what the general "received wisdom" is.

It may seem that there is no "received wisdom" that is shared by most economists, but this is not the case. Except in the area of macroeconomic policy, there are few disagreements. In the macroeconomic area, the standard models are pretty awful, but economic policy types have deeper problems: general models can show you the general direction of effects, but when there are offsetting directions, only quantitative evidence can supply a credible answer. For instance, increasing government expenditure to lower the unemployment rate may be offset by the effects of government debt on interest, inflation, and growth rates. Only careful attention to details can determine the net effect of the policy, and even this is subject to significant error. However, you cannot even begin to assess economic policy seriously unless you know basic economic theory.

The books reviewed here are basic starting points for gaining a facility in economic theory. Alternatively, you can simply buy one of the leading undergraduate textbooks and plow through it. The textbook will be more demanding, very fat, and quite expensive. Before doing this, I advise that you tackle one or more of the above volumes. They are all quite good, and it wouldn't hurt to read them all. But, here are my impressions.

Economics for Dummies is the most sophisticated of the three books and covers extremely important material left out of the others. This includes an analysis of property right, market externality, public goods, asymmetric information, and other absolutely fundamental aspects of modern economic theory, which is really the theory of the interaction between markets and macroeconomic regulation for efficiency and stability. It rather weak on national income accounting (none of the books is strong in this very difficult area), and it does no general equilibrium analysis (e.g., the very instructive Edgeworth box is missing). Finally, the book rather slights statistical information on the economy and give little historical perspective.

The Complete Idiot's Guide to Economics is a little out of date (2003), and is especially concerned with regulatory policy in dealing with volatile economies. It has lots of interesting statistics, and gives a detailed explanation of the Federal Reserve and its operation. It is similarly strong on analyzing international trade and exchange rates. Read this after Economics for Dummies.

Economics: A Self-Teaching Guide cannot deal with recent economic issues because it was published in 1999, but it is well worth reading. It is especially strong on economic history and it presents in some detain the various schools of thought in macroeconomic theory. It also does considerable national income accounting, which I consider a prerequisite to understanding current economic issues. Its microeconomics sections are rather brief. It is certainly not a substitute for Economics for Dummies.

If readers have comments and/or suggestions of these or other candidates for learning basic economic theory, please pass them on to me.d them all. But, here are my impressions. Economics for Dummies is the most sophisticated of the three books and covers extremely important material left out of the others. This includes an analysis of property right, market externality, public goods, asymmetric information, and other absolutely fundamental aspects of modern economic theory, which is really the theory of the interaction between markets and macroeconomic regulation for efficiency and stability. It rather weak on national income accounting (none of the books is strong in this very difficult area), and it does no general equilibrium analysis (e.g., the very instructive Edgeworth box is missing). Finally, the book rather slights statistical information on the economy and give little historical perspective. The Complete Idiot's Guide to Economics is a little out of date (2003), and is especially concerned with regulatory policy in dealing with volatile economies. It has lots of interesting statistics, and gives a detailed explanation of the Federal Reserve and its operation. It is similarly strong on analyzing international trade and exchange rates. Read this after Economics for Dummies. Economics: A Self-Teaching Guide

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The Complete Idiot's Guide to Economics, 2nd Edition

STrong on Regulating Economic Volatility — Rating: 3/5

Sean Flynn, Economics For Dummies (Wiley, 2011)

Tom Gorman, The Complete Idiot's Guide to Economics (Penguin, 2003)

Steve Slavin, Economics: A Self-Teaching Guide (Wiley, 1999)

People often ask me what to read to learn the type of basic economic theory that is taught in university graduate and undergraduate courses. This is somewhat difficult because most writers for the general public have some sort of political axe to grind and present a one-sided version of the theory, or a complete alternative to the theory. I have nothing against such writers, but I will always suggest that readers also/instead of/before reading these political pleadings, find out what the general \\"received wisdom\\" is.

It may seem that there is no \\"received wisdom\\" that is shared by most economists, but this is not the case. Except in the area of macroeconomic policy, there are few disagreements. In the macroeconomic area, the standard models are pretty awful, but economic policy types have deeper problems: general models can show you the general direction of effects, but when there are offsetting directions, only quantitative evidence can supply a credible answer. For instance, increasing government expenditure to lower the unemployment rate may be offset by the effects of government debt on interest, inflation, and growth rates. Only careful attention to details can determine the net effect of the policy, and even this is subject to significant error. However, you cannot even begin to assess economic policy seriously unless you know basic economic theory.

The books reviewed here are basic starting points for gaining a facility in economic theory. Alternatively, you can simply buy one of the leading undergraduate textbooks and plow through it. The textbook will be more demanding, very fat, and quite expensive. Before doing this, I advise that you tackle one or more of the above volumes. They are all quite good, and it wouldn't hurt to read them all. But, here are my impressions.

Economics for Dummies is the most sophisticated of the three books and covers extremely important material left out of the others. This includes an analysis of property right, market externality, public goods, asymmetric information, and other absolutely fundamental aspects of modern economic theory, which is really the theory of the interaction between markets and macroeconomic regulation for efficiency and stability. It rather weak on national income accounting (none of the books is strong in this very difficult area), and it does no general equilibrium analysis (e.g., the very instructive Edgeworth box is missing). Finally, the book rather slights statistical information on the economy and give little historical perspective.

The Complete Idiot's Guide to Economics is a little out of date (2003), and is especially concerned with regulatory policy in dealing with volatile economies. It has lots of interesting statistics, and gives a detailed explanation of the Federal Reserve and its operation. It is similarly strong on analyzing international trade and exchange rates. Read this after Economics for Dummies.

Economics: A Self-Teaching Guide cannot deal with recent economic issues because it was published in 1999, but it is well worth reading. It is especially strong on economic history and it presents in some detain the various schools of thought in macroeconomic theory. It also does considerable national income accounting, which I consider a prerequisite to understanding current economic issues. Its microeconomics sections are rather brief. It is certainly not a substitute for Economics for Dummies.

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Economics For Dummies

Especially Strong on the Theory of Market Intervention — Rating: 4/5

I will actually discuss three books in this review. All are books on self-learning of economic theory for serious beginners.

Sean Flynn, Economics For Dummies (Wiley, 2011)

Tom Gorman, The Complete Idiot's Guide to Economics (Penguin, 2003)

Steve Slavin, Economics: A Self-Teaching Guide (Wiley, 1999)

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Sex at Dawn: The Prehistoric Origins of Modern Sexuality

Much that is True, but Remember: Is does not Imply Ought — Rating: 3/5

Sex at Dawn is a popular exposition of the simple and compelling thesis that a casual sexuality was the norm for our hunter-gatherer forbears, and that faithful pair-bonding in the form of monogamous marriage is alien to our sexual natures as human beings. The authors hold that the shift to the norm of faithful pair bonding arose only upon the advent of settled agriculture some 10,000 years ago. Moreover, they argue, \\"promiscuous impulses remain our biological baseline, our reference point\\" (p. 46), and society would be better off if we acknowledged the ubiquity of these impulses and offered them social approbation.

Ryan and Jethá justify their position mostly by deploying anecdotal and unsystematic anthropological evidence, and the authors have no anthropological credentials. Their style of argumentation is highly informed and informative for novices (I am not an anthropologist, but I have read widely in the professional anthropological literature), but it is completely unsystematic, and hence untrustworthy. I call it \\"Google research\\" because the data appears to flow from Googling one or two terms, such as \\"sex anthropology\\" and \\"human sex primate sex\\" and then cherry-picking the millions of citations.

Despite their lack of systematic research, the authors' conclusions from the anthropological literature are usually not far from the truth. The notion that we can infer from our genetic predispositions how we should behave, however, is simply illogical. Humans form strong pair bonds and humans, like members of almost every other species that forms strong pair bonds (including, for instance, almost all nesting birds) often cheat on their partners. But this fact does not imply that this behavior should be morally sanctioned or social encouraged. The most we can legitimately conclude from the evidence is that it is probably in the interest of a healthy and happy populace that lapses in fidelity be treated leniently.

Ryan and Jethá site several instances of societies which follow their ideal of relaxed sexuality, but they go too far in claiming that pair bonding is an effect of modern society in general and settled agriculture in particular. Pair bonding appears to be quite universal throughout human societies, whether in the form of monogamy, polyandry, or polygamy. By contrast, there is no pair-bonding primate species in Africa and only such species in Asia. It thus is plausible that pair bonding is a strong part of our genetic predisposition as a species, but that it arose rather late in our evolution as a species. This is not Ryan and Jethá's story, but it is fairly close, and I think much more defensible.

Amusingly, while Ryan and Jethá spout facts that are well known in the literature, they set themselves up as brave iconoclasts, overturning what they call the \\"standard narrative of human sexual evolution\\" (p. 7), which with its emphasis on the centrality of faithful pair-bonding. The standard story, they claim \\"hides the truth of human sexuality behind a fig leaf of anachronistic Victorian discretion repackaged as science\\" (p. 35). The fact is that there is no standard narrative that I know of in the contemporary scientific literature. Rather, human sexuality is clearly highly plastic, and we can learn little from other species because sexuality is even more plastic across primate species. The authors' mocking of anthropological opinion is particularly disingenuous because most of their argumentation is based on the work of professional anthropologists.

Sexual behaviors that we share with all or most primate species are likely to represent genetic predispositions. There is no question but that each primate species has a genetically specified range of sexual behaviors. We know this because this range of behaviors does not vary much across even widely separated groups. However, primate sexuality is highly variable across species. Therefore we cannot say that we are more like the polymorphically sexual Bonobos and the promiscuous chimpanzees than other more sexually discriminate primate species. However, true monogamy is very rare in both primates and sexually mating species in general, and the physiology of human male genitals suggests much male sperm competition, which strongly supports the thesis that strong pair bonds were regularly accompanied by a significant level of extra-pair copulations.

Some of the points the authors raise involve interesting questions that I cannot resolve. They assert that early human males were not concerned with parentage, which would make us unlike any other species I can think of. Of course, this position is necessary for Ryan and Jethá because it alone is compatible with the relaxed and tolerant attitude towards extra pair copulations that they consider the human norm. I rather suspect that humans are more like other pair-bonding species, in which males attempt to be promiscuous but are deterred by their mates, and females are carefully policed to reduce their opportunities for extra-pair mating. Despite the efforts of all parties in pair-bonded species, lots of extra-pair mating takes place, but sexuality is hardly tolerant and relaxed. However, there are several so-called \\"partible paternity\\" societies in which fathering is widely shared by males, who are tolerant of their mate's extra-pair sexuality. While this fatherly behavior must be taught to young men and is highly socially controlled the existence of these societies clearly shows that humans are capable of embracing a wide range of socio-sexual norms, however frequently they are honored in the breach.

Ryan and Jethá believe that it is an important part of their argument that our hunter-gatherer ancestors were fundamentally peaceful, war playing little role in everyday life and social organization. \\"hierarchical, aggressive, and territorial behavior is of recent origin for our species. It is...an adaptation to the social world that arose with agriculture.\\" (p. 76). The reason, they argue, is that without private property, there was nothing to fight over. I believe this is just dead wrong. The archeological evidence points to a high level of warfare in hunter-gather societies. The goals of violent inter-group aggression were attaining valued, currently highly productive territory (e.g., a mountain pass) and obtaining women for mating, gathering, and child-rearing (see my book with Samuel Bowles,

A Cooperative Species, Princeton 2011). The authors' evidence is scattered and mostly anecdotal, whereas our analysis is quite systematic, drawing on a large body of statistical evidence.

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Law's Order: What Economics Has to Do with Law and Why It Matters

A Beautiful, Carefully Argued, Well Written Book on Law and Economics — Rating: 5/5

The layman's view of law is that it has to do with justice, and the layman's view of Economics is that it has to do with who gets what. This is not correct. The early legal scholars, Grotius, Pufendorf, Locke and others, despite their disagreements, all stressed that property rights law was justified by the fact that an individual will not invest in the improvement of a valuable resource (land, idea, factory) unless he can expect to enjoy the fruits of this investment, and secure ownership is the best means of ensuring that this is the case. In other words, the legal institution of property rights served to improve economic efficiency, not justice. Or rather, as David Friedman would say, our ideas of the justice of property rights are the effect of the efficiency of the institution of property rights, and not vice versa.

Law's Order is a wonderful, exciting, and hugely informative book. It never lowers its standard of rigor (a very high standard), but avoids all mathematical modeling and never makes a silly argument simply because there is some outlandish economic model that supports it. One need not always agree with Friedman in order to appreciate the power of his argumentation and the limpidity of his writing.

The most important theoretical term that must be mastered is that of `economic efficiency.' The concept is not simple, and only by many varied examples will the reader come away with an appreciation for the strengths and weaknesses of the concept. Basically, an economic arrangement is efficient if there is no alternative arrangement that can make all individuals, even those not participating directly in the arrangement better off according to their own preferences. We also say that moving from situation A to

situation B improves efficiency if the winners from moving to B could compensate the losers so that all are better off.

A perfect example of an efficiency improvement is where a firm produces harmful effluents that contribute to polluting the natural environment. A firm that releases harmful effluents can simply be prevented from doing so, thus likely leading to the closing of the firm. However, if the cost to society from, say, a ton of effluent can be accurately measured, the firm can be asked either to pay a price per ton of effluent equal to this cost or cease production. The firm can then find a profit-maximizing level of effluent production, and if profits are positive at this level, the new situation, with a lower level of effluent and a tax on the effluent, may be more efficient than either the original situation or simply closing down the firm.

Friedman's central assertion is \\"the thesis, due to Judge Richard Posner, that the common law, that part of the law that comes not from legislatures but from the precedents created by judges in deciding cases, tends to be economically efficient.\\" (p. 15) Most of the book consists of an extended argument supporting the above statement. If Friedman is correct, and he may well be (I cannot think of an exception to his assertion, although of course I am not a legal scholar in any way), common law is then an incredibly stunningly useful social institution. For instance, many people, especially right-wing ideologues, claim that that free markets are efficient, but economic theory does not support this statement (there are externalities, public goods, increasing returns industries, and dynamic fragilities, all of which reduce the efficiency of markets and may possibly be improved through some non-market intervention). Here we have a true expert in Law and Economics, our author, who claims that the dynamics of common law in America \\"tends to be economically efficient\\" with no systematic deviations at all. I come from this book not only marveling at the author's analytical and exegetical skills, but also wondering why common law has this character. Many human social institutions contribute strongly to our success as a species andour happiness as individuals and families, but I know of none other that can truly be said to be efficient, without some systematic deviations from efficiency. Friedman does not say why common law is efficient, and I know of no one who has developed a model to explain this fact.

Note that legislative law is often inefficient. For instance, a free market in body parts is illegal in virtually every country around the world. This creates huge inefficiencies. For instance, thousands die each year waiting for kidney transplants from compatible donors, but it is illegal to buy a kidney from a healthy person who would love to sell it, perhaps to by an IPod and a pair of Nike sneakers, or perhaps to pay for a life-saving surgical procedure for his mother. I am sure also there are rich people who would be willing to pay for human eyes that it pleases them to float in a crystal prism while they eat breakfast, and poor people who would gladly give an eye for the money to send their children to decent schools. But these efficiency enhancing exchanges are forbidden by law. According to Friedman, if the issue were left to common law, such exchanges would be allowed, and I cannot see that he is wrong.

Of course, this does not mean that all legislated law is inefficient. Indeed, quite the opposite is the case. Consider, for instance, laws that oblige sellers to truthfully represent their wares. Without this sort of law, honest sellers would be driven out of the market by dishonest sellers unless the honest sellers could find an alternative way of guaranteeing the quality of their products (e.g., warranties or reputation). In general there is no way short of government regulation by independent judgmental bodies of experts to achieve this, because when a firm is in financial trouble, it will ineluctably sacrifice long-term profitability in favor of short-term survivability. Experience, in addition, shows that when the level of corruption in a society is low, its government tends to frame and enforce such truth in advertizing laws rather competently. It is a rather difficult exercise in economic modeling to show that truth in advertizing improves efficiency (it does, after all, harm the dishonest seller), but it can usually be done.

Product safety regulations, however, are generally inefficient. Take the American FAA, which specifies complex safety regulations for private and commercial airlines. Their philosophy is \\"one size fits all,\\" so travelers who are willing to take a higher risk of an accident are not permitted to do so. A libertarian would probably suggest that airlines be forced to reveal the risks involved in flying with them, but no regulation beyond that.

Friedman's thesis implies that when justice conflicts with efficiency in common law, efficiency always wins out. Friedman supports this statement in two ways. First, we tend to consider a law just when it is

efficient. For instance, if a lawnmower manufacturer can prevent a certain type of accident at low cost by installing a flange near the mower blade, but the user cannot prevent the risk of injury through normal prudence, then a common law precedent of holding the producer liable for injuring the user will be perceived as just. However, if the user can avoid injury through normal prudence, but the producer cannot prevent injury through user carelessness, both justice and efficiency will place negligence liability with the user.

Friedman's second defense of the efficiency principle is based on a very famous argument first made by Nobel prize economist Ronald Coase in his article \\"The Problem of Social Cost\\" in 1960---a paper that really started the whole Law and Economics research area. Coase noted that if one party causes harm to another, and if there are no transactions costs, then In law and economics, the Coase theorem, attributed to Ronald Coase, describes the economic efficiency of an economic allocation or outcome inthe presence of externalities. The theorem states that if trade in an externality is possible and there are no transactions costs, bargaining will lead to an efficient outcome regardless of the initial allocation of property rights. Therefore the careful and unambiguous specification of property rights, which can be accomplished in common law through precedence, will promote efficiency.

Consider, for instance, the issue that Coase dealt with before publishing his 1960 paper: eliminating interference between radio stations in the broadcast frequencies they use. He reasoned that so long as the law clearly stated who has rights to what (for instance, the conditions under which a new radio station can broadcast on a certain frequency band), then bargaining among broadcasters would eventually lead the right to broadcast in the hands of the entrepreneur who stands to gain the most from broadcasting on that frequency band by putting the radio station to its most economically valued use. Of course it matters to the broadcasters which one initially has the right, but standard property rights law (e.g., the Lockean right to appropriate from nature by mixing one's labor with an unutilized resource, plus the justice of voluntary exchange) might well speak to this problem.

Perhaps the Coase Theorem might be the basis for explaining why common law is efficient and why efficiency tends to justify patterns of ownership. At any rate, I am sure that most readers will find this book very valuable, and if there is a major critique of Friedman's argument that I have not expressed, perhaps a reader will relay this to me in a comment.uth in advertizing laws rather competently. It is a rather difficult exercise in economic modeling to show that truth in advertizing improves efficiency (it does, after all, harm the dishonest seller), but it can usually be done. Product safety regulations, however, are generally inefficient. Take the American FAA, which specifies complex safety regulations for private and commercial airlines. Their philosophy is \\"one size fits all,\\" so travelers who are willing to take a higher risk of an accident are not permitted to do so. A libertarian would probably suggest that airlines be forced to reveal the risks involved in flying with them, but no regulation beyond that. Friedman's thesis implies that when justice conflicts with efficiency in common law, efficiency always wins out. Friedman supports this statement in two ways. First, we tend to consider a law just when it is efficient. For instance, if a lawnmower manufacturer can prevent a certain type of accident at low cost by installing a flange near the mower blade, but the user cannot prevent the risk of injury through normal prudence, then a common law precedent of holding the producer liable for injuring the user will be perceived as just. However, if the user can avoid injury through normal prudence, but the producer cannot prevent injury through user carelessness, both justice and efficiency will place negligence liability with the user. Friedman's second defense of the efficiency principle is based on a very famous argument first made by Nobel prize economist Ronald Coase in his article \\"The Problem of Social Cost\\" in 1960---a paper that really started the whole Law and Economics research area. Coase noted that if one party causes harm to another, and if there are no transactions costs, then In law and economics, the Coase theorem, attributed to Ronald Coase, describes the economic efficiency of an economic allocation or outcome in the presence of externalities. The theorem states that if trade in an externality is possible and there are no transactions costs, bargaining will lead to an efficient outcome regardless of the initial allocation of property rights. Therefore the careful and unambiguous specification of property rights, which can be accomplished in common law through precedence, will promote efficiency. Consider, for instance, the issue that Coase dealt with before publishing his 1960 paper: eliminating interference between radio stations in the broadcast frequencies they use. He reasoned that so long as the law clearly stated who has rights to what (for instance, the conditions under which a new radio station can broadcast on a certain frequency band), then bargaining among

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Durkheim and the Birth of Economic Sociology

Fascinating Historical Account, though Imbellished — Rating: 4/5

An insightful entry in Wikipedia notes that economic sociology, which studies the social causes and effects of economic activity, can be broadly into a classical and a contemporary period. The classical period¸ lasting from the Industrial Revolution in Europe to the mid-1980's, was concerned particularly with the effects of the rise of modern capitalism, including the passage from \\"community\\" to \\"market\\" organization of social relations, from rural to urban life, the rise of secularism, and the transformation of social stratification. Sociology as a discipline arose primarily as a reaction to the rise of capitalism, and unlike Karl Marx and his followers, was generally accepting of the new social order but critical of the unbridled action of market institutions and the industrial proletariat on social life. Economics tended to be less critical of the new social order, with the institutional and historical schools more or less siding with the sociologists, while the \\"political economists\\" who employed mathematical techniques and evolved from Adam Smith, David Ricardo, John Stuart Mill, and Jean-Baptiste Say and the other classical economists, tended not so much approve of the social transformations initiated by industrial capitalism as to simply ignore them. Max Weber's work on the links between economics and religion, in particular the role of Protestantism in fostering modern capitalist entrepreneurship, are the high points of this period of economic sociology.

Contemporary economic sociology was inspired by the \\"embeddedness\\" approach outlined by of Mark Granovetter in 1985. Granovetter stressed that exchange relations almost always take place within a complex network of substantive social relations. Granovetter's theory of \\"weak ties\\" and Ronald Burt's theory of \\"structural holes\\" are salient products of this second wave of contributions to economic sociology.

Economic sociology in both periods has been generally hostile to analytical economic theory (called \\"political economy\\" in the early years). In the modern period this probably is due to the fact that economics is more mathematically sophisticated than sociological theory, and it is unclear to many that the increased sophistication has any payoff in terms of improved understanding of the economy. Moreover, economists consistently and completely ignored sociological theory until very recently, and sociologists responded by offering frequent and vitriolic attacks suggesting that the analytical economic approach was wrong-headed. These attacks, are to this observer rarely coherent or interesting. It is certainly true that economic models would be significantly enriched by paying closer attention to sociological phenomena, but it is not plausible that the basic economic models, stemming from the rational actor model, game theory, and market analysis, should simply be abandoned.

Indeed, in recent years, major economic researchers, including Nobel prize recipients Herbert Simon, Douglas North and George Akerlof, and influential economists including Jeffery Sachs and Avner Greif, have directly incorporated sociological insights into their models. The rise of behavioral game theory and experimental economics has also rendered the lines between economic and sociological analysis rather difficult to define (see my Bounds of Reason, 2009 and my book with Samuel Bowles, A Cooperative Species, 2011).

The book under review relates only to the first wave in economic sociology, inspecting the reaction of Emile Durkheim and his followers to the political economy of the late nineteenth and early twentieth centuries. Durkheim is of special importance because is, along with Max Weber, one of the

cornerstones of modern sociological theory. However, unlike Weber, Durkheim's most important work and ideas do not intersect with economic theory at all, and Durkheim turned away from economics altogether in his later years. For this reason, only thefirst two chapters of this book deal with Durkheim's personal views, the remainder dealing with his followers in the first third of the twentieth century. While these views are of more than a little historical interest, they will have limited importance for the casual reader. The title is thus a bit misleading, as most of his analysis does not related to Durkheim at all, and it would be a mistake to attribute all of the ideas of his students to the master himself.

Emile Durkheim, the formative sociological thinker, and Leon Walras, the equally formative economic thinker, appear to have ignored each other rather completely, and economists of the time had no systematic means of discussing the effects of the growth of markets on social life in general. Durkheim's major starting point in the critique of political economy is that social cohesion is based on notions of fairness and justice, while the unregulated growth of capitalism undercuts morality by determining prices purely through unregulated markets. Indeed, Durkheim's picture of capitalism is little different from Marx's as expressed in the Communist Manifesto, where we learn that \\"the bourgeoisie, wherever it has got the upper hand, has put an end to all feudal, patriarchal, idyllic relations. It ... has left remaining no other nexus between man and man than naked self-interest ... for exploitation veiled by religious and political illusions, it has substituted naked, shameless, direct, brutal exploitation ... Constant revolutionizing of production, uninterrupted disturbance of all social conditions, everlasting uncertainty and agitation distinguish the bourgeois epoch from all earlier ones ... All that is solid melts into air, all that is holy is profaned, and man is at last compelled to face with sober senses, his real conditions of life, and his relations with his kind.\\"

Durkheim could not match Marx's brilliance, but he was no less convinced of the truth of the message. Unlike Marx, of course Durkheim more or less accepted the class relations devolving from the Industrial Revolution, but he fervently believed that industrial society need new \\"professional groups\\" that could regulate capitalist growth in a way that promoted the legitimacy of the economic system and the justice of its division of labor and distribution of wealth. This led him to a bitter attack on political economy because it generally had no concept of justice whatever, and those economists that discussed normative issues tended to rely on the marginal productivity principle to determine when the terms of exchange were just. Durkheim had no sympathy with this notion, and he rejected both the market determination of wage rates and the justice of wealth inheritance.

In short, Durkheim argued that modern industrial society led to the dissolution of the social bonds that render life meaningful. The result is \\"anomie,\\" which leads to mental illness, indicative of which is the high rate of suicide in modern society. Steiner develops this theme quite nicely, although with a degree of detail that will be of interest only to the historian and perhaps the philosopher.deal with Durkheim's personal views, the remainder dealing with his followers in the first third of the twentieth century. While these views are of more than a little historical interest, they will have limited importance for the casual reader. The title is thus a bit misleading, as most of his analysis does not related to Durkheim at all, and it would be a mistake to attribute all of the ideas of his students to the master himself. Emile Durkheim, the formative sociological thinker, and Leon Walras, the equally formative economic thinker, appear to have ignored each other rather completely, and economists of the time had no systematic means of discussing the effects of the growth of markets on social life in general. Durkheim's major starting point in the critique of political economy is that social cohesion is based on notions of fairness and justice, while the unregulated growth of capitalism undercuts morality by determining prices purely through unregulated markets. Indeed, Durkheim's picture of capitalism is little different from Marx's as expressed in the Communist Manifesto, where we learn that \\"the bourgeoisie, wherever it has got the upper hand, has put an end to all feudal, patriarchal, idyllic relations. It ... has left remaining no other nexus between man and man than naked self-interest ... for exploitation veiled by religious and political illusions, it has substituted naked, shameless, direct, brutal exploitation ... Constant revolutionizing of production, uninterrupted disturbance of all social conditions, everlasting uncertainty and agitation distinguish the bourgeois epoch from all earlier ones ... All that is solid melts into air, all that is holy is profaned, and man is at last compelled to face with sober senses, his real conditions of life, and his relations with his kind.\\" Durkheim could not match Marx's brilliance, but he was no less convinced of the truth of the message. Unlike Marx, of course Durkheim

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Taking Economics Seriously (Boston Review Books)

Some very good policy ideas, but not yet ready for implementation — Rating: 4/5

This is a pamphlet in book form, with a very old-fashioned but elegant cover, reminiscent of the great pamphleteers of the nineteenth century. Dean Baker is an economist with a Ph.D. from the University of Michigan who left academia to devote full-time to policy analysis in liberal Washington think-tanks. The books' dedication is \\"to the hope that we can start thinking about economic policy in ways that do not always work to the advantage of the rich and powerful.\\"

This book has a clear theme that threads the book from start to finish. \\"Progressives,\\" says Baker, have painted themselves into a corner by accepting a policy debate in which they are on one side and the market is on the other. This framing is both essentially wrong and a bad political move.\\" (p. 83) The real debate between conservatives and liberals, claims Baker, is about the structure of regulation, not the degree of regulation. Specifically, liberals want regulation that benefits the relatively less well-off, while conservatives want regulation that benefits the rich and the powerful.

Of course, many liberals will accept this favorable description of political conflict in America, but is it true? Certainly conservatives will reject it with righteous indignation. Conservative political theorists are likely to counter that they espouse a meritocratic vision in which individuals get what they deserve, not what they can wheedle out of the system through political influence. Conservatives will add that the liberal welfare state produces a pathological culture of poverty by ensuring that some individuals can live off of the hard work and sacrifice of others, and the abolition of anti-meritocratic interference in markets will empower the less well off to better their position. The idea that conservatives just want to help the rich and the powerful is just one of those absurd ideas that liberals use to pump up their self-esteem.

I am less than enthusiastic about the conservative position for a single reason: a system that condemns children to unfulfilled lives due to the poverty of family and community is unfair and unconscionable. On the other hand, contemporary \\"progressives\\" seem to have forgotten about the poor and the dispossessed altogether in recent years and certainly they do not appear in this little book. Moreover, the support of liberals for labor aristocracies (especially teachers' unions, but state workers' unions in general) is hardly an indication of caring about the less-well-off in our country.

Nevertheless, it is true that liberals strive for a redistribution from the rich to the middle class, and they envision the means to be both progressive taxation and an expansion of the role of government in regulating economic activity. And it is equally true that the rich and the powerful have consistently acted to turn economic regulation to their own benefit, and certainly have not shown any love for \\"free markets.\\"

The beauty of American liberalism lies in its past struggles for occupational health and safety regulations, food and drug regulation, Social Security, Medicare and Medicaid, racial, ethnic, and gender anti-discrimination laws, birth control and family planning, sex education, and a culture of

tolerance for alternative life-styles and personal choices. These struggles have been extremely successful. There of course remains more to do, but time is on the side of the liberal vision.

The greatest failure of American liberalism is to have eliminated or marginalized poverty, except for the elderly. Perhaps this is because you can't win votes by caring about poor children, although this is not obviously so. At any rate, the culture of modern American liberalism is to focus not on social problems and their solution, but rather on the income distribution and how to move it in favor of the \\"middle class.\\" I have long argued that this is a mistake, simply because few voters care about the distribution of income, but rather care about justice and social values. For instance, as I write there is great animosity towards bankers not because they are rich, but rather because they enriched themselves through actions that gravely hurt the country's economic health, and while ordinary Americans saw their livelihoods threatened an destroyed.

Dean Baker perfectly reflects contemporary American liberal culture. He is fixated on the task of redistributing from rich to middle class, but his means is very creative and unusual: by using the market as an egalitarian instrument. His strongest argument is that the regulation of the financial sector is geared towards subsidizing the large banks, especially through government deposit insurance and the implicit \\"too big to fail\\" safety net that allows the big banks to maintain a high risk exposure and consequent higher rate of return that is available to smaller banks. There is little doubt but that increasing competition in the finance sector would have a strongly beneficial effect on the economy, especially by reducing financial fragility (see the paper \\"The Dynamics of Pure Market Exchange\\" on my web site). There is also little doubt but that the oligarchial structure of the financial sector is maintained by its political clout, especially via campaign contributions.

There are two problems with Baker's strategy here. First, it is not clear that a streamlined financial sector would have any particular effect on the distribution of income. Second, it is unclear that many voters would be moved by a campaign centering on a reorienting of financial sector regulation, partially because voters care little about either technical issues in economic regulation or about the distribution of income. A campaign to jail the perpetrators of financial fraud might do much better at the polls, but this would be economically costly to carry out and is merely vindictive with no long-run favorable implications.

Baker's remaining recommendations are important in principle but a long way from being currently implementable in fact. For instance, Baker notes that fostering international competition might be used to curb health care costs. Medical procedures are a fraction of the USA cost in other countries, and the quality of the services provided is equally high. Why not encourage Americans to go abroad for expensive medical procedures, and make it easier for foreign professionals to gain accreditation for working in the US health sector? Any such suggestion would of course engender the immediate and sustained animosity of the rich and influential physicians' organizations, with Americans' traditional suspicion concerning the quality of foreign services leading them to listen closely to the counterarguments. The success of this proposal would depend on carrying out several careful studies of the international health care market weighing pros and cons. Hopefully, Baker's arguments will encourage others to undertake such studies.

Baker's final suggestion is based on the observation that economic efficiency requires that price be equal to marginal cost, whereas in some very rich sectors of the economy, including recorded music, computer software and especially pharmaceuticals, marginal cost is close to zero, but firms charge very high monopoly prices because they have secure patent rights on the product. Of course, drug firms must make a significant profit per unit sale to make up for the high costs of discovery and testing of products, but once on the market, it would be most efficient if they were sold at their marginal cost. Drug that costs thousands of dollars could then sell for a few dollars. The problem is: how do we encourage the research if the resulting products cannot be counted on for a stream of high-level returns?

Baker's answer is not convincing. He notes that there is considerable rent-seeking with big pharma and other patent and copyright holders, but surely eliminating this (how do you do that, pray tell?) does not solve the problem. He then suggests that NIH and other governmental agencies do the innovating (p. 33). This is, of course, just a sick joke. Governments are not subject to competition, and hence they do not innovate. Finally, he suggests that \\"government could construct a prize mechanism under which it buys up patents after the fact for a premium keyed to the patent's usefulness.\\" The problem here is

that the government has no incentive to buy up the most effective drugs, but rather has an incentive to buy the drugs of the most politically influential pharma firms. The potential for graft and rent-seeking is extreme. This does not mean that such a scheme would be impossible, provided there were citizen/scientific boards that made the choices, but these too would be ripe for corruption.

Baker's suggestions for a more egalitarian system of economic regulation deserves a lot of creative research, especially if the results reached down to the poor and dispossessed rather than representing perks to the already relatively well off American middle class.t a long way from being currently implementable in fact. For instance, Baker notes that fostering international competition might be used to curb health care costs. Medical procedures are a fraction of the USA cost in other countries, and the quality of the services provided is equally high. Why not encourage Americans to go abroad for expensive medical procedures, and make it easier for foreign professionals to gain accreditation for working in the US health sector? Any such suggestion would of course engender the immediate and sustained animosity of the rich and influential physicians' organizations, with Americans' traditional suspicion concerning the quality of foreign services leading them to listen closely to the counterarguments. The success of this proposal would depend on carrying out several careful studies of the international health care market weighing pros and cons. Hopefully, Baker's arguments will encourage others to undertake such studies. Baker's final suggestion is based on the observation that economic efficiency requires that price be equal to marginal cost, whereas in some very rich sectors of the economy, including recorded music, computer software and especially pharmaceuticals, marginal cost is close to zero, but firms charge very high monopoly prices because they have secure patent rights on the product. Of course, drug firms must make a significant profit per unit sale to make up for the high costs of discovery and testing of products, but once on the market, it would be most efficient if they were sold at their marginal cost. Drug that costs thousands of dollars could then sell for a few dollars. The problem is: how do we encourage the research if the resulting products cannot be counted on for a stream of high-level returns? Baker's answer is not convincing. He notes that there is considerable rent-seeking with big pharma and other patent and copyright holders, but surely eliminating this (how do you do that, pray tell?) does not solve the problem. He then suggests that NIH and other governmental agencies do the innovating (p. 33). This is, of course, just a sick joke. Governments are not subject to competition, and hence they do not innovate. Finally, he suggests that \\"government could construct a prize mechanism under which it buys up patents after the fact for a premium keyed to the patent's usefulness.\\" The problem here is that the government has no incentive to buy up the most effective drugs, but rather has an incentive to buy the drugs of the most politically influential pharma firms. The potential for graft and rent-seeking is extreme. This does not mean that such a scheme would be impossible, provided there were citizen/scientific boards that made the choices, but these too would be ripe for corruption. Baker's suggestions for a more egalitarian system of economic regulation deserves a lot of creative research, especially if the results reached down to the poor and dispossessed rather than representing perks to the already relatively well off American middle class.

The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society (Studies in Contemporary German Social Thought)

If you like this, you will love root canal work--or Niklas Luhmann — Rating: 3/5

Jurgen Habermas is of course a great philosopher and a vigorous fighter for truth and freedom. When bitter anticommunists were writing Darkness at Noon (Arthur Koestler), Fahrenheit 451 (Ray Bradbury), Brave New World (Aldous Huxley) and 1984 (George Orwell), Habermas (along with others, such as Karl Popper) was struggling to build a new Enlightment foundation for the notion of Truth, which had been sullied by the propaganda of the Nazis and effectively undermined by the Marxist critique of ideology, which held that the ruling ideas of society were the ideas of the ruling class, quite independent from the truth-value of these ideas, and the dominant philosophy of morality (positivists, natural language school, et al.) was that morality was purely relative and meaningless.

So, I love Habermas. This books is the English translation of his habilitatzionschrift, which made him a full professor in the German system. Now, Germans appear to have the idea that to write clearly betrays a small mind, so Habermas says as far away from clarity as possible. As a result this book is quite unreadable. Or rather, it mostly makes no sense, and when it does make sense, it is mostly wrong or highly contentious, and Habermas sticks to the traditional German philosophical disdain for the facts. While this is a purported historical argument, I have absolutely no faith in its accuracy, mostly because Habermas' arguments are generally interpretive and very difficult to pin down.

Habermas' major thesis is surely wrong. He argues that in the Enlightenment there was a real sphere of public discourse between civil society and the state, and in modern times, this discourse is captured by special interests and turned to the advantage of special interest groups. Where there once was discourse, there is now just spinning the news, with no attempt to seek truth. I think the facts are exactly the opposite. We live in an information age where the fraction of the population that is educated and aware of social issues larger then ever before. We may see in the future a return to totalitarianism, but it will never win out in the arena of popular political opinion.aware of social issues larger then ever before. We may see in the future a return to totalitarianism, but it will never win out in the arena of popular political opinion.

The Five Thousand Year Leap: Twenty-Eight Great Ideas That Are Changing the World

Thoughtful and Balanced — Rating: 4/5

Willard Cleon Skousen (1913--2006) was a prolific writer, a lawyer, a college professor (Brigham Young University), and police chief, a rabid John Birch Society anti-Communist, and much more. This highly accessible but practically forgotten volume has gotten much press recently by activists in the newly-revived Republican activist, so-called `Tea Party\\" movement. Being somewhat confused as to what this group would like to see happen in the United States (besides simply replacing the reigning regime in Washington), I thought reading some of their tracts might give me a clue.

For all the extremism of his political views, this books comes across as a pleasantly optimistic and healthy-spirited defense of the American Constitution and the political way of life that this Constitution has fostered. Skousen considers the American Constitution a stunning miracle, and the fact that it was framed and agreed upon through the voluntary participation of normal, everyday citizens an even more stunning miracle. Skousen holds out the principles on which our nature was formed to be a great blessing to humankind, and takes it as one of his twenty-eight basic principles of government that we have the duty of spreading the Gospel of the Constitution to all parts of the world.

The heart of this book consists precisely of the twenty-eight aforementioned principles, which include some of the most basic building blocks of human emancipation. For instance, (2) A Free People Cannot Survive Under a Republican Constitution Unless They Remain Virtuous and Morally Strong; (6) All Men Are Created Equal; (11) The Majority of the People may Alter or Abolish a Government Which has Become Tyrannical; (14) Life and Liberty are Secure Only so Long as the Right to Property is Secure; (16) The Government Should be Separated into Three Branches--Legislative, Executive, and Judicial; (17) A System of Checks and Balances Should be Adopted to Prevent the Abuse of Power; (19) Only Limited and Carefully Defined Powers Should be Delegated to Government, All Other Being Retained in the People; (20) Government [should] Operate According to the Will of the Majority, but ... Must Protect the Rights of the Minority; (21) Strong Local Government is the Keystone to Preserving Human Freedom; (22) A Free People Should be Governed by Law and not by the Whim of Men; (23) A Free Society Cannot Survive as a Republic Without a Broad Program of General Education; The Core Unit Which Determines the Strength of Any Society is the Family. Therefore, the Government Should Foster and Protect its Integrity; (28) The United States Has a Manifest Destiny to be an Example ... to the Entire Human Race.

Now, I believe these principles are true and incontestably important, even the one about property. I also believe that we have important things to learn from other societies, but political structure is not one of

them, and Skousen does not deny this. I am pretty sure, however, that it is not these aspects of Skousen's book that has inspired so many contemporary conservatives. Who, after all, in the United States today, doesn't believe in these principles? Certainly they are routinely violated in Iran, Russia, Saudi Arabia, and a dozen other countries, but they are not in question here in America.

In some places, Skousen's political conservatism does shine through, but rarely in an unenlightening way. For instance, (7) The Proper Role of Government is to Protect Equal Right, Not Provide Equal Things. The problem with this is that Skousen leaves out a third option: a \\"proper role\\" of government might be to mitigate unequal outcomes when they are not the fault of the afflicted. For instance, one might argue that it is the proper role of government to provide equal educational and health care resources to children and the elderly. Also (15) The Highest Level of Prosperity Occurs when there is a Free-market Economy and a Minimum of Government Regulation. I believe this a severe overstatement of the correct balance between market and state. The correct statement is that the market is especially powerful in producing and distributing goods and services in a flexible decentralized manner, but it produces a host of externalities. Many of these externalities are good and useful, but some are highly destructive and in need of regulation by the state. It is for this reason that there never has been a prosperous market economy without a strongly interventionist state. I am confident that there never will be. However, the state is run by politicians and bureaucrats whose capacity to intervene wisely on behalf of the public good is quite limited. Therefore, we will never have a perfectly regulated economy and any attempt to achieve this end will doubtless cripple private initiative and lead to a bloated public sector. We simply must learn to live with the evils whose alternatives are yet more evil.

I think the most distinctive aspect of Skousen's political philosophy is his instance on grounding liberal democratic political philosophy in religion, while at the same time denying a central position to any particular religion, and therefore promoting vigorous religious diversity. Skousen recognizes that \\"Natural Law\\" rather than religiously \\"Revealed Truth,\\" is the basis of liberal democracy, thus avoiding any sense in which theology should be the basis of political principles. However, he insists that a belief in God and a reliance upon religious institutions are necessary ingredients in maintain a health political culture.

Thus we have (4) Without Religion the Government of a Free People Cannot be Maintained; (5) All Things Were Created by God. Therefore upon Him All Mankind are Equally Dependent, and to Him They are Equally Responsible; (9) To Protect Man's Rights, God has Revealed Certain Principles of Divine Law. Skousen vigorously supports the \\"separation of Church and State,\\" but holds that this achieves legal status only for the Federal government. State and local governments are not prohibited from mixing with religious principles, services, and icons, provided they do not favor on religion over another.

I was prepared to dislike this book, but was pleasantly surprised at how ecumenical a message Skousen has to offer. Moreover, the book is easy to read and hence will be accessible to the common citizen and voter who may, if lucky, get to read one or two books a year such deep subjects as the nature of American society.f the correct balance between market and state. The correct statement is that the market is especially powerful in producing and distributing goods and services in a flexible decentralized manner, but it produces a host of externalities. Many of these externalities are good and useful, but some are highly destructive and in need of regulation by the state. It is for this reason that there never has been a prosperous market economy without a strongly interventionist state. I am confident that there never will be. However, the state is run by politicians and bureaucrats whose capacity to intervene wisely on behalf of the public good is quite limited. Therefore, we will never have a perfectly regulated economy and any attempt to achieve this end will doubtless cripple private initiative and lead to a bloated public sector. We simply must learn to live with the evils whose alternatives are yet more evil. I think the most distinctive aspect of Skousen's political philosophy is his instance on grounding liberal democratic political philosophy in religion, while at the same time denying a central position to any particular religion, and therefore promoting vigorous religious diversity. Skousen recognizes that \\"Natural Law\\" rather than religiously \\"Revealed Truth,\\" is the basis of liberal democracy, thus avoiding any sense in which theology should be the basis of political principles. However, he insists that a belief in God and a reliance upon religious institutions are necessary ingredients in maintain a health political culture. Thus we have (4) Without Religion the Government of a Free People Cannot be Maintained; (5) All Things Were Created by God. Therefore upon Him All

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001: The Structure of Social Action, Vol. 1: Marshall, Pareto, Durkheim

A Major and Neglected Classic — Rating: 5/5

This is Parsons' first book, and arguably his greatest. Parsons began thinking about the relationship between sociology and economic in about 1930, and he wrote a few papers on the topic in the Quarterly Journal of Economics in the early 1930's. He was an instructor in the Harvard economics department at the time, but he recoiled at the mathematical turn economics was taking (Samuelson et al), and he did not like the only plausible alternatives, Marxism (Parsons was a mildly left-liberal throughout his life), and Institutionalism (Parsons believed that understanding society required a dialog between theory and evidence, whereas the Institutionalists rejected the idea of theory in favor of a compilation and recitation of the facts---a position Parsons refers to as \\"positivism,\\" although the term is widely used in that period to cover a variety of purported sins).

This book has a long, discursive, and painful section on scientific methodology, the purpose of which is to reject institutional economics (which he was taught by the masters) on the grounds of what Alfred North Whitehead terms \\"the fallacy of misplaced concreteness.\\" The institutionalists critiqued the abstract methods of the Marshallian and Edgeworthian traditions in favor of detailed description of institutional diversity. Parsons will have none of it. His critique of economic theory is that it cannot solve the problem of order and it has no room for normative elements. His own theory of action, of course, does not suffer from misplaced concreteness.

Parsons participated in the early stages of the formation of Sociology as a discipline, and his preoccupation in writing The Structure of Social Action (SSA) was how to retain the theoretical orientation of economic theory, but carve out an area of \\"non-economics,\\" where Sociology could live in harmony with Economics. His solution in SSA was (a) to broaden the rational actor model to the \\"theory of action,\\" which retained the centrality of choice under conditions of constraint, but broadened the concept of choice to deal with normative and ethical concerns; and (b) to suggest that the \\"utilitarian\\" rational actor model could not \\"solve the problem of order\\" in society, because it embodies no principles leading rational individuals to share enough values and expectations to cooperate effectively and with sufficient harmony to allow society to persist. Parsons called his alternative \\"voluntarist,\\" in contrast to \\"utilitarian,\\" although I have not come to understand why he uses this term.

Parsons' theory of action is in sharp contrast to the suppression of individual rationality in Institutionalism, and the reductivist conception of choice in the behaviorist psychology of the day (Skinner being Harvard's eminent representative). Sociology was to supply the theory behind important social parameters that economic theory just assumes as given. For instance, economic theory assumes a supply of labor dependent upon individual preferences for income over leisure, and for some types of employment over others. Where do these preferences come from? The first step in answering this is to turn to the great economist, Alfred Marshall, who dealt insightfully with the relationship between values and markets. Parsons uses Marshall in SSA to show that economic theory is compatible with a serious analysis of social norms and personal ethics.

However, Parsons turns to Weber for a systematic treatment of culture and economic theory. Following Weber's analysis of the role of Protestantism in the growth of capitalism, Parsons argues that these

preferences come from a cultural system that had emerged in England that was appropriately geared towards hard work and material reward (as a symbol of proximity to God and salvation). Many studies since SSA attest to the fact that values underpin labor productivity (see, for instance, Herbert Gintis, \\"The Nature of the Labor Exchange and the Theory of Capitalist Production\\", Review of Radical Political Economics 8,2 (1976):36--54; George A. Akerlof, \\"Labor Contracts as Partial Gift Exchange\\", Quarterly Journal of Economics 97,4 (1982): 543--569; and Ernst Fehr and Simon Gaechter, \\"Cooperation and Punishment\\", American Economic Review 90,4 (2000): 980-994). Similarly, the taste for entrepreneurship on which growth and innovation depend derived from Weber's Protestant Ethic.

Parsons also was deeply impressed with the stress laid by Emile Durkheim on the \\"conscience collective\\"---a communality of beliefs among all members of society, even under circumstances of an organic division of labor that threatens social upheaval through extensive class differences. In SSA, Parsons stresses that modern economic theory takes class harmony for granted (there are not classes, only persons in orthodox economics), but in fact, when there is class harmony, this is the product of specific social institutions and practices.

Parsons has two personal characteristics that limited his ability to turn his two insights into a successful paradigm on which sociological theory might rest. One was his limited writing skills. Parsons is almost always verbose, prolix, and imprecise. Perhaps he inherited his approach to writing from the Continental (especially German) writers, for whom lucidity is a sign of superficiality. The other was is lack of mathematical sophistication. When Parsons uses algebra (as he does at one point in SSA), it is painful and grotesque. Together, these weaknesses prevented Parsons from using the theory of action analytically to forge a general theory of action from which economic and sociological aspects would fall out naturally. Parsons, so to speak, knew how to talk the talk, but he never figured out how to walk the walk.

Parsons was also handicapped by the fact that game theory had not been invented when SSA was published, and the economics of Marshall was being replaced by that of Samuelson and Walras. These models assume complete, costless contracting, so it is difficult to see where room for values and norms might fit in. When Parsons and Smelser wrote Economy and Society, a second attempt at integrating sociology and economics, this time based on Parsons' structural-functional AGIL system, game theory had been invented but was in the doldrums (1956), and it was the high point of enthusiasm for the Walrasian general equilibrium model. Not surprisingly, this effort was widely rejected by economists and sociologists alike.

The game-theory revolution in economics and biology, which began in the 1980's has been much more fertile ground for Parsons' ideas. Ironically, by this time Parsons' was virtually discredited in sociology, along with the rational actor model, the theory of action, and even game theory. Contemporary sociological theories today generally roundly criticize economic theory, and have become almost impervious to new ideas. This is a pity because what they peddle as social theory is descriptive and interesting at best, and drivel most of the time.

I believe behavioral game theory, which started with the ultimatum game experiment of Gueth et al.) in 1982, provides ample evidence that Parsons' general approach was correct. In particular, we have found that individual preferences are not irrational, but neither are they purely selfish. Rather individuals incorporate ethical values in their preferences, and trade off among various normative and self-regarding goals. Moreover, we have found that under conditions of incomplete contract, character virtues such as honesty and integrity, as well as other-regarding preference, lead real-life individuals to enjoy far more cooperation, and higher payoffs, that are possible using standard principal-agent models (for a summary, see Ernst Fehr and Herbert Gintis, \\"Human Motivation and Social Cooperation: Experimental and Analytical Foundations\\", Annual Review of Sociology 33 (2007):43-64).

It is curious as to why Parsons did not see immediately that the rational actor model could be expanded into a (proto) theory of action by (a) enriching the model's treatment of \\"beliefs;\\" and (b) by introducing other-regarding objectives and character virtues into the individual preference function. I think (a) was not open to Parsons because economic theory at the time only used a truncated form of the rational actor model in which preferences are defined directly over choice sets. With the advent of game theory, economics shifted to an enriched notion in which preferences are over \\"lotteries\\"

whose outcomes are valued. As Savage (1954) showed, this leads to the individual have a \\"subjective prior\\" that is naturally interpreted as the individual's \\"beliefs.\\" A correct theory of action merely (!) extends beliefs to an inter-subjective setting that is naturally affiliated with sociological theory.

As for (b) above, economists were so adamant in identifying \\"rationality\\" with \\"self-interest,\\" that Parsons never had the temerity to suggest otherwise. The closest he comes in SSA is to say that ethical issues could be a \\"constraint\\" on rational behavior. It was not until behavioral game theorists showed clearly that \\"rationality\\" is completely compatible with altruism and other forms of inherently ethical behavior that a theory of action that bridges economics and sociology could be productively contemplated. I hope that sociologists today will participate in such a project.and Walras. These models assume complete, costless contracting, so it is difficult to see where room for values and norms might fit in. When Parsons and Smelser wrote Economy and Society, a second attempt at integrating sociology and economics, this time based on Parsons' structural-functional AGIL system, game theory had been invented but was in the doldrums (1956), and it was the high point of enthusiasm for the Walrasian general equilibrium model. Not surprisingly, this effort was widely rejected by economists and sociologists alike.

The game-theory revolution in economics and biology, which began in the 1980's has been much more fertile ground for Parsons' ideas. Ironically, by this time Parsons' was virtually discredited in sociology, along with the rational actor model, the theory of action, and even game theory. Contemporary sociological theories today generally roundly criticize economic theory, and have become almost impervious to new ideas. This is a pity because what they peddle as social theory is descriptive and interesting at best, and drivel most of the time.

I believe behavioral game theory, which started with the ultimatum game experiment of Gueth et al.) in 1982, provides ample evidence that Parsons' general approach was correct. In particular, we have found that individual preferences are not irrational, but neither are they purely selfish. Rather individuals incorporate ethical values in their preferences, and trade off among various normative and self-regarding goals. Moreover, we have found that under conditions of incomplete contract, character virtues such as honesty and integrity, as well as other-regarding preference, lead real-life individuals to enjoy far more cooperation, and higher payoffs, that are possible using standard principal-agent models (for a summary, see Ernst Fehr and Herbert Gintis, \\"Human Motivation and Social Cooperation: Experimental and Analytical Foundations\\", Annual Review of Sociology 33 (2007):43-64).

It is curious as to why Parsons did not see immediately that the rational actor model could be expanded into a (proto) theory of action by (a) enriching the model's treatment of \\"beliefs;\\" and (b) by introducing other-regarding objectives and character virtues into the individual preference function. I think (a) was not open to Parsons because economic theory at the time only used a truncated form of the rational actor model in which preferences are defined directly over choice sets. With the advent of game theory, economics shifted to an enriched notion in which preferences are over \\"lotteries\\" whose outcomes are valued. As Savage (1954) showed, this leads to the individual have a \\"subjective prior\\" that is naturally interpreted as the individual's \\"beliefs.\\" A correct theory of action merely (!) extends beliefs to an inter-subjective setting that is naturally affiliated with sociological theory.

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Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty

Refreshing and Powerful Vision of Anti-Poverty Policy — Rating: 5/5

The authors identify three major approaches to dealing with world poverty, suggest that whatever their virtues and faults, there is a very piecemeal and pragmatic approach through which significant gains can be made without addressing the systemic obstacles identified by the three approaches. Their analysis is brilliant, focused, rooted in first-rate data sets, yet rich in social detail and anecdotal vignettes. I believe there are probably right, and their approach deserves to be widely studied an evaluated by policy makers in the advanced and developing countries.

The dominant school of thought is probably the supply-side theory, most visibly represented by Jeffrey Sachs (the authors call him a \\"supply wallah\\"). According to this theory, the poor are poor because they lack money and resources, and there is a \\"poverty trap\\" such that investment in productive technologies must be very large in order to have a positive and sustainable effect. Because poor individuals, and even poor countries, lack the capacity to finance such investments, they are trapped in a low-level economic equilibrium. For this reason, Sachs and the supply theorists advise that the rich countries transfer a large lump-sum amount of money to a poor country, so it can get over the poverty-trap hump.

A second salient school of thought is the demand-side theory, represented by William Easterly and many others. Demand-siders (the authors call them \\"demand wallahs\\") believes that the poor are poor because they do not want to undertake what would be necessary to move out of poverty and there is no poverty trap. Thus, if you throw money and resources to the poor, they consume it immediately rather than using it for long-term betterment.

The third school of thought is the corruption school, represented by Acemoglu and Robinson, as expounded in the book Why Nations Fail. According to this theory, countries remain poor because their governments are predatory, exploiting the citizenry by refusing to make investments in productive infrastructure, by direction all profits to cronies, and by permitting rampant corruption that renders creative entrepreneurship unprofitable. According to this school, to which I admit to being very favorable, the supply wallahs are wrong because the resources throw into the system will be appropriate by the rich and powerful, and the demand wallahs are wrong because the poor are actively maintained by the oligarchy in their position of servitude.

The authors are very insightful and balanced in presenting the views of these three schools and the evidence that supports these various positions. They also clearly explain their mutual critiques. For instance, the supply wallahs claim that states are predatory and corruption is rampant only because the country is so poor, and the demand wallahs claim that when the people want to move out of poverty, they will reform their governments. I find these defenses of supply and demand wallahs rather tendentious, leaving the corruptions school as the overall most plausible school.

I think it is fair to say that Banerjee and Duflo have little sympathy for demand and supply wallahs, but considerable respect for the corruption theory. Their own position is that there are virtually always ways to productively intervene to pull a significant fraction of people out of poverty. The authors, who have collected huge amounts of data and interviewed many poor people from around the world, make the following argument.

Most important, the poor in a poor country have about the same array of preferences and capacities as that of the human population as a whole, and humans are substantively rational in making decisions that affect their lives. However, the poor have a lot fewer resources than the well-off, they lack information and skills provided to the well-off, and lack access to such public goods as clean water and consumables subject to food and drugregulations.

The poor are therefore extremely heterogeneous. Microfinance organizations like the Grameen Bank therefore provide a general path to affluences, simply because only a fraction of the population has the will and ability to be successful entrepreneurs. On the other hand, entrepreneurs often fail several times before finally becoming successful, so the authors advise an expanded microfinance industry that is more tolerant of the sorts of behaviors that may involve short-term losses, but lead to long-run successes. The authors conclude that we must consider microfinance policies as extremely successful and worthy of following, even though it is not panacea for the abolition of poverty.

Because the poor lack access to social services freely available to the non-poor, the authors advocate such measures as providing clean water to poor villages and adding nutrients, such as iron, to staple

foods. This, they argue, is not charity but simply the extension to poor of services already supplied to the rest of society.

Concerning education, the authors believe that poor parents are usually very eager to have their children educated, although they may lack the means of enrolling their children in schools or providing for their transportation to and from school. However, too often the content of schooling is determined by what is good for the more affluent classes, so poor children are led voluntarily to quit school. The authors advise that the content of education take into account the preferences and culture of the target population.

I cannot do justice to the beauty and intricacy of the argument developed in this book. The authors' main point is that we must look closely at the details of the lives of the poor in order to develop policies to help people to pull themselves out of poverty. This is neither demand or supply wallah-ism, and as they repeatedly stress, real progress can be made even in a society whose government provides a poor environment for economic development.regulations.

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Winner-Take-All Politics: How Washington Made the Rich Richer--and Turned Its Back on the Middle Class

Interesting but not compelling analysis — Rating: 2/5

This book is an in-depth statistical and political analysis of the rather stunning increase in income equality in the United States since the Reagan era. The authors are clearly liberals with a political agenda, but they are knowledgeable and their analysis is professional. One may disagree with the authors ` conclusions (I do), but still learn from their analysis. I also profited from an issue of Politics & Society (38, 2 2011) containing several reviews of the book and a response by the authors.

Income inequality in the United States declined from the end of WWII to the mid-1970s and increased steadily in the 1980's to the present. Because the Democratic Party has the reputation of being the \\"party of the little people\\" (following Franklin Delano Roosevelt's New Deal redistributive policies), it is thus curious that Republicans have done so very well during this run-up of the wealth of the already rich. Some blame this on the fact that voters \\"vote their hearts\\" rather than their \\"pocketbooks,\\"

and voters are swayed by the family and church orientation of Republicans, as well as resonating with a meritocratic, free-market, political philosophy that the Republicans support whether or not the voters are, as individuals, on the winning side. Some blame this on the demise of labor unions and the collapse of Southern Democratic conservatism, leaving true liberals an embattled few on the east and west coasts of the nation. Some even blame it on the public relations success of conservative think tanks like the American Enterprise Institute.

All of these explanations have merit, I believe. Voters in fact do not care much about \\"inequality\\" per se, but rather care intensely about violations of fairness. Thus, it is not the astronomical increase in the income share of the very rich that moves most voters, but rather their indignation at the bankers who practically destroyed our economy yet hand themselves big bonus as a reward for what the public considers self-serving and antisocial behavior. Voters thus do vote their hearts, although fairness and merit are important issues of the heart. In addition, the decline of the Southern Democratic old-boy network and the virtual disappearance of private-sector unionism have cut the center out of the corporatist political philosophy so cherished by American liberals. The success of conservative ideology in America is a reflection of the preferences of the American voter. The notion that that voters are ignorant and apathetic, and hence easily swayed by the conservative think-tanks and talk-show hosts is exactly the opposite of the truth. The latter are successful precisely because they resonated with the political spirit of the American people.

Liberals like Hacker and Pierson generally lament this turn of events, which they characterize as the eclipse of liberal political philosophy. This is a mistake. American liberal values have triumphed over the past forty years in many critical spheres, such as tolerance of diversity, equal rights for ethnic and racial minorities, gender equality, protection of children from abuse by adults, and an expansion of the notion of the family to include same-sex unions. Other quality of life issues, such as environmental sustainability and abortion rights remain contested, but will almost certain win out in the long run, when the current generation of youth becomes a political majority. And in critical economic areas, bitterly opposed by conservative ideology, such as public education, social security, and Medicare, voters have indeed protected their material interests. Moreover, these successfully promulgated American liberal values, as well as the more traditional values of liberal democratic capitalism, increasingly resonate around the world.

Thus the notion that American liberalism is on the defensive due to voter apathy and gullibility is incorrect. The error is on the part of Hacker, Pierson, Paul Krugman and their supporters, who, in formulating Democratic Party politics, argue that the path to power lies in agitating about the plight of the \\"middle class,\\" that is exploited by the super-rich. This is simply a bankrupt strategy that has never worked and probably never will. For, as I mentioned above, voters simply don't care much about the shape of the income distribution per se. For a recent analysis of this fact, see one of the Politics & Society reviews of Hacker and Pierson, \\"The Public's Role in Winner-Take-All Politics,\\" (2010) 38,2 pp. 227-232, by Andrea Louise Campbell.

This is not to say that the stunning increase in the wealth of the very rich in the past few decades (hardly interrupted by the huge asset deflation initiated by the financial meltdown a few years ago) does not cause problems for American society. The biggest problem is simply that the stagnation of middle class income has curbed the demand for manufactured goods at the same time as manufacturing productivity is increasing at a rapid rate (the reader might ask why this does not just lead to falling prices of manufactured goods; this is a good question but a diversion from the current topic). The introduction of credit cards and the vast increase in credit card debt from the 1980s to 2006 fueled the consumption of manufactured goods (especially automobiles, electronics, and household goods), but the financial collapse has made consumers wary of acquiring new debt. It is this fact that probably explains the fact that we how have over 9% unemployment in the year 2011 even though the real prime interest rate is negative.

Hacker and Pierson barely touch on the above issues. Rather, they argue that shocked by the profit squeeze of the 1960s and 1970s at the hands of empowered workers and voters, American business determined to increase its influence by capturing raw political power and legitimating this power by fostering a free-market, anti-corporatist political philosophy. The Republican Party, emboldened by the growth of popular tax revolts in California and elsewhere, as well as the success of the Reagan

administration in cutting the taxes of the rich, took the bait and formed an alliance of small scale conservative voters and the super rich, who financed a new level of political lobbying on behalf of deregulating the economy. This deregulation led directly to the meteoric increase in the income shares of the very rich.

If Hacker and Pierson are correct, the obvious solution for Democrats is to foster a counter-ideology and forge a counter-coalition with the friends of social equality. As I have said, however, this solution has been tried for the past two decades and has repeatedly failed. Neither Clinton nor Obama were elected on an income redistribution platform, and they certainly did not undertake any serious redistribution toward the \\"middle class.\\" I believe that the Hacker-Pierson argument that politics is important to increased income inequality is likely correct, but their view that the business power is the causal force in enhancing the fortunes of the rich is incorrect. Rather the increased effectiveness of conservative arguments reflected a true shift in the political philosophy of the average American voter.

The watershed event in recent economic history was the rejection of American liberal economic policy by the voters who brought Ronald Reagan to the presidency. Reagan brought full employment and growth to the United States at a time when Europe was mired in persistent stagnation with double-digit unemployment rates. Reagan used his power to show the weakness of the industrial labor unions when he fired the air traffic controllers, and big business used the unpopularity of unions (which were in fact a labor aristocracy leeching wealth from consumers and taxpayers) and the competition from Europe and Asia to render them a thing of the past (except in the public sector, where there is no competition). The average voter listened to the new conservative ideology because it seemed to work, benefitting individuals who work hard rather than \\"special interests\\" who attempt to gain by holding back innovation and progress.

In short, the average voter liked the conservative economic message and the liberal quality of life message, and that's what they got. Of course this led to increase income shares for the rich. This could have been prevented in part by tax policy and increased corporate regulation, such as limiting the size and extent of stock options for CEOs in a period of sharp stock market run-up, but the public was not then interested such measures, so the business lobby successfully blocked such reforms. Similarly, the public largely agreed with or was indifferent to the financial deregulation of 1990s, which included repeal of Glass-Steagall, permitting bank-insurance company mergers, and exempting novel financial derivatives from regulatory oversight.

It could be that one day all of middle-class America will wake up and say, \\"where have we been while the rich and powerful robbed us blind?\\" But I wouldn't bet on it. The bald-faced fact is that American liberalism has no economic vision to which the American people are currently attuned. Rather than face this fact, the American liberal intelligentsia, along with Hacker and Pierson, arrogantly and superciliously attribute voter preferences to apathy and ignorance. This stance is not only morally questionable, but is a sure recipe for failure. It is American liberal political philosophy that has failed, and it is about time this state of affairs is recognized and addressed.ar tax revolts in California and elsewhere, as well as the success of the Reagan administration in cutting the taxes of the rich, took the bait and formed an alliance of small scale conservative voters and the super rich, who financed a new level of political lobbying on behalf of deregulating the economy. This deregulation led directly to the meteoric increase in the income shares of the very rich. If Hacker and Pierson are correct, the obvious solution for Democrats is to foster a counter-ideology and forge a counter-coalition with the friends of social equality. As I have said, however, this solution has been tried for the past two decades and has repeatedly failed. Neither Clinton nor Obama were elected on an income redistribution platform, and they certainly did not undertake any serious redistribution toward the \\"middle class.\\" I believe that the Hacker-Pierson argument that politics is important to increased income inequality is likely correct, but their view that the business power is the causal force in enhancing the fortunes of the rich is incorrect. Rather the increased effectiveness of conservative arguments reflected a true shift in the political philosophy of the average American voter. The watershed event in recent economic history was the rejection of American liberal economic policy by the voters who brought Ronald Reagan to the presidency. Reagan brought full employment and growth to the United States at a time when Europe was mired in persistent stagnation with double-digit unemployment rates. Reagan used his power to show the weakness of the industrial labor unions when he fired the air traffic controllers, and big business used the unpopularity of unions (which were in fact a labor aristocracy leeching wealth from

consumers and taxpayers) and the competition from Europe and Asia to render them a thing of the past (except in the public sector, where there is no competition). The average voter listened to the new conservative ideology because it seemed to work, benefitting individuals who work hard rather than \\"special interests\\" who attempt to gain by holding back innovation and progress. In short, the average voter liked the conservative economic message and the liberal quality of life message, and that's what they got. Of course this led to increase income shares for the rich. This could have been prevented in part by tax policy and increased corporate regulation, such as limiting the size and extent of stock options for CEOs in a period of sharp stock market run-up, but the public was not then interested such measures, so the business lobby successfully blocked such reforms. Similarly, the public largely agreed with or was indifferent to the financial deregulation of 1990s, which included repeal of Glass-Steagall, permitting bank-insurance company mergers, and exempting novel financial derivatives from regulatory oversight. It could be that one day all of middle-class America will wake up and say, \\"where have we been while the rich and powerful robbed us blind?\\" But I wouldn't bet on it. The bald-faced fact is that American liberalism has no economic vision to which the American people are currently attuned. Rather than face this fact, the American liberal intelligentsia, along with Hacker and Pierson, arrogantly and superciliously attribute voter preferences to apathy and ignorance. This stance is not only morally questionable, but is a sure recipe for failure. It is American liberal political philosophy that has failed, and it is about time this state of affairs is recognized and addressed.

The Globalization Paradox: Democracy and the Future of the World Economy

A New Creed for the Democratic Party — Rating: 3/5

Dani Rodrik is a gifted economist who has spent most of his professional life studying the evolution of the modern advanced liberal democratic economies. This book presents a political philosophy for the advanced countries. The audience is the interested layperson. There are no equations, tables or graphs in this book. Rather Rodrik's evidence is largely anecdotal, drawn from his vast experience.

Rodrik's message is simple. The first stage of capitalism was dominated by a hegemonic capitalist class and unregulated markets, guided by an ideology of laissez-faire. The second stage was dominated by the distribution struggle between industrial capital and industrial labor, with Keynesian economics in the ascendency. We are now in a third stage of capitalism in which globalization has thrown the supporters of labor in disarray, and in which a new set of nation-state level regulations are needed to protect democracy without losing the economic benefits of globalization.

The enemy for Rodrik is ultraglobalism, in which unregulated international capital flows prevent countries from redistributing in favor of the less well off, free trade principles prevent countries from applying their own environmental and product safety standards, and hypercompetition prevents countries from implementing desirable pay scales and occupational safety and health regulation. In short, says Rodrik, ultraglobalism is the enemy of democracy, because it prevents voters from making meaningful choices about the future direction of their own society.

Rodrik's recommendations for a healthy economic policy are far from radical. He recognizes that the prospects for \\"global government\\" are slim, so meaningful economic regulation will continue to be exercised at the nation-state level. He then asserts that each country has the right to determine its own social arrangements, regulations, and institutions, even when this self-determination interferes with globalization, and thus requires serious levels of economic protectionism. A replacement for Bretton-Woods for the control of international economic relations should permit the proliferation of national differences in the philosophy of economic regulation, should refrain from imposing the institutions of one country on another, except that democracy should be fostered in all countries, and non-democratic nations should not have full access to the international economy.

There are serious problems with Rodrik's argument, in my view. It is clear that his new regulatory order is aimed at resuscitating the power of organized labor to collude with big capital to raise wages and prices, and curtail competition over these and the quality of goods by restricting international

competition. If Rodrik's regulatory system were in place in the last quarter of the 20th century in the USA, we would still be driving the gas-guzzler pigs of cars that the Big Three forced down our throats since WWII. What Rodrik calls \\"democracy\\" is really the exercise of special interests whose main goal is to prevent real competition. We can do without.

I do not think much of labor unions for the advanced liberal democracies in the present era. The maintenance of occupational safety and health are better served through national legislation that affects all workers, not a privileged few in a highly organized industrial sector. In the industrial era, where many important industries were oligopolistic so the bosses earned huge monopoly profits, the role of the union was to redistribute a portion of these monopoly profits to the firm's workers. With globalization, oligopoly has given way to competitive industries in which there is no monopoly surplus for redistribution. Accordingly, labor unions have all but disappeared except in the public sector, where workers can fight for a bigger share of the tax dollar.

It is interesting to consider the two major capital-labor battles in the USA that rage as I write: the owners of the National Football and National Basketball Associations pitted against their players. Why is there a battle? Because the NFL and NBA both have charters granted by Congress that gives them monopoly rights. With these rights come monopoly profits, whence the logic of the Players' Associations. In a competitive sports framework, unions are simply not worth the candle.

Of course, Rodrik's is an attempt to articulate a liberal political philosophy for an era in which the traditional supports for the Democratic party have weakened. I do not think his well-meaning attempt will be successful.ootball and National Basketball Associations pitted against their players. Why is there a battle? Because the NFL and NBA both have charters granted by Congress that gives them monopoly rights. With these rights come monopoly profits, whence the logic of the Players' Associations. In a competitive sports framework, unions are simply not worth the candle. Of course, Rodrik's is an attempt to articulate a liberal political philosophy for an era in which the traditional supports for the Democratic party have weakened. I do not think his well-meaning attempt will be successful.

Toward a General Theory of Action: Theoretical Foundations for the Social Sciences (Social Science Classics Series)

Sociology Must Return Here and Branch Out — Rating: 2/5

In 1950 Talcott Parsons was at his height in influence in the sociology profession. In this book, Parsons gathers some of the most influential social scientists of his time (Gordon Allport, Clyde Kluckhohn, and Samuel Stouffer, among others) to endorse his \\"general theory\\" of society. Despite the august company and a promising opening chapter by Parsons, the book is a failure and so was Parsons attempt to ground sociology in a generally acceptable theoretical framework. The various essays in this book, while readable, never go beyond Parsons himself, and are of marginal contemporary interest.

Parsons opens his introductory essay with these words: \\"The present statement and the volume which introduces are indented to contribute to the establishment of a general theory in the social sciences.\\" Brave words indeed! By 1950 Samuelson's well-know Foundations of Economic Analysis was revolutionizing graduate education in economics, and biology was unified around the fundamental synthesis of Fisher, Wright, and Haldane. Parsons, who published his first synthesizing works in economics journals, had always seen himself as a synthesizer who might do for sociology what Samuelson did for economics. Why did he fail?

Part of the problem was undoubtedly the mind-set of sociologists of his time (and ours), which was to attach political messages to rather pedestrian observational and statistical material, and to reject any notion that there might be a \\"general theory\\" of sociology. But part of the problem was also Parsons' failure to articulate the close affinities of biological and economic theory with sociology. As for biology, we now know that Homo sapiens is one of several social species, and the biological/evolutionary analysis of human society is part of a more general scientific agenda, the study of the emergence and transformation of sociality in the biosphere. By lacking this broad perspective, sociologists in general were hobbled by a painfully short-sighted notion of the object of their studies. Indeed, the very idea of

anthropology and sociology being distinct areas of study with virtually no theoretical overlap is a product of this myopic vision (anthropologists studied primitive society and kinship, while sociologists studied modern industrial society and social stratification). As a result, young people went into anthropology mostly because they wanted to preserve \\"pristine\\" pre-capitalist cultures, and into sociology mostly because they wanted to protect the downtrodden and the dispossessed. These are of course noble goals, but they cannot be achieved without some monumental social theorizing behind them.

Parsons' social theory was at base very simple, and very cogent. Society is a highly differentiated nexus of \\"role positions\\" (husband, worker, voter, hospital patient, subway rider, and so on) each of which is occupied by a person and a single individual can occupy many different roles. The rules and norms associated place general requirements of how an individual behaves in a given role position, and the individual is motivated to behave in this way by virtue of material and moral incentives. Conformity to moral incentives derives from the way individuals are socialized to accept the norms and values associated with society in general and specific role positions in particular.

If we restrict this picture to the economy, we recreate modern economic theory, except that in Parsons' time it was assumed in economics the people are purely selfish and a process of socialization could not possible induce rational individuals to forego behaving perfectly selfishly. The role structure of the economy is the Walrasian general equilibrium system of firms and households, plus the economic aspects of government. The actors are the employers and employees who occupy positions in the economy, as well as government actors who are involved in regulating and policing economic activity. Of course, economists stressed that all of these positions could be efficiently filled by selfish agents, provided appropriate material incentives (rewards and penalties) were attached to the various economic roles. We now know that this assumption of the capitalist economy operating through purely material incentives applied to self-regarding agents is not true (see, for instance, my book The Bounds of Reason (Princeton, 2009), which supplies the appropriate empirical and theoretical references, and my new book with Samuel Bowles, A Cooperative Species (Princeton, 2011), as well as the more anthropologically oriented Joseph Henrich et al., Foundations of Human Sociality, Oxford, 2005, for details), but when Parsons wrote, the rationality = selfishness axiom was virtually universal in economic theory.

Of course, Parsons did say that economic theory is a \\"subset\\" of social theory, but he never managed to articulate how his vision of a theory of action would mesh with the economist's rational actor model. The answer is that (a) we must extend the goals of rational action to include moral behavior and non-material ends such as reciprocity, empathy, considerateness, and justice, even in purely economic transactions, and more so in general social life; (b) general role performance can be quite nicely modeled using an extended rational actor model, in which individuals have preferences that they try to satisfy as best they can subject to their material and informational constraints, and in conformance with their beliefs (called subjective priors in economics) and moral values.

Parsons' treatment of culture in his theory of action was far in advance of economic theory. In economics each individual has beliefs in the form of a subjective prior, but there is no formal way to compare or adjudicate among the beliefs of a heterogeneous set of economic agents. Economic theory thus was forced to assume \\"common priors\\" concerning the relative probability of various events, with no serious suggestions as to where these common priors might come from, as well as \\"common knowledge\\" concerning the facts of their common situation, without saying how this commonality might arise. This problem is especially severe in dealing with how individuals represent the internal states (beliefs and intentions) of others (see my analysis in The Bounds of Reason, Ch. 8). Parsons alternative, which is really due to Emile Durkheim, was to posit the existence of a \\"common culture\\" independent from and above both social institutions and individual personalities. This common culture is reproduced by specialized institutions (ritual, religion, schools, communications media, etc.) that ensure that culture remains common, changes only slowly under normal circumstances, and is \\"internalized\\" by the youth of each new generation. This common culture provides a common framework of assumptions and expectations that all social agents share, and provides the conditions needed by game theory to justify the assumption that agents will coordinate their activities appropriately (i.e., play Nash equilibria, in the language of game theory).

Parsons' treatment of culture is, however, only partially adequate. Its weakness is not dealing with the dynamics of cultural change. Culture is an effect as much as a cause and the dynamics of cultural constitution and change require careful development. The biological/anthropological treatment of culture in the theory of gene-culture coevolution, as developed by Robert Boyd, Peter Richerson, Marcus Feldman, Luca Cavalli-Sforza and others (see my review article \\"Gene-culture Coevolution and the Nature of Human Sociality\\", Proceedings of the Royal Society B 366 (2011):878-888, is a more fruitful starting point

Rather than envision the links between his sociological concerns on the one hand and biological and economic theory on the other, Parsons insisted on viewing all of social behavior through his particular lens ofstructural-functionalism. This was a serious error, because the power of his theory comes from its synergy with insights from other disciplines.

Why did Parsons take this path? Three key background factors were (a) his ignorance of mathematical modeling; (b) the extremely underdeveloped state of game theory until the mid-1970's, and (c) the inordinate fear Parsons, like most sociologists, had of be \\"swallowed up\\" by economics. This led him to ignore systematically the incentives side of motivating role performance. Indeed, Parsons learned from Pareto that moral concerns are \\"nonrational\\" and cannot be incorporated into a model of rational choice. We now know that this is simply incorrect (see my Bounds of Reason, Ch 4.) The importance of the normative side to role performance is quite compatible with actors caring about material incentives. In fact, the interaction among agents in role-performance can be modeled as strategic interactions in which agents attempt to find best responses to the behaviors of others.

For whatever reasons, Parsons did make these mistakes and his critics wrongly criticized the whole Parsonian theoretical endeavor. The result is painful to view. Sociology is not at a crossroad, but rather at a cul-de-sac. We can do no better that to retrace our steps to more solid ground.with no serious suggestions as to where these common priors might come from, as well as \\"common knowledge\\" concerning the facts of their common situation, without saying how this commonality might arise. This problem is especially severe in dealing with how individuals represent the internal states (beliefs and intentions) of others (see my analysis in The Bounds of Reason, Ch. 8). Parsons alternative, which is really due to Emile Durkheim, was to posit the existence of a \\"common culture\\" independent from and above both social institutions and individual personalities. This common culture is reproduced by specialized institutions (ritual, religion, schools, communications media, etc.) that ensure that culture remains common, changes only slowly under normal circumstances, and is \\"internalized\\" by the youth of each new generation. This common culture provides a common framework of assumptions and expectations that all social agents share, and provides the conditions needed by game theory to justify the assumption that agents will coordinate their activities appropriately (i.e., play Nash equilibria, in the language of game theory).

Parsons' treatment of culture is, however, only partially adequate. Its weakness is not dealing with the dynamics of cultural change. Culture is an effect as much as a cause and the dynamics of cultural constitution and change require careful development. The biological/anthropological treatment of culture in the theory of gene-culture coevolution, as developed by Robert Boyd, Peter Richerson, Marcus Feldman, Luca Cavalli-Sforza and others (see my review article \\"Gene-culture Coevolution and the Nature of Human Sociality\\", Proceedings of the Royal Society B 366 (2011):878-888, is a more fruitful starting point

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Roots of Human Sociality: Culture, Cognition and Interaction (Wenner-Gren International Symposium Series)

A Beautiful Part of the Story, Well Told. — Rating: 5/5

\\"At the heart of the uniquely human way of life is our peculiarly intense, mentally mediated, and highly structure way of interacting with one another. This rests on participation in a common mental world, a world in which we have detailed expectations about each other's behavior, believes about what we share and do not share in the way of knowledge, intentions, and motivations.\\" These eloquent and deeply insightful words greet us on the first page of this intensely penetrating analysis of foundations of human sociality by a group of anthropologists, linguists, psychologists, and sociologists.

In this sustained inquiry, the authors intensely and persistently pursue the roots of human sociality in the intersubjectivity of interacting human dyads. \\"Human social life,\\" we are told,

is intricately structured through the attribution of actions, motives, intentions, and beliefs to fellow interactants.\\" At the heart of the human capacity to construct a common mental world is the so-called Theory of Mind (ToM), which humans have to a high degree and which other animals either lack completely or possess only in rudimentary form. ToM is the capacity to recognize that other individuals have an interior mental life much like one's own, to understand that others have wishes, desires, and needs like one's own, to recognize that others are capable of reasoning similarly to the way one reasons oneself, while at the same time knowing that that others have different information and beliefs than oneself.

The idea of a ToM was first formalized by Premack and Woodruff, \\"Does the chimpanzee have a theory of mind?\\", Behavioral and Brain Sciences, 1 (1978). One of the clearest test of whether an individual has a ToM is the so-called \\"false belief\\" test, which determines whether the individual can attribute false beliefs to others. This is because to entertain false beliefs in others, one must know that others have beliefs, that beliefs are based on information, that others may have information different from oneself, and that one's behavior can be predicted from their beliefs. Moreover, successfully passing a false beliefs test requires that the individual \\"put himself in the other's place\\" to determine what information the other might have.

The original false beliefs test was carried out by Wimmer and Perner, \\"Beliefs about beliefs: Representation and constraining function of wrong beliefs in young children's understanding of deception,\\" Cognition, 13 (1983). In the standard scenario, the subject sees two dolls, Sally who has a basket and Anne who has a box. Sally puts a marble in her basket and then leaves. Anne moves the marble from the basket to her box. The subject is asked to point out where Sally will look for the marble when she returns. A subject with a ToM will point to the box, while a subject without a ToM will point to the basket. Most animals, as well as humans under the age of four years, point to the box, while older humans of normal mentality point to the basket. Curiously, children diagnosed as autistic rarely pass the false belief test, giving rise to the theory that autism involves the absence of a ToM (Simon Baron-Cohen, \\"Precursors to a Theory of Mind: Understanding Attention in Others\\", In A. Whiten Natural Theories of Mind: Evolution, Development and Simulation of Everyday Mindreading (Oxford: Basil Blackwell, 1991).

Standard rational choice theory is \\"methodologically individualist\\" in the sense that it analyses the capacity to make meaningful choices in terms of the isolated individual. The analysis flowing from ToM, by contrast, is \\"methodologically dyadic,\\" in that basic human creative powers emerge from the interaction of pairs of agents. The larger social system is brought within the purview of this dyadic system in two ways. First, the authors make a half-hearted attempt at arguing for a \\"group

consciousness\\" that extends the ToM to several cooperating individuals. The notion of group consciousness, however, is not pursued far in this volume---happily in my view because I don't believe there really is any such thing. Second, the authors argue that individuals in a social group have a large \\"common ground upon which they can draw in coordinating their activities. \\"The possibility of rich interaction given scant semiotic resources... is caused in great part by the presence of a massive inventory of common ground, both cultural and personal. Common ground, or mutual knowledge share by social associates...provides premises for amplicative inference. Communication constantly exploits common ground." (p. 23).

This notion, as the authors explain, fits well with Paul Grice's famous analysis of conversation. The classical model of communication is one of agents exchanging information in the form of self-contained propositions. Grice showed that real conversation exploits the common knowledge of the participants in essential ways. For instance, Bob says \\"How is your diet going?\\" and Alice replies, \\"We had an office birthday party three times last week.\\" To understand Alice's reply as supplying an answer to Bob's question presumes that Bob has a large inventory of social and psychological understandings, including (a) birthday parties serve high-calorie food; (b) it is difficult to forgo partaking of a high calorie food when it is right in front of you, even though you would never have placed the food there; (c) it is rude to miss a colleague's birthday party; (d) nice people try not to be rude.

Despite the vigor and insightfulness of the themes treated in this book, it does not fully explain the \\"roots of human sociality.\\" Rather it explains the deep structure of dyadic human interactions and the psychological prerequisites for such interaction. What is truly special about human society, however, is the ability of people to cooperate in large groups and to sacrifice personally on behalf of others who are at best distant genealogical kin. How does collective decision-making occur in human societies, what is the role of common culture and social norms in coordinating social activity? These issues require a theory of social norms, a theory of the relation between common culture and the social legitimation of norms, and game theory as a theory of the strategic interaction of multi-agent groups. Such issues are either missing or isolated from the main train of discourse in the book.

For instance, there is much on the use of language in two-person discussions, but why did humans develop language at all? The authors stress that effective communication between two individuals can take place even if the individuals do not share a common verbal language at all. In my view, a likely story concerning the origins of language is as follows. When the first hominins developed lethal weapons, including wooden and bone-handled stone axes and the bow and arrow, the hierarchical male power structure broke down. No longer was it possible to rule by force, because the strongest male can then be killed in a single blow (note that a single blow by a chimpanzee will wake an adversary, but will not kill or even seriously harm him). With the demise of the alpha male syndrome, a group could only be led by its most respected member, and verbal communication and persuasion became a central tool for the recognition and exercise of influence in the hunter-gather group. For the usual reason that leadership confers enhanced fitness, the capacity to create complex ideas and deliver them verbally became fitness enhancing, leading to the long-term increase in human brain size and in the complexity of the physiology of verbal communication (larynx, tongue, facial muscles, etc.).

Now my story may or may not be accurate, but it involves a level of analysis that quite transcends the dyadic questions concerning ToM, or their extensions to Cognitive Causal Chains (Sperber), however insightful these questions are handled in this book. For an approach to these issues, which are complementary to and synergistic with the ideas expressed in this book, see the final chapter of my book The Bounds of Reason (Princeton, 2009), Sam Bowles and my book A Cooperative Species (Princeton, 2011), and perhaps my paper, \\"Gene-culture Coevolution and the Nature of Human Sociality\\", Proceedings of the Royal Society B 366 (2011):878-888. I will be excited to see how the interaction of these two levels of analysis work themselves out. Many new ideas are likely to be born in the process.ng occur in human societies, what is the role of common culture and social norms in coordinating social activity? These issues require a theory of social norms, a theory of the relation between common culture and the social legitimation of norms, and game theory as a theory of the strategic interaction of multi-agent groups. Such issues are either missing or isolated from the main train of discourse in the book. For instance, there is much on the use of language in two-person discussions, but why did humans develop language at all? The authors stress that effective communication between two individuals can take place even if the individuals do not share a common verbal language at all. In my view, a likely

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After Parsons: A Theory of Social Action for the Twenty-First Century

After Parsons---Nothing Much Yet — Rating: 2/5

The Russell Sage Foundation both published this volume and financed the conference on which it is based. Russell Sage has been in the forefront of progressive social research in recent decades, which makes its eager support of a tribute to Talcott Parsons on the occasion of the centenary of his birth somewhat surprising. The contributors to this volume were virtually all students and cordial colleagues of Talcott Parsons, and none is among the politically motivated holy chorus that hounded him from the pinnacle virtually to the doghouse of the sociology profession in the 1970's.

This book includes a nice, super-Parsonian essay by Mark Gould, some interesting reminiscences by Neil Smelser, Jeff Alexander, and Robert Bellah, plus pretty terrific introduction to Parsons' work by the editors. But the title is misleading. There is not a single contribution to the book that builds on and goes beyond Parsons. Nor is there a contribution that suggests how Parsons' sociology might be restored to its rightfully central position in sociological theory, or how it might be combined with other aspects of sociological theory to form a substructure of future sociological research.

This book is not a \\"theory of social action for the twenty-first century.\\" If it were it would have to address and refute Parsons' critics, which it does not even begin to do. Moreover, given the obvious discrepancies and incompatibilities among different parts of the Parsonian opus, the book would have to specify which parts of Parsons' theory must be accepted and which rejected. This it does not do, the authors preferring to treat Parsons' later work as \\"mature emendations\\" and \\"new insights\\" rather than the dead ends and the insufferably tedious commonplaces that some of them are.

My own view of Parsons' contribution is that his first book, A Theory of Social Action, is his greatest, and the central analytical tool in this book, the \\"unit-act\\" is a direct extension of the rational actor of economic theory to a larger sociological framework. The unit-act includes the end, means, and conditions of the rational actor model (which I have called the Beliefs, Preferences, and Constraints model to avoid the value-laden term \\"rational\\"), but adds a fourth element, norms. Parsons' unit-act thus corrects a major failing of the standard rational actor model, it silence on questions of morality and ethics, justice and fairness. Parsons' \\"conditions\\" in the unit-act are parallel to \\"beliefs\\" in the rational actor model, which are in fact generally known as \\"subjective priors,\\" and include the actor's understanding of the relationship between means and ends; i.e., what are the probabilities that various actions will lead to various ends?

To relate individual behavior to social systems, Parsons developed his so-called \\"structural-functionalism,\\" which views society as a nexus of \\"social roles\\" (teacher, mother, fire fighter, voter, sick person, etc.) that are occupied by \\"social actors\\" who behave according to the model of the unit-act. Each role is associated with an incentive system, a set of rule for proper behavior in that role, and a set of norms that the actor is supposed to internalize that guides the actor's personal sacrifices on behalf of role-performance. The failure to behave according to the social norms associated with a social role is, for Parsons, a form of social deviance. According to his theory, then, conforms to a \\"normative logic\\" and not merely the materialist economic logic of maximizing material gain. While economists were busy trying (unsuccessfully) to argue that we can run society successfully on the basic of rational self-interest, Parsons spent his life elaborating on the fundamental (Durkheimian) belief that values and norms are what makes social life productive and pleasant.

Parsons probably would have done better not to call his system \\"structural-functionalist,\\" because sociologists have just as much trouble with the term \\"functionalist\\" as they do with the term \\"rational.\\" I would call his system \\"social equilibrium theory,\\" because it almost perfectly mirrors the Walrasian general equilibrium model that forms the conceptual basis of neoclassical theory. Supply in general equilibrium theory correspond to roles in social equilibrium theory (in fact, roles include \\"unpacked\\" versions of positions in the economic social division of labor), and demand corresponds to the actors who fill these roles. In \\"social equilibrium\\" there is a perfect meshing of actors and roles, and all actors conform to their normative role-expectations. But of course social equilibrium, like general market equilibrium, is rarely accomplished, and the disequilibrium dynamics of the social system are of extreme importance.

What seems to be a fly in the ointment of my analogy is that actors in roles appear not to be maximizing actors. But this is just a superficial problem. We have found since Parsons' time that the rational maximizing actor can be quite nicely applied to normative situations if we recognize that there is nothing irrational about behaving ethically and embracing normative goals and prosocial preferences along-side the traditional self-regarding material payoffs. For a leisurely exposition of this view and the experimental evidence on which it is based, see my book The Bounds of Reason (Princeton, 2009).

Combining Parsons' model of the unit-act with an expanded model of the social role as an aspect of the social division of labor in family and in public life in addition to economic life gives a theory which can well serve as a fundamental basis for sociological theory. The most important dimension missing from this theory is that of the nature and transformation of beliefs. Parsons treats beliefs as given by the cultural system, which stands above both the social system and the personality systems of social actors. In this he pretty much follows Durkheim, who deeply understood the role of culture in creating a common set of beliefs and understandings in an otherwise diverse society. However, Parsonian culture is basically detached from and outside the social system, without a true dynamic of its own. This is a lacuna that must be filled by a dynamic concept of culture.onalist\\" as they do with the term \\"rational.\\" I would call his system \\"social equilibrium theory,\\" because it almost perfectly mirrors the Walrasian general equilibrium model that forms the conceptual basis of neoclassical theory. Supply in general equilibrium theory correspond to roles in social equilibrium theory (in fact, roles include \\"unpacked\\" versions of positions in the economic social division of labor), and demand corresponds to the actors who fill these roles. In \\"social equilibrium\\" there is a perfect meshing of actors and roles, and all actors conform to their normative role-expectations. But of course social equilibrium, like general market equilibrium, is rarely accomplished, and the disequilibrium dynamics of the social system are of extreme importance. What seems to be a fly in the ointment of my analogy is that actors in roles appear not to be maximizing actors. But this is just a superficial problem. We have found since Parsons' time that the rational maximizing actor can be quite nicely applied to normative situations if we recognize that there is nothing irrational about behaving ethically and embracing normative goals and prosocial preferences along-side the traditional self-regarding material payoffs. For a leisurely exposition of this view and the experimental evidence on which it is based, see my book The Bounds of Reason (Princeton, 2009). Combining Parsons' model of the unit-act with an expanded model of the social role as an aspect of the social division of labor in family and in public life in addition to economic life gives a theory which can well serve as a fundamental basis for sociological theory. The most important dimension missing from this theory is that of the nature and transformation of beliefs. Parsons treats beliefs as given by the cultural system, which stands above both the social system and the

personality systems of social actors. In this he pretty much follows Durkheim, who deeply understood the role of culture in creating a common set of beliefs and understandings in an otherwise diverse society. However, Parsonian culture is basically detached from and outside the social system, without a true dynamic of its own. This is a lacuna that must be filled by a dynamic concept of culture.

European Economics at a Crossroads

Entertaining, if you are an Economist — Rating: 4/5

There used to be several brands of economics taught to budding young economists around the world. One was Marxian economics, another was institutional economics, a third was Austrian economics, and a fourth was Sraffian/Cambridge School economics. Finally, there was neoclassical economics, the body of economic theory stemming from Adam Smith, David Ricardo, John Stuart Mill, Leon Walras, and Alfred Marshall, culminating in the work of Kenneth Arrow, Paul Samuelson, and others in the post WWII period. The main development in economic theory since WWII is the virtual disappearance of all but the final, neoclassical brand, which is now taught in virtually every economics department in the world. If you want to see neoclassical economics in theory, take a look at an issue of Econometrica or the Journal of Political Economy. If you want to see the theory in practice, try the Journal of Economic Perspectives and the Journal of Economic Literature (the latter reports or a sprinkling of non-neoclassical works as well).

The triumph of neoclassical economics, while quite dramatic, is really for the lack of a better alternative. Some parts of the theory are quite solid bases for future development, such as game theory and Bayesian decision theory, but neoclassical economists are generally reluctant to extend these tools to conquer new territory, but rather are happy to explore the same territory over and over with every more powerful mathematical tools. But, you can't squeeze blood from a stone, so new insights in neoclassical economics are extremely rare, and neoclassical economists are a dull and sanctimonious, hermetically sealed group of people who talk only to themselves. Moreover, unlike true scientists, neoclassical economists (with a few admirable and important exceptions) do not like experimentalists, whom they badmouth incessantly and with consummate ignorance.

Consider for instance the remarks of Nobel prize (and intensely creative) economist Robert Aumann: \\"The conclusions of behavioral economics are based to a large extent on questionnaires and polls,\\" says Aumann. This is just completely false. I can't think of a single result in the experimental literature that depends in any way on polls, and questionnaires are used only for debriefing, demographic information, and the like. \\"Another problem is that the conclusions are based partly on experiments with money. Though there is some incentive given, this is usually small and people don't really pay much attention to it,\\" says Aumann. This is quite misleading. Subjects in most experiments are motivated to participate solely on the basis of financial reward, and the amounts involved are comparable to wages that they could earn elsewhere. Field studies often use incentives that are extremely high compared to the daily wage, and there is no data indicating that subjects \\"don't pay much attention\\" to the monetary payoffs to the games they play. Aumann's views on this matter are shockingly uninformed. Aumann also says \\"I agree with the behavioral economists that people don't think about the decisions they make.\\" First, this is a gross distortion of what behavioral economists say, to the point of being a malicious parody. Of course people think about the decisions they make, and humans are very, very fine decision-makers. Aumann's alternative account of decision-making is plausible, but not at all in conflict with the experimental literature.

Another infuriating characteristic of neoclassical economists is to study equilibria but to ignore dynamics. For instance, the central model of neoclassical economic theory is the Walrasian general equilibrium model, for which there are no known general dynamical extensions. In fact, the market economy is a complex dynamical system that must be modeled using stochastic processes---processes that are snubbed by neoclassical economists who look for solutions on deterministic differentiable manifolds.

So, not surprisingly, there are a considerable number of serious critics of the neoclassical approach, and the authors of this volume provide us with entertaining and illuminating interviews with some of the

most prominent of these critics. I recommend this volume, and its predecessor, The Changing Face of Economics (Colander et al. 2004), in which mostly American economists are interviewed. The authors' fervent hope is that Europe not go the way of the United States in marginalizing all dissent from neoclassical orthodoxy. Like many of those interviewed, however, I believe that this is a vain hope. There may emerge alternative paradigms, but I suspect they will also be univeral around the world. The vision of a \\"European economics\\" pitted against \\"American economics\\" has little chance of occurring.

The most prominent economist interviewed in this volume is Ernst Fehr, whose experimental work is voluminous, brilliant, and completely accepted in the same graduate programs that teach neoclassical economic theory. Fehr has had many offers to teach in top US graduate schools (including MIT and Princeton), and his work, as well as that of experimental economics in general, is well represented in the curriculum, despite the hostility of the neoclassical theorists. In fact, while neoclassical economics has become hegemonic, the high theorists themselves are largely ignored because they have offered no new insights for decades. No grand theorist has won the Nobel prize in economics in recent years, except for Robert Aumann, whose contributions are extremely important.

The remaining economists in this group are either elderly statesman hostile or indifferent to the plea of the authors for more heterodox economics (Janos Kornai and Reinhard Selten), or younger economists who have nothing serious to replace neoclassical economics. I was interviewed in the authors' earlier book, and when asked my views on heterodox economics, I replied that I am homodox, not heterodox. I believe there is one correct economic theory, and our job is to find it and promulgate it. I am not very tolerant of \\"heterodox\\" thinkers who are good at critique (I call it moaning and groaning) but poor at alternatives.

The exception to this generalization are cogent critiques of contemporary macroeconomics, including the brilliant critiques of Chicago macroeconomics by Johansen and Juselius, and approaches to macroeconomics fragility using complexity theory and agent-based modeling, by Kirman, Gallegait, and Gardini. Contemporary macroeconomics, both the Keynesian and Chicago varieties, are fatally flawed and will not survive for another five years, even if there is no systematic alternative. This is because these theories use representative agents and therefore cannot deal with coordination problems, which are at the heart of contemporary macroeconomic instability.

It is hard not to love the authors of this volume. They are serious and critical, taking time out of their own research to \\"stir up the pot\\" of alternatives to neoclassical economics. They have found no alternatives to microeconomics, though, despite the pressing need to wrench economic theory development out of the hands of the unimaginative and uncritical individuals who control the major economics journals, and who appreciate complex math but haven't had a serious theoretical idea in decades. I urge the authors to devote a third volume to those who are working on this task.considerable number of serious critics of the neoclassical approach, and the authors of this volume provide us with entertaining and illuminating interviews with some of the most prominent of these critics. I recommend this volume, and its predecessor, The Changing Face of Economics (Colander et al. 2004), in which mostly American economists are interviewed. The authors' fervent hope is that Europe not go the way of the United States in marginalizing all dissent from neoclassical orthodoxy. Like many of those interviewed, however, I believe that this is a vain hope. There may emerge alternative paradigms, but I suspect they will also be univeral around the world. The vision of a \\"European economics\\" pitted against \\"American economics\\" has little chance of occurring. The most prominent economist interviewed in this volume is Ernst Fehr, whose experimental work is voluminous, brilliant, and completely accepted in the same graduate programs that teach neoclassical economic theory. Fehr has had many offers to teach in top US graduate schools (including MIT and Princeton), and his work, as well as that of experimental economics in general, is well represented in the curriculum, despite the hostility of the neoclassical theorists. In fact, while neoclassical economics has become hegemonic, the high theorists themselves are largely ignored because they have offered no new insights for decades. No grand theorist has won the Nobel prize in economics in recent years, except for Robert Aumann, whose contributions are extremely important. The remaining economists in this group are either elderly statesman hostile or indifferent to the plea of the authors for more heterodox economics (Janos Kornai and Reinhard Selten), or younger economists who have nothing serious to replace neoclassical economics. I was interviewed in the authors' earlier book, and when asked my views on heterodox

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The Theory That Would Not Die: How Bayes' Rule Cracked the Enigma Code, Hunted Down Russian Submarines, and Emerged Triumphant from Two Centuries of Controversy

A Complete Muddle — Rating: 2/5

Sharon Bertsch Mcgrayne is a talented science writer whose portraits of great scientists of the past are incisive and entertaining. However, she evidently believes that one must studiously avoid dealing with any serious scientific issues in entertaining a popular audience. For this reason, this book is a total failure. Why should a reader care about the history of an idea of which he or she has zero understanding? Mcgrayne turns the history of Bayes rule into a pitched battle between intransigent opponents, but we never find out what the real issue are.

In fact, Bayes rule is a mathematical tautology, being the definition of conditional probability. Suppose A is an event with probability P(A) and B is an event with probability P(B). Let C be the event \\"both A and B occur.\\" Then the conditional probability P(A|B) of event A, given that we know that B has occurred, just P(C)/P(B). Moreover, if a decision-maker knows P(A), P(B), and P(C), and discovers that B occurred, then he should revise the probability that A occurred to P(A|B) = P(C)/P(B). Why? Well, suppose we have a population of 1000 individuals, where the probability that an event E is true of an individual is P(E), where E is any one of A, B, and C. Then the expected number of individuals for which B is true is 1000*P(B). Of these, the number for which A is also true is 1000*P(A). Therefore, the probability that an individual satisfies A, given that he satisfies B, is 1000*P(A)/1000*P(B) = P(A|B).

For instance, suppose 5% of the population uses drugs, and there is a drug test that is correct 95% of the time: it tests positive on a drug user 95% of the time, and it tests negative on a drug nonuser 95% of the time. If an individual tests positive, we can show using Bayes rule that the probability of his being a drug user is 50%. To see this, let A be the event \\"subject uses drugs,\\" and let B be the event \\"subject test positive for using drugs.\\" First, what is the probability P(B) of event B? Well, take a random subject. With probability 1/20 he is a drug user, so with probability (19/20)(1/20)=19/400 he is a drug user testing positive. With probability 19/20 he not a drug user, so he is a non-user testing positive with probability (1/20)(19/20)=19/400. Thus P(B) = 19/400+19/400=38/400. Let event C be \\"subject uses drugs and tests positive for using drugs.\\" This probability is (1/20) times (19/20) = 19/400. Thus P(A|B) = P(C)/P(B) = 1/2.

If this seems mystifying, consider the following interpretation. Suppose we test 10000 people. The expected number of drug users will be 500, and 95% of them, or 475, will test positive for drug use. But 9500 people will be non-drug users, and 5% of them will erroneously test positive for drug use, which is 475 people. Thus, 50% of those who test positive for drugs are actually drug users.

The real brilliance of Bayes Rule lies in the fact that sometimes we want to find P(A|B) when we don't know either P(C) or P(B), but we do know P(B|A) and P(A). For instance, want to know P(A|B), meaning the probability that an individual who test positive is actually a drug user, but we only know the frequency P(A) of drug use in the population (5%) and the accuracy of the test, which is P(B|A) = 95% (a drug user tests positive with probability 0.95). Then we can write P(A|B)P(B) = P(C)=P(B|A)P(A). From the first and third terms we get P(A|B) = P(B|A)P(A)/P(B). In our case, this gives P(A|B) = 0.95(0.05)/P(B)=0.0475/P(B). But we can also calculate P(B) as follows.

Let N mean \\"A is false for the subject.\\" Thus P(N) = 1-P(A) = 0.95. Then we have

P(B) = P(B|A)P(A) + P(B|N)P(N), as can be verified by simply multiplying out the right hand side of the equation. Thus in our case we have, given that we know that P(B|N) = 0.95 (the test accurately predicts that a non-user is a non-user with probability 0.95), so we have P(B) = 0.95(0.05) + 0.05(0.95) = 0.095. Thus P(A|B) = 0.0475/0.095 = 1/2.

Isn't this a simple and beautiful result? Only arithmetic and grade school algebra are used to arrive at this stunning result. By the way, for more on Bayes Rule, see my textbook Game Theory Evolving (Princeton 2009).

Now, who could dispute this analysis? It is clearly correct. So where does all of the vehement opposition to Bayes rule come from? The answer is that when a group of individuals (e.g., professional scientists) do not agree on P(A) then you cannot apply Bayes rule. You can however show that under many conditions, repeated observations of events A can lead to mutually acceptable values for P(A). For instance, suppose you know that the weight of a substance per ounce is variable and unknown, and each scientist i has his personal prior probability Pi that the weight is less than one gram per ounce. Suppose we take unbiased samples that are each about one ounce, and we take unbiased measurements of the weight. Then the long-run average of the sample weights will be accepted by all scientists as the updated probability. This is Bayesian updating.

However, it is not true that Bayesian updating always lead to convergence to a common probability distribution. See, for instance, papers by Mordecai Kurz, of Stanford University. Moreover, when observations are limited, the range of assessments of probabilities can be quite wide. This is why Bayes rule is considered \\"subjective.\\" However, when we really know the probabilities, as in the case of the drug testing example, there is no controversy about the value of Bayes rule. It is extremely valuable, indeed indispensable, in such cases.

This book manages to obfuscate a very simple issue, turning sciences into a vast morality play. Now of course there are deep issues in the philosophy of probability that implicate Bayes rule, but one does not learn what they are from this book.>Isn't this a simple and beautiful result? Only arithmetic and grade school algebra are used to arrive at this stunning result. By the way, for more on Bayes Rule, see my textbook Game Theory Evolving (Princeton 2009).

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This book manages to obfuscate a very simple issue, turning sciences into a vast morality play. Now of course there are deep issues in the philosophy of probability that implicate Bayes rule, but one does not learn what they are from this book.

Making Social Science Matter: Why Social Inquiry Fails and How it Can Succeed Again

Draws Oppositions where Synergies are Available — Rating: 3/5

Making Social Science Matter was written in Danish and translated into English, very beautifully, by Steven Sampson. It is a fine addition to sociological theory, and deserves a careful reading. It is a new addition to the venerable tradition set down by Peter Winch, Hubert Dreyfus, Harold Garfinkel, and many others, who claim that the canons of natural science do not apply to understanding human society. Various reasons are given supporting this view, but they all agree with Richard Lewontin (p. 3), who opines that \\"social science has set itself an impossible task when it attempts to emulate natural science and produce explanatory and predictive, that is, epistemic, theory.\\" Among the prominent reasons are that social theory is inherently value-laden because we are both the subject and the object of study, society is the product of human consciousness, which is self-incomprehensible, and most simply, human society is far too complex to either explain or predict.

Flyvbjerg develops this theme with insight and flair, although he tries to do two other things as well, with less success. The first is to show that the concept of \\"power\\" must be central to all social theory. He fails to show this and his treatment of power is quite standard and rather restricted to left-critical and post-modern treatments. The second is to apply his theory of what social science should be to his own life-experience. Here too his treatment is quite mundane and lacking in insight. He would have done better to drop these two themes, and simply refer to the great hermeutic social thinkers, such as Aristotle, St. Thomas Acquinas, J. J. Rousseau, Alexis de Tocqueville, Bernard Mandeville, and Compte de Montesquieu, and the other greats whose works exemplify this approach to social understanding.

Flyvbjerg's approach is to contrast three forms of knowledge in Aristotle: episteme (theoretical knowledge), techne (technical know-how) and phronesis, which he treats as wisdom gathered through personal life experience and emotive identification with the life-forms studied and their myriad activities. The social-science-as-natural-science folks believe that the height of social knowledge is episteme in the form of Grand Theory, whereas in fact meaningful social knowledge consists of phronesis in the form of case studies by wise and perceptive viewers.

\\"At present,\\" Flyvbjerg claims, \\"social science is locked in a fight it cannot hope to win, because it has accepted terms that are self-defeating. We will see that in their role as phronesis, the social sciences are strongest where the natural sciences are weakest: just as the social sciences have not contributed much to explanatory and predictive theory, neither have the natural sciences contributed to the reflexive analysis and discussion of values and interests, which is the prerequisite for an enlightened political, economic, and cultural development in any society.\\"

It should be clear that by \\"social science\\" Flyvbjerg means \\"sociological and anthropological theory,\\" because his remarks simply do not apply to psychology, economics, or biology, and his treatment of power is too weak to consider his analysis as applicable to political science. Obviously areas like paleontology, neuroscience, epidemiology, and many other areas of social science are quite impervious to the Flyvbjerg critique.

Flyvbjerg is absolutely correct in his support for thickly descriptive ethnographic and historical research, and in his claim that phronetic approaches are important contributions to social science. His error is thinking that this research conflicts with more traditional approaches to explanation in sociology and anthropology. In fact, the research he supports is synergistic with analytical and empirical studies aimed at understanding human society.

Sociology and anthropology are intimately connected to paleontology and evolutionary biology simply because Homo sapiens is a species that evolved to its present position by virtue of the same biological

laws that apply to all other species. Of course, there are staggeringly important human specificities, but there are many social species, and until some 30,000 years ago we were not alone in exhibiting these specificities. There is much to learn about human society by comparing and contrasting with other social species---see for instance the recent book Superorganism, by Bert Hölldobler and E. O. Wilson, or my edited collection Moral Sentiments and Material Interests.

I appreciate Aristotle and Machiavelli, but I also have learned an enormous amount about society by reading widely and deeply in animal behavior theory. I love Levi-Strauss, but I also appreciate Donald Brown, who has shown how human values are represented in hundreds of societies, and Frasier's Golden Bough, which gives insight into human religion by cataloging hundreds of religious forms around the world.

Flyvbjerg makes his case by setting up straw men and choosing only examples that support his point of view. One example of a straw man is the notion that the natural sciences can \\"explain and predict\\" while the social sciences cannot. Physics can explain phenomena only under highly controlled circumstances, certainly not in general. Physics has changed our lives so much because engineers can reproduce these controlled circumstances in the real world. Except for astronomy and atmospherics (in the age of satellit supercomputers), physics cannot explain or predict much in the way of natural events. Social theory can easily do as well as the natural sciences in situations in which carefully controlled experimentation is infeasible for one reason or another.

An example of cherry-picking examples, Flyvbjerg's examples of successes in the natural sciences are all of the thought-experiment type: Galileo on falling objects, Einstein or general relativity, and the like. Most advances even in physics are not of this type, but rather involve careful and repeated measurement linked to deductive and inductive logic.

Flyvbjerg will appeal to the armchair philosopher who is too ignorant of real advances in our understanding of society to appreciate the value of sustained empirical and theoretical research. I urge the author to give us a new book that appreciates the synergy among episteme, techne, and phronesis, for synergy there surely is.position by virtue of the same biological laws that apply to all other species. Of course, there are staggeringly important human specificities, but there are many social species, and until some 30,000 years ago we were not alone in exhibiting these specificities. There is much to learn about human society by comparing and contrasting with other social species---see for instance the recent book Superorganism, by Bert Hölldobler and E. O. Wilson, or my edited collection Moral Sentiments and Material Interests. I appreciate Aristotle and Machiavelli, but I also have learned an enormous amount about society by reading widely and deeply in animal behavior theory. I love Levi-Strauss, but I also appreciate Donald Brown, who has shown how human values are represented in hundreds of societies, and Frasier's Golden Bough, which gives insight into human religion by cataloging hundreds of religious forms around the world. Flyvbjerg makes his case by setting up straw men and choosing only examples that support his point of view. One example of a straw man is the notion that the natural sciences can \\"explain and predict\\" while the social sciences cannot. Physics can explain phenomena only under highly controlled circumstances, certainly not in general. Physics has changed our lives so much because engineers can reproduce these controlled circumstances in the real world. Except for astronomy and atmospherics (in the age of satellit supercomputers), physics cannot explain or predict much in the way of natural events. Social theory can easily do as well as the natural sciences in situations in which carefully controlled experimentation is infeasible for one reason or another. An example of cherry-picking examples, Flyvbjerg's examples of successes in the natural sciences are all of the thought-experiment type: Galileo on falling objects, Einstein or general relativity, and the like. Most advances even in physics are not of this type, but rather involve careful and repeated measurement linked to deductive and inductive logic. Flyvbjerg will appeal to the armchair philosopher who is too ignorant of real advances in our understanding of society to appreciate the value of sustained empirical and theoretical research. I urge the author to give us a new book that appreciates the synergy among episteme, techne, and phronesis, for synergy there surely is.

Social Brain, Distributed Mind (Proceedings of the British Academy)

Exciting Ride Through Aeons of Homind History — Rating: 5/5

Brains do not appear in the fossil record. Of course their housings do, and we can learn much from the study of the size and shape of skulls. We can also learn much about brain evolution by comparing contemporary species whose brain development we believe corresponds to that of some long-extinct species. These techniques, however, tell us only a limited amount concerning the evolution of human cognition. This volume, assembled by Robin Dunbar and his associates, brings an astonishing array of experts from various fields (archeology, anthropology, geography, psychology, paleontology, history, and philosophy) focusing rather single-mindedly on the construction of a plausible ``cognitive anthropology." The volume suffers some from being a virtual transcript of the proceedings of a 2008 conference, as some of the papers are tangential and others are woefully poor (I speak especially of the chapter by Hui and Deacon, who appear never to even have looked as the behavioral literature on human cooperation). These lapses are more than made up for by some truly exciting and informative contributions by the towering figures of their respective fields.

All participants accept some version of Dunbar's \\"social brain\\" hypothesis, according to which the precipitous increase in the volume of the hominin brain some 600,000 years ago was due to the adaptive value of hominins living in rather large social groups in which social networking and working social memory requirements were very demanding. On the other hand, all accept the assertion that hominin material culture, including art, hafted tools, crafted containers, architecture, and written language appear in the historical record less than 70,000 years ago. What went on in all the intervening years? Indeed, what was the purpose of social complexity if not to promoted advanced fitness-enhancing material technology?

This book puts forth a compelling very long-run chronology of hominid evolution, beginning with the increase in social networking some 3 million years ago, the emergence of stone technology some 2.6 million years ago, the beginning of encephalization 2 million years ago, the harnessing of fire and the acquisition of language about 1.7 million years ago, leading to decreased gut size made possible by cooking food and freeing up resources for increased encephalization.

The authors rarely conflict in providing an answer to the riddle of the long lag between increased brain capacity and \\"modern\\" material culture. They argue that \\"not all cognition takes place in a brain\\" (p. 19), but rather humans developed \\"artificial memory systems\\" in the form of tokens and containers that constituted a \\"distributed cognition\\" linking the mental power of many individuals, and leading to a transition from \\"experiential\\" cognition as exemplified by apes to the \\"relational cognition\\" characteristic of humans. For instance, humans have formed fission-fusion social groupings in which kin relations are maintained across social groupings, both males and females migrate to marry, and complex, powerful, fitness-enhancing familial alliances are sustained (Chapais 2008; Hill et al, Science 2011). By contrast, even though they often live together or nearby, chimpanzee males do not recognize their fathers or their children, and migration for mating leads to a total rupture of social relations in ape societies.

The social brain hypothesis is compelling, has lots of evidence, and the notion of distributed cognition fits well with gene-culture coevolutionary and rational actor decision-theoretic models with which I am familiar. I would like to see more abstract models of how fission-fusion and distributed mind operate and might have evolved. It is all to easy to propose verbal models that in fact cannot be supported by the sort of accounting principles offered by mathematical models that clearly represent the incentives facing agents, their capacities, and the precise way in which social cooperation is structured and maintained.

There is animportant piece of the argument missing from this collection. It is an analysis of why hominid groups benefitted from large size and close interpersonal interactions. It must have been this that provided the ambient environmental conditions that rendered social intimacy so fitness enhancing. I believe that hominids filled a niche in which a high level of cooperation and coordination was required to scavange and hunt megafauna, and the presence of lethal weapons undermined the social dominance hierarchy characteristic of our ape ancestors, creating a proto-democratic political structure in which persuation and subtle coalition-formation were key to survival. The social brain is mainly for operating

successfully in such a cooperative/flexible framework. Managing interpersonal relations may be important in this context, but there zero chance that they are the central reason for encephalization in hominids. Why? Because unless there were group-level benefits to encephalization, hominids would have been outcompeted for the same niche by other primate species that forwent the complex interpersonal relations, and sufficed with a smaller brain.y in which social cooperation is structured and maintained.

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The Panic Virus: A True Story of Medicine, Science, and Fear

Good science, great journalism — Rating: 5/5

As most of the Amazon reviewers have noted, this book is rare gift---thoroughly documented and wonderfully written, using references to the primary literature for statistical support, yet always inserting the human element. If all you want is an account of the \\"vaccines cause autism\\" controversy from the viewpoint of a supporter of the scientific establishment, then you can stop here, buy the book, and enjoy. If you also want to understand the viewpoint of the \\"other side,\\" the quick way is to (a) read the several one-star review of this book on Amazon (all are opponents of the scientific evidence for one reason or another), and (b) read positive reviews of the book online (e.g., New York Times, Salon) and their negative comment-providers. If this is not enough, there are plenty of publications by Andrew Wakefield, Jenny McCarthy and others.

My purpose in reading this was different. I come from a theoretical position in behavioral science that takes the so-called rational actor model seriously as a tool for understanding human behavior. The model assumes people have certain beliefs (called subjective priors) which they use to maximize an objective function that reflects their personal values, needs, likes, and dislikes. The model is very well ensconced in traditional economic theory, and describes human behavior extremely well, as long as we recognize a few \\"provisos.\\" First, people don't literally \\"maximize\\" anything, any more than does a baseball player chasing down a fly ball or a fox chasing down a rabbit.

The theory says that if peoples preferences are consistent, we can model them \\"as if\\" they were maximizing, just as we act \\"as if\\" a thermodynamical system is maximizing entropy---it's an innocuous short-hand expression. Second, individual wants and desires are not perfectly attuned to individual well-being. People engage in all sorts of harmful practices, such as smoking cigarettes and eating unhealthy foods. Third, people are generally not selfish, but rather exhibit other-regarding preferences and prefer in many circumstances to behave morally even when this is costly in terms of forgone alternatives. Thus, the sort of rationality embodied in the rational actor model is rather thin, but it is sufficient to enable economists (and biologists who use the model in studying animal behavior and epidemiology) to get lots of things right lots of the time.

The core problem with the rational actor model is that, while it deals with risk rather well, it has absolutely no handle on genuine \\"uncertainty,\\" as the famous Ellsberg Paradox so well illustrates. When a situation has a probabilistic outcome but the probabilities are clearly known, as for instance in flipping a fair coin, people behave different than in a situation in which they are not sure of the probabilities.

The standard axiomatic of rational choice cannot deal with such a situation. Of course, we may treat uncertainty by positing that we live in one of several \\"possible worlds,\\" in each of which the probabilities are known. But then we must know the probabilities assigned to being in each of these worlds. If we know these probabilities, it is a simple exercise to calculate the meta-probabilities for our situation. This is absolutely nothing new. However, suppose we don't know the probabilities for each of the possible worlds. Then we must posit a universe of higher-level worlds, in each of which the probability distribution over the lower-level worlds takes some determinate form. Once again, however, we can perform simple calculations (so-called \\"compound lottery\\" calculations) to get determinate probabilities (\\"risks\\") for our world. And so on, up the ladder of meta-possible-universes.

The central fact is that people do not engage in such infinitely recursive reasoning. This is not a failure of rationality, but rather a weakness of the whole recursive possible worlds framework, which is really a device for reducing uncertainty to risk.

What do people do when there is fundamental uncertainty? This is the question that has haunted me for many years. I do not claim to have a scientifically acceptable model of human behavior under uncertainty yet, but I'm looking around, for sure (Joni Mitchell once wrote \\"Everybody's saying/Hell's the hippest way to go/Well, I don't think so/But I'll take a look around it though.\\") Here is a brief summary of where I am at, and I invite commentary.

The first reaction to fundamental uncertainty is to delay making a choice. This is basically Keynes' explanation of boom and bust investment cycles---when they don't have a clear idea what is going to happen, businesses \\"pull in their horns\\" and wait for the situation to clarify itself. However, sometimes one cannot delay without incurring huge costs. Parents of autistic children, for instance, must decide on the efficacy of the array of alternatives open to them. Doing nothing is, basically, one of these alternatives.

The second reaction is to lay out a search plan: try out several alternatives, and let your experience clarify the risks and the payoffs of each. This is fine for some things, such as what brand of wine to drink. But it will not help in situations where (a) it is very costly to try out alternatives (e.g., how many occupations do you want to experience) or (b) the choices are irreversible (e.g., how many levels of education do you want to try out? If you get too much education, there is often no way back).

The third reaction is to see what other people have done in your situation, with a heavy emphasis on the choices have been successful and the people making the choices are a lot like you. To my mind, this is perhaps the most important choice mechanism. There are several models of such behavior, but none has the generality the phenomenon deserves. Itzak Gilboa and David Schmeidler, A Theory of Case-Based Decisions (Cambridge: Cambridge University Press, 2001) is in the ball-park, but they only allow the decision-maker to range over previous personal choices. Their model should extend rather easily and insightfully to the more general case, where there is uncertainty concerning the success of others as well as the \\"distance\\" between successful others and the decision-maker.

I expect such a model would exhibit the following properties, depending on the parameters of the situation. For situations in which success is public information, there would be a Nash equilibrium with some \\"experimenters\\" who try out new ideas and \\"traditionalists\\" who stick with the known and true until the success of the experimenters is sufficiently clear. There are papers in the literature that model this phenomenon: John Conlisk, \\"Optimization Cost\\", Journal of Economic Behavior and Organization 9 (1988):213-228; Robert Boyd and Peter J. Richerson, \\"Group Beneficial Norms Can Spread Rapidly in a Cultural Population\\", Journal of Theoretical Biology 215 (2002):287-296.

Within the same category of imitation, there can be \\"bandwagon\\" effects, as modeled in Sushil Bikhchandani, David Hirshleifer and Ivo Welsh, \\"A Theory of Fads, Fashion, Custom, and Cultural Change as Informational Cascades\\", Journal of Political Economy 100 (1992):992-1026; B. Douglas Bernheim, \\"A Theory of Conformity,\\" Journal of Political Economy\\", University of Chicago Press 102,5 (1994):841-877; Abhijit V. Banerjee, \\"A Simple Model of Herd Behavior\\", Quarterly Journal of Economics 107 (1992):797-817. In these models, difference social groups can settle on distinct decisions, and there is little tendency for groups to switch to the decision of another group because the distinct decisions increase the social distance between members of different groups, for a variety of reasons. This is stressed in a very nice paper: Joseph Henrich and Robert Boyd, \\"The Evolution of Conformist Transmission and the Emergence of Between-Group Differences\\",Evolution and Human

Behavior 19 (1998):215-242. For this reason, several distinct religions can persist among spatially and social distanced groups, each holding firm to its own beliefs.

A key element in the rational actor model is that of \\"Bayesian updating.\\" What this means is that with a given set of subjective priors, when new evidence comes in, there is exactly one \\"rational\\" way to transforms beliefs in light of the new information. Many beliefs, however bizarre, have little to fear from Bayesian updating, because there is virtually never new information that impacts on these beliefs. The intellectual/scientific problem is that individuals often update the credibility of the evidence in light of their beliefs rather than the other way around. For instance, when Christians discovered that the Earth was millions of years old, not the six thousand odd years portrayed in the Bible, and the humans are the product of Darwinian evolution, many revised their cosmologies and their scientific preconceptions (including the Catholic Church), while others mounted vicious attacks on the scientific community, calling them a group of atheists who were colluding with the Devil to thwart the will of God. In terms of the rational actor model, the strategy of the second group is no less Bayesian updating that that of the first.

There are also situations in which people are collectively unsure what to do, and where they must make a choice that will commit them collectively to a single decision. This is the setting for the emergence of ideological divisions and cultural politics so characteristic of the socialism/capitalism debates of the past, or the current global warming debates.

Science has no secure position of authority in dealing with natural events. For one thing, despite their pretentions to objectivity, scientists have been known to be collective incorrect. One horrible example close to home was the psychoanalytic theory of childhood autism, which for many years in the US was blamed on inadequate mothering. The pain that this stupid but virtually universally promulgated theory imposed on the parents of autistic children was incalculable. Not only were these parents forced to with the frightful problems of having an autistic child, but they were forced to live in ignominy in a society that held the parents to blame. I do not know of a comprehensive historical account of this affair, promulgated by Bruno Bettelheim, Leo Kanner, and other psychoanalysts who never bothered to check the facts.

Another more recent affair of this type is the \\"recovered memories\\" movement among professional clinical psychologists. The \\"expert testimony\\" put many innocent people behind bars, and clinical psychologists misled many patients seeking psychological relief into attributing their mental problems to childhood molestations that in fact did not take place. This is well recounted in Elizatheth Loftus and Katerine Ketcham, The Myth of Repressed Memory: False Memories and Allegations of Sexual Abuse (St. Martin's Press, 1996).

The vaccination model of the origins of autism is quite a different story. In this case there is no doubt but that the scientific community very carefully studied, and rejected, the claims of frantic parents misled by a few demagogic physicians, in the context of a network of newspapers, magazines, and TV shows eager to exploit the controversy rather than come down firmly on the side of science (which they should have in this case, because the empirical evidence was clear).

I think the autism controversy is one instance of a large category of situations in which human nature leads people to make decisions that are not in their interest. These situations all involve serious threats to our health and well-being, where traditional science and common cultural practices offer us no hope. The evil turns in life can be much better supported if we can conjure up some reasonfor hope and optimism, however far-fetched. This is why it has been necessary to place draconian restrictions on the ability of the public to seek health advice and purchase the medications of their choice. And because people generally realize that this is the case, even in the most democratic countries, however devoted to the free market, the local version of the Food and Drug Administration is widely supported.

In terms of the rational actor model, it is the Sour Grapes axiom that is violated. Rational choice depends on our evaluation of the probility of an event being independent from the desirability of the event. In particular, we should not think an outcome more likely just because we like the outcome more. But, when there is no hope, or all \\"traditional\\" remedies have been sought, it is part of human nature to ease our pain by elevating the probabilities of the theretofore hopeless. Thus the quack miracle cures for terminal diseases and chronic conditions.

However, where medicine provides neither cure nor an understanding of the disease, the collective action of sufferers (in this case parents of autistic children) can lead to serious social breakdown. In the autism case, the social practice of refusing to inoculate young children against infectious diseases spread far beyond the autistic community, to the point where outbreaks of deadly communicable diseases are now occurring in several countries. This natural human predilection is amplified by predatory religious and political doctrines in some countries (opposition to measles vaccination in some Muslim communities in Africa comes to mind) and to anti-scientific fads in others (Postmodernism in the United States is the major culprit here, inducing the affluent and highly educated to turn away from even proven policies, such as universal vaccination against some diseases).

Parents want absolute proof of the vaccine's non-harm, as the following, taken from an Amazon review of Mnookin's book: \\"It is not up to people who do not wish to vaccinate their children to prove that vaccines are unsafe or fail to provide their recipients with a healthier, longer life. It is up to the salesmen, the CDC & NIH and the pharmaceutical manufacturers to PROVE that they do.\\" However, the fact is that vaccination is often a social benefit that has a small individual cost that, in very rare cases, can be a devastatingly large cost. Individual parents who may be perfectly willing to run such risks for themselves may be unwilling to impose such risks on their children, and it is hard to fault them for this.

My own (tentative) position on this is that we should remove from parents the onus of choice. When an inoculation is required to protect herd immunity, is should be required of all parents, without the possibility of opting out for personal or religious reasons. Much of the time, this will also benefit the individual child, but in cases where the gains are social and the expected costs are individual and very small, and where the ratio of benefit to harm is great, coercion should be vigorously defended, although in a democratic society, the defense of coercion is a very delicate affair.eligions can persist among spatially and social distanced groups, each holding firm to its own beliefs. A key element in the rational actor model is that of \\"Bayesian updating.\\" What this means is that with a given set of subjective priors, when new evidence comes in, there is exactly one \\"rational\\" way to transforms beliefs in light of the new information. Many beliefs, however bizarre, have little to fear from Bayesian updating, because there is virtually never new information that impacts on these beliefs. The intellectual/scientific problem is that individuals often update the credibility of the evidence in light of their beliefs rather than the other way around. For instance, when Christians discovered that the Earth was millions of years old, not the six thousand odd years portrayed in the Bible, and the humans are the product of Darwinian evolution, many revised their cosmologies and their scientific preconceptions (including the Catholic Church), while others mounted vicious attacks on the scientific community, calling them a group of atheists who were colluding with the Devil to thwart the will of God. In terms of the rational actor model, the strategy of the second group is no less Bayesian updating that that of the first. There are also situations in which people are collectively unsure what to do, and where they must make a choice that will commit them collectively to a single decision. This is the setting for the emergence of ideological divisions and cultural politics so characteristic of the socialism/capitalism debates of the past, or the current global warming debates. Science has no secure position of authority in dealing with natural events. For one thing, despite their pretentions to objectivity, scientists have been known to be collective incorrect. One horrible example close to home was the psychoanalytic theory of childhood autism, which for many years in the US was blamed on inadequate mothering. The pain that this stupid but virtually universally promulgated theory imposed on the parents of autistic children was incalculable. Not only were these parents forced to with the frightful problems of having an autistic child, but they were forced to live in ignominy in a society that held the parents to blame. I do not know of a comprehensive historical account of this affair, promulgated by Bruno Bettelheim, Leo Kanner, and other psychoanalysts who never bothered to check the facts. Another more recent affair of this type is the \\"recovered memories\\" movement among professional clinical psychologists. The \\"expert testimony\\" put many innocent people behind bars, and clinical psychologists misled many patients seeking psychological relief into attributing their mental problems to childhood molestations that in fact did not take place. This is well recounted in Elizatheth Loftus and Katerine Ketcham, The Myth of Repressed Memory: False Memories and Allegations of Sexual Abuse (St. Martin's Press, 1996). The vaccination model of the origins of autism is quite a different story. In this case there is no doubt but that the scientific community very carefully studied, and rejected, the claims of frantic parents

misled by a few demagogic physicians, in the context of a network of newspapers, magazines, and TV shows eager to exploit the controversy rather than come down firmly on the side of science (which they should have in this case, because the empirical evidence was clear). I think the autism controversy is one instance of a large category of situations in which human nature leads people to make decisions that are not in their interest. These situations all involve serious threats to our health and well-being, where traditional science and common cultural practices offer us no hope. The evil turns in life can be much better supported if we can conjure up some reason for hope and optimism, however far-fetched. This is why it has been necessary to place draconian restrictions on the ability of the public to seek health advice and purchase the medications of their choice. And because people generally realize that this is the case, even in the most democratic countries, however devoted to the free market, the local version of the Food and Drug Administration is widely supported. In terms of the rational actor model, it is the Sour Grapes axiom that is violated. Rational choice depends on our evaluation of the probility of an event being independent from the desirability of the event. In particular, we should not think an outcome more likely just because we like the outcome more. But, when there is no hope, or all \\"traditional\\" remedies have been sought, it is part of human nature to ease our pain by elevating the probabilities of the theretofore hopeless. Thus the quack miracle cures for terminal diseases and chronic conditions. However, where medicine provides neither cure nor an understanding of the disease, the collective action of sufferers (in this case parents of autistic children) can lead to serious social breakdown. In the autism case, the social practice of refusing to inoculate young children against infectious diseases spread far beyond the autistic community, to the point where outbreaks of deadly communicable diseases are now occurring in several countries. This natural human predilection is amplified by predatory religious and political doctrines in some countries (opposition to measles vaccination in some Muslim communities in Africa comes to mind) and to anti-scientific fads in others (Postmodernism in the United States is the major culprit here, inducing the affluent and highly educated to turn away from even proven policies, such as universal vaccination against some diseases). Parents want absolute proof of the vaccine's non-harm, as the following, taken from an Amazon review of Mnookin's book: \\"It is not up to people who do not wish to vaccinate their children to prove that vaccines are unsafe or fail to provide their recipientswith a healthier, longer life. It is up to the salesmen, the CDC & NIH and the pharmaceutical manufacturers to PROVE that they do.\\" However, the fact is that vaccination is often a social benefit that has a small individual cost that, in very rare cases, can be a devastatingly large cost. Individual parents who may be perfectly willing to run such risks for themselves may be unwilling to impose such risks on their children, and it is hard to fault them for this. My own (tentative) position on this is that we should remove from parents the onus of choice. When an inoculation is required to protect herd immunity, is should be required of all parents, without the possibility of opting out for personal or religious reasons. Much of the time, this will also benefit the individual child, but in cases where the gains are social and the expected costs are individual and very small, and where the ratio of benefit to harm is great, coercion should be vigorously defended, although in a democratic society, the defense of coercion is a very delicate affair.

Why Everyone (Else) Is a Hypocrite: Evolution and the Modular Mind

Another Pleasant EvPsycher with a Shoddy Argument — Rating: 3/5

Kurzban opens this little volume by recounting his attendance at a workshop on \\"self-deception\\" that included such luminaries as Thomas Schelling and Robert Trivers. He found that the august group failed to get a handle on the phenomenon. Kurzban relates that after the meeting he concluded that \\"the concept of modularity...easily unraveled the Gordian knot of self-deception.\\" (ix) Of course! The whole world believes the human mind is a unified entity with a single center of consciousness dictating consistency from its various parts (the unitary mind model), whereas Evolutionary Psychology has definitively shown that the human mind is actually a beanbag collection of information processing modules, each adapted for a particular fitness-enhancing purpose at some point in our emergence as a species. Self-deception is no problem because there simply is no \\"self.\\" There are just lots of little interconnected and jostling modules. \\"The very notion of the `self'\\", says Kurzban, is \\"something

of a problem, and perhaps quite a bit less useful that one might think... \\"you\\"---the part of your brain that experiences the world and feels like you're in \\"control\\"---is better thought of as a press secretary than as the president.\\" (22) In other words, there is no one giving orders in the brain, and our conscious selves merely report on and try to justify behavior that is inherently without reason.

Kurzban presents a long list of well-documented psychological phenomena, from optical illusions to preference reversal, showing in each case that the concept of modularity makes sense of the seeming nonsensical. The problem with his argument is that there is more structure to the brain than is suggested by the concept of modularity. In addition the brain exhibits a hierarchical arrangement of modules, with higher-level units controling, coordinating, and synthesizing the lower-level modules in the hierarchy. In particular, there are domain-general brain functions that account for the unitary nature of the brain.

Kurzban is a bright and engaging young researcher who is tragically shooting himself in the foot by his faith in a psychological theory that has no future, and probably never did. When Noam Chomsky proposed his theory of innate predisposition for human language in the 1960's, modularity of mind seemed plausible. But no other autonomous and independent modular structure has been isolated, and Chomsky's theory is now widely rejected by linguists in favor of more general Bayesian developmental models of language acquisition.

I am sure the skeptical reader is asking, what about the fact that accident and stroke can lead an individual to lose incredibly specific mental capacities, such as recognizing faces or forming plurals. These and related phenomena show that the brain has localized information processing structures, but they do not show the absence of overarching coordinating functions in the brain. Moreover, we now know that the structure of the brain is not determined genetically at birth, but rather evolves endogenously with experience over the first several years of life, through which process the number neurons in the brain falls as the number of interconnections increases. The brain is thus a developmental unity. There are certainly regions of the brain that stress specific forms of information processing, but there are so many interconnections among these regions that it is not plausible to think of modules as largely autonomous and self-controlling.

Methodologically, Kurzban shows that the absence of domain-general modules can explain some otherise puzzling aspects of human behavior. The two problems with this methodology are there are other explanations of the same phenomenon that do not deny the existence and synthesizing power of domain-general mental processes.

Perhaps the clearest example of the weakness in Kurzban's reasoning is the story behind the title of the book. If the brain were unitary, he claims, we would have a set of moral principles which we both affirm and obey. But what about the politician who condemns prostitution but is discovered consorting with prostitutes? Clearly this shows the brain is modular, with a \\"morality module\\" that forbids consorting with prostitutes and an \\"erotic module\\" that promotes the consorting. Kurzban's argument is weak on two grounds. First, Kurzban makes the mistake (here and throughout the book) of treating morality as a set of constraints on behavior, when in fact it generally consists of values we place on behaviors. For instance, I value being honest, so I am willing to sacrifice other valuable things (e.g., money) to preserve my integrity. However, honesty is not an inviolable constraint for me. If conditions are such that I might gain from lying, then I might well lie. This is just a matter of trade-offs (a concept not in Kurzban's lexicon). For trivial example, suppose I send a book to a friend in another country, and I must declare the value on a customs form. The actual value is $11, but if I declare this, my friend will have to go the customs office, a several hour trip, to pay a 25 cent duty, which take officials about a half hour for doing the paperwork. If I declare $10, the book will be delivered to his home, reducing the cost of the transaction both to my friend and the government of his host country. So I lie.

Second, there is absolutely no contradiction between thinking prostitution is immoral and consorting with prostitutes. The flesh is weak, as we all know. Indeed, I might prefer that prostitution be outlawed because only if the cost is sufficiently high will my weak flesh be deterred from consorting. I recall quite vividly condemning smoking while feeding my two-pack a day habit. I was actually grateful for people who criticized my smoking; without these good Samaritans, I probably would not have been able to quit.

A good example of showing that modularity implies behavior without considering whether there are plausible alternative explanations of the same behavior is the case of self-delusion, the example with

which Kurzban opens up the book. For instance, a terminal cancer patient may convince himself that if he eats right, prays daily, and fights the disease with optimistic thoughts, he will get well. If the brain is modular and he can shield this thought from evaluation by what we may call a \\"science\\" module that would find it wanting, then he may be happy long into his final illness. However, an alternative theory is that there is no such evaluative module, and humans are capable of believing a vast number of things for which there is no proof, even if one has a hypertrophied \\"science\\" module. To my way of thinking (following Peirce) judging the truth of assertions is a social, not an individual, process, and the scientific method takes place across, not within, minds.

Kurzban's denial of domain-general brain mechanisms leads him to doubt the existence of a self. But is there really no \\"self\\" inside there? Who wrote this book? Who put together a unified, connected argument? Is Robert Kurzban merely a press secretary? I think not.

One of Kurzban's chief arguments is that specialization leads to efficiency (Adam Smith's pin factory?). He example is computer software, which consists of tens of thousands of highly specific pieces of information processing and decision-making. What, however, about the computer itself? Despite its obvious modularity, the digital computer is a highly general, unified entity, each of whose parts contributes in some way to the computer's flexibility. Humans are like computers: we are generalized processors that can be programmed in a myriad of different ways. Here are two aspects of human programmability.

First, Homo sapiens is also Homo ludens---man, the player, to use Huizinga's apt phrase. A young child understands the concept of a game, and understands that one can change the rules, but that the rules apply to all participants. Children can play many diverse games, and adults play even more, in the form of social roles (mother, daughter, professor, church communicant, voter, etc.) among which they switch constantly. Non-human animals play, but only what they are \\"wired\\" to play. The success of Homo sapiens lies largely in the ability of its members to adapt the rules of the game in society to changing survival needs. These domain-general capacities are the antithesis of modularity.

Second, human internalize moral values from their society, leading them to behave in highly diversified ways. Moral values are not localized to specific modules. They pervade our thinking and affect all our behaviors, even when we behave in ways of which we disapprove.

This of course does not mean that we don't have distinct parts of the brain that are responsible for fulfilling distinct needs. We obviously do. Part of my brain is monitoring my blood sugar and telling how much I want food at the moment. Another part is monitoring my temperature, and yet another my sexual cravings. Each of these parts can be more or less insistent depending on my current state of being and my current environment. I have no problem calling these \\"modules,\\" so long as we recognize that evolutionary pressures will tend strongly to bring such modules into a coherent whole. This Kurzban appears not to understand.

For example, suppose I have three modules, one for temperature, one for hunger, and one for light (dark is better because I can avoid predators in the dark). Suppose when I am in a certain state, I have three choices, A, B, and C, each of which has a certain temperature, lighting, and available food. Suppose my temperature model has preference ordering ACB (A preferred to C and C preferred to B), while my light module has ordering BAC and my hunger module has ordering CBA. If all three are weighted equally in my choosing among the three options, I prefer B to A because two of my options prefer B to A; I prefer A to C and I prefer C to B. Thus I have classically intransitive preferences: A > B > C > A. However, suppose in this state A is in fact the most fitness enhancing, and a mutant comes along that has reduced weight on the CBA module and increased weight on the other two. Such a mutant would be more fit than its parents, and would pass the mutation onto its offspring. In the long run, the intransitivity would disappear. Darwinian evolution leads \\"modules\\" to work with, not against, each other.

Does this mean I am denying the laboratory evidence concerning the error-proneness of human decision-making? Of course not. I am denying that this evidence supports radical notions of the insufficiency of human reasoning power. Let me give an analogy. There are many optical illusions. Does the fact that there are optical illusions mean that we are radically deficient in see correctly? Of course not. The human brain is imperfect and it makes systematic mistakes. It is important to understand and deal with the frailty of human decision-making. Just calling everything modular and denying the

efficacy of the self does not get us far.larity implies behavior without considering whether there are plausible alternative explanations of the same behavior is the case of self-delusion, the example with which Kurzban opens up the book. For instance, a terminal cancer patient may convince himself that if he eats right, prays daily, and fights the disease with optimistic thoughts, he will get well. If the brain is modular and he can shield this thought from evaluation by what we may call a \\"science\\" module that would find it wanting, then he may be happy long into his final illness. However, an alternative theory is that there is no such evaluative module, and humans are capable of believing a vast number of things for which there is no proof, even if one has a hypertrophied \\"science\\" module. To my way of thinking (following Peirce) judging the truth of assertions is a social, not an individual, process, and the scientific method takes place across, not within, minds.

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8: Treatise on Basic Philosophy: Ethics: The Good and The Right

Pedestrian, Ignorant of Behavioral Science, but Useful — Rating: 4/5

Despite the fact that this is but one of eight books in Bunge's Treatise, it is long and complex, dealing with huge numbers of issues. Writing a review of even this one book is like writing a review of Joyce's Finnegan's Wake or Tolstoy's War and Peace: the very idea of doing so in less than five hundred pages borders on the ludicrous (Woody Allen relates in one of his films that he took a course in speed reading. I paraphrase: \\"Yes. Why, just last night I read all of Tolstoy's War and Peace in one sitting. It's about Russia.\\")

After God made Mario Bunge, he must have broken the mould. Bunge is so sensible and straightforward that he is quite disingenuous. He fits into no philosophical tradition in moral philosophy, and he has admiration for a philosophical view only to the extent that it agrees with his own. Bunge's stance toward moral philosophy is that of a scientist who views the world dispassionately as it is, never allowing his personal political or social commitments cloud his judgment concerning the Good and the Right. Indeed, his major and repeated critique of traditional moral philosophers is that they fail to understand the world, and they develop ontological and epistemological positions that entail untenable moral philosophies.

In a healthy sense, Mario Bunge is the like the little boy who cries out that the Emperor has no clothes. He accurately describes the world we live in, his moral principles are common sense and rarely objectionable. Like Karl Popper, Bunge is a raging enemy of monistic ideologies that have no justification in terms of science, and cannot be put to the test of accuracy to the facts or applicability to making a good life for individuals and societies.

Bunge pays a deep price for his common sense approach to ethics: his basic principles are somewhat dated, this volume having been written in the mid-1980's when the Cold War was still a reality and the socialist and student movements of previous decades still at the center of political philosophy. I found Bunge's approach extremely valuable in the abstract, but heavy-handed and outdated in many particulars. I am not sure how he would feel about this. Perhaps good philosophy should be like a culinary masterpiece, destined for a short burst of glory. But, I suspect not. Indeed, a good editor could rewrite this book into something one quarter its size, stressing the more abstract aspects of this theory and omitting the particulars.

A problem with this book is that Bunge does not appear to know anything about the behavioral sciences. This is serious because he bases his whole approach on a scientific understanding of society. He correctly affirms that morality is an evolutionary adaptation of our species, and rejects all attempts at placing ethical theory in some Platonic or intuitionist realm. He also affirms the universality of most human ethical principles across societies. However, he appears not to have studied anthropology or biology, and hence does not know the relationship between human sociality and the social behavior of other species. As a result, he has no handle on what is specifically human about human nature that has fostered the sorts of cooperation and conflict that have made our society what it is. Bunge has the right position, but he is, frankly, quite boring in his exposition because he lacks the appropriate knowledge.

Another apt example of the joint strengths and weaknesses of Bunge's analysis is his treatment of worker ownership. Bunge considers this morally superior to capitalist ownership, on participatory and democratic grounds. He garners a wealth of evidence on the viability of worker ownership. Nevertheless, good scientist that he is, he amasses and even greater mass of evidence indicating the infeasibility of worker ownership in the sorts of large business enterprises that dominate the world marketplace. Unfortunately, he does not say why worker ownership suffers incompetition with traditional capitalist firms. The reason is ostensibly because, rejecting the rational actor model and game theory, he has no truck with economic theory. But, economic theory has the answer.

The problem with worker ownership is that the capital per worker in most large firms is greater than the wealth of a worker, and worker ownership obliges the worker to place all of his wealth in one firm--the one he owns. This is reasonable for small entrepreneurial firms, but it is irrational for a worker to forgo the benefits of portfolio diversification. As a result, even if workers were given the firm, most would prefer to sell it to a capitalist organization, diversify his personal portfolio, and go to work for the capitalist.

A second problem with worker ownership is closely related: existing worker-owners will not be willing to share their capital assets with new workers. Therefore, they will either hire wage laborers, undermining worker democracy, or they will require the new workers to go into debt to finance their share of the capital stock. But, who will lend a wealth-free worker without sufficient collateral? Moreover, if a new worker does have the collateral, why should he be willing to put all of his eggs in one basket, betting his long term financial well-being on the whims of the marketplace? The answer is that he should not.

The only area of behavioral science Bunge seems to have studied is decision theory. Bunge does not like decision theory, but his reasons are insipid and quite wrong-headed. It is very rare to encounter a truly insightful critique of rational decision theory (it has major lacunae, after all), but Bunge's critique is about as embarrassingly bad as any I have seen. Because of his rejection of rational decision theory, Bunge is led to reject all analytical formalisms in modeling human behavior, including modal logic, which he considers \\"a purely forma discipline without applications in science or philosophy.\\" (p. 320) Bunge is stunningly, spectacularly wrong, and he is so out of ignorance. His arguments are so flimsy I shall not bother to refute them here (see my book, The Bounds of Reason, Princeton 2009, if you are interested in the issue).firms. The reason is ostensibly because, rejecting the rational actor model and game theory, he has no truck with economic theory. But, economic theory has the answer. The problem with worker ownership is that the capital per worker in most large firms is greater than the wealth of a worker, and worker ownership obliges the worker to place all of his wealth in one firm--the one he owns. This is reasonable for small entrepreneurial firms, but it is irrational for a worker to forgo the benefits of portfolio diversification. As a result, even if workers were given the firm, most would prefer to sell it to a capitalist organization, diversify his personal portfolio, and go to work for the capitalist. A second problem with worker ownership is closely related: existing worker-owners will not be willing to share their capital assets with new workers. Therefore, they will either hire wage laborers, undermining worker democracy, or they will require the new workers to go into debt to finance their share of the capital stock. But, who will lend a wealth-free worker without sufficient collateral? Moreover, if a new worker does have the collateral, why should he be willing to put all of his eggs in one basket, betting his long term financial well-being on the whims of the marketplace? The answer is that he should not. The only area of behavioral science Bunge seems to have studied is decision theory. Bunge does not like decision theory, but his reasons are insipid and quite wrong-headed. It is very rare to encounter a truly insightful critique of rational decision theory (it has major lacunae, after all), but Bunge's critique is about as embarrassingly bad as any I have seen. Because of his rejection of rational decision theory, Bunge is led to reject all analytical formalisms in modeling human behavior, including modal logic, which he considers \\"a purely forma discipline without applications in science or philosophy.\\" (p. 320) Bunge is stunningly, spectacularly wrong, and he is so out of ignorance. His arguments are so flimsy I shall not bother to refute them here (see my book, The Bounds of Reason, Princeton 2009, if you are interested in the issue).

Beyond the Invisible Hand: Groundwork for a New Economics

Thoughtful and penetrating synthesis of humanism and economic theory — Rating: 4/5

As Basu says in the final chapter of this thoughtful and penetrating volume, Beyond the Invisible Hand \\"tries to lay the groundwork for a manifesto, but cannot pass for one.\\" Basu stands clearly and firmly in two traditions. The first is progressive humanism, for which the goal of social policy is to create conditions that promote the well-being and dignity of all morally worthy citizens of all countries. I am sure some will violently disagree with this goal, for instance asserting that the goal of social policy is

protecting property and ensuring contracts, but I consider Basu's dream no more controversial than the goal of eliminating infectious diseases. The second tradition is that of standard economic theory, in the tradition of Adam Smith's Wealth of Nations, and as taught and practiced in virtually every institution of higher education around the world.

Small minds that cherish progressive humanism respond to economic theory (called \\"the dismal science\\" because the realities it models render humanist ideals difficult to attain) by rejecting the theory without serious critique. Small minds that cherish modern economics respond to progressive humanism (called \\"bleeding heart liberalism\\") with contempt rarely associated with serious critique. The virtue of Basu is that he is a very large mind. This book is his attempt to adjudicate humanism and modern economic theory. Why bother? Because, says Basu, economic theory has truths that are essential to recognize if we are to build decent societies, but economic theory alone cannot formulate the conditions for the good life.

There are three points in Basu's argument. The first is that economic theory models only one, albeit very important, dimension of economic life: buying and selling on markets. \\"In reality,\\" Basu notes, \\"human beings choose not just from budget sets but also from the many other things that they can do.\\" (25) They also barter, perform charitable acts, help family and friends, volunteer for social service, form collusive alliances (crony capitalism), spread rumors, conceal transactions, misinform consumers, offer bribes, and kill or otherwise neutralize enemies. Basu stresses that such actions are simply disjoint from market interactions, but actually facilitate or undermine the role of markets in promoting social and individual welfare. This quote is just so accurate that it deserves special mention: \\"Successful societies rely on individual honesty and integrity, appropriate codes of behavior, the ability to communicate, and the possession economy-friendly social norms much more than economists have been willing to concede.\\" (43) It follows from this that we require an economic theory that jointly models market competition and social norms (see my book, The Bounds of Reason, Princeton 2009).

Basu's second point is that laws are focal points that coordinate human behavior, and they are nothing more than that. This is a very deep point, and seems counter-intuitive. For instance, suppose a law is passed limited the speed on a certain road to 65 mph. Then a motorist will obey the law because a police officer might otherwise issue him a costly citation. But why will the police officer do this? He does so because, in turn, he will be punished by his captain if he does not issue speeding tickets. But why with the captain punish him? He does so because... and so on down the line. Basu's point is that if we remove the law, no single individual has an incentive to change his behavior, given that the others maintain their behavior. The law creates what game theorists call a Nash equilibrium, and is a focal point in the sense of Thomas Schelling.

The central implications of law as focal point are twofold. The first is obvious: if a law does not create a Nash equilibrium, then it will not be followed. In other words, laws must always include the appropriate incentives for the law to be effective. This is of course well known butwidely violated, especially by corrupt and oppressive governments. The second implication is that \\"if a law...can cripple an economy...then the same can happen even in the absence of such a law.\\" (69) In other words, pathological social practices can just as much be responsible for dysfunctional economies as perverse laws and official bureaucracy.

This is a brilliant argument, but Basu's formulation leaves out precisely the moral content of laws. Horace famously noted that laws are futile unless they conform to the moral precepts of the citizenry. We might also add that laws themselves can create a moral force where there was none, individuals conforming to the law not only because it is in their material interest to do so, but also because they consider the law as expression a moral truth that they are willing to embrace. I do not think that this emendation of Basu's principle undermines his second point, but it does undermine the first. If laws reinforce our personal morality, they need not be all Nash equilibria of the game, because we are willing to sacrifice to conform to the law. Of course, once we admit social preferences, such laws become Nash equilibria in larger games in which preferences and the rules of the game interact. Such is life.

There is a second major problem with Basu's argument--one with which must surely agree. If we withdraw the law, no single agent will change if all the others maintain their previous behavior. However, expectations might very well change. If the 55 mph speed limit law were recinded, the motorist might believe that the policeman has no longer any reason to give him a ticket, because he

knows that the policeman will believe that his superior will not repremand him for not giving speeding tickets. How does the policeman know this? He uses the same reasoning as the motorist. In short, unless we believe all agents have strong beliefs that expectations will not change, when the law is rescinded, behavior will undergo a quick and perhaps radical transformation.

Of course, the above reasoning is really a critique of the whole notion that social norms merely \\"pick out\\" Nash equilibria. This is a common notion, comforting to methodological individualists, but quite problematic, if not simply wrong.

Basu's third big idea is that the Principle of Free Contract, according to which any agreement between two mature, sane, individuals that does not harm third parties should in principle be permitted. This principle knows of no exception in economic theory, although every economist knows that there are a host of voluntary transactions that are prohibited in all known modern societies. For instance, if I am rich and I like to eat human eyes with my eggs at breakfast, and if every day there is some poor soul who is willing to sell one of his eyes to feed his starving family, a voluntary exchange between the two individuals is illegal in virtually every society. In most societies, all trade for bodily organs is prohibited.

The logic underlying what voluntary trades are and are not permitted is a deep and unknown issue. Basu's goal is to determine when such economic institutions as child labor and yellow-dog contracts (a worker signs an agreement not to join a union as a condition of employment) should be permitted following the Principle of Free Contract and when they should not. Basu's argument is subtle and nuanced, and does not come to any particular conclusion. He argues that even though any one instance of, say, child labor, should be allowed according to the principle, when such an institution becomes universal, it can be deeply inefficient. For instance, one more child worker will not change the adult wage, but if all children work, the adult wage will fall. There might be a second equilibrium in which no children work and the adult wage remains high enough to support the non-working children.

The hucksters who are looking for quickanswers to social issues will be soon bored with this deeply nuanced book (I remember once giving a talk at the New School for Social Research in New York, after which an agitated graduate student informed me that my ideas would \\"confuse the workers\\" who must make the revolution. I had no answer for him). For the thinking person, Basu's work is a great gift.l undergo a quick and perhaps radical transformation.

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Political Philosophy: Fact, Fiction, and Vision

Solid, Common Sense Approach, Some Factual Slips, Some Questionable Commitments — Rating: 4/5

This is a long, wide-ranging volume by a well-known and extremely prolix philosopher. Bunge first lays out his general philosophical commitments, and then applies the resulting framework to the questions: how should we organize the political and economic life of modern societies?

Bunge is best known as a philosopher of science. In Political Philosophy, Bunge takes an approach to philosophical problems very close to what a naïve natural scientist might spontaneously presume, without falling into the many traps of naïve scientism. For instance, concerning the nature of truth, Bunge outlines four alternatives: Radical skepticism, Relativism, Pragmatism, Conventionalism, and Realism. He then opts for Realism, on the grounds that \\"only realism accounts for the fact that we must explore the world to find truths about it.\\" (p. 9)

Bunge is very well read in both political science and economics, and I am flattered to note that he refers to my work on social preferences in several places throughout the book. His appreciation of the social science literature is sophisticated and generally reasonable, but he misunderstands rational choice theory, and therefore is excessively critical of standard economic theory. I do not think this leads his argument in indefensible directions, but it does not serve his audience well, and it does lead him to make arguments that are questionable. Rather than really go through the analytical material in rational decision theory, which he shows no indication of having ever done, he offers platitude critiques based on the informal usage of terms that have very explicit meaning in rational decision theory. For instance, he calls subjective probability and subjective utility \\"fuzzy concepts\\" (p.37), whereas in fact they have great analytical clarity. He also claims that rational decision theory lacks empirical validation, which is quite untrue. There are many successful applications of the rational actor model, although there are also many cases in which its predictions are incorrect unless the model is extended in substantively new directions.

Bunge also argues that rational decision theory, by modeling individual choice as the maximization of expected utility, presumes that decision-makers are selfish and make choices that are welfare enhancing for them. A most elementary acquaintance with rational decision theory would suffice to convince Bunge that neither is the case. The case of altruism is especially glaring, since he repeatedly cites my work in favor of the notion that individuals often behave altruistically, but he does recall that I make the obvious point that there is nothing irrational about caring about others or having social goals. I similarly assert repeatedly in my work that the rational actor model does not presume that people make choices that are good for them, and indeed, a rational decision-maker could, and often does, wish he had preferences different from his actual preferences (e.g., I may wish I did not smoke cigarettes although I do). Citing me in support of his dismissal of the rational choice model is bizarre and incoherent.

Bunge is in fact a strong critic of the notion that individual behavior is guided by rationality. \\"in politics,\\" he says, \\"dumbness is at least as common as rationality. A majority of American voters reelected in 2004 the government that had distinguished itself by slashing social services, invading two countries...\\" Bunge's analysis is astonishingly heavy-handed on more than one count. First, this has absolutely nothing to do with rational decision theory. Bunge perfectly reveals his ignorance of the theory. Second, he reduces political differences to intelligence and rationality differences. He surely knows better than that. But then, he often makes assertions that reveal his personal politics, and that are out of place in a serious discussion of political philosophy. For instance, \\"war on terror,\\" he asserts \\"is acontradiction in disguise, since war is the worst terror.\\" (9) Of course, an unbiased analysis would not treat all war as a form of terrorism.

Bunge's analysis of individualism vs. holism in modeling the relationship between individual action and social structure is very nicely done. He effectively criticizes both, and argues that society is a \\"system of systems,\\" so that there are movements in both directions from social structure to individual and collective action. In dealing with freedom/coercion and equality/inequality, he presents a plodding but persuasive analysis of Democratic Socialism, Classical Liberalism, Soviet Communism, and Fascism. He comes out in favor of Democratic Socialism, by which he means a system with market economy, private property, and a more or less interventionist state.

Bunge's analysis of values is marred by his lack of understanding of rational decision theory and behavioral game theory. He suggests that the classical liberal recognizes only individual values concerning well-being and privacy, but ignores biosocial values such as security and solidarity and social values such as justice and peace. This is of course quite off-base when he processed to characterize all of \\"fashionable social science\\" as committed to neoclassical microeconomics, which denies all but the individual values. I can't think of a single individual who as dealt with these problems who has declared the unimportance of biosocial values and social justice. Moreover, behavioral experimental using game theory and the rational actor model have shown that individual values include such social preferences as an concern for the environment and egalitarian distributions, so Bunge's taxonomy is faulty.

There are many more issues worthy of discussion raised by Bunge's work, but I will content myself with just one. Towards the end of the book Bunge declares himself in favor of market socialism in which firms are owned predominantly by their workers. Bunge's description of the current state of worker ownership in the world economy is detailed and highly informative. Moreover, he correctly lists most of the shortcomings of worker ownership that render this form of work organization limited in its ability to compete with traditional individual and shareholder owned firms. He does not appear to know why worker-owned firms are so limited, however. In fact, there is a single overarching problem with the worker-owned firm: this institution forces workers to hold all of their assets in a single firm---where they work---while the traditional capitalist firm allows owners to distribute their portfolio of assets over many firms, thus limiting their personal risk. Of course, a worker-owned firm could borrow its capital, but it would still be outperformed by capitalist firms that use both borrowing and issuing shares to finance their operations.

Bunge's Political Philosophy is a very worthy book whose author is very knowledgeable and widely read. However, he understanding of modern economics and behavioral game theory is not deep enough to make his overall argument completely convincing. He, or someone, should offer us a revision that corrects Bunge's errors and biases.ce war is the worst terror.\\" (9) Of course, an unbiased analysis would not treat all war as a form of terrorism. Bunge's analysis of individualism vs. holism in modeling the relationship between individual action and social structure is very nicely done. He effectively criticizes both, and argues that society is a \\"system of systems,\\" so that there are movements in both directions from social structure to individual and collective action. In dealing with freedom/coercion and equality/inequality, he presents a plodding but persuasive analysis of Democratic Socialism, Classical Liberalism, Soviet Communism, and Fascism. He comes out in favor of Democratic Socialism, by which he means a system with market economy, private property, and a more or less interventionist state. Bunge's analysis of values is marred by his lack of understanding of rational decision theory and behavioral game theory. He suggests that the classical liberal recognizes only individual values concerning well-being and privacy, but ignores biosocial values such as security and solidarity and social values such as justice and peace. This is of course quite off-base when he processed to characterize all of \\"fashionable social science\\" as committed to neoclassical microeconomics, which denies all but the individual values. I can't think of a single individual who as dealt with these problems who has declared the unimportance of biosocial values and social justice. Moreover, behavioral experimental using game theory and the rational actor model have shown that individual values include such social preferences as an concern for the environment and egalitarian distributions, so Bunge's taxonomy is faulty. There are many more issues worthy of discussion raised by Bunge's work, but I will content myself with just one. Towards the end of the book Bunge declares himself in favor of market socialism in which firms are owned predominantly by their workers. Bunge's description of the current state of worker ownership in the world economy is detailed and highly informative. Moreover, he correctly lists most of the shortcomings of worker ownership that render this form of work organization limited in its ability to compete with traditional individual and shareholder owned firms. He does not appear to know why worker-owned firms are so limited, however. In fact, there is a single overarching problem with the worker-owned firm: this institution forces workers to hold all of their assets in a single firm---where they work---while the traditional capitalist firm allows owners to distribute their portfolio of assets over many firms, thus limiting their personal risk. Of course, a worker-owned firm could borrow its capital, but it would still be outperformed by capitalist firms that use both borrowing and issuing shares to finance their operations. Bunge's Political

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Theory of Decision under Uncertainty (Econometric Society Monographs)

Good Technical Expositions, Interesting Spins — Rating: 4/5

Itzhak Gilboa is a very talented, broad-thinking, yet technically super-competent economist who has spent his career mulling over the problems addressed in this book. The technical material in this book is not very technical, and can be understood independent from the reader's mathematical training, although it does require a willingness to think deeply about analytical issues. The models Gilboa presents are not new, but they are presented in an attractive manner, and it is rare to see so many different aspects of the rational choice process presented between two covers.

I have long been a strong (my friends would say vociferous, my detractors stubborn) supporter of rational decision theory, while being clear about its limits and suggesting ways forward in broadening the model. My central claim is that the rational actor model is the most important analytical tool ever discovered for modeling human decision-making, and behavioral disciplines that reject this model, such as sociology and cognitive/social psychology, thereby relinquish the possibility of having core theories of decision-making and strategic interaction. I also believe that those who reject the model do not understand it and use arguments against it that are not only fallacious, but always (yes, always!) ignorant and even embarrassing. This book will thus give potential critics a solid grounding in the theory they so love to dump on.

Gilboa himself comes across in this slim volume as a kinda' hang-loose guy who is willing to entertain all sorts of objections to the theory, and to defend rational choice rather more weakly than I would like. Most important, Gilboa rather takes at face value the critiques emanating from the Kahneman-Tversky camp of experimentalists, who have so brilliantly documented the various weaknesses of standard rational decision theory. My own take on these experimental results is far more skeptical (see Chapters 3 and 12 of my book, The Bounds of Reason).. Let me give one example.

Gilboa discusses the famous \\"Linda the Bank Teller\\" example (p. 37ff). \\"Linda is 31 years old,\\" we are told by the experimenter, \\"single, outspoken, and very bright. She majored in philosophy. As a student, she was deeply concerned with issues of discrimination and social justice, and she participated in antinuclear demonstrations. Rank order the following eight descriptions in terms of the probability (likelihood) that they describe Linda.\\" Included in the list of eight are the following:

(c) Linda is a bank teller, and

(h) Linda is a bank teller who is active in a feminist movement.

Surprisingly, many subjects rank (h) as more likely than (c), despite that fact that the probability of (h) must be much smaller than that of (c)---the latter probability is always strictly smaller, unless every bank teller is a feminist (which is absurd).

Gilboa, like Kahneman and Tversky, agree that this is quite illogical behavior on the part of subjects. However, I argue in Bounds of Reason that the subjects are correct and the experimenters are incorrect. Here is the argument. In normal discourse, when we are talking to someone, we expect what they say to be relevant to the conversation. E.g., if we are discussing how to buy tickets for a concert, it would be bizarre for you say \\"my cousin George had half a banana with his cereal for breakfast last Wednesday.\\" In light of this, what is the subject supposed to think when give this long explanation of Linda concerning her politics and personality if we are not supposed to bring this into consideration in deciding between (c) and (h)?

The polite subject will doubtless try to find some way to interpret the question so that (c) vs. (h) becomes reasonable. One is very simple: the conditional probability of being Alice is higher given the

individual is a feminist bank teller than if the individual is just a bank teller. In other words, if you had a pile of pictures of all bank tellers, you would be less likely to pick Alice randomly from the pile than if you were choosing from a pile of all feminist bank tellers (the latter would be almost all females, for one thing).

Now of course other findings of subject \\"irrationality\\" have different explanations, but few of the experimental findings stand up to scrutiny as serious violations of rationality. Gilboa, nice guy that he is, goes overboard in acceding to the analyses of his critics.

Gilboa also defines rationality in a manner quite at odds with the technical material. He says an individual's choice process is rational if the individual will defend it even after being presented with the evidence that it difference from that predicted/suggested by rational decision theory. This works well with some choices; e.g., if you point out to someone that they lost money by sharing with others in a game, most will respond that of course they knew that, but they prefer to share. However, if some stubborn fool never admits a mistake, he is always rational by Gilboa's criterion. Gilboa goes too far. One can defend social preferences by noting that they satisfy the axioms of decision theory, and thereby maintain a linguistic and philosophical consistency.

Gilboa also presents a few alternatives to traditional rational decision theory, one of which, Prospect Theory, is very important, but does not violate any of the axioms of decision theory provided we define the choice space property (Bounds of Reason, Ch. 12). Most important, he devotes the final chapter to \\"case-based\\" decision making, which his own (with David Schmeidler) highly successful attempt at broadening rational decision theory.

As for Gilboa's ideas for future research, they are encapsulated in a two-page throw away at the end of the book. In fact, rational decision theory has serious weaknesses that must be addressed by scholars of decision-making. The first is the abject inadequacy of the assumption that individual beliefs can be summarized by a \\"subjective prior\\" that is given in social isolation. In fact, subjective priors are more aptly designated as \\"personal beliefs,\\" and personal beliefs are in fact the product of a web/network of social connections and experiences that must be studies sui generis as a central social process. There is currently no such theory at all, although a number of people have suggested the use of network theory as a useful addendum to rational decision theory (e.g., Samuel Bowles and myself in a paper on \\"Persistent Parochialism\\" in the Journal of Economic Behavior and Organization several years ago).

A second direction for fundamental change in decision theory is to drop the assumption that individual choice itself is taken in social isolation. When people face radical uncertainty, they often refrain from choosing altogether, and rather consult the social world to ascertain the choices others have made in similar situations. Perhaps ironically, Gilboa and Schmeidler's case-based choice theory provides a perfect analytical starting point for such a theory, though I cannot recall the authors recognizing or advocating this potential extension.

So, the enterprising reader can assimilate this book and start in right away in solving some of the deep problems rational decision theory has set for us.ely to pick Alice randomly from the pile than if you were choosing from a pile of all feminist bank tellers (the latter would be almost all females, for one thing). Now of course other findings of subject \\"irrationality\\" have different explanations, but few of the experimental findings stand up to scrutiny as serious violations of rationality. Gilboa, nice guy that he is, goes overboard in acceding to the analyses of his critics. Gilboa also defines rationality in a manner quite at odds with the technical material. He says an individual's choice process is rational if the individual will defend it even after being presented with the evidence that it difference from that predicted/suggested by rational decision theory. This works well with some choices; e.g., if you point out to someone that they lost money by sharing with others in a game, most will respond that of course they knew that, but they prefer to share. However, if some stubborn fool never admits a mistake, he is always rational by Gilboa's criterion. Gilboa goes too far. One can defend social preferences by noting that they satisfy the axioms of decision theory, and thereby maintain a linguistic and philosophical consistency. Gilboa also presents a few alternatives to traditional rational decision theory, one of which, Prospect Theory, is very important, but does not violate any of the axioms of decision theory provided we define the choice space property (Bounds of Reason, Ch. 12). Most important, he devotes the final chapter to \\"case-based\\" decision making, which his own (with David Schmeidler) highly

successful attempt at broadening rational decision theory. As for Gilboa's ideas for future research, they are encapsulated in a two-page throw away at the end of the book. In fact, rational decision theory has serious weaknesses that must be addressed by scholars of decision-making. The first is the abject inadequacy of the assumption that individual beliefs can be summarized by a \\"subjective prior\\" that is given in social isolation. In fact, subjective priors are more aptly designated as \\"personal beliefs,\\" and personal beliefs are in fact the product of a web/network of social connections and experiences that must be studies sui generis as a central social process. There is currently no such theory at all, although a number of people have suggested the use of network theory as a useful addendum to rational decision theory (e.g., Samuel Bowles and myself in a paper on \\"Persistent Parochialism\\" in the Journal of Economic Behavior and Organization several years ago). A second direction for fundamental change in decision theory is to drop the assumption that individual choice itself is taken in social isolation. When people face radical uncertainty, they often refrain from choosing altogether, and rather consult the social world to ascertain the choices others have made in similar situations. Perhaps ironically, Gilboa and Schmeidler's case-based choice theory provides a perfect analytical starting point for such a theory, though I cannot recall the authors recognizing or advocating this potential extension. So, the enterprising reader can assimilate this book and start in right away in solving some of the deep problems rational decision theory has set for us.

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13 Bankers: The Wall Street Takeover and the Next Financial Meltdown (Hardcover)

Lots of information, little serious analysis — Rating: 2/5

If you have never read a history of financial institutions in the United States, this is a pretty good place to start. However, if you want a serious analysis of what leads to financial crises in the past and in the present, and hence if you want a persuasive answer as to how to prevent future financial crisis, this is not the book for you.

The authors take it for granted that financial crises are caused by ineffectual financial regulation and overview by the government, and argue that the US financial oligarchy uses its wealth and influence to stave off government regulation whenever it can. The cure is to defang the financial aristocracy by various levelling actions.

Of course, you may believe this, and it may be true. But the authors simply take it for granted. An alternative is that financial crises have multiple causes and they cannot be prevented simply by harnessing in the bankers. Moreover, it may be that the incentives facing the financial decision-makers must be structurally altered in such a way that the prefer regulations that are in the national interest instead of so vociferously opposing them. It may also be that occasional financial crises cannot be avoided if we want to promote creative entrepreneurship and innovation. The options are many and deserve careful discussion.

This book is one of many that has a particular political axe to grind, and runs roughshod over the facts in the grinding.

Disintegration: The Splintering of Black America

A Useful and Plausible Gestalt Shift — Rating: 5/5

If you have never read or thought much about the issue of race in America, this is a very important book to read cover to cover. If you have thought and read a lot about the subject, the first chapter is all you need to get the idea Robinson is trying to get across. His partition of the African-American community into four groups (really five, but that's quibbling a bit) with very different life-chances and outlooks is an extremely plausible gestalt shift. Robinson is big on anecdote and short on statistics and demographics, but I suspect his argument will hold up today, and (lamentably) for the foreseeable future.

I say lamentably because the isolation of one of these groups, the Abandoned Blacks of the inner cities, is a horror that I had hoped never to see occur, however much it redounds to the more successful parts of the American black community. I lay the blame for the persistence of black inner-city poverty to the strategy of black political activists over the past forty years, whom I describe as \\"professional beggars,\\" ignoring the disintegration of the inner-city black community while demanding handouts by playing on white guilt. I don't consider this generation of black politicians and activists to be at all disingenuous or immoral, but their strategies have been profoundly destructive to the Abandoned Blacks. A profound cultural revival is needed in the inner cities.

Robinson, curiously enough, given his iconoclastic world-view, does not distinguish between the economic and cultural conditions of inner-city males on the one hand and their female counterparts on the other. It is the males who end up in jail and on the streets, and who neglect their offspring, whereas their wives and girl friends struggle with work and child-rearing outside the framework of the traditional two-parent family.

People often ask me if I am a conservative because they see me proposing self-help for minority communities rather than the dole. I say I am not, because I believe we must all help our downtrodden move their way into the good life America provides to so many others. Nor am I a liberal, because I see liberals as having sacrificed the needs of the Abandoned inner-city black in favor the (perceived) needs of the \\"middle class,\\" in particular of redistribution from the rich to the middle classes. What an impoverished political ideal! I have always thought that the good society is one that allows all individuals to develop and exercise their personal capacities to the fullest. This has nothing to do with Gini ratios or the nature of income deciles, but it has everything to do with provided even the most deprived with the means of attaining a life of meaning and dignity. Perhaps there is no longer a single \\"condition of blacks in America,\\" but we all have the obligation to fight for everyone having decent life chances.I am not, because I believe we must all help our downtrodden move their way into the good life America provides to so many others. Nor am I a liberal, because I see liberals as having sacrificed the needs of the Abandoned inner-city black in favor the (perceived) needs of the \\"middle class,\\" in particular of redistribution from the rich to the middle classes. What an impoverished political ideal! I have always thought that the good society is one that allows all individuals to develop and exercise their personal capacities to the fullest. This has nothing to do with Gini ratios or the nature of income deciles, but it has everything to do with provided even the most deprived with the means of attaining a life of meaning and dignity. Perhaps there is no longer a single \\"condition of blacks in America,\\" but we all have the obligation to fight for everyone having decent life chances.

Rational Choice

Too Breezy, too Careless, Inadequate Attention to Empirical Research — Rating: 2/5

Itzhak Gilboa is one of my favorite economists. His book with David Schmeidler, A Theory of Case-Based Decisions (Cambridge: Cambridge University Press, 2001) is path breaking in amending the traditional Savage \\"small world\\" model of rational choice to be more realistic and useful. Rational Choice aims to present rational choice theory for newcomers without social scientific, philosophical, or mathematical expertise. Despite is diminutive size, the book ends up as a broadly accurate description of the current state of rational choice theory.

Gilboa is well aware of the limitations of standard the rational actor model, and makes no attempt in this book to go beyond this model (despite his own brilliant work on \\"case-based choice theory\\"). Rather, he considers the model as a \\"paradigm\\" rather than a \\"theory.\\" The paradigm gives us a useful way of looking at the world, although by no means the only pertinent way. Gilboa urges the reader to add rational choice theory to his repertoire of tools used to assess social policy.

Rational Choice claims to be a \\"rigorous, concise, and nontechnical introduction to some of the fundamental insights of rational choice theory.\\" (from the cover) Rational choice theory is well-suited for a concise nontechnical treatment, which this book is, but far from being rigorous, Gilboa is often simply incorrect, and rarely is convincing. The book appears to be directed to the layman with innate

but inchoate prejudices against rational choice theory, but I doubt that such an individual will find this volume convincing.

Most opposition to rational choice theory that I have encountered, even when offered by professional behavioral scientists, is in fact couched in vague often even and ignorant terms. But there is a real critique of the theory. Gilboa simply doesn't locate it. For instance, Chapter 8 on Free Markets presents a very realistic objection to free markets and globalization in which the defender of market equilibrium, using the First Welfare Theorem, is completely incapable of even making a dent in the critics' arguments, and storms off in an angry huff. Gilboa's problem is twofold. First, the only plausible argument for free markets is dynamic and based on the innovative implications of competition and not on the First Welfare Theorem. In fact, as Arnold Harberger showed many years ago, the welfare losses of protection are generally quite small. Second, this issue has nothing to do with rational choice. Free markets have some desirable static allocational properties if agents make choices that are consistent with their welfare. Rational choice, as has been evident at least since Gary Becker's study of addiction and contemporary models of obesity, has no clear connection to making choices consonant with personal welfare.

Gilboa offers an indefensible definition of rationality. Spurning the traditional consistency definition of Savage (1954) and others, Gilboa offers the following: \\"a mode of behavior is rational for a given person if this person feels comfortable with it, and is not embarrassed by it even when it is analyzed for him.\\" (p.5) The problem with this definition is that it has no analytical implications at all, and it deals with normative choice theory, not behavioral. If we add some ancillary assumptions, such as \\"a person will be embarrassed to find that his choices are inconsistent,\\" then we restore the traditional definition of rationality. Why then this roundabout definition, couched in terms of the persuasive power of the author and presuming a high level of cognitive functioning of the rational agent? Gilboa argues that \\"An irrational mode of behavior is one that I can hope to change by talking to the decision maker, by explaining the theory to him, and so forth.\\" (p. 5) Bringing the authors motives into the analysis, it appears, only confuses the issue even more. In the rest of the book, Gilboa does stick to the traditional definition of rationality, but he never explains why.

In Chapter 2, Gilboa tries to explain why a young lady, Ann, ignorant of rational choice theory, could improve her ability to solve her problem of choosing among boyfriends by applying rational choice theory. He quite fails to convince. Indeed, I cannot imagine why knowledge of rational choice theory could help Ann make such a decision.

Gilboa also treats very breezily some issues that merit lengthy argumentation and many examples. For instance, he treats base rate bias and conditional probabilities with a single example and biased samples with another single simple example. There is little chance a novice with appreciate the importance of these issues. They are easily explained with simple arithmentic and elementary probability theory.

Perhaps the most egregious failure of this book is to deal in any consistent way with empirical studies of human behavior in the context of strategic interaction. Instead, Gilboa gives off-hand observations about daily life that insult the critical faculties of the reader. Indeed, Gilboa's mode of argumentation makes understanding empirical studies conceptually impossible. For instance, it is well known that many individuals prefer to cooperate in a prisoner's dilemma, provided that they have some assurance that their partners will cooperate as well. Indeed, this finding is one of the more striking regularities in behavioral game theory. For Gilboa, however, the game payoffs should \\"incorporate any relevant payoffs---material, psychological, sociological and so forth.\\" (p. 96) By not defining the game by its material payoffs, Gilboa assures that no experimentation at all is possible. One cannot set up a prisoner's dilemma and investigate the behavior of the subjects, because by definition, rational subjects must defect. If they do not, then the game is not a prisoner's dilemma. Indeed, different players may be playing altogether different games according to Gilboa's methodology! By constrast with Gilboa, experimental methodology requires defining a game by its material payoffs, and investigating the subjects' possible non-self-regarding preferences by studying the way they play in a common, objective, frame of reference.

Similarly, Gilboa explains the public goods game without reference to the empirical literature on the subject. I find this treatment completely unacceptable. If Gilboa does not know this empirical literature,

he should find out about it and transmit it to his readers, if he pretends to be rigorous. Or perhaps he believes that the evidence not a part of rigorous analysis. If so, he is mistaken.

Gilboa's discussion of altruism is also breezy, perfunctory, and quite lacking in rigor or understanding of the literature. For instance, he assumes without discussion that (p. 98) that altruistic giving involves having the welfare of the recipient in one's utility function, showing no recognition of the work of Andreoni and others on warm-glow altruism, or of other conceptions of other-regarding behavior.

Spurning the considerable literature on group size and cooperation in the public goods game, Gilboa asserts that cooperation is more likely in small groups, giving the example of driving in the suburbs as opposed to the city. This sort of reasoning is quite unscientific, and likely leads the reader to value unscientific reasoning.

Gilboa attempts to present the notion of Nash equilibrium and critique it in just two or three pages. This does not give the concept its due. At least twenty pages are required to draw out the implications of the Nash criterion with any rigor, and this can be done with only elementary arithmetic and some logic. He then introduces rationalizability without a single example, and common knowledge of rationality without any critical treatment. Another twenty pages of non-mathematical yet rigorous analysis could clarify these concepts, but they are not present in this book. He similarly mentions \\"Nash equilibrium in beliefs\\" in one short paragraph, the chance of being understood by the layman being zero. He similarly presents backward induction in one page, with no examples, and no critical commentary.

In sum, Gilboa appears incapable of distinguishing between nonmathematical analysis and careless analysis, perhaps on the grounds that readers who do not understand mathematical argumentation are necessarily careless thinkers. They are not. This book is full of careless and perfunctory analysis and might appeal to careless thinkers. Few others will approve.ental methodology requires defining a game by its material payoffs, and investigating the subjects' possible non-self-regarding preferences by studying the way they play in a common, objective, frame of reference. Similarly, Gilboa explains the public goods game without reference to the empirical literature on the subject. I find this treatment completely unacceptable. If Gilboa does not know this empirical literature, he should find out about it and transmit it to his readers, if he pretends to be rigorous. Or perhaps he believes that the evidence not a part of rigorous analysis. If so, he is mistaken. Gilboa's discussion of altruism is also breezy, perfunctory, and quite lacking in rigor or understanding of the literature. For instance, he assumes without discussion that (p. 98) that altruistic giving involves having the welfare of the recipient in one's utility function, showing no recognition of the work of Andreoni and others on warm-glow altruism, or of other conceptions of other-regarding behavior. Spurning the considerable literature on group size and cooperation in the public goods game, Gilboa asserts that cooperation is more likely in small groups, giving the example of driving in the suburbs as opposed to the city. This sort of reasoning is quite unscientific, and likely leads the reader to value unscientific reasoning. Gilboa attempts to present the notion of Nash equilibrium and critique it in just two or three pages. This does not give the concept its due. At least twenty pages are required to draw out the implications of the Nash criterion with any rigor, and this can be done with only elementary arithmetic and some logic. He then introduces rationalizability without a single example, and common knowledge of rationality without any critical treatment. Another twenty pages of non-mathematical yet rigorous analysis could clarify these concepts, but they are not present in this book. He similarly mentions \\"Nash equilibrium in beliefs\\" in one short paragraph, the chance of being understood by the layman being zero. He similarly presents backward induction in one page, with no examples, and no critical commentary. In sum, Gilboa appears incapable of distinguishing between nonmathematical analysis and careless analysis, perhaps on the grounds that readers who do not understand mathematical argumentation are necessarily careless thinkers. They are not. This book is full of careless and perfunctory analysis and might appeal to careless thinkers. Few others will approve.

Griftopia: Bubble Machines, Vampire Squids, and the Long Con That Is Breaking America

Sire, the Natives are Restless! — Rating: 3/5

Being a writer for The Rolling Stone magazine, which caters primarily to young rock-music oriented readers, it is not surprising that Taibbi writes like Hunter Thompson and Tom Wolfe, the object of his (dis)affection being the financial oligarchy in America. It is noteworthy that Taibbi litters his prose with curse words and scatological epithets, to the degree that I cannot repeat even one in this review without drawing the ire of Amazon's censor software. I generally have little more than contempt for people who use foul language as part of a political or sociological discourse, but this book is a little different from the average. I suspect Taibbi wants to write for people who identify with him personally precisely because he distances himself from the Establishment, whether political, academic, or business. I am part of the academic Establishment, and so my social distance from Taibbi is quite large: I cannot help but treat this book as part of the recently experienced financial crisis rather than an analysis of this crisis.

One of my central principles of human nature is that people don't care much about inequality but they care greatly about unfairness. The Robber Barons were vilified, for instance, not because they were rich, but because they were considered robbers. Liberal democrats in American don't seem to get this message. They constantly dwell on inequality, as though this were considered by the voting public as bad in itself---take for instance Paul Krugman's The Conscience of a Liberal, or Thomas Frank's What's the Matter with Kansas?, for whom distributional inequality is close to the only burning political issue. The fact is that people do not vote their wallets---they probably never have and they likely never will. People are zoon politicon (political animals--Aristotle), who vote the issues, and among the issues, violation of ethical rules will always trump distributional concerns. No matter how rich Oprah Winfrey is, people continue to love her. People turned on the immensely talented football quarterback Michael Vick not because of his multimillion dollar contracts, but because he was mean to dogs.

Americans today are extremely angry at the US financial establishment, not so much for \\"causing\\" a financial meltdown (no one really knows what caused this) but rather because the government bailed them out lavishly, while the very rich gave themselves huge bonuses, flew around in private jets, and installed $28,000 curtains in their lavish offices. Taibbi gives the people what they want: a vicious and unrelenting attack on the financial aristocracy. In a way this is refreshing by comparison with the Establishment press and government officials, whose personal feelings about financial leaders are rarely expressed.

Nevertheless, Taibbi's blanket condemnations are intemperate and extremely unfair. He repeatedly calls those who work in the finance industry \\"crooks\\" and \\"criminals.\\" I very much doubt that this is an accurate assessment of this group of people, most of whom I suspect are reasonable to scrupulously honest. Taibbi's willingness to tar a whole group for what in fact involves some combination of structural failure and the stupid or criminal activities of a few betrays an unappetizing political bias, of the same order as calling all Irish males drunks, all black American males drug pushers, all scientists atheists, or all young females whores. Taibbi is a bigot, pure and simple, in my view. Moreover, he is teaching young people that this is the proper way to carry out political discourse. I affirm that it is not. Frankly, if I heard him speak this way in person, I would disrupt his talk.

Taibbi actually has a larger message, going far beyond the current economic situation. He considers American democracy a sham, and the voters are deluded simpletons. He spares no effort to convince his readers of the basically degraded condition of American democracy. \\"Here's the big difference,\\" he exclaims, \\"between America and the third world: in America, our leaders put on a hell of show for us voters, while in the third world, the bulk of the population gets squat... We get a beautifully choreographed eighteen-month entertainment put on every four years.\\" (p. 9) Why is all this just show? \\"Voters who throw their emotional weight into elections,\\" he asserts, \\"who know deep down inside won't produce real change in their lives are indulging in a kind of fantasy." (p. 10) This model of American politics allows him a very simple and clear description of what others might consider complex events. For instance, here is his explanation of the contemporary Tea Party movement: \\"A loose definition of the Tea Party might be fifteen million pi**ed-off white people sent chasing after Mexicans on Medicaid by the small handful of banks and investment companies who advertise on Fox and CNBC.\\" (p. 16)

Contrary to Taibbi, I think American democracy is among the best political systems in the world, and American voters are generally on the mark is their voting behavior (even when I am on the losing side).

Even if voting every four years doesn't cure all problems, please inform me of some alternative system that does better. The fact is that there isn't any. Moreover, the idea that the rich and the media determine people's political attitudes has virtually no empirical support. Of course, they try to do so and are sometimes successful. But they are most successful when they give people what they want, or at least more of what they want that their political opponents. It is usually bigoted extremists of right and left who portray American democracy as Taibbi does---such individuals have a delusional confidence in their own judgments, much as paranoid schizophrenic.

Taibbi's own vision of rational politics is this: \\"If American politics made any sense at all, we wouldn't have two giant political parties of rough equal size perpetually fight over the same 5-10 percent swatch of undecided voters...Instead, the parties should be broken down into haves and have-nots---a couple of obnoxious bankers on the Upper East Side running for office against 280 million pi**ed-off credit card and mortgage customers.\\" (pp. 11-12) Why this does not happen, says Taibbi, is \\"media-manufactured nonsense\\" that \\"sets big groups of voters angrily chasing their own tails.\\" (p.12) Taibbi does not seem to realize that this message has been around for hundreds of years, and it never works. This is because there are more political issues than the distribution of wealth, and movements for equalizing wealth can replace one oligarchy with another, and/or reduce average economic well-being in the pursuit of \\"fairness.\\" Some will doubtless accuse me of holding a right-wing \\"trickle-down\\" model of economic progress. Let me say right off: I do hold such a theory, although I am far from a right-winger.

Taibbi does not give an alternative in this book. I find it hard to assess a critique when the critic gives no alternative. Perhaps Taibbi thinks this is obvious, but if it is, I would certainly like him to spell it out for me. I will be right there on his bandwagon.\\"between America and the third world: in America, our leaders put on a hell of show for us voters, while in the third world, the bulk of the population gets squat... We get a beautifully choreographed eighteen-month entertainment put on every four years.\\" (p. 9) Why is all this just show? \\"Voters who throw their emotional weight into elections,\\" he asserts, \\"who know deep down inside won't produce real change in their lives are indulging in a kind of fantasy." (p. 10) This model of American politics allows him a very simple and clear description of what others might consider complex events. For instance, here is his explanation of the contemporary Tea Party movement: \\"A loose definition of the Tea Party might be fifteen million pi**ed-off white people sent chasing after Mexicans on Medicaid by the small handful of banks and investment companies who advertise on Fox and CNBC.\\" (p. 16) Contrary to Taibbi, I think American democracy is among the best political systems in the world, and American voters are generally on the mark is their voting behavior (even when I am on the losing side). Even if voting every four years doesn't cure all problems, please inform me of some alternative system that does better. The fact is that there isn't any. Moreover, the idea that the rich and the media determine people's political attitudes has virtually no empirical support. Of course, they try to do so and are sometimes successful. But they are most successful when they give people what they want, or at least more of what they want that their political opponents. It is usually bigoted extremists of right and left who portray American democracy as Taibbi does---such individuals have a delusional confidence in their own judgments, much as paranoid schizophrenic. Taibbi's own vision of rational politics is this: \\"If American politics made any sense at all, we wouldn't have two giant political parties of rough equal size perpetually fight over the same 5-10 percent swatch of undecided voters...Instead, the parties should be broken down into haves and have-nots---a couple of obnoxious bankers on the Upper East Side running for office against 280 million pi**ed-off credit card and mortgage customers.\\" (pp. 11-12) Why this does not happen, says Taibbi, is \\"media-manufactured nonsense\\" that \\"sets big groups of voters angrily chasing their own tails.\\" (p.12) Taibbi does not seem to realize that this message has been around for hundreds of years, and it never works. This is because there are more political issues than the distribution of wealth, and movements for equalizing wealth can replace one oligarchy with another, and/or reduce average economic well-being in the pursuit of \\"fairness.\\" Some will doubtless accuse me of holding a right-wing \\"trickle-down\\" model of economic progress. Let me say right off: I do hold such a theory, although I am far from a right-winger. Taibbi does not give an alternative in this book. I find it hard to assess a critique when the critic gives no alternative. Perhaps Taibbi thinks this is obvious, but if it is, I would certainly like him to spell it out for me. I will be right there on his bandwagon.

Broke: The Plan to Restore Our Trust, Truth and Treasure

Lavish Facade but not Much Inside — Rating: 2/5

Glenn Beck is a well-known radio and television host in the United States. His political positions are generally quite conservative, and he is a critique of recent US administrations that have allowed a massive accumulation of national debt. This book, which is jointly published by Beck's media company Mercury Radio Arts, is extremely high quality from production and artistic standpoints, yet is quite low priced. This is a real tribute to how far publishing technology has come in recent years.

I acquired this book, though, not for artistic reasons, but rather as part of my general strategy of reading widely in American popular political philosophy. Probably many readers who are not focused upon the scientific or philosophical content, will be convinced of Beck's basic message (redistribution is bad, government debt is bad) simply by the lavish context within which the argument is presented. Yet underneath the beauty of presentation, there appears to me to be no argument at all.

Consider Beck's position on the welfare state. He quotes Thomas Jefferson, who says \\"To take from one, because it is thought his own industry and that of his father has acquired too much, in order spare to other who (or whose fathers) have not exercised equal industry and skill, is to violate arbitrarily the first principle of association, to guarantee to everyone a free exercise of his industry and the fruits acquired by it.\\" (p. 31). He later quotes Aristotle: \\"The worst form of inequality is to try to make unequal things equal.\\" But why should we agree that free association is the first principle of association, or that redistribution violates free association? How could we justify taxation at all if Jefferson were correct? Moreover, what about other reasons for inequality, such as difference in the luck of the draw, or temporary vicissitudes that often bid people to help each other out? What about equal opportunity, which obviously requires some redress of the inequality in which young people are placed by virtue of birth family? As for Aristotle, the sentence does not even make sense. Perhaps the worst form of policy, but the worst form of inequality? However, it turns out that this is a misattribution, at least as far as the authors of the Wikipedia entry on Aristotle maintain. This first mention of this phrase, they assert, ``appears in 1974 in an explanation of Aristotle's politics in Time magazine, before being condensed to an epigram as \\"Aristotle's Axiom\\" in Peter's People (1979) by Laurence J. Peter." As far as I could discern, Beck has no argument beyond these and similarly disparate quotations from the Masters.

Beck's major argument is that we should always balance the budget. Beck attributes all sorts of bad things to budget deficits, but he never gives a serious argument using historical or economic data. I can give arguments on both sides. If a budget deficit spurs investment or increases firms' capacity utilization, it could pay for itself in the long run. We all run deficits, even households, and business, without being profligate. Families invest in homes, automobiles and education without bankrupting themselves, and firms are almost always heavily in debt, borrowing both short- and long-term on credit markets. Governments around the world have been debtors without inevitable disaster awaiting. The Reagan administration ran huge budget deficits, but this led to full employment when Europe was stagnating, so the Clinton administration had little difficulty in erasing these deficits in just a few years.

Beck could of course deployed the Chicago school \\"rational expectations\\" model to assert the futility of running deficits to cure unemployment, but that would be a pretty sophisticated argument for readers enchanted by the empty beauty of this volume. Moreover, I believe the Chicago macro model is without empirical foundation. There is little truth to the notion that taxpayers expect, or would expect if they were \\"rational,\\" budget deficits to day to lead to higher taxes in the future. Government are just as capable of investing in future growth as are firms, and rational taxpayers will be aware of this fact.

Of course, running budget deficits to finance public sector employee wages or handouts to voters (e.g., underfunded social security and Medicare, or Medicaid and payments to the homeless or the lazy) is poison, as recent European offenders have come to see. Politicians are quite happy to increase the debt to lessen social tension and garner votes, knowing well that this extends their stay in office, and indeed with some luck they will be in retirement before the chickens come home to roost. But this is not Beck's argument, it is mine. Moreover, it is not clear that this applies to the United States, although it well might. I have read a lot in this area, but I have not seen anything definitive on the subject.

Beck has some goods suggestions for cutting the budget, but they are rather lackadaisically offered and hardly defended. If one is serious about eliminating the Department of Energy or the Department of Education, we might expect some assessment of the costs and benefits. Beck argues for privatizing most forms of government production. I think this is a great idea, and there are perfectly good arguments in favor of at least forcing government production to compete with the private sector and make profits. Education is a perfect example---public schools don't make a lot of sense, although voucher systems do.

The sad fact is that there are major gains to be made through reorganizing the state sector. Some serious reform of health care deliver would save huge amounts, as would bringing competition into educational delivery. However, there are also some gains from increasing government expenditure, especially in promoting scientific research, federal-level on-the-job apprenticeship and training programs. We can depend on the current breed of politicians to avoid such programs like the plague.al,\\" budget deficits to day to lead to higher taxes in the future. Government are just as capable of investing in future growth as are firms, and rational taxpayers will be aware of this fact. Of course, running budget deficits to finance public sector employee wages or handouts to voters (e.g., underfunded social security and Medicare, or Medicaid and payments to the homeless or the lazy) is poison, as recent European offenders have come to see. Politicians are quite happy to increase the debt to lessen social tension and garner votes, knowing well that this extends their stay in office, and indeed with some luck they will be in retirement before the chickens come home to roost. But this is not Beck's argument, it is mine. Moreover, it is not clear that this applies to the United States, although it well might. I have read a lot in this area, but I have not seen anything definitive on the subject. Beck has some goods suggestions for cutting the budget, but they are rather lackadaisically offered and hardly defended. If one is serious about eliminating the Department of Energy or the Department of Education, we might expect some assessment of the costs and benefits. Beck argues for privatizing most forms of government production. I think this is a great idea, and there are perfectly good arguments in favor of at least forcing government production to compete with the private sector and make profits. Education is a perfect example---public schools don't make a lot of sense, although voucher systems do. The sad fact is that there are major gains to be made through reorganizing the state sector. Some serious reform of health care deliver would save huge amounts, as would bringing competition into educational delivery. However, there are also some gains from increasing government expenditure, especially in promoting scientific research, federal-level on-the-job apprenticeship and training programs. We can depend on the current breed of politicians to avoid such programs like the plague.

The Misbehavior of Markets: A Fractal View of Financial Turbulence

Mainstream Finance Ably Explained and Critiqued — Rating: 3/5

This book was written before the current financial crisis, and recently reissued with a new preface on the financial crisis. The most noteworthy features of this book are (a) its clear presentation of traditional financial theory without any equations, and (b) a systematic critique of the major premise of this theory, which the authors take to be the assumption that error terms are normally distributed when in fact they are often Cauchy distributed (and therefore have \\"fat tails\\" leading to high volatility and higher risk exposures than suggested by the standard theory). Despite the title and numerous photo plates in the book, there is nothing `fractal' about Mandelbrot's explanation of financial theory. However, the authors show clearly that financial markets exhibit a degree of volatility incompatible with the Capital Assets Pricing Model. They also show that, despite the standard notion that only the beta of a stock can be stable across time, the degree of volatility of a stock can also be forecast, and has strong implications for profitable buying and selling.

The authors almost always stress that this book should be no comfort for the poor misguided souls who believe they can `beat the market' by analyzing stock movement history. This is a very important point, and authors who deny this are, I believe, misguided or evil. Nevertheless, they cannot resist leveling the standard \\"critique\\" that some investors do phenomenally well, consistently making profits where the standard theory says they should not (e.g., their homage to Peter Lynch, p. 103), even though this contradicts their basic message.

It is a very attractive property of a book that its basic argument is correct and important, but it is also nice if the book is well crafted. With the exception of the lucid description of the standard model and clear critique of this model, the book is a scattershot of arguments of tangential relevance and quite excessively too long. The same points are belabored again and again. It is safe to say that the first or second time you come across a repetitive paragraph, you may put the book down for good. You won't have missed much, if anything, of relevance.

The authors do go beyond their rather academic critique of modern finance theory to suggest that bad financial theory was largely responsible for the economic crisis, with the implication that if we reform our economic theory of financial markets, there will be no future bubbles of the sort that recently almost destroyed several economies. This claim does not ring true. Bloated state mortgage institutions (Freddy and Fanny), the Federal Reserve Board's complicity in flooding the economy with cheap credit, the irrational present-oriented incentive structure of financial services, the complicity of auditing firms with their clients, and mystical financial innovations such as credit default swaps also contributed to financial fragility.again and again. It is safe to say that the first or second time you come across a repetitive paragraph, you may put the book down for good. You won't have missed much, if anything, of relevance. The authors do go beyond their rather academic critique of modern finance theory to suggest that bad financial theory was largely responsible for the economic crisis, with the implication that if we reform our economic theory of financial markets, there will be no future bubbles of the sort that recently almost destroyed several economies. This claim does not ring true. Bloated state mortgage institutions (Freddy and Fanny), the Federal Reserve Board's complicity in flooding the economy with cheap credit, the irrational present-oriented incentive structure of financial services, the complicity of auditing firms with their clients, and mystical financial innovations such as credit default swaps also contributed to financial fragility.

Talking to the Enemy: Faith, Brotherhood, and the (Un)Making of Terrorists

A Perceptive Myth-buster with a Good Theory of Terrorism — Rating: 4/5

Scott Atran is a clear and incisive thinker with an excellent grasp of social theory and an incessant drive that leads him to gain extensive knowledge of his subject matter by personal contact. The title, Talking to the Enemy, reflects the fact that Atran has had deep and long contact with terrorist groups and individuals, and yet considers them the enemy. Despite his clear political stance, Atran treats his subjects as interesting and curious subjects of study, and never writes to persuade the reader by use of rhetoric.

There are two parts to this book. The first part deals with the political role of terrorism in contemporary world politics. The second deals with the motivation and world-view of terrorists. The first part consists of a single dedication page occurring prior to the preface, in which he says \\"I dedicate this work to Vasiliy Arkhipov, the deputy commander of a Soviet nuclear submarine off the Cuban shore who said no to his comrades and may have saved the world.... No terrorist action today remotely poses that kind of existential thread for our people, and I hope you'll keep that in mind in reading on.\\" I consider this a truth that is as deep as it is overlooked. Objectively, in terms of numbers of lives involved, contemporary terrorism is but an inconsequential thorn in the hide of the modern world. Why it is treated with the same seriousness as the threat of thermonuclear destruction is quite beyond my understanding. By this I do not mean that it should not be treated with such seriousness, but rather that I do not understand the political and psychological forces that lend to terrorism the prominence and gravity with which it is treated virtually universally. A plausible answer is that, first, it is important to limit the growth of terrorism because we are quite uncertain about the limits of its destructive potential; second, we are outraged by the immorality of terrorists' acts and repulsed by terrorist political and religious aims; and finally, as Atran notes \\"publicity is the oxygen of terrorism\\" (p. 273), and the rapid growth of international communicative networks renders publicity every more potent.

One implication of the relative insignificance of fundamentalist religious terrorism is stressed by Atran: \\"By itself contemporary terrorism cannot destroy our country or our allies or even seriously damage

us. However, we can do grievous harm to ourselves by taking the terrorists' bait and reacting in ill-conceived, uninformed, and uncontrolled ways that inflate and empower our enemies.\\" (p. 267) To underline his point, Atran observes that \\"perhaps never in the history of human conflict have so few people with so few actual means and capabilities frightened so many.\\" (p. xiv)

Atran argues that today's Muslim terrorists are substantively different from those that arose around Osama bin Laden and the early Al Qaida, which involved bureaucratic, hierarchical and international organized rings of violent activists, for whom suicide terrorism was carefully orchestrated for maximum public effect. \\"We are witnessing,\\" Atran argues, \\"a more egalitarian, less educated and materially well off, and more social marginalized wave of would-be jihadi martyrs. Those few who are willing commit to extremist violence usually emerge in small groups of action-oriented friends. They frequently come from the same neighborhood and interact during sporting activities, such as playing soccer together\\" (p. 258) If the early Al Qaida \\"kill and die for a cause,\\" says Atran, the new breed of local terrorists \\"kill and die for each other.\\" (p. xi).

This is, of course, quite extraordinary behavior, perhaps not seen before in humans (or any other species). People ordinarily kill for material, religious, or in-group vs. out-group motives, but the self-sacrificial jihadists whom Atran studies seem to want to kill and die for personal motives of the righting of grievous wrongs. \\"Terrorists generallydo not commit terrorism because they are extraordinarily vengeful or uncaring, poor or uneducated, humiliated or lacking in self-esteem, schooled as children in radical religion or brainwashed, criminally minded or suicidal, or sex-starved for virgins in heaven. Terrorists, for the most part, are not nihilists but extreme moralists.\\" (p.xii-xiii)

Some have argued that such moralism is irrational, and have suggested that it should be rare in societies that promote technical development, science, and material comforts. However, it should be clear that there is no conflict between human nature as highly rational, considerably self-serving, and devotedly moralistic. Indeed, are exactly the traits that we stressed as characteristically human in our book Herbert Gintis et al., Moral Sentiments and Material Interests (MIT Press, 2005). Indeed, it is the interaction between morality and self-interest that accounts for the success of modern institutions of state, family, market, and community in liberal democratic societies. The fact that the same motivation can point a small minority towards destroying these institutions should not be surprising.they are extraordinarily vengeful or uncaring, poor or uneducated, humiliated or lacking in self-esteem, schooled as children in radical religion or brainwashed, criminally minded or suicidal, or sex-starved for virgins in heaven. Terrorists, for the most part, are not nihilists but extreme moralists.\\" (p.xii-xiii) Some have argued that such moralism is irrational, and have suggested that it should be rare in societies that promote technical development, science, and material comforts. However, it should be clear that there is no conflict between human nature as highly rational, considerably self-serving, and devotedly moralistic. Indeed, are exactly the traits that we stressed as characteristically human in our book Herbert Gintis et al., Moral Sentiments and Material Interests (MIT Press, 2005). Indeed, it is the interaction between morality and self-interest that accounts for the success of modern institutions of state, family, market, and community in liberal democratic societies. The fact that the same motivation can point a small minority towards destroying these institutions should not be surprising.

Institutions and the Path to the Modern Economy: Lessons from Medieval Trade (Political Economy of Institutions and Decisions)

The Death and Rebirth of Historiography? — Rating: 5/5

Despite my love for a great many works of historical research, and despite my abject dependence upon such works for the information needed to formulate and evaluate models of historical change, I never really understood what position historical works have in with relation to the behavioral sciences (economics, psychology, sociology, etc.). Historians are well trained in the scientific method, but they do not have any \\"theory\\" to go on in deciding what material to collect and how to interpret their findings. In a way, this allows historians to \\"just find out what really happened,\\" without trying to force the facts into a preconceived paradigm and without using theoretical prejudices to decide what \\"facts\\" to collect. But then I learned that there are no \\"facts\\" independent from a theoretical

framework that makes sense of the facts. And this appears true, at least if the \\"facts\\" involve higher-level constructs, such as \\"power,\\" \\"purpose,\\" \\"culture,\\" and the like.

Well, now that I have found out that society is a complex adaptive dynamical system that will never be fully modeled, and have learned that the human mind is full of partially filled-out \\"templates\\" that can be deployed and refined given a new set of data, I no longer am uncomfortable with the historian's musings. Now Avner Greif comes along and tries to convince the reader, rather successfully, that historical research can after all be undertaken fruitfully and synergistically with the social sciences. But, and this is a rather giant but, only if we accept a broad notion of the social sciences in which transdisciplinary arguments are routinely made and upheld, and when a reasonable effort is made to adjudicate the differences across disciplines by developing novel arguments as syntheses.

The great merit of this book is to have largely accomplished this feat. Perhaps we are witnessing the death and rebirth of history as a discipline. Just a philosophers have come to the realization that knowledge of science complements their studies, perhaps historians---at least those who deal with big themes and broad expanses of time---will realize the value of integrating their discipline with traditional, rigorous, social-scientific studies.

Greif argues that the late Medieval Maghribi are best represented as a \\"reputation-based private-order institution.\\" Greif's basic trade model is that of a merchant in one country hiring an agent in another country to carry out the many tasks involved in protecting and selling the merchant's goods in the agent's country. The critical point in this classical principal-agent model is that the agent has an incentive to cheat the merchant. If the volume of trade is sufficiently high, and if the agent can be harshly punished for a transgression by being fired, then the merchant can use the threat of dismissal to induced the agent to behave honestly (for a general model of this type, see Samuel Bowles and Herbert Gintis, \\"Walrasian Economics in Retrospect\\", Quarterly Journal of Economics 115,4 (2000):1411-1439; and \\"The Revenge of Homo economicus: Contested Exchange and the Revival of Political Economy\\", Journal of Economic Perspectives 7,1 (1993):83-102). However, in many cases, including those of medieval trade, a more sophisticated social process was required, in which the agent had to sustain a general reputation among all merchants as being honest, so that the report of cheating by one merchant would lead to the perpetual ostracism of the agent from dealings with other merchants for the foreseeable future. The construction of this model brings Greif into a significant game-theoretic model-building exercise, from which the careful reader will learn much about the general value of game theory in elucidating social research.

One of Greif's greatest achievements is to show convincingly the value of a model in which individuals obey both the canons of rationality so beloved by the economists, and at the same time exhibit the moral inclinations, emotions, social attachments, and internalized norms so beloved by the sociologists and social psychologists. For a general treatment of how these aspects of human sociality interact creatively see my book The Bounds of Reason: Game Theory and the Unification of the Behavioral Sciences (Princeton University Press: 2009). I there argue that contemporary sociology's descent into theoretical oblivion is due precisely to its rejection of economic reasoning, and contemporary economics' descent into theoretical aridity is due to its rejection of sociological reasoning. I have an ally in Avner Greif, who combines the two modes of reasoning quite adeptly.

Indeed, Greif goes to great length to convince the reader that this is not simply a standard exercise in economic reasoning, because the \\"perfect information\\" assumptions of his model are not historically plausible. How can a merchant be sure the agent cheated him? Why can't a merchant blackmail an agent into giving him a better deal by threatening him with ruining his precious reputation? Indeed, why should a merchant report that he has been cheated at all? Does he do this out of love for justice, out of the desire for revenge and retribution, or because he cares about the well-being of his fellow merchants? Why do Maghribi trade networks exhibit strong ethnic regularities, but not strong kinship regularities? These are all obvious questions that a traditional game-theoretic analysis cannot handle, but can be addressed using a modicum of standard sociological analysis.

Greif deserves a careful reading, and I consider this a great book, because the author has gone where few have had the guts to tread. However, this book is a beginning and not an end. There are many faults, all of them associated with the books great novelty. The books should be at best half the size, and the social theory should be much more sophisticated and better integrated with the formal models. For

instance, Greif alludes to several areas of social theory that might help answer the questions I posed in the previous paragraph, but he does not in fact answer them head-on. Why does the merchant bother informing on a cheating agent? How does a merchant determine that he has been cheated? What is the status of ethnic ties? I would like to have seen a much more pointed analysis. Instead, we get very general high-level theorizing that leaves the key questions \\"sort of answered,\\" but not really.

The following is typical: \\"The Maghribis and the Genoese were constrained by the same technology and environment, and they faced the same organizational problems. But their different cultural heritages and political social histories gave rise to different cultural beliefs. Theoretically, their distinct cultural beliefs are sufficient to account for the diverse institutional trajectories of the two groups. Cultural beliefs may thus have had lasting impact despite their temporary nature.\\" (p. 300) Statements such as these are both theoretically trivial and at the same time hard to accept. Are not culturally beliefs codetermined with other aspects of social life, rather than being autonomous and determining?

In sum, this exceptional book has a theoretical tentativeness that marks the opening of a new era in social theory. The aspiring social theorist and/or historian will see the future in Greif's adept reasoning, even if through a glass not darkly, yet not fully illuminated, thus leaving work to be done by standing on the giant's shoulders.ations, emotions, social attachments, and internalized norms so beloved by the sociologists and social psychologists. For a general treatment of how these aspects of human sociality interact creatively see my book The Bounds of Reason: Game Theory and the Unification of the Behavioral Sciences (Princeton University Press: 2009). I there argue that contemporary sociology's descent into theoretical oblivion is due precisely to its rejection of economic reasoning, and contemporary economics' descent into theoretical aridity is due to its rejection of sociological reasoning. I have an ally in Avner Greif, who combines the two modes of reasoning quite adeptly. Indeed, Greif goes to great length to convince the reader that this is not simply a standard exercise in economic reasoning, because the \\"perfect information\\" assumptions of his model are not historically plausible. How can a merchant be sure the agent cheated him? Why can't a merchant blackmail an agent into giving him a better deal by threatening him with ruining his precious reputation? Indeed, why should a merchant report that he has been cheated at all? Does he do this out of love for justice, out of the desire for revenge and retribution, or because he cares about the well-being of his fellow merchants? Why do Maghribi trade networks exhibit strong ethnic regularities, but not strong kinship regularities? These are all obvious questions that a traditional game-theoretic analysis cannot handle, but can be addressed using a modicum of standard sociological analysis. Greif deserves a careful reading, and I consider this a great book, because the author has gone where few have had the guts to tread. However, this book is a beginning and not an end. There are many faults, all of them associated with the books great novelty. The books should be at best half the size, and the social theory should be much more sophisticated and better integrated with the formal models. For instance, Greif alludes to several areas of social theory that might help answer the questions I posed in the previous paragraph, but he does not in fact answer them head-on. Why does the merchant bother informing on a cheating agent? How does a merchant determine that he has been cheated? What is the status of ethnic ties? I would like to have seen a much more pointed analysis. Instead, we get very general high-level theorizing that leaves the key questions \\"sort of answered,\\" but not really. The following is typical: \\"The Maghribis and the Genoese were constrained by the same technology and environment, and they faced the same organizational problems. But their different cultural heritages and political social histories gave rise to different cultural beliefs. Theoretically, their distinct cultural beliefs are sufficient to account for the diverse institutional trajectories of the two groups. Cultural beliefs may thus have had lasting impact despite their temporary nature.\\" (p. 300) Statements such as these are both theoretically trivial and at the same time hard to accept. Are not culturally beliefs codetermined with other aspects of social life, rather than being autonomous and determining? In sum, this exceptional book has a theoretical tentativeness that marks the opening of a new era in social theory. The aspiring social theorist and/or historian will see the future in Greif's adept reasoning, even if through a glass not darkly, yet not fully illuminated, thus leaving work to be done by standing on the giant's shoulders.

Economic Origins of Dictatorship and Democracy

Solid Exposition of Half the Story — Rating: 4/5

Acemoglu and Robinson present a clear, straightforward and compelling explanation of the conditions under which political democracy emerges from dictatorship. The strength of their analysis, as they repeated tell us, flows from their use of that key tool on the economist's workbench, the so-called rational actor model (p. 19). \\"We stress individual economic incentives as determining political attitudes, and we assume people behave strategically in the sense of game theory." (p. xii) Theirs is also a clear-cut class analysis, although by contrast with Karl Marx, the classes are defined mainly by their relationship to state power rather than the means of production (although that matters as well, as we shall see). \\"We emphasize the fundamental importance of conflict,\\" they assert. \\"Different groups, sometimes social classes, have opposing interests over political outcomes and these translate into opposing interests over the form of political institutions which determine the political outcomes.\\" (p. xii).

The main social groupings in the non-democratic society, according to Acemoglu and Robinson, are the elite that controls the state and the citizens, who are blocked from exercising political power. \\"Nondemocracy is rule by the elite; democracy is rule by the more numerous groups who constitute the majority... In nondemocracy, the elite get the policies it wants; in democracy, the citizens have more power to get what they want.\\" (p. xii) The authors claim that there is a single dynamic leading from nondemocracy to democracy: \\"We argue that this only occurs because the disenfranchised citizens can threaten the elite and force it to make concessions.... In the limit, a revolution... repression is often sufficiently costly that it is not an attractive option for elites." (p. xii) Acemoglu and Robinson elaborate by noting that simply making non-structural concessions to the enraged masses might not be sufficient to head off revolt, because the concessions can be revoked once the collective action spirit dissipates. The concession of political democracy, by contrast, creates a long-term alternative set of rules of the game in which the previously omnipotent elites no long have the power to get their way.

There is one additional conceptual tool on Acemoglu and Robinson's workbench, that of social class. First, the authors assert that state repression does not hurt landlords much but it is very harmful to capitalists because the latter benefit from freedom of movement, speech, and consensual labor relations, whereas traditional landlords never really get beyond the stage of medieval social relations p. 288). Hence industrial capitalism has an elective affinity with democracy that is completely absent from earlier economic formations based on agriculture. Second, Acemoglu and Robinson argue that the elites are more likely to accede to democracy when there is a strong middle class (entrepreneurs, academics, professionals), because the latter will not allow so much power to pass to the unwashed masses as to seriously threaten the wealth and influence of the elites (p. 255, 258).

Acemoglu and Robinson's argument is so powerful that one might be forgiven for overlooking its weak points. But it does have some significant weak points. First, it assumes that there is a monolithic elite and a potentially monolithic citizenry. Neither of these is in general correct. For instance, often there will be conflicts among the elites, one side drawing on support from the lower classes to defeat the other. This was the case in Great Britain in the passage to democracy.

Second, and more important, I think it is just false that political democracy is compromise in which the elite gives up hegemonic power and the citizenry gives up the vision of revolution and complete mass hegemony. As Samuel Bowles and I argued in Capitalism and Democracy (Basic Books, 1985), large-scale collective actions have virtually always had the goal of social emancipation, in which the common man and woman are endowed with the blessings of liberty and in which democratic institutions are desired not only because they lead to an alteration in the distribution of wealth, but also because political democracy is desirable in its own right, given the nature of our species as, to use Aristotle's term, zoon politicon.

Third, Acemoglu and Robinson incompletely address the question as to why the dominant movement in the past two centuries has been from nondemocracy to democracy. Their recognition that capitalism and middle classes are relatively favorable to democracy explains part of this movement. But I think another crucial element is the emergence of modern warfare based on infantry with small arms weapons. Elite control of the state goes along with small armies of elite and/or mercenary mounted

warriors with a heavy capital cost per man, whereas enlisting the common man to participate in national armies in the nineteenth and twentieth centuries required ceding the suffrage to the masses.

Acemoglu and Robinson do not appear to realize that their commitment to the rational actor model does not oblige them to model all social behavior as self-interested, and all political goals as materialistic. There are whole dimensions of social and moral history absent from their account because they do not accept that the fight for dignity and freedom is just as central to collective action as the fight for shoes, a coat, and a job. Nor can they possibly understand why collective action even takes place unless they admit that people fight and die for ideals, and for comforts that will only be enjoyed by those who come after them. There is another volume to be added in explain the emergence of democracy---not a volume hostile to Acemoglu and Robinson's effort, but rather fleshing out the moral and emancipatory thrust of modern collective action.cipation, in which the common man and woman are endowed with the blessings of liberty and in which democratic institutions are desired not only because they lead to an alteration in the distribution of wealth, but also because political democracy is desirable in its own right, given the nature of our species as, to use Aristotle's term, zoon politicon. Third, Acemoglu and Robinson incompletely address the question as to why the dominant movement in the past two centuries has been from nondemocracy to democracy. Their recognition that capitalism and middle classes are relatively favorable to democracy explains part of this movement. But I think another crucial element is the emergence of modern warfare based on infantry with small arms weapons. Elite control of the state goes along with small armies of elite and/or mercenary mounted warriors with a heavy capital cost per man, whereas enlisting the common man to participate in national armies in the nineteenth and twentieth centuries required ceding the suffrage to the masses. Acemoglu and Robinson do not appear to realize that their commitment to the rational actor model does not oblige them to model all social behavior as self-interested, and all political goals as materialistic. There are whole dimensions of social and moral history absent from their account because they do not accept that the fight for dignity and freedom is just as central to collective action as the fight for shoes, a coat, and a job. Nor can they possibly understand why collective action even takes place unless they admit that people fight and die for ideals, and for comforts that will only be enjoyed by those who come after them. There is another volume to be added in explain the emergence of democracy---not a volume hostile to Acemoglu and Robinson's effort, but rather fleshing out the moral and emancipatory thrust of modern collective action.

Violence and Social Orders: A Conceptual Framework for Interpreting Recorded Human History

Part of the Story, Retold — Rating: 3/5

This is a work of historical interpretation. Every age must have its favorite broad-brush, evocative, wide-ranging historical leitmotiv, most of which in retrospect are but political spins on well-known events, and wish-lists for political activity in the present. Think of the Decline and Fall of the..., or Takeoff into Self-Sustained..., or even the Communist Manifesto. Think of the Road to Serfdom and think of Capitalism, Socialism, and Democracy. Most such endeavors, when successful, are cultural markers of their epochs, but rarely are more prescient that your average Hollywood blockbuster.

North, Wallis and Weingast (hereafter NWW) offer a story that is indeed a major morality tale of our age: the centrality of the nation state in promoting or hindering economic development. So many countries have made the transition from backwardness to development, more or less in the same way over the past few decades that it has become clear that \\"politics,\\" not \\"economics\\" is the main sticking point in improving the welfare of the poor around the world. NWW claim that the predatory states that feed corrupt elites by exploiting a powerless citizenry are the source of the problem of underdevelopment, and in my opinion, they are correct. They also claim that such predatory states (\\"natural states\\" in their vocabulary) are self-reproducing, and make the transition to modernity (\\"open-access orders\\") only under highly specific conditions.

The authors of Violence and Social Orders are eminent intellectuals all, one having received a Nobel prize in economics. The book claims novelty in many places, but their general argument, while mostly

true, is not at all new, and is not the whole story. North, Wallis and Weingast claim that there have been three distinct forms of human society, hunter-gatherer, the natural state, and the open-access order. All of humanity shared hunter-gatherer status until some 10,000 years ago when an explosion of trade and settled agriculture gave rise to sedentary societies with private property and complex institutions of state and military dedicated to sharing the means of violence used to allow a powerful network of elites to control and exploit the mass of citizens. This new state apparatus was the virtually ubiquitous child of hunter-gather life. About 200 years ago a new form of social order began to pop up here and there, the so-called open access order that relied on meritocracy, science, market competition, and eventually political democracy, to make use of modern industrial and organizational techniques.

All this is true, but Charles Tilly said as much, and with greater nuance and descriptive thickness in his The Formation of National States in Western Europe (Princeton: Princeton University Press, 1975). Moreover, it is easy to neglect the positive role of the \\"natural state\\" in earlier eras in protecting the mass of citizens from brigands and organized mercenary armies, as stressed by J. R. Strayer in his Medieval Origins of the Modern State. NWW are warranted in stressing that the natural state is not an aberration but rather a self-reproducing social formation whose durability is at least as likely as that of the open-access orders that now, perhaps temporarily or perhaps for the foreseeable future, dominate modern life. But this is surely nothing new.

A second strand in NWW's analysis concerns the conditions for a transition from the natural state to the open-access order. They argue that there are in general two stages. The first involves the transformation of state power from personal relations among members of the elites to impersonal institutional relations in which state positions are regularized and bureaucratized, much in the manner described in Weberian sociology and stressed by Parsons in his brilliant, \\"Evolutionary Universals in Society\\", American Sociological Review 29,3 (1964):339-357. The second condition is that the dominant elites find it necessary to modernize in order to compete successfully with other states. This element in NWW's theory also has considerable truth, but is hardly new, being a central theme in explaining modernization in Japan, Russia, France, and many other countries.

I think the major weakness in NWW's story is that they have little to say about a central thrust of political development since the advent of open-access orders: the vibrant emancipatory thrust of history leading to representative government, political democracy, civil liberties, freedom of speech and association, and the separation of church and state. In our book Democracy and Capitalism (Basic Books, 1985), Samuel Bowles and I argued that the citizenry of developing states demanded representative government and universal suffrage, and elites reluctantly acquiesced, especially in the face of a new military order in which, because of the development of the hand gun, the standing army replaced elite and mercenary mounted troupes as the most effective instrument of war, and democracy was the price that had to be paid to permit the conscription of standing armies. A less detailed but similar view is voiced by Daron Acemoglu and James Robinson in their recent book, The Economic Origins of Dictatorship and Democracy: the elites gave democracy to the people out of fear of being swamped by out-and-out revolution. NWW offer the following critique of Acemoglu and Robinson: \\"Because they are not unified, elites cannot intentionally decide to do anything, let alone decide to share power. Members of the dominant coalition are rarely so unified.\\" (p. 149) This is, after all, a quite pathetic critique. The idea that representative government and democracy are simply necessary elements in a system of impersonal institutions is not in the least credible.

This book is a one-dimensional interpretation of a period in our history that deserves more. You can read this book with profit, but please don't think that it says much new about how we got here in history, and what this book leaves out is at least as important as what it includes.compete successfully with other states. This element in NWW's theory also has considerable truth, but is hardly new, being a central theme in explaining modernization in Japan, Russia, France, and many other countries. I think the major weakness in NWW's story is that they have little to say about a central thrust of political development since the advent of open-access orders: the vibrant emancipatory thrust of history leading to representative government, political democracy, civil liberties, freedom of speech and association, and the separation of church and state. In our book Democracy and Capitalism (Basic Books, 1985), Samuel Bowles and I argued that the citizenry of developing states demanded representative government and universal suffrage, and elites reluctantly acquiesced, especially in the face of a new military order in which, because of the development of the hand gun, the standing army replaced elite

and mercenary mounted troupes as the most effective instrument of war, and democracy was the price that had to be paid to permit the conscription of standing armies. A less detailed but similar view is voiced by Daron Acemoglu and James Robinson in their recent book, The Economic Origins of Dictatorship and Democracy: the elites gave democracy to the people out of fear of being swamped by out-and-out revolution. NWW offer the following critique of Acemoglu and Robinson: \\"Because they are not unified, elites cannot intentionally decide to do anything, let alone decide to share power. Members of the dominant coalition are rarely so unified.\\" (p. 149) This is, after all, a quite pathetic critique. The idea that representative government and democracy are simply necessary elements in a system of impersonal institutions is not in the least credible. This book is a one-dimensional interpretation of a period in our history that deserves more. You can read this book with profit, but please don't think that it says much new about how we got here in history,and what this book leaves out is at least as important as what it includes.

My Life Is a Weapon: A Modern History of Suicide Bombing

Useful history of terrorist strategies through the ages — Rating: 4/5

This book is strongest in providing a brief but useful overview of terrorism as a strategy used by various groups over the ages. It is not a deeply analytical book, and does not deal except in passing with the larger questions, such as when terrorism is or is not employed as a strategy, and when it is or is not successful, or even what it means to be 'successful' in this situation.

The book was published in German in 2002, and so it is more than a bit out of date in analysing Al Qaida and home-grown terrorist groups. Nevertheless, it was well worth translating, and readers will learn from it. It is also well-written, as is to be expected from a professional journalist.

The one-star review by Joseph Shahadi is, in my estimation, quite unwarranted, although some of his points have at least superficial validity. I find myself bored with the \\"Eurocentric\\" critique of terrorism, and Reuter is not very culpable. On the other hand, I think he places much too much emphasis on the religous as opposed to social and political nature of Islamic terrorism. Terrorists tend not to be more religious than average, although more than a few intensified their religious observations leading up to self-sacrifice. Even Al-qaeda is more of a political and social than a religious movement, although it clearly using religion as an agent of maintaining solidarity.

Reinventing the Bazaar: A Natural History of Markets

This is what Real Economists Believe — Rating: 5/5

If you want to learn what contemporary physicist, chemists, or biologists are thinking these days, and you want the big-picture flavor of what they are teaching the next generation of physicists, chemists, and biologists, there are plenty of excellent books out there, written by experts in the field who have no political, philosophical, religious, or personal agendas other than sharing their intellectual life with the public. Not so for economics! There are virtually no books out there of this sort, nor have there ever been, to my knowledge.

In monetary theory one of the first things we learn is Gresham's Law, which says that under the gold standard, \\"bad money drives out good.\\" This means that if there is weak control over coin quality, evil people will shave the coins, adulterate the gold, and use non-precious metals. People will then refuse to trade their full-value currency (the good) and use only the devalued currency (the bad). The same is true of the quality of discourse in economics. People who really know a lot of stuff about the economy are too circumspect to stand up to the evil people who have half-baked ideas about economics but are willing to trumpet them to the heavens as Received Wisdom. Some of the most interesting books for the lay person are of this type, reducing to illy sloganeering a stunningly complex and dynamic social reality. I will not name names---we all know who these knaves are.

Then along comes John McMillan, whose book on the nature of markets perfectly captures what I learned about economics at Harvard, and what virtually every professional economist learned as well. This book has no equations, and does not deal with either microeconomic or macroeconomic theory. What is does, and does extremely well, is use detailed, highly literary, historical vignettes to tell something like Aesop's Tales, except without a simple homily at the end.

The basic message is that markets are essential economic institutions for which there is no known alternative, but markets are designed institutions, and when they are poorly designed, they do not work well at all. For instance, McMillan has a chapter on the pharmaceutical industry, showing how highly competitive profit-driven firms have produces major gains in fighting disease, but the diseases that plague the poor are not researched because there's simply no profit in such research. His conclusion is that there must be public prizes and commitments to pay for the results of successful research in dealing with AIDS, malaria, and other common illness of the poor countries.

McMillan provides sensitive analysis of auctions, market externalities, rent-seeking, corruption, informational asymmetries, macroeconomic regulation, and pollution control.

This is a book for you if you really want to know how economists think. Here is what McMillan has to say: \\"No one would expect to be able to comprehend physics or biology with ease. Bothe pro-market and anti-market ideologues---who are to economics what flat-earthers are to physics---like to reduce the market system to a few universally applicable precepts. They can do this only by grossly oversimplifying it.\\" (p. 224)known alternative, but markets are designed institutions, and when they are poorly designed, they do not work well at all. For instance, McMillan has a chapter on the pharmaceutical industry, showing how highly competitive profit-driven firms have produces major gains in fighting disease, but the diseases that plague the poor are not researched because there's simply no profit in such research. His conclusion is that there must be public prizes and commitments to pay for the results of successful research in dealing with AIDS, malaria, and other common illness of the poor countries. McMillan provides sensitive analysis of auctions, market externalities, rent-seeking, corruption, informational asymmetries, macroeconomic regulation, and pollution control. This is a book for you if you really want to know how economists think. Here is what McMillan has to say: \\"No one would expect to be able to comprehend physics or biology with ease. Bothe pro-market and anti-market ideologues---who are to economics what flat-earthers are to physics---like to reduce the market system to a few universally applicable precepts. They can do this only by grossly oversimplifying it.\\" (p. 224)

Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming

Really eye-opening and engaging historical material — Rating: 4/5

It is well known and undeniable that over the years there has been a strong political element to public debate about many scientific issues, including the chlorination of domestic water supplies, the harmfulness of smoking and of second-hand exposure to cigarette smoke, to the harmfulness of acid rain and the existence of global warming, to mention a few. It is certainly not distressing that there be debate over public policy dealing with such social problems, but it is indeed distressing that the scientific evidence is manipulated by political advocates rather than simply accepting the scientific consensus and debating policy issues on moral grounds.

What is not well known, but it proved with a barrage of statistics and historical data by Oreskes and Conway, is that the science-deniers have been a quite small but extremely influential scientists who moved from one policy to another in support of right-wing political positions favoring the unimpeded operation of competitive markets and consistently oppose state intervention to solve social problems. This right-wing philosophy has major social philosophers and policy analysts among its supporters, and the intellectual debate surrounding the proper role of government is on-going and important. But the simple fact is that the vast majority of citizens and voters in all the liberal democratic market economies have historically demanded that the state intervene in correcting the negative social effects of competitive markets. Indeed, it is hard to see how modern capitalism could have survived without the

decisive intervention of the state in such areas as the welfare state, occupational safety and health, social security, regulating trade, finance, and pharmaceuticals, as well as setting standards for consumer safety.

Given the popular support for state intervention, the fundamentalist right-wing market libertarians appear to have required the obfuscation of scientific evidence to slow down the pace of state intervention. Prevention of such intervention in the long run has proven impossible, and probably will continue to do so in the future.

What is puzzling to me is why the same set of people became involved in so many different areas of economic regulation. Of course, these men had great prestige. Frederick Seitz, whom Oreskes and Conway single out repeatedly, is a solid state physicist who had worked on the Manhattan project, is an ex-president of the National Academy of Sciences and has worked with the President's Science Advisory Committee. He and a few others of similar stature have been at the center of virtually every major science-denial initiative. Why is there not more diversity in the leaders of the Merchants of Doubt, and why, after being defeated on one initiative (e.g., denying the harmfulness of tobacco) are the same men considered credible in dealing with a different issue?

This book is a major contribution to resource material on science policy dynamics. I am not sure there isn't a reasonable reply defending the actions of the Merchants of Doubt. These obfuscators never denied the importance of scientific evidence, and they played the game of policy analysis pretty fairly. How many times have \\"scientists\\" unanimously, or close to unanimously, offered a solution to a social problem in situations where they were just wrong. Consider, for instance, eugenics, scientific racism, psychoanalytic theories of mental illness, and the repressed memories movement. It is also important to recognize that in virtually every case, scientific truth triumphed in the end. The future is likely to be more of the same, provided liberal democratic institutions provide a level playing field for expressing public controversy.vention. Prevention of such intervention in the long run has proven impossible, and probably will continue to do so in the future. What is puzzling to me is why the same set of people became involved in so many different areas of economic regulation. Of course, these men had great prestige. Frederick Seitz, whom Oreskes and Conway single out repeatedly, is a solid state physicist who had worked on the Manhattan project, is an ex-president of the National Academy of Sciences and has worked with the President's Science Advisory Committee. He and a few others of similar stature have been at the center of virtually every major science-denial initiative. Why is there not more diversity in the leaders of the Merchants of Doubt, and why, after being defeated on one initiative (e.g., denying the harmfulness of tobacco) are the same men considered credible in dealing with a different issue? This book is a major contribution to resource material on science policy dynamics. I am not sure there isn't a reasonable reply defending the actions of the Merchants of Doubt. These obfuscators never denied the importance of scientific evidence, and they played the game of policy analysis pretty fairly. How many times have \\"scientists\\" unanimously, or close to unanimously, offered a solution to a social problem in situations where they were just wrong. Consider, for instance, eugenics, scientific racism, psychoanalytic theories of mental illness, and the repressed memories movement. It is also important to recognize that in virtually every case, scientific truth triumphed in the end. The future is likely to be more of the same, provided liberal democratic institutions provide a level playing field for expressing public controversy.

Emergent Macroeconomics: An Agent-Based Approach to Business Fluctuations (New Economic Windows)

An Important Contribution to Agent-Based Macroeconomics — Rating: 4/5

The theory of macroeconomic fluctuations has been a pathetic mess for a long time. Indeed, forever. The central model of the economy, the Walrasian general equilibrium model, is a purely equilibrium model, and no one has been able to derive an out-of-equilibrium mechanism of price and quantity adjustment that renders market equilibria dynamically stable, despite more than a half century of trying (see my paper, \\"The Dynamics of General Equilibrium\\", Economic Journal 117 (2007):1289-1309 for details and a proposed solution), and despite blistering attacks from within the economic establishment. See,

for instance, Alan P. Kirman, \\"Whom or What does the Representative Individual Represent?\\" Journal of Economic Perspectives 6 (1992):117-136, and Franklin M. Fisher, Disequilibrium Foundations of Equilibrium Economics (Cambridge, UK: Cambridge University Press, 1983). In a recent paper (Herbert Gintis, \\"The Dynamics of General Equilibrium\\", Economic Journal 117 (2007):1289-1309) I showed using agent-based modeling techniques that the problem with the Walrasian model lies in the assumption that agents never interact, but rather that each makes decisions independently from a given system of prices. I also showed that the assumption that there exists a price structure accepted by all agents in the economy (\\"public prices\\") accounts for the chaotic nature of disequilibrium in the standard Walrasian disequilibrium models. Instead, when each agent has his own set of \\"private prices,\\" even though market competition leads to a very low standard deviation of private prices (I call this situation \\"quasi-public prices\\"), such prices tend strongly to equilibrate the market system in the long run. Finally, I showed that plausible learning processes in the economy lead the system sporadically to make large excursions from equilibrium even in the absence of any global stochastic shocks (I called these \\"local resonances\\").

Because of the lack of dynamics in the standard Walrasian model, macroeconomic theories that depend on this model must perform massive simplifications in order to investigate out-of-equilibrium behavior. The reason these models are such a mess is that they take it for granted that public prices exist (they do not) and that we can analyze the market economy as if individuals never interact, but rather interaction only with private prices. This, of course, is completely incorrect, as I explain above. However, with this assumption, it is clearly permissible simply to aggregate all economic actors of the same type into a \\"representative agent\\" having the average characteristics of that type of agent. From this is born the Keynesian consumption, investment, and government sectors, from which the standard Keynesian models flow. For the rational expectations macro models, we have a similar aggregation, with the completely crazy assumption that an aggregate \\"representative agent\\" will satisfy the condition of \\"rational expectations\\" theory, as though the aggregation of \\"rational agents\\" is prima facie an aggregate rational agent. The intellectual value of these assumptions is rather meager.

This fine book, which was in preparation at the time of appearance of my Economic Journal paper, is quite in agreement with my findings, laying blame on the \\"representative agent\\" assumption, and using agent-based modeling (abm) to investigate macroeconomic dynamics. However, whereas I took individuals as the unit of analysis, the authors allow firms to fill this role. They use empirical data on within-industry firm heterogeneity to model the population of firms, and assume asymmetric information among firms. This leads them to a financial accelerator model of financial fragility with great similarity to a model proposed by Greenwald and Stiglitz in 1993 (Bruce Greenwald and Joseph E. Stiglitz, \\"Financial Market Imperfections and Business Cycles\\", Quarterly Journal of Economics (1993):77-114). Finance is central in their model because the absence of forward markets forces firms to rely on credit to finance investment that matures only across time periods.

Based on careful industry research, the authors' abm is populated with firms whose size distribution take the form of a power law density (Zipf's Law), and firm growth rates follow a Laplace (double exponential) rather than a normal distribution. Such a distribution has `fat tails' that imply more instability than in a system with normally distributed growth densities. Indeed, they show that normally distributed shocks give rise to power law distributions and a Pareto shaped firm size distribution. This is a quite nice finding, and surprising given the degree of aggregation of their agent-based economy (they assume only two sectors, firms and banks, and no individual agents). Clearly individual interactions underlie the power law assumptions concerning firm size and the Laplace distribution of growth rates.ce of forward markets forces firms to rely on credit to finance investment that matures only across time periods. Based on careful industry research, the authors' abm is populated with firms whose size distribution take the form of a power law density (Zipf's Law), and firm growth rates follow a Laplace (double exponential) rather than a normal distribution. Such a distribution has `fat tails' that imply more instability than in a system with normally distributed growth densities. Indeed, they show that normally distributed shocks give rise to power law distributions and a Pareto shaped firm size distribution. This is a quite nice finding, and surprising given the degree of aggregation of their agent-based economy (they assume only two sectors, firms and banks, and no individual agents). Clearly individual interactions underlie the power law assumptions concerning firm size and the Laplace distribution of growth rates.

Understanding Terrorism and Political Violence

The Best Book to Date on Modern Terrorism — Rating: 5/5

Terrorism, defined as attacks on civilian populations with the aim of imposing harm on non-military personnel and property, has been understood for many years as generally a thoroughly rational and calculated attempt at gaining psychological advantage by groups that cannot gain by increasing their direct military confrontation with the enemy. However extensive the damage done, and in the case of nuclear or biological terrorism this damage can be extreme, the point of attacking defenseless civilians is always mainly psychological: break the will of the enemy or establish a reputation that improves the capacity to recruit new combatants (Robert Pape, Dying to Win: The Strategic Logic of Suicide Terrorism (New York: Random House, 2005; Scott Atran, The Moral Logic and Growth of Suicide Terrorism, The Washington Quarterly 29:2 (2006) pp. 127-147).

What is truly and stunningly new is suicide terrorism, where individuals willingly embrace certain death to further the terroristic aims of the groups to which they belong. There were, for instance only 81recorded suicide attacks in the decade of the 1980's, while there were 460 such attacks in 2005 alone. It is not difficult to see why a terrorist organization would want to carry out suicide missions, both for psychological and logistical reasons. Al Qaeda deputy Ayman Al-Zawahiri, for instance, argues in \\"Knights Under the Prophet's Banner\\" that \\"the method of martyrdom operations is the most successful way of inflicting damage against the opponent and the least costly to the mujahideen in casualties\\" (cite in Atran, 2006).

But, what are the motivations of the suicidal attackers? Why are there so many more of these attackers than ever before? It would be easy to answer this if we could attribute suicide terrorism to one or two particular groups (e.g., Al Qaeda), but such groups are generally loose associations of locally-rooted and small networks that do not in any sense take orders from a central authority. Students of terrorism have generally offered explanations that further their own political agendas or theoretical predispositions at the expense of explanatory power. In this volume, Gupta goes through these pseudo-explanations quite carefully and exposes their shortcomings (see also Atran, 2006). Gupta's alternative explanation is very persuasive, although I believe there is an element from Atran's explanation that should be added to Gupta's.

Let me note first that Gupta's book is an excellent introduction to the topic for the uninitiated, as well as a must read for the expert who may be unacquainted with his interpretation of the phenomenon. Gupta uses contemporary behavioral game theory and other experimental evidence to validate his claim that we all harbor both self-regarding and other-regarding preferences. The self-regarding preferences are those commonly studied in biology and economics, but the other-regarding preferences are what make humans truly human and capable of identifying with groups and cooperating effectively in large numbers. In particular, many people identify with large groups and include the welfare of the members of these groups in their personal objective function, so their behavior becomes a balance between self-interest and the goals of the groups to which they belong. When the latter goals become paramount, individuals will be willing even to sacrifice their lives to further the welfare of their groups. This is a simple, direct, and I believe ultimately correct analysis of the situation. Scott Atran, in various papers including the 2006 article cited above, adds an important point. Humans have a strong predisposition to identify with supernatural religious and quasi-religious world views, and these views immeasurably strengthen perceived group-interests. Suicide terrorists, he argues, are motivated by the vision of a whole new world order based on a religious (Al Qaeda) or secular (communist or fascist) vision. I do notthink it is an accident that Islamic fundamentalism had to wait until the collapse of communist millenarianism before it could begin to act on an international scale: there appears to be room for only one global millenarian movement at a time.

There is a temptation to treat such millenarian movements as themselves pathological, but Gupta does not succumb. And rightly so. All the freedoms we enjoy today were fought for and won by groups with a millenarian vision of a better society, and doubtless the advance of freedom in the future will depend on the brave actions of such visionaries. In the present era, lovers of freedom must condemn both

terrorism in democratic countries, and quite independently, Islamic fundamentalism with its goal of imposing a religious orthodoxy upon national political systems, as intrinsically opposed to an emancipated society.

Personally, I do not abhor the moral absolutism of a Taliban terrorist; rather I abhor terrorism and the goals of the Taliban. I appreciate, by contrast, the moral absolutism of freedom fighters everywhere. \\"Extremism in the defense of liberty is no vice,\\" Barry Goldwater once said. Here, here!

Gupta is a fine humanist with a touching and empathetic writing style that matches his erudition and veracity. He also speaks in part from personal experience, as he recounts in his discussion of Maoist terrorism in Bengal.cident that Islamic fundamentalism had to wait until the collapse of communist millenarianism before it could begin to act on an international scale: there appears to be room for only one global millenarian movement at a time. There is a temptation to treat such millenarian movements as themselves pathological, but Gupta does not succumb. And rightly so. All the freedoms we enjoy today were fought for and won by groups with a millenarian vision of a better society, and doubtless the advance of freedom in the future will depend on the brave actions of such visionaries. In the present era, lovers of freedom must condemn both terrorism in democratic countries, and quite independently, Islamic fundamentalism with its goal of imposing a religious orthodoxy upon national political systems, as intrinsically opposed to an emancipated society. Personally, I do not abhor the moral absolutism of a Taliban terrorist; rather I abhor terrorism and the goals of the Taliban. I appreciate, by contrast, the moral absolutism of freedom fighters everywhere. \\"Extremism in the defense of liberty is no vice,\\" Barry Goldwater once said. Here, here! Gupta is a fine humanist with a touching and empathetic writing style that matches his erudition and veracity. He also speaks in part from personal experience, as he recounts in his discussion of Maoist terrorism in Bengal.

The Expansion of Economics: Toward a More Inclusive Social Science

A Pioneering Contribution to Integrating Sociology and Economics — Rating: 4/5

In the mid-1930's, Talcott Parsons began a sustained attempt to integrate sociology and economics into a unified theory of human action. The attempt produced some brilliant works, including The Structure of Social Action (1937), but eventually foundered when Parsons moved from social action theory to structural functionalism, and produced nothing more profound than the notion that economics deals with \\"rational\\" choice and sociology with \\"non-rational\\" choice, and sociology focuses on `integration' and `latency' in Parsons' AGIL structural functional framework, while economics dealt with `adaptation.' Edward O. Wilson initiated a more formidable attempt at integration of all the social sciences, natural sciences, and even the humanities, in his brilliant Consilience (1998). However, Wilson's attempt was more philosophically inspiration than concrete tools for forging and integrated system of knowledge. A third attempt, more substantive than either of the above, was the attempt of economist Gary Becker to extend the principles of rational action from the market place to such spheres as the family, education, crime, drug addiction, and other concerns normally attended to only by sociologists and economists. So successful was the research of Becker's and his University of Chicago associates that the buzz-word for much of the 1980's and 1990's was the `threat of economic imperialism,' with the tools of neoclassical economics reaching out to gobble up the surrounding fields of sociology and social psychology.

Gary Becker made a sustained effort to engage sociologists during this period, to the extent of teaming up with the great sociologist James Coleman, who came to Chicago and taught courses with Becker. In the early 1980's, Becker and Coleman ran an interdisciplinary seminar on rational choice. In 1989, Coleman founded the journal Rationality and Society, which to this day serves as an outlet for rigorous sociological research in an interdisciplinary setting. The culmination of Coleman's effort was his piece de resistance,' The Foundations of Social Theory (1990). This book was poorly received by sociologists (I read some ten reviews in sociology journals, not one of them in the least favorable) and completely ignored by economists. While this thrust to unite economics and sociology foundered after 1995, it had

made indelible marks on applied sociology, including the theory of the family and domestic relations, feminism, the analysis of crime and addiction, and several other areas.

In this book, Grossbard-Shechtman and Clague attempt to revive the spirit of integrating economics and sociology by collecting numerous theoretical and applied papers, each of which exhibits the gains to be made from an integrated approach. The papers are of uneven quality and some are now a bit dated, though this volume is essential reading for anyone concerned with the integration of sociology and economics. As with Becker and Coleman, the authors interpret their task as showing that rigorous analytical modeling of rational actors who are motivated by self-interest in all areas of social life. Their treatment is sensitive and thought-provoking, leading this book to be a fine contribution to the admittedly meager literature on the integration of the social sciences. Most important, the contributors in this volume almost completely abandon the attempt to identify `rationality' with `self-interest,' an identification virtually characteristic of the work of Parsons, Becker, and Coleman.

It is curious to me that these great thinkers could confuse rationality with selfishness. It is true that Parsons did not have the benefit of the Savage (1954) codification of the rational actor model, which clearly shows that rational choice does not depend on the content of preferences, so long as they are transitive and complete. But both Becker and Coleman surely knew that `rationality' does not preclude other-regarding arguments in the individual's objective function. At any rate, Coleman pushed the equation of rationality and self-regarding preferences to a bizarre limit in The Foundations of Social Theory, rendering this work fully deserving of the criticism heaped upon it by the sociological readership. Gary Becker has had much less invested in this equation, so not surprisingly, in recent years he has be supportive of efforts to apply the rational actor model to sociological areas in which the idea that all motives are self-regarding is clearly inapplicable. As for the future of the integration of sociology and economics, see my book The Bounds of Reason (Princeton 2009), where I sketch fairly fully how this integration might take place.

Most important, I do not think there is any danger of economics gobbling up sociology is any future merger. There are central principles of sociology, including the notion of norms, and of social psychology, including the notion of the internalization of norms, that economics must learn from these other disciplines. Moreover, once the bloom of youth fades from game theory, it will be realized that the Nash equilibrium concept is far too weak to serve as a general principle of social equilibrium, and more complex notions will centrally involve forms of reasoning that violate the methodological individualism of which classical game theory and neoclassical economics in general are so proud. Econommics imperialism in the behavioral sciences does not appear to have very much of a future.ve function. At any rate, Coleman pushed the equation of rationality and self-regarding preferences to a bizarre limit in The Foundations of Social Theory, rendering this work fully deserving of the criticism heaped upon it by the sociological readership. Gary Becker has had much less invested in this equation, so not surprisingly, in recent years he has be supportive of efforts to apply the rational actor model to sociological areas in which the idea that all motives are self-regarding is clearly inapplicable. As for the future of the integration of sociology and economics, see my book The Bounds of Reason (Princeton 2009), where I sketch fairly fully how this integration might take place. Most important, I do not think there is any danger of economics gobbling up sociology is any future merger. There are central principles of sociology, including the notion of norms, and of social psychology, including the notion of the internalization of norms, that economics must learn from these other disciplines. Moreover, once the bloom of youth fades from game theory, it will be realized that the Nash equilibrium concept is far too weak to serve as a general principle of social equilibrium, and more complex notions will centrally involve forms of reasoning that violate the methodological individualism of which classical game theory and neoclassical economics in general are so proud. Econommics imperialism in the behavioral sciences does not appear to have very much of a future.

Fault Lines: How Hidden Fractures Still Threaten the World Economy

This is an Absolute Must Read! — Rating: 5/5

This book, one of the slew of publications dealing with the financial meltdown of 2007, is very attractive. It is well-written, authoritative, thoughtful, succinct, well-rounded, and incisive. Moreover, it may well be correct. The author, who is Professor of Finance at the University of Chicago Business School, lays out the complete argument in the first chapter, the succeeding chapters expand on each of his major points, and he closes with well-thought-out recommendations for reform. Also attractive is the fact that Rajan's interpretation is as unique as it is persuasive, and is neither right, left, or middle-of-the-road.

Rajan argues that there is no one single \\"cause\\" of the crisis, but rather that there are several major strains (\\"fault lines\\") in the world economy that render such crisis virtually inevitable, and that without easing the strains through major world restructuration, there is little doubt but that more crises await us in the future. It is useless, he maintains, simply to improve our ability to forecast financial crises, because forecasting is simply not a problem. \\"The problem was not that no one warned about the dangers; it was that those who benefited from an overheated economy...had little incentive to listen...each one of us did what was sensible given the incentives we faced. Despite mounting evidence that things were going wrong, all of us clung to the hope that things would work out... Collectively, however, our actions took the world's economy to the brink of disaster...\\" (p. 1, 4) How true! A top banker at one of the collapsed investment house was recently asked why they didn't pull out of the spiral sooner. \\"Hey,\\" he answered, \\"when the music plays, we dance. That's our job.\\" So it was with all of us.

Fault line 1, according to Rajan, is the stress in the advanced capitalist countries caused by the need for unrestricted competition to generate growth and innovation, all the while leading to extreme income and wealth inequality---inequality that is hard to contain in a political democracy. Rajan notes, for instance, that in the USA, more than 50% of all wealth increases in the current century accrued to the top 1% of wealth holders. Not wanting to constrain the competitive engine of growth, politicians relieved the strain by engineering easy credit for the masses, without worrying about what would happen when the chickens came home to roost. This argument is of course the darling of the free-market right-wing ideologues, who blame Fannie May and Freddy Mac, as well as the implicit government guarantee that large firms are \\"too big to fail,\\" for the crisis of 2007 (see, for instance, Thomas Sowell's book The Housing Boom and Bus; Sowell is usually cogent and insightful, but this book is a froth-at-the-mouth diatribe against the welfare state).

Except that Rajan does not conclude that the government and its welfare state should be dismantled. Recognizing that political democracy spawns welfare states as a matter of course, Rajan concluded that we must have serious educational reform in the United States and other countries that allow a greater fraction of citizens to share in the wealth. Rajan devotes whole chapters to laying out this message.

Fault line 2, Rajan says, involves structural imbalances between the developed market economies and the newly-industrializing countries. In an earlier period the newcomers borrowed heavily from the West to finance development, and were repeatedly burned when international market conditions blocked their ability to meet debt obligations. In response, more recently developing economies have modernized their export sectors, but let their domestic sectors stagnate, mired in oligopoly, special privileges, and corruption. As a result, these economies (think China, Japan) exported their profits rather than consuming them domestically. Add to this a flood of money from oil-rich countries with no interested in helping their own poor, starving masses, and we see a West that is totally awash in foreign investment funds. This financial surplus allowed the US Federal Reserve to maintain absurdly low interest rates for long periods of time, which of course contributed mightily to the overheating of the housing sector. \\"in a regulatory coup de grace,\\" says Rajan, \\"the Fed chairman, Alan Greenspan, effectively told the markets in 2002 that the Fed would not intervene to burst asset-price bubbles but would intervene to ease the way to a new expansion if the markets imploded. If ever financial markets needed a license to go overboard, this was it.\\" (p. 15)

Fault line 3 for Rajan is the structural discrepancy between the open and \\"arms-length\\" nature of finance in the US and other advanced economies, and the old-boy and nepotistic organization of finance in the countries that lend to the West. This situation led foreign investors to take at face value the claims of borrowers in America and Europe, without subjecting them to the usual financial scrutiny. This,

together with the Fed's encouragement of the financial sector, created a climate in which the stunning stupidities of the subprime housing market could spread furiously without check.

Rajan stresses repeatedly that the financial sector must be given a long leash in the interests of innovation and growth, but he does recommend more \\"transparency\\" in the financial sector, in the form of heightened regulation and accountability. The only actors who can really change to make a better system, says Rajan, are governments! To control the fault line associated with inequality, he suggests more and better education. To deal with excessive foreign lending of the newly industrializing countries, he recommends reform of their domestic production sectors. Rajan's proposals are presented lucidly and without much hype (although I'm afraid his faith in a reformed educational system is not likely justified by the realistic prospects for success), but it is clear that whatever is done, it must not unduly harness the creativity of the market. I don't have Rajan's expertise, but I have come to the same conclusion in recent years.

The role of the state in preventing economic collapse has increased by an order of magnitude since the Great Depression. The idea that sound monetary policy alone can control breakdowns is just fantasy, as is the notion that if you leave the market alone it will auto-generate stability. If the Obama administration had not stepped in as decisively at it did, I am certain the world economic would have take four or five times a large a hit, leading to the overthrow of governments and the reorganization of international alliances. There will always be crises, as long as the engine of social well-being depends on the creativity of business, which is likely for a very, very long time. Meanwhile, we must assiduously fight off the free-market crazy who would paralyze government if it could, and the left-wing dimwits who would regulate markets until they choked to death. We must live with our social fault lines no less than with our geological fault lines for the foreseeable future.e see a West that is totally awash in foreign investment funds. This financial surplus allowed the US Federal Reserve to maintain absurdly low interest rates for long periods of time, which of course contributed mightily to the overheating of the housing sector. \\"in a regulatory coup de grace,\\" says Rajan, \\"the Fed chairman, Alan Greenspan, effectively told the markets in 2002 that the Fed would not intervene to burst asset-price bubbles but would intervene to ease the way to a new expansion if the markets imploded. If ever financial markets needed a license to go overboard, this was it.\\" (p. 15) Fault line 3 for Rajan is the structural discrepancy between the open and \\"arms-length\\" nature of finance in the US and other advanced economies, and the old-boy and nepotistic organization of finance in the countries that lend to the West. This situation led foreign investors to take at face value the claims of borrowers in America and Europe, without subjecting them to the usual financial scrutiny. This, together with the Fed's encouragement of the financial sector, created a climate in which the stunning stupidities of the subprime housing market could spread furiously without check. Rajan stresses repeatedly that the financial sector must be given a long leash in the interests of innovation and growth, but he does recommend more \\"transparency\\" in the financial sector, in the form of heightened regulation and accountability. The only actors who can really change to make a better system, says Rajan, are governments! To control the fault line associated with inequality, he suggests more and better education. To deal with excessive foreign lending of the newly industrializing countries, he recommends reform of their domestic production sectors. Rajan's proposals are presented lucidly and without much hype (although I'm afraid his faith in a reformed educational system is not likely justified by the realistic prospects for success), but it is clear that whatever is done, it must not unduly harness the creativity of the market. I don't have Rajan's expertise, but I have come to the same conclusion in recent years. The role of the state in preventing economic collapse has increased by an order of magnitude since the Great Depression. The idea that sound monetary policy alone can control breakdowns is just fantasy, as is the notion that if you leave the market alone it will auto-generate stability. If the Obama administration had not stepped in as decisively at it did, I am certain the world economic would have take four or five times a large a hit, leading to the overthrow of governments and the reorganization of international alliances. There will always be crises, as long as the engine of social well-being depends on the creativity of business, which is likely for a very, very long time. Meanwhile, we must assiduously fight off the free-market crazy who would paralyze government if it could, and the left-wing dimwits who would regulate markets until they choked to death. We must live with our social fault lines no less than with our geological fault lines for the foreseeable future.

Post Walrasian Macroeconomics: Beyond the Dynamic Stochastic General Equilibrium Model

A Taste of the Future--But just a Taste — Rating: 4/5

David Colander is an intelligent, principled, and indefatiguable proponent of alternatives to the received wisdom in economics. This book lays out a cogent critique of standard macroeconomic theory and proposes directions for empirically-grounded alternatives.

It is easy to critique the three main traditional branches of macroeconomics, Walrasian, Keynesian, and New Classical. The Walrasian model is purely an equilibrium model with no known analytically-based dynamics. Because macroeconomics deals centrally with disequilibrium and dynamical phenomena, it is perfectly useless for macroeconomic dynamics, and this has been well-known for fifty years. The Keynesian and New Classical models are \\"toy\\" models with \\"representative agents\\" and single markets in investment and consumption. The Keynesian model makes assumptions concerning individual irrationality that it claims underly the volatility of the market economy, and the New Classical model makes even more bizarre assumptions concerning rationality and market clearing. These models are, to my mind, so incredibly stupid that it is unbelievable that reasonable economists would hold any credence in them.

In fact, most economists don't really buy the standard models, but they are more or less in agreement with the policy implications of these models. This is lamentable, because it is clear that their policy implications are reasonable as often as unreasonable (although I must say that the New Classical policy recommendations are sometimes even stupider than the theory from which they are derived, and the Keynesian recommendations are often just social democratic crap---I tend to prefer the latter as the lesser of two really, really, distateful evils). I also think a great case can be made for the argument that many Nobel prizes awarded to New Classical ideologues are due to the right-wing zeal of Nobel Prize Committee's august chairman. The idea that Lucas, Prescott, et al. have made \\"scientific discoveries\\" is just one big joke.

What about alternatives? Let me say first that Colander has made a big mistake in identifying the reigning wisdom in macroeconomics as \\"Walrasian,\\" and his proposed alternatives as \\"post-Walrasian.\\" As Alan Kirman clearly states in the Forward to this book, not a single one of the attributions to Walras of the \\"post-Walrasians\\" is even remotely correct. Here are just a single example, others being scattered throughout the volume. \\"Walrasians assume high-level information processing capability and a rich information set.\\" (p. 2) In fact, agents in the Walrasian general equilibrium model are price takes who know nothing but their own personal consumption/production/ownership characteristics.

By the choice of Colander's contributors, it is possible to infer that he sees two distinct directions for what he calls post-Walrasian macroeonomics. The first is what I would call \\"Walrasian Dynamics,\\" which treats the economy as a complex dynamic nonlinear system, and uses techniques from complexity theory, especially agent-based modeling and analytical models with \\"fat tail\\" error distributions. This is ably represented by Leigh Tesfatsion, Robert Axtell, and Blake LeBaron. For the interested reader, my paper \\"The Dynamics of General Equilibrium\\" (Economic Journal, 2007) lies in this area and is the first to demonstrate both the quasi-stability and excessivel volatility of a dynamic version of Walrasian general equilibrium. The second is vector autoregression techniques that attempt to do without a specific \\"representative agent\\" model of the macro economy. I have no faith in the possibilities of such models, but the reader can judge for himself.

This book does not deliever the goods, but it is inspirational for those who are hardy enough to attempt to forge an alternative to the ghastly macro models that monopolize the field these days.st one big joke. What about alternatives? Let me say first that Colander has made a big mistake in identifying the reigning wisdom in macroeconomics as \\"Walrasian,\\" and his proposed alternatives as \\"post-Walrasian.\\" As Alan Kirman clearly states in the Forward to this book, not a single one of the attributions to Walras of the \\"post-Walrasians\\" is even remotely correct. Here are just a single example, others being scattered throughout the volume. \\"Walrasians assume high-level information processing capability and a rich information set.\\" (p. 2) In fact, agents in the Walrasian general equilibrium model are price takes who know nothing but their own personal

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Trust Theory: A Socio-Cognitive and Computational Model

Excellent Contribution, Marred by Ignorance of Behavioral Game Theory — Rating: 4/5

The authors are part of a leading Italian cognitive psychology work group. Castelfranchi's publications are many and highly insightful. This book is likely to represent a key reference work for many years, and I recommend it highly for researchers in cognitive and computational psychology areas. I will limit myself to criticisms and suggestions for elaboration.

The major weakness of the volume is its almost complete lack of reference to supporting empirical material. This absence renders the volume more like a classical philosophical text than a piece of scientific research. Moreover, though the title stresses computation, there is virtually no elaboration of or testing of computational models.

For instance, the authors repeatedly assert \\"trust is the glue of society,\\" but they never give either argument or empirical support for this notion. There are, of course, whole fields that dewith the nature of human society that never mention trust at all, or at best consider it an optional phenomenon. The concept does not exist in standard economic or biological theories, and most anthropological accounts of social life never mention trust. The authors may be correct (I would say \\"a glue\\" rather than \\"the glue\\"), but they have gone zero distance in proving this fact.

The authors are critical of all previous models of trust, which they declare \\"pernicious\\" (p. 7), and set the goal of providing \\"a general, abstract, and domain-independent notion and model of trust.\\" (p. 7) Seeking such generality, however, presumes that trust has some \\"essential\\" meaning, rather than being a term with several very loosely related meanings, as a Wittgensteinian treatment might suggest. If there is no essence, there is no general model. I doubt that there is such an essence. For instance, the concept of trust in \\"I had no choice but to trust his good will\\" is very different from the concept in \\"I exposed myself to harm by opting to trust his good will,\\" and is different from the concept in \\"I trust the capacity of my mathematical software to solve this problem accurately.\\"

The authors' negative evaluation of domain-specific models of trust leads them to reject the very best models, and the most persuasive evidence available to us. The whole research tradition initiated by Elinor Ostrom, James Walker, Toshio Yamaguchi and others on trust in common pool resource and public goods games is rejected for being too \\"restricted.\\" (p. 26) On the other hand, they somewhat unexpectedly argue that \\"only a cognitive agent can trust another; only an agent endowed with goals and beliefs.\\" (p. 38) The appears to imply that trust cannot be modeled most animal interactions. Of course, trust means something differentn applied to fish that scavenge the mouths of larger fish, but it is not clear that this behavior is not in the \\"family meaning\\" of the term trust.

I suspect that the authors' rejection of the standard behavioral game theoretic literature on trust is due to its mathematical nature. The authors do have some equations in the book, but they never use mathematics for the purpose of drawing conclusions from a set of postulates. Rather they use equations to describe their ideas, much as they use diagrams with boxes and arrows. They certainly show nothing

but hostility to the behavioral game theoretic literature on trust, which they refer to as \\"economic.\\" The whole of Chapter 8 is devoted to a critique of this literature. I do not believe their critique has a single element of validity. Their main argument is that the behavioral game theory (bgt) research is \\"reductivist.\\" I submit that this is just name-calling---one can engage in it without having any substantive argument at all.

Their first specific point is that the literature is self-contradictory: for the bgt researcher \\"trust is the belief that Y will choose and will behave in a non-rational way,\\" and hence that \\"the entire society is grounded on the irrationality of the agents.\\" (p. 236) They arrive at this attribution by noting that bgt finds that agents exhibit other-regarding preferences, which the theory explicitly argues are rational although not selfish. The authors go to note that the trust behavior discovered in bgt is in fact not irrational, thus completely undermining their central point. Indeed, it is quite clear from their argument that they have learned the distinction between rationality and selfishness from behavioral game theory research. Whom do they think they are kidding in offering this lame critique?

The authors would have done better to have taken a more catholic attitude towards behavioral game theory trust research. Recognizing its obvious strengths, they would have done better to develop the behavioral game theoretic model for their readers, and then, in a spirit of respect and inclusiveness, noted its limitations, and devoted their efforts a developing a more inclusive explanatory framework.hey arrive at this attribution by noting that bgt finds that agents exhibit other-regarding preferences, which the theory explicitly argues are rational although not selfish. The authors go to note that the trust behavior discovered in bgt is in fact not irrational, thus completely undermining their central point. Indeed, it is quite clear from their argument that they have learned the distinction between rationality and selfishness from behavioral game theory research. Whom do they think they are kidding in offering this lame critique? The authors would have done better to have taken a more catholic attitude towards behavioral game theory trust research. Recognizing its obvious strengths, they would have done better to develop the behavioral game theoretic model for their readers, and then, in a spirit of respect and inclusiveness, noted its limitations, and devoted their efforts a developing a more inclusive explanatory framework.

On Human Nature: With a new Preface, Revised Edition

Really needs six stars, but.... — Rating: 5/5

This Pulitzer Prize winning work is the third of a trilogy that this great man wrote in the 1970, including, in addition to the current volume, The Insect Societies (1971), and Sociobiology: The New Synthesis (1975). The first of these established Wilson's reputation as the leading expert on the social organization of ants, bees, wasps, and termites. The second is a masterpiece of entomology, and extension of biosocial theory to cold-blooded vertebrates, birds, and mammals, with sub-categories ungulates (critters with hoofs) and elephants, carnivores, nonhuman primates, and finally to Homo sapiens himself. E. O. Wilson is, I believe, the first to conceive of sociobiology as a general field of study covering the manner of live of all social species. Prior to Wilson, several animal behaviorists (a.k.a. ethologists), indeed even in Darwin himself, had written about communalities behavior and emotions across species. But unlike his predecessors, from Charles Darwin to Konrad Lorenz, Robert Ardrey, Desmond Morris, Lionel Tiger and Robin Fox, Wilson's focus is on the organization of social life across species as well as the effect of this organization on the constitution of the species.

When I read Sociobiology, the second of the trilogy, in 1975, I loved it in every way, and it, along with George Williams' Adaptation and Natural Selection (1966), started my life-long effort to integrate biological thinking into economics and sociology. I had no problem with the biological argument because I had spent the last seven years or so being a proponent of Karl Marx's early work, especially his Manuscripts of 1844, which developed the idea that there is an innate human nature (Gatungswesen or species-being) which is subject to alienation (Entfremdung) when not supplied with its conditions for full realization (this theory is close to Amartya Sen's approach to `human flourishing,' if you want to see a contemporary version). The only part of this theory that I have given up is the part that says capitalism leads to alienation. That now appears to me to be completely wrong-headed; capitalism plus liberal

democracy are the prerequisites in the contemporary world of personal liberation. Of course, there are illiberal and undemocratic capitalisms that entail alienation and worse. Mais, je divague....

Edward Wilson wrote this book, he tells us, in response to the bitter and violent reaction against the final chapter of Sociobiology: The New Synthesis, which was the only chapter in the book to deal with Homo sapiens. The criticism was far from impersonal, as the main critics were faculty at Harvard (where Wilson taught), MIT, and other Boston-area academics, some of whom had impeccable scientific credentials. I was a graduate student at Harvard from 1961 to 1969, and member of the Harvard faculty from 1969-1976, so witnessed the events surrounding the political formation of these critics. The anti-Vietnam war and the civil rights movements severely damaged the complacent liberal world-view of many academics who matured between World War II and the Vietnam war. Those with training in the humanities and social sciences for the most part became liberal supporters of the anti-war and civil rights movements, but those with training in the natural sciences, including biology, fell under the spell of Marxian social theory and identified with movements for socialism in the advanced capitalist countries and in the Third World. Many of those members of Boston-Cambridge academia formed Science for the People and other groups purporting to reveal the falsities of bourgeois thought and explain the necessity of a transition to socialism to combat domestic racism and international imperialist wars. The critical point about these groups was their commitment to critique not just bourgeois society, but bourgeois science as an emanation of bourgeois society.

I found this aspect of Science of the People and related groups to be bothabhorrent, yet fascinating. I considered myself a Marxist, but I had never encountered \\"bourgeois science\\" in my years of studying mathematics, physics, and biology. I had always believed that science is science, and unless distorted by an oppressive state or religious power, produces truth (or warranted belief) through open debate, public discourse, and the reward of excellence. I had read about Lysenko in the Soviet Union, who gained the confidence of the country's Communist (and scientifically illiterate) leadership by claiming that Darwinism was \\"bourgeois science,\\" who had dissidents from his Lamarckian views shot and exiled, and whose wild ideas eventually led to agricultural crisis in the Soviet Union. I therefore had nothing but contempt for the Science for the People group, and often noted that few were professionally trained in the areas they glibly wrote about, and their critiques were simple-minded and naïve. Moreover, the idea that they could speak of \\"bourgeois science\\" and \\"socialist science\\" gave me chills. These were highly intelligent, highly sophisticated (at least in natural science) academics at the top of the academic heap. Is this what our country was headed for? Would social change bring us Lysenko's all over the place?

Of course, I was far from alone being a progressive academic who refused to play the Science for the People game. Noam Chomsky, Hilary Putnam, and many others did not participate. But the Science for the People crowd had a very loud voice. Accusing Edward Wilson of racism and right-wing fascist sentiments, critics claimed that sociobiology was political ideology, not science. In November 1975, a Science for the People offshoot, the Sociobiology Study Group spearheaded a violent and multi-pronged attack on Edward Wilson, the co-signers of the group's first public statement (appearing in the New York Review of Books) including Wilson's prominent colleagues, Richard C. Lewontin and Stephen J. Gould.

The attack on Edward Wilson expanded country-wide. He was assaulted by Maoist activist students while he was speaking at a meeting of the American Association for the Advancement of Science meeting. Ironically, Stephen Jay Gould was co-speaker at the event. Gould took the microphone, apologized to Wilson, and denounced the perpetrators, quoting Lenin's critique of misplaced violence. Wilson recalled, however, that after the attack \\"No one asked [the attackers] to leave the premises, no police were called, and no action was taken against them later.\\"

In fact, the argument concerning humans in Sociobiology: The New Synthesis is carefully considered, measured, and temperate, hardly justifying the venom of Wilson's critics. Sociobiology supports comparative studies across species of such aspects of social behavior as cooperation and reciprocity, conflict and cheating, and kinship and mating. Such behaviors have a strong genetic basis in that rarely would a member of one social species have the proper predispositions and capacities to operate successfully in the social context of another, and animal societies tend to be strikingly similar even when widely separated in time and space. Moreover, because all social species are the product of Darwinian

evolution, the same must be true of human societies, and since social cohesion in human societies depends on sharing common ethical norms, morality itself must be the product of evolution.

Critics of sociobiology are fond of labeling any argument in which genes affect social behavior \\"genetic determinist." Wilson certainly recognizes the effect of genes on behavior, but is equally insistent on the effect of culture on genes. \\"If culture has evolved for millennia under the influence of a biological human nature, it is equally true that human nature has evolved... Gene-culture coevolution, the synergistic coupling of the two forms of evolution was inevitable." (p. xi) Later, he reinforces this point by offering an observation that has come to be central to evolutionary game theory, \\"sociobiological theory can be obeyed by purely cultural behavior as well as by genetically constrained behavior.\\" (33) However, Wilson infuriates his critics by claiming that \\"the humanities and social sciences shrink to specialized branches of biology,\\" but he means this in the same sense that chemistry is a specialized branch of physics and biology is a specialized branch of chemistry. I find it quite misleading to use the term \\"specialized branch\\" in this way. Chemistry introduces numerous central concepts that are absent from physics, and biology has many more that are absent from chemistry. Similarly, the humanities cannot in any sense be reduced to social science, nor can social science be reduced to the natural sciences.

Typical of Wilson's mode of argumentation is his use of Chomsky's theory of \\"deep grammar\\" to explain how a universal human predisposition to understand deep grammar can be compatible with huge cross-cultural variation in the actual linguistic behavior of groups. He could have added, as an example of gene-culture coevolution, that the physiology of language production (tongue, lips, facial muscles, and larynx) evolved over hundreds of thousands of years to facilitate verbal and facial communication.

Wilson clearly recognizes in On Human Nature that the fact that humans are not infinitely malleable is a fundamental emancipatory message. Whereas Utopians have for centuries dreamed of creating the perfect society based on inculcating prosocial values and suppressing selfish and antisocial values, Wilson recognizes the totalitarian implications of ideologies, such as Marxism and some forms of liberalism. Wilson argues that we evolved our human morality in small hunter-gatherer societies over hundreds of thousands of years, and the hunter-gatherers of the Pleistocene tended to be egalitarian and tolerant, thus explaining the universal attraction of democracy and civil liberties. He argues, for instance that such institution as slavery and communal child-rearing have reappeared throughout history, they are not in fact very compatible with human nature, so they tend to be short-lived and to disappear.

Typical of Wilson's mode of analysis, he argues that humans, especially males, are predisposed to being aggressive, but aggression can be kept to a moderately low level through good laws. Wilson even offers the now standard argument that women were not subordinated to men in most hunter-gather societies, so that the idea of gender equality is quite compatible with basic human nature. He argues that the relaxation of discriminatory norms against the full participation of women in public life would release a huge reservoir of talent, but enforced equality of outcome between genders would be unlikely to work in many areas of social life. He argues that homosexuality is found in many animals and must be considered a common sexual variant in humans. He even offers a \\"kin-selection\\" theory of how homosexuality can maintain itself in a biological population. Concerning altruism, Wilson speculates that most human altruism among non-kin is the \\"soft altruism\\" called by Robert Trivers \\"reciprocal altruism,\\" but he also speculates that \\"hard altruism\\" of the sort analyzed by Darwin, in which individuals sacrifice inclusive fitness for the group, might have evolved and may be important in modern society.

Naturally, Wilson gets in his licks against his critics, briefly in the Preface and at greater length towards the end of On Human Nature. \\"The strongest opposition to the scientific study of human nature,\\" he observes, \\"has come from a small number of Marxist biologists and anthropologists who are committed to the view that...nothing exists in the untrained human mind that cannot be readily channeled to the purposes of the revolutionary socialist state. When faced with the evidence of genetic structure, their response has been to declare human nature off limits to further scientific investigation.\\" (191)

In his concluding chapter, Wilson offers three areas in which sociobiology might contribute to making a better world for humans. First, \\"a biology of ethics will make possible the selection of a more deeply understood and enduring code of moral values.\\" (196) Second, he argues that \\"a correct application of evolutionary theory also favors diversity in the gene pool as a cardinal value.\\" This implies that \\"master race\\" politics, eugenics, and other \\"genetic improvement\\" schemes should be rejected. Finally, and following the Enlightenment thinkers, he argues that \\"universal human rights\\" can be defended on the basis of a \\"universal human nature.\\"

There has been an explosion of sociobiological research in the three decades since Edward O. Wilson wrote On Human Nature. My interpretation of the evidence is that it strongly supports Wilson's moderate statements almost perfectly, and gives the lie to his critics of all stripes.an observation that has come to be central to evolutionary game theory, \\"sociobiological theory can be obeyed by purely cultural behavior as well as by genetically constrained behavior.\\" (33) However, Wilson infuriates his critics by claiming that \\"the humanities and social sciences shrink to specialized branches of biology,\\" but he means this in the same sense that chemistry is a specialized branch of physics and biology is a specialized branch of chemistry. I find it quite misleading to use the term \\"specialized branch\\" in this way. Chemistry introduces numerous central concepts that are absent from physics, and biology has many more that are absent from chemistry. Similarly, the humanities cannot in any sense be reduced to social science, nor can social science be reduced to the natural sciences.

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The coming crisis of western sociology

Sad but True: Gouldner as Bearer of Zeitgeist — Rating: 3/5

A key event in the trivialization of sociology as a discipline was the bitter critique and rejection of Parsonian theory in the late 1960's and early 1970's. Almost no sociologist lamented the demise of Parsons' contributions and virtually every well-known sociologist of the day delighted in partaking of the crime and feasting on the corpse. Of course, rejecting Parsons' attempt to fuse the insights of Pareto, Weber, and Durkheim into a general theory of social order, and offering nothing of substance in its place, sociological theory wended its moribund way into the present. In this present, sociology is like fine art. Just as every painter creates his own aesthetic from an unshared private world, so the sociological theorist today weaves a complex story that does not build upon, nor does it have positive synergy with, the work of his predecessors. The situation would be amusing---so many intelligent men and women huffing and puffing and saying worth noting and building upon---where it not so tragic.

I have spent some of my time over the past few years trying to figure out how this sad situation came about. It became clear through the rereading of Parsons' major works that the path towards a cogent sociological theory that he began to forge in the writing of The Structure of Social Action (1937) he abandoned in the post-world-war II period, first by replacing a voluntaristic notion of action in favor of the notion of the individual as a compliant conformist to social norms, internalizing whatever the social system placed in from of him in the form of cultural structure, and second by locating the roots of social order in the functioning of institutions rather than in the active embracing of social norms by a critical and active body of social actors. This was a terrible mistake on his part, probably induced by Parsons' witnessing the astounding descent into abject conformity in the United States, and in a different by equally powerful way in the Soviet Union. The 1950's were indeed the era of the Man in the Grey Flannel Suit in the United States, and the paranoid apparatchik in the Soviet Union. We might forgive Parsons for abandoning an emancipatory social theory in favor of the soporific edifice that was structural-functionalism. Until the Viet Cong beat up the French, Rosa Parks sat in the front of the bus, and Daniel Cohn-Bendit's student movement almost brought Europe to its moldy knees, it was not completely implausible to believe in the unmitigated power of the ruling order to suffocate all creativity.

I now feel that if the world could have cut directly from 1945 to 1965, Parsons' own work would have taken a more fruitful turn. First, in politics we have the rise of emancipatory movements in the advanced world. Second, we have the rise of sociobiology, which when applied to humans, rejects the notion that people can be socialized in any arbitrary manner, but rather that there is a core of human nature, together with a core of universal human morality, that yearns for freedom, democracy, and autonomy, and hence will attempt to throw off the yoke of any oppressive culture, however ubiquitous, if it has the material means and social space to do so. Third, with the rise of behavioral game theory and its attendant implications for the rationality of prosocial and altruistic behavior, Parsons would have seen that the distinctions between the structures of self-regarding and other-regarding action (inherited from Pareto) are arbitrary, and therefore there is a deep link between economic rationality and moral social action.

Even without these insights, Parsons' contributions were monumental, and it remains to explain why they were so roundly rejected, rather than simply amended to correct their obvious weaknesses and biases. This is the tack I took in my Ph.D. dissertation (Harvard, Economics, 1969) which I dedicated to Talcott Parsons and Karl Marx, with the head quote: \\"Things are getting better and better; it's people I'm worried about.\\" (Mose Alison) But even I abandoned the task of integrating Parsons into a defensible social theory, and doubtless behaved no better that the leading lights of sociology in dealing with Parsonian theory. My excuse: I was a kid behaving like a kid and they were grown-ups behaving like kids.

There were four major reactions to the demise of the Parsonian system. The first, and most productive, was the \\"retreat\\" to so-called Middle Level Theory (Merton et al.). Middle level theory has been very successful in my opinion. The number of absolutely brilliant and still insightful contributions to the analysis of specific social problems by middle level applied sociologists is large and growing. The second and completely unsuccessful reaction was the attempt by individual theorists to erect a complete alternative theory that denied all the insights of Parsons' synthesis. Homan's exchange theory, Giddens' structuration theory, and Coleman's rational choice sociology fit into this category. The case of James Coleman is particularly poignant. Coleman was a first rate middle-level applied sociologist whose analysis of social tensions in the United States were deeply penetrating and creative. His late-in-life attempt at doing high-level theory (The Foundations of Social Theory) was an embarrassing disaster. The third reaction was a \\"let one hundred flowers bloom\\" attempt to turn sociological theory into the History of the Great Masters of Sociology, with no attempt to adjudicate among these masters. Turner (J. H.) is probability the acknowledged master of this approach.

Gouldner's The Coming Crisis is the fourth approach, that of denying the status of objective science to sociology, criticizing Parsons for his 1950's-style conservatism, and arguing that the whole \\"problem of social order\\" reeks of an oppressive, anti-emancipatory conservatism. Gouldner was certainly not alone in taking this tack in the criticism of Parsons, but he was the most dedicated an eloquent. To any objective observer, Parsons hated Nazism and Communism bitterly and loved liberal democracy. If this is oppressive conservatism, then I am proud to join ranks with Parsons. Who are the Good Guys of the period: those who hated and fought against fascism and Communism. Who are the Bad Buys of the period: those who did not. It is that simple. Calling Parsons and his functional sociology \\"conservative\\" does a grave disservice to Parsons. Parsons consistently lent his weight to emancipatory social change, so long as it lay within the institutional boundaries of liberal democracy.

Gouldner's position is that Parsons' whole attempt at doing `objective' sociology is wrong-headed, because there can be no objective sociology. \\"Sociologists must surrender the human but elitist assumption that others behave out of need whereas they believe because of the dictates of logic and reason.\\" (p. 26) This is an ancient idealist position that would be resurrected and blown into a full-fledged rallying-cry some years later by the Postmodernists. To my mind, this position is not beneath contempt. It is quite deserving of contempt. The observation that for each of us, the assessment of truth and falsity is biased by personal prejudice and social perspective is surely correct. However, a statement concerning social reality becomes accepts by a body of scientists only after the evidence in its favor is publicly vetted and accepted by all (or at least the overwhelming majority of) knowledgeable parties. Even then, it is not impossible that the collectively shared prejudices of the judges may lead to a false assessment, which is why it is important to have an open and non-exclusionary process of recruiting individuals into a scientific community.

Gouldner's subjectivist position is widespread in sociology, and it is poisonous indeed. Why bother pretending to learn the scientific method if objectivity is impossible? Why make mathematical models if they are just personal ideology in disguise? Why search for truth when it is so much easier just to express your opinions and heap invective on your enemies? Why find out the hidden structure of social life when you can so much more easily just join the ranks of the Socially Committed? Only a hypocrite believes in truth, anyway---or so the Gouldnerites and their supporters would have us believe.

The reason I spend so much time on this point is that Parsons' central goal was to solve the \\"problem of social order.\\" Gouldner interprets this goal as one of trying to maintain the status quo. The goal could have no other purpose because there is no such thing as an objective solution to the problem of social order. But, this is just false. I deeply admired Parsons' theory of social order even when I was a

radical Marxist SDS activist in the civil rights, anti-war, and student culture movements of the late 1960's and 1970's. I did not believe that his theory was correct, but I believed it was part of a correct theory, whatever the political differences between myself and Talcott Parsons. In order to be a good scientist, one must separate one's political, cultural, and social prejudices from the quest for objective truth, and one must be tolerant of others with whom we disagree. Why? Because they might be right, and if you give them the time, space, and courtesy, they may convince you.

In the present case, I gave Gouldner plenty of time and space (the book is over 500 pages long). I am not convinced.icated an eloquent. To any objective observer, Parsons hated Nazism and Communism bitterly and loved liberal democracy. If this is oppressive conservatism, then I am proud to join ranks with Parsons. Who are the Good Guys of the period: those who hated and fought against fascism and Communism. Who are the Bad Buys of the period: those who did not. It is that simple. Calling Parsons and his functional sociology \\"conservative\\" does a grave disservice to Parsons. Parsons consistently lent his weight to emancipatory social change, so long as it lay within the institutional boundaries of liberal democracy. Gouldner's position is that Parsons' whole attempt at doing `objective' sociology is wrong-headed, because there can be no objective sociology. \\"Sociologists must surrender the human but elitist assumption that others behave out of need whereas they believe because of the dictates of logic and reason.\\" (p. 26) This is an ancient idealist position that would be resurrected and blown into a full-fledged rallying-cry some years later by the Postmodernists. To my mind, this position is not beneath contempt. It is quite deserving of contempt. The observation that for each of us, the assessment of truth and falsity is biased by personal prejudice and social perspective is surely correct. However, a statement concerning social reality becomes accepts by a body of scientists only after the evidence in its favor is publicly vetted and accepted by all (or at least the overwhelming majority of) knowledgeable parties. Even then, it is not impossible that the collectively shared prejudices of the judges may lead to a false assessment, which is why it is important to have an open and non-exclusionary process of recruiting individuals into a scientific community. Gouldner's subjectivist position is widespread in sociology, and it is poisonous indeed. Why bother pretending to learn the scientific method if objectivity is impossible? Why make mathematical models if they are justpersonal ideology in disguise? Why search for truth when it is so much easier just to express your opinions and heap invective on your enemies? Why find out the hidden structure of social life when you can so much more easily just join the ranks of the Socially Committed? Only a hypocrite believes in truth, anyway---or so the Gouldnerites and their supporters would have us believe. The reason I spend so much time on this point is that Parsons' central goal was to solve the \\"problem of social order.\\" Gouldner interprets this goal as one of trying to maintain the status quo. The goal could have no other purpose because there is no such thing as an objective solution to the problem of social order. But, this is just false. I deeply admired Parsons' theory of social order even when I was a radical Marxist SDS activist in the civil rights, anti-war, and student culture movements of the late 1960's and 1970's. I did not believe that his theory was correct, but I believed it was part of a correct theory, whatever the political differences between myself and Talcott Parsons. In order to be a good scientist, one must separate one's political, cultural, and social prejudices from the quest for objective truth, and one must be tolerant of others with whom we disagree. Why? Because they might be right, and if you give them the time, space, and courtesy, they may convince you. In the present case, I gave Gouldner plenty of time and space (the book is over 500 pages long). I am not convinced.

Sociobiology: The New Synthesis, Twenty-Fifth Anniversary Edition

Totally Awesome! — Rating: 5/5

This book is, to my mind, the most important single book on social behavior in animals and humans, edging out Darwin's The Expression of Emotions in Man and Animals (1872), as well as Maynard Smith's Evolution and the Theory of Games (1982). Only 30 of the book's 575 pages are devoted to Homo sapiens, but this is the part I am interested in, and the part I will discuss in this review.

I recently reread Wilson's Sociobiology because I had only a vague memory of what exactly he said about human sociobiology, but numerous writers alluded to the crudeness and inaccuracy of Wilson's analysis. It is well known that Wilson's sociobiology of our species was bitterly critiqued by liberals and Marxists for its \\"reductionism,\\" and \\"biological determinism.\\" It is well known that sociobiology has shed these criticisms in recent years, but some have alleged that the radical's critique of Wilson's early contribution to human sociobiology is, regretfully, well-deserved.

To my surprise, upon rereading I found this charge to be quite without merit. We may know much more about human sociobiology today than a third of a century ago, but Wilson's general exposition is virtually flawless. Wilson's central point is that human genetic development has created a species that enjoys a plasticity of social organization orders of magnitude more flexible than that of other species. Human genes, so to speak, liberate us for a panorama of cultural life-worlds. Reductionist this is not. Genetic determinist this is not. Wilson speculates that genes promoting flexibility in social behavior are strongly selected on the individual level, but he follows Darwin in speculating that group selection may have been important in making us who we are.

Of course, Wilson decisively rejects the \\"tabula rasa\\" view that the human mind can be successfully indoctrinated into any arbitrary cultural system (the devout wish of the social engineers of the political left and right).\\"Although the genes have given away most of their sovereignty,\\" he asserts, \\"they maintain a certain amount of influence in at least the behavioral qualities that underlie variations between cultures. Moderately high heritability has been documented in introversion-extroversion measures... neuroticism... depression, and the tendency toward certain forms of mental illness such as schizophrenia.\\" (p. 550) Wilson suggest that the field of \\"anthropological genetics\\" could lead us to a valid model of the biological foundations of human nature. Wilson describes two widely disparate methods of anthropological genetics. The first uses laboratory experiments to identify the individual units of human behavior, for instance Abraham Maslow's hierarchy of needs and George Homans' behavioral moral theory. The second is phylogenetic analysis, in which we compare and contrast humans with other related species. At the time Sociobiology was written, this method was popularized by Konrad Lorenz, Robert Ardrey, Desmond Morris, Lionel Tiger and Robin Fox, and others. Wilson is (rightly) skeptical of this body of research, preferring to derive genetic predispositions by establishing \\"the lowest taxonomic level at which each character shows significant intertaxon variation.\\" (p. 551)

\\"Human societies have effloresced to levels of extreme complexity because their members have the intelligence and flexibility to play role of virtually any degree of specification, and to switch them as the occasion demands.\\" (p554) In sociological theory, Emile Durkheim and Talcott Parsons had developed socialization theories in which individuals internalize social norms, and thus become \\"indoctrinated\\" with values that lead them to behave prosocially even when it is not in their material interest to do so. Wilson attributes this idea to Campbell (1972), and discusses the possibility that group selection is involved in this sophisticated aspect of human psychology. This, of course, has become a major theme in contemporary sociobiology.

\\"Scientists and humanists should consider together the possibility,\\" says Wilson, \\"that the time has come for ethics to be removed temporarily from the hands of the philosophers and biologicized.\\" (p. 562) Wilson's discussion of this issue is incisive and nuanced. Today we would say simply that human ethics is a central aspect of human evolution, and that morality is the product of a gene-culture coevolutionary dynamic that must be studied in a purely scientific manner. Wilson clearly understands that human culture sets the stage for human genetic evolution just as much as the converse.

In sum, I could find no hint of the reductionism and biological determinism that critiques have charged permeates Wilson's treatment of human sociality. Rather, I find a sophisticated and nuanced analysis that includes most of the theoretical tools that were to be developed over the succeeding four decades. Wilson's judgment here is deeply moderate and considered, leading me to believe that his bitter critics simply recoiled at the reasonable suggestion that there are biological foundations to human behavior and morality, and hence limits to the extent that humans can be indoctrinated into extreme anti-humanistic ideologies. The true enemies of human freedom are those who yearn for a system of totalizing culture that is capable of eliminating individual will and reducing people to cogsS in an immense social machine. Probably such enemies of freedom cannot succeed in the long run, but they certainly have the capacity to ruin the lives of millions in the attempt.me in contemporary sociobiology.

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Not in Our Genes: Biology, Ideology, and Human Nature

Just too, too silly — Rating: 2/5

Richard Lewontin is a very famous geneticist, evolutionary biologist, and New York Review of Books polemicist. Steven Rose is a neurobiologist, and Leon Kamin is a psychologist. Only Kamin knows anything about human beings by training in a behavioral science. This distribution of training explains why the only seriously scientific contribution in this book is the discussion of IQ. Lewontin and Rose feel qualified to offer extended expositions of social theory by virtue of their adherence to Marxism, which is a complete theory of society, history, and culture---or so the authors apparently believe.

\\"We share a commitment to the prospect of the creation of a more socially just---a socialist---society,\\" they inform us (p. ix). Well, okay, this is 1984 and there were still many smart people with good hearts out there who believed that Marxian socialism was the path to social justice. Lewontin, Rose, and Kamin argue that sociobiology of the sort developed by Richard Dawkins (The Selfish Gene) and Edward O. Wilson (Sociobiology) is a deeply conservative defense of the status quo, capitalism. The authors' concept of ideology and its position in society is refreshingly simple: \\"we use the term ideology here and throughout this book,\\" they say, \\"with a precise meaning. Ideologies are the ruling idea of a particular society at a particular time. They are ideas that express the \\"naturalness\\" of any existing social order and help maintain it.\\" (p. 4) There then follows a most famous and indeed lyrical quote by Marx and Engels from The German Ideology: \\"The ideas of the ruling class are in every epoch the ruling ideas... the ideal expression of the dominant material relationships.\\"

For Lewontin, Rose, and Kamin, capitalism maintains itself by fostering an ideology that considers itself the only feasible form of social organization, and proclaims at the same time that is it the most fair and just of possible social forms. The dispossessed and discriminated against, in the current situation, ethnic and racial minorities, the poor, women, and the working classes, are taught the dominant ideology, accept it uncritically, and remain subservient. It is thus the role of the intellectual to reveal the falsity of the ideology to the masses, who will then be better prepared to struggle for their own emancipation.

Little of the ideology of capitalism intersects science, but where it does, Lewontin, Rose, and Kamin consider it their task to uncover the falsities perpetrated in the name of politically neutral science. This is, of course, a huge job. The twin axes of capitalist ideology uncovered in this book are reductionism and biological determinism. Reductionism is the attempt to explain all human behavior as mechanical causality as opposed to dialectically interactionist holism, biological determinism is the theory that our genes determine our behavior. \\"Critics of biological determinism,\\" we are told, \\"are like members of a fire brigade, constantly being called out in the middle of the night to put out the latest conflagration, always responding to immediate emergencies... Now it is IQ and race, now the genetic fixity of human

nature. All of these deterministic fires need to be doused with the cold water of reason behavior the entire intellectual neighborhood is in flames.\\" (p. 264) Lewontin, Rose, and Kamin thus present themselves as the true Ghostbusters of the Left.

Now, the great social movements of the era in the United States were the women's movement for gender equality, and the civil rights movement for African American human rights. Both of these were phenomenally successful, although to this day incompletely worked out. The dominant class ideologies that supported the oppression of women and blacks did have strong pseudo-scientific justifications, in the form of assertions that women and black were genetically inferior to men and whites. I do not know whether the arguments of Lewontin, Rose, and Kamin, as well as other scientists (e.g., Stephen Jay Gould) contributed to lifting the veil of ideology to the degree that successful contestation on behalf of women and blacks could be mounted. If so, more power to them, because the arguments that women and blacks are genetically inferior, and that their subordinate status could be justified in terms of this inferiority, was widely argued by scientists at the turn of the twentieth century.

However, the villains of this book are not from the distant past, but rather are the contemporary thinkers Richard Dawkins, Arthur Jensen, Richard Herrnstein, and Edward O. Wilson. Actually, we can really leave Dawkins out of this because he never explicitly applied his ideas to contemporary politics. Now Jensen and Herrnstein did both argue that the cause of the low IQ of American blacks was genetic inferiority, and both suggested that the goal of racial economic equality was unattainable. However both were roundly and widely criticized for lack of supportive data. Our Marxists fire brigade was not necessary for this task. The authors do take Dawkins to task, but his evolutionary biology is far too sophisticated for political life (imagine a Senator giving an anti-civil rights speech based on the \\"selfish gene\\"), and he certainly is not now, nor has he ever been, an opponent of movements for social equality.

Thus, the real object of this critique is Edward O. Wilson, and is famously brilliant book Sociobiology (1975). The problem is that Lewontin, Rose, and Kamin's critique of Wilson is a complete straw man. If you don't believe me, go back and read the supposedly offending material in Wilson's book. It simply isn't there. Lewontin, Rose, and Kamin call Wilson and biological determinist, but Wilson is careful to reject genes to phenotype determinism by presenting a prototype of gene-culture coevolution. Indeed, this is the same sort of gene-culture interdependence that Lewontin, Rose, and Kamin advocate in the name of \\"dialectical interaction.\\" Wilson does assert \\"Scientists and humanists should consider together the possibility,\\" says Wilson, \\"that the time has come for ethics to be removed temporarily from the hands of the philosophers and biologicized.\\" (p. 562) The notion of biologicizing ethics, of course, means adding a biological grounding to ethical theory, not deriving morality from our genes.

Why would Lewontin, Rose, and Kamin hate Wilson's work so strongly? Why would they misrepresent it so thoroughly? We do not really find out in this book. We might suppose, as Wilson suggests in the new Preface to the book, published in 2000, that gene-culture coevolution places too much power in the ability of individuals to reject the sort of cultural indoctrination that Marxian socialist societies so eagerly attempt to impose on the people. Whatever the truth, this book is ham-handed and crude to the point of being silly. Perhaps the authors might learn a little more social theory before trying to protect us from the evil pseudo-scientists.g., Stephen Jay Gould) contributed to lifting the veil of ideology to the degree that successful contestation on behalf of women and blacks could be mounted. If so, more power to them, because the arguments that women and blacks are genetically inferior, and that their subordinate status could be justified in terms of this inferiority, was widely argued by scientists at the turn of the twentieth century. However, the villains of this book are not from the distant past, but rather are the contemporary thinkers Richard Dawkins, Arthur Jensen, Richard Herrnstein, and Edward O. Wilson. Actually, we can really leave Dawkins out of this because he never explicitly applied his ideas to contemporary politics. Now Jensen and Herrnstein did both argue that the cause of the low IQ of American blacks was genetic inferiority, and both suggested that the goal of racial economic equality was unattainable. However both were roundly and widely criticized for lack of supportive data. Our Marxists fire brigade was not necessary for this task. The authors do take Dawkins to task, but his evolutionary biology is far too sophisticated for political life (imagine a Senator giving an anti-civil rights speech based on the \\"selfish gene\\"), and he certainly is not now, nor has he ever been, an opponent of movements for social equality. Thus, the real object of this critique is Edward O. Wilson, and is famously brilliant book Sociobiology (1975). The problem is that Lewontin, Rose, and Kamin's

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Biolinguistics: Exploring the Biology of Language

Lot's of Talk, Limited Exploration — Rating: 2/5

This is a very important topic on which much path breaking work is currently being done. Unfortunately, this book is mostly a rehash of old debates, a homage to Chomsky, and an intemperate diatribe against those with other views (especially Pinker, Dennett, Maynard Smith, and the people Jenkins calls Ultra-Darwinists).

There is an ancient insight that the less people know about an important issue, the more likely they are to stake out opposing positions and argue themselves silly of which is correct. This book conforms to this insight, but also has the added un-attraction of often taking and defending really silly positions. Thus, I found most of this book a complete waste of time. If, dear reader, you don't know the past controversies in biolinguistics, you may disagree. Indeed, you may even relish the barrage of misdirected arguments and almost willful obfuscations, which lend a rather Gothic novel tinge to the book.

Let us first be clear that there a paucity of real information about the evolution of human language. Towards the end of the book, Jenkins approvingly quotes molecular geneticist and science author Robert Pollack who speculates on the origin of the language facility: \\"Even as we begin to understand the biology of thought and language, we must acknowledge how little we know..." (p. `176) Jenkins comments: \\"Although we may be some years from the answers to the questions Chomsky and Pollack raise...\\" (p. 177) Well, if you don't have the answers, why don't you just shut up and get down to work, Professor Jenkins?

Because of the absence of real findings, Jenkins gives us long expositions on topics we do know something about, however tangential to the issue of the evolution of language. We learn about Turing machines, the Turing-Zhabotinsky diffusion process, symmetry breaking, quantum mechanics, and the problem of unification in the natural sciences. For this reason, the reader is advised to start with Chapter 3, a third of way through the book. This chapter presents the \\"principles and parameters\\" model of language acquisition that Jenkins favors, but instead of presenting the evidence, he refers us to Jusczyk (1997) and Mehler and Dupoux (1994), two very interesting and recent reviews of the empirical literature.

I believe Jenkins' treatment of \\"Ultra-Darwinism\\" is just plain wrong. He depicts Ultra-Darwinism as believing human language is explained either by \\"natural selection\\" or by \\"God's will.\\" (p. 178) I think a more plausible representation of the view (which I share) is that the characteristics of such complex biological configurations as the human brain, the human eye, and human language, are either miracles, or are the product of some combination of natural selection and drift, given the laws of physics and developmental biology, the latter supplying the costs and benefits of alternative mechanisms for achieving functional goals. Moreover, if some characteristic of a complex configuration

is costly for the organism to maintain and would degenerate and become non-functional through natural mutations, then its persistence suggests that selection rather than drift is accountable for this fact.

Jenkins does not critique this reasonable view, and indeed does not even present it. Being the bottom-feeder that he is, he finds the most partial and indefensible parts of the position and subjects them to unrelenting criticism. This is really, really boring. Jenkins does not seem to know the difference between an efficient cause and a final cause. Natural selection is always a final cause when it is at work, never an efficient cause. The fact that something is the product of natural selection is not an alternative to a causal analysis of chemical and biological processes through which natural selection works.

To give but one example, we can figuratively say that some features of an organism are the \\"consequences of developmental constraints rather than selection\\" (p. 194), such an assertion is just shorthand for the following: \\"some feature of the organism are byproducts of selection on other features, chosen because of their low cost of production in terms of the physiology and developmental structure of the organism.\\" For instance, bilateral symmetry may be least-cost, given certain developmental constraints, so given these constraints, bilateral symmetry is not itself the product of selection. However, in cases where asymmetry, despite being relatively costly to produce, has positive fitness enhancing effects (e.g., the hermit crab's claw, the functional differentiation of the two hemisphere of the brain), asymmetry will be either directly selected, or will be a byproduct of selection on other traits that are more efficiently achieved through bilateral asymmetry. The issue here is very clear, and a competent writer should be able to sort this out, without giving us a tirade of superficial critiques of an untenable view that cannot be seriously maintained.

Perhaps the interested reader would do better with Jusczyk (1997) and Mehler and Dupoux (1994), both available from Amazon. For an exciting current project, see Bickerton and Szathmáry (MIT, 2009).s just shorthand for the following: \\"some feature of the organism are byproducts of selection on other features, chosen because of their low cost of production in terms of the physiology and developmental structure of the organism.\\" For instance, bilateral symmetry may be least-cost, given certain developmental constraints, so given these constraints, bilateral symmetry is not itself the product of selection. However, in cases where asymmetry, despite being relatively costly to produce, has positive fitness enhancing effects (e.g., the hermit crab's claw, the functional differentiation of the two hemisphere of the brain), asymmetry will be either directly selected, or will be a byproduct of selection on other traits that are more efficiently achieved through bilateral asymmetry. The issue here is very clear, and a competent writer should be able to sort this out, without giving us a tirade of superficial critiques of an untenable view that cannot be seriously maintained. Perhaps the interested reader would do better with Jusczyk (1997) and Mehler and Dupoux (1994), both available from Amazon. For an exciting current project, see Bickerton and Szathmáry (MIT, 2009).

Darwinian Populations and Natural Selection

Enough New Material to Make Worth Reading — Rating: 3/5

Peter Godfrey-Smith is among the very best of a new breed of philosopher of biology whose contributions are very strong both in the biological sciences and the philosophy thereof. This book reviews some major controversies in evolutionary biology over the past half-century, with the author's own attempt to adjudicate among the contestants.

It is not clear to me to whom this book is targeted. Godfrey-Smith describes the controversies at too high a level for a novice reader, but the descriptions are too detailed and labored for a reader who has followed the debates. His own contributions are very powerful in some cases, while in others he more or less follows the lead of others, supplying little that is new at all.

His most important point is that the replicator/vehicle approach to Darwinian evolution was motivated by paradigmatic controversies unleashed by Dawkins' The Selfish Gene, and is really a step backward. He shows rather definitively that the standard definition of Darwinian evolution by Lewontin and others is both adequate and much broader than that proposed by the replicator/vehicle proponents. Indeed, he

gives examples of Darwinian evolution where there are no replicators at all. Godfrey-Smith also claims that the replicator/vehicle approach often embraces and ``agential" view of genes, endowing them anthropomorphically with \\"plans\\" and \\"objectives.\\" He does not make clear why this is a problem. I do not believe it is. There is nothing wrong with game-theoretic behavioral models in which different alleles at a locus are associated with different phenotypic behaviors. This \\"phenotypic gambit\\" has allowed evolutionary biology to develop very powerful models of strategic interactions within species.

Godfrey-Smith also presents a novel and interesting critique of the \\"gene's-eye view\\" approach to Darwinian evolution (which is of course closely related to the replicator/vehicle view). While recognizing that sometimes the gene's-eye view is the correct way to view the problem, it is not correct in general because the notion of a \\"gene\\" is simply not sufficiently well-defined to serve as a \\"Darwinian population.\\" While this critique is novel and interesting, I do not think it is more powerful than the traditional critique that genes evolve only as part of gene complexes, and the highly non-linear interaction among genes renders the idea that we should always model evolution at the level of the gene implausibleway to view the problem, it is not correct in general because the notion of a \\"gene\\" is simply not sufficiently well-defined to serve as a \\"Darwinian population.\\" While this critique is novel and interesting, I do not think it is more powerful than the traditional critique that genes evolve only as part of gene complexes, and the highly non-linear interaction among genes renders the idea that we should always model evolution at the level of the gene implausible

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The Use and Abuse of Biology: An Anthropological Critique of Sociobiology

A Partially Valid Critique of Early Sociobiology — Rating: 2/5

Marshall Sahlins is one of the finest anthropologists of the post-WW II period. Edward O. Wilson, the butt of his critique in this slim volume, is perhaps the most celebrated living naturalist and animal behaviorist. The bone of contention, Wilson's monumental Sociobiology (1975) was the opening shot of a forty year (to date) attempt to create a theory of social organization relevant to all social species, not just humans. Wilson is well equipped for this task, as the leading world expert on ant societies. Sociobiology, the book, dealt almost exclusively with ant societies, but the final chapter broached the subject of human society. The chapter is brilliant and still worth reading, although I think overly influenced by Robert Ardrey, Konrad Lorenz, Desmond Morris, Lionel Tiger, Robin Fox, and others who attempted to explain war, aggression, and other anti-social but typically human behavior in terms of primordial emotions and behaviors we share with other animals. Sociobiology has matured in succeeding years, sometimes under the rubric of evolutionary psychology, or behavioral ecology, and more recently, gene-culture coevolutionary theory.

The reaction of mainstream social scientists to Wilson's suggestion that biology might have something to do with human behavior was enormous and mostly viciously critical. You can read about this debate in Ullica Segerstrale's beautiful and exciting book, Defenders of the Truth: The Battle for Science in the Sociobiology Debate and Beyond (Oxford 2001). Sahlins is no less critical of Wilson that Science for the People, Richard Lewontin, or Stephen Jay Gould, but in this nicely written, witty, and insightful book, the author tries to present a dispassionate critique---light rather than heat. By and large he does so in the first three quarters of the book, only to descend into inanity in the last quarter, which argues that sociobiology is an ideological defense of capitalism. \\"Sociobiology,\\" Sahlins proclaims, \\"contributes primarily to the final translation of natural selection into social exploitation.\\" (p. 73) Many social theorists shared this sentiment because the early sociobiological models dealt with competition and conflict rather than cooperation and altruism. This one-sidedness has been completely reversed in recent decades, especially since the recognition that multicellular organisms are themselves cooperative societies, as well as the publication of John Maynard Smith and Eors Szathmary's great book, The Major Transitions in Evolution (1997). At any rate, I believe there is no place in scientific debates about modeling social organization for dwelling on such irrelevancies as the ideological impact of a doctrine, so I will not discuss this part of Sahlins' argument.

Sahlins' main argument is that sociobiology treats human culture as a simple side-effect of human biological organization, and hence reduces the social sciences to biology. \\"In place of a social constitution of meanings, [sociobiology] offers a biological determination of human interactions with a source primarily in the general evolutionary propensity of individual genotypes to maximize their reproductive success.\\" (p. x) Sahlins asserts emphatically that \\"biology...is completely unable to specify the cultural properties of human behavior or their variation from one group to another.\\" (p. xi) For E. O. Wilson, by contrast, \\"any Durkheimian notion of the independent existence and persistence of the social fact is a lapse into mysticism. Social organization is rather, and nothing more than, the behavioral outcome of the interaction of organisms having biologically fixed inclinations.\\" (5) This critique does really hit the mark. Until quite recently the denigration of culture and the critique of social theories for which human culture are central and independent variables was characteristic of sociobiology and its offshoots. Even E. O. Wilson's recent insightful attempt at integrating the behavioral sciences, Consilience: The Unity of Knowledge (1998) amounted to little more than reducing culture to biology.

Tragically, but no surprisingly, Sahlins simply reverse Wilson's causal order. \\"The structure of determinations is a hierarchical one set the other way round,\\" he says, meaning that in humans, biological issues are strictly subordinate to cultural issues. Moreover, he asserts \\"I am making no more claim for culture relative to biology than biology would assert relative to physics and chemistry.\\" (p. 63)

This view, to my mind, is the cardinal sin of pre-sociobiology social science: relegating human genetic composition to a purely infrastructural role in human behavior. The correct position, I believe, was articulated by Luigi Luca Cavalli-Sforza and Marcus W. Feldman, Cultural Transmission and Evolution (Princeton, NJ: Princeton University Press, 1981); Robert Boyd and Peter J. Richerson, Culture and the Evolutionary Process (Chicago: University of Chicago Press, 1985); Robin M. Dunbar, \\"Coevolution of Neocortical Size, Group Size and Language in Humans\\", Behavioral and Brain Sciences 16,4 (1993):681-735 and other gene-culture coevolutionists. Because of the importance of culture and complex social organization to the evolutionary success of Homo sapiens, individual fitness in humans depends on the structure of social life. Because culture is both constrained and promoted by the human genome, human cognitive, affective, and moral capacities are the product of an evolutionary dynamic involving the interaction of genes and culture. We call this dynamic gene-culture coevolution. This coevolutionary process has endowed us with preferences that go beyond the self-regarding concerns emphasized in traditional economic and biological theory, and with a social epistemology that facilitates the sharing of intentionality across minds. Gene-culture coevolution is responsible for the salience of such other-regarding values as a taste for cooperation, fairness, and retribution, the capacity to empathize, and the ability to value such character virtues as honesty, hard work, piety, and loyalty.

When environmental conditions are positively but imperfectly correlated across generations, each generation acquires valuable information through learning that it cannot transmit genetically to the succeeding generation, because such information is not encoded

in the germ line. In the context of such environments, there is a fitness benefit to the epistatic transmission of information concerning the current state of the environment; i.e., transmission through non-genetic channels. Several epistatic transmission mechanisms have been identified, (Eva Jablonka and Marion J. Lamb, Epigenetic Inheritance and Evolution: The

Lamarckian Case, Oxford: Oxford University Press, 1995), but cultural transmission in humans and to a lesser extent in other animals (John Tyler Bonner, The Evolution of Culture in Animals, Princeton, NJ: Princeton University Press, 1984; and Peter J. Richerson and Robert Boyd, \\"The Evolution of Ultrasociality\\", in I. Eibl-Eibesfeldt and F.K. Salter (Eds.) Indoctrinability, Ideology and Warfare, New York: Berghahn Books, 1998:71-96), is a distinct and extremely flexible form. Cultural transmission takes the form of vertical (parents to children) horizontal (peer to peer), and oblique (elder to younger), prestige (higher status influencing lower status), popularity, and even random population-dynamic transmission, as in Stephen Shennan, Quantifying Archaeology (Edinburgh: Edinburgh University Press, 1997) and James M. Skibo and R. Alexander Bentley, Complex Systems and Archaeology (Salt Lake City: University of Utah Press, 2003).

The parallel between cultural and biological evolution goes back to Thomas Huxley (1955), Karl Popper (1979), and William James (1880)--see Alex Mesoudi, Andrew Whiten and Kevin N. Laland, \\"Towards a Unified Science of Cultural Evolution\\", Behavioral and Brain Sciences 29 (2006):329-383for details. The idea of treating culture as a form of epigenetic transmission was pioneered by Richard Dawkins, who coined the term \\"meme\\" in The Selfish Gene (1976) to represent an integral unit of information that could be transmitted phenotypically. There quickly followed several major contributions to a biological approach to culture, all based on the notion

that culture, like genes, could evolve through replication (intergenerational transmission), mutation, and selection.

I do not know what Sahlins would think if he returned to view the current state of sociobiology, which is much more balanced than the fragments that existed in 1976. He might well be as hostile as ever, but his grounds for criticism would have to be considerably different from those presented in this volume., the capacity to empathize, and the ability to value such character virtues as honesty, hard work, piety, and loyalty. When environmental conditions are positively but imperfectly correlated across generations, each generation acquires valuable information through learning that it cannot transmit genetically to the succeeding generation, because such information is not encoded in the germ line. In the context of such environments, there is a fitness benefit to the epistatic transmission of information concerning the current state of the environment; i.e., transmission through non-genetic channels. Several epistatic transmission mechanisms have been identified, (Eva Jablonka and Marion J. Lamb, Epigenetic Inheritance and Evolution: The Lamarckian Case, Oxford: Oxford University Press, 1995), but cultural transmission in humans and to a lesser extent in other animals (John Tyler Bonner, The Evolution of Culture in Animals, Princeton, NJ: Princeton University Press, 1984; and Peter J. Richerson and Robert Boyd, \\"The Evolution of Ultrasociality\\", in I. Eibl-Eibesfeldt and F.K. Salter (Eds.) Indoctrinability, Ideology and Warfare, New York: Berghahn Books, 1998:71-96), is a distinct and extremely flexible form. Cultural transmission takes the form of vertical (parents to children) horizontal (peer to peer), and oblique (elder to younger), prestige (higher status influencing lower status), popularity, and even random population-dynamic transmission, as in Stephen Shennan, Quantifying Archaeology (Edinburgh: Edinburgh University Press, 1997) and James M. Skibo and R. Alexander Bentley, Complex Systems and Archaeology (Salt Lake City: University of Utah Press, 2003). The parallel between cultural and biological evolution goes back to Thomas Huxley (1955), Karl Popper (1979), and William James (1880)--see Alex Mesoudi, Andrew Whiten and Kevin N. Laland, \\"Towards a Unified Science of Cultural Evolution\\", Behavioral and Brain Sciences 29 (2006):329-383for details.The idea of treating culture as a form of epigenetic transmission was pioneered by Richard Dawkins, who coined the term \\"meme\\" in The Selfish Gene (1976) to represent an integral unit of information that could be transmitted phenotypically. There quickly followed several major contributions to a biological approach to culture, all based on the notion that culture, like genes, could evolve through replication (intergenerational transmission), mutation, and selection. I do not know what Sahlins would think if he returned to view the current state of sociobiology, which is much more balanced than the fragments that existed in 1976. He might well be as hostile as ever, but his grounds for criticism would have to be considerably different from those presented in this volume.

The Oxford Handbook of Rationality (Oxford Handbooks)

Rationality made Boring — Rating: 2/5

Rationality means many different things, and is not a field of study. Not surprisingly, a \\"handbook\\" of rationality reads more like an eclectic set of dictionary entries. There are some fine authors represented in this collection, but I found the subjects I know idiosyncratic and perfunctory, the authors managing to to make exciting topics seem boring. The subject I know less well or not at all I found bland and superficial. In no sense are these chapters reviews of the their respective fields. Rather, they are relatively narrow essays on particular topics.

The Invisible Hook: The Hidden Economics of Pirates

The Economics of Piracy---and Less — Rating: 4/5

This is a completely captivating account of the \\"great age of piracy\\" (1716-1726) and surrounding years, by an economist who loved pirates as a boy, has had an economics supply and demand diagram tattooed to his bicep since he was 17, and who proposes to his girl friend Ania in the dedication, declaring that if she turns him down, he will join the legion of pirates about whom he writes.

Leeson correctly notes that most historians do not know economics and hence cannot deal with important parts of the piracy phenomenon. Throughout the book he stresses that the supply of pirates is a function of the wage and level of demand for \\"legitimate\\" seamen, which is itself a function of the level of inter-country hostilities. He notes that the penchant of pirates for torturing their captives was limited to those who refused to divulge the whereabouts of the booty or who resisted capture. Torture was thus just a reputation-making device that lowered the cost of doing business for pirates. Leeson also stresses that pirates had much better working conditions than legitimate seamen, who were subject to the arbitrary and often cruel and bitterly selfish authority of the ship's captain.

In one important respect, Leeson is putting one over on the innocent reader. He suggests that the democratic structure of the pirate ship can be understood in terms of standard economic theory of the rational self-interested actor. A democratic ship was a preferred work environment for pirates, so they instituted political democracy (electing and recalling pirate captains) because they controlled the organization of production on the pirate ship. This may well be true, but this is hardly what we learn in standard economic theory. First, why would a rational self-interest pirate bother to attend meetings, listen to speeches, and vote for a captain? Assuming one vote cannot change the outcome of the election with more than infinitesimal probability, voting is an altruistic act, not a self-interested act.

Now of course perhaps it could be argued that pirate ships only have a maximum of 500 pirates, so the probabilities, costs, and benefits indicate that democratic participation is a self-regarding act of a rational pirate. But Leeson says nothing about this at all, leaving it to the unsophistication of the reader not to notice the problem.

Moreover, standard economic theory of the firm suggests that informational and agency issues lead to a set of owners virtually disjoint from the set of producers; i.e., since Alchian and Demsetz at least, firms have managers hired by owners, and managers hire and control workers. The idea of democratic worker control flowing from the standard theory is bizarre, to say the least. Leeson does address the principal-agent problem, saying \\"On the pirate ship, then, the principals were the agents.\\" (p. 41) But this quite misleading. In the principal agent model there is a single principal, not a group of principals. The model does not work at all unless the principals, supposing they are a plurality, can somehow be aggregated into a single decision-maker. Moreover, the fact that the principals are the agents in no way solves the principal-agent problem---each agent still has an incentive to shirk, indeed almost as great an incentive as when there is a single, separate, owner of the ship serving as agent.

I conclude that there is still a lot more to be said about the organization of piracy than is touched on in this book. But Leeson has given us an exciting start.ted act. Now of course perhaps it could be argued that pirate ships only have a maximum of 500 pirates, so the probabilities, costs, and benefits indicate that democratic participation is a self-regarding act of a rational pirate. But Leeson says nothing about this at all, leaving it to the unsophistication of the reader not to notice the problem. Moreover, standard economic theory of the firm suggests that informational and agency issues lead to a set of owners virtually disjoint from the set of producers; i.e., since Alchian and Demsetz at least, firms have managers hired by owners, and managers hire and control workers. The idea of democratic worker control flowing from the standard theory is bizarre, to say the least. Leeson does address the principal-agent problem, saying \\"On the pirate ship, then, the principals were the agents.\\" (p. 41) But this quite misleading. In the principal agent model there is a single principal, not a group of principals. The model does not work at all unless the principals, supposing they are a plurality, can somehow be aggregated into a single decision-maker. Moreover, the fact that the principals are the agents in no way solves the principal-agent problem---each agent still has an incentive to shirk, indeed almost as great an incentive as when there is a single, separate, owner of the ship serving as agent. I conclude that

there is still a lot more to be said about the organization of piracy than is touched on in this book. But Leeson has given us an exciting start.

Working Together: Collective Action, the Commons, and Multiple Methods in Practice

An inspiration for Transdisciplinary Researchers — Rating: 5/5

This book, which is based on the several decades of research by Nobel award winning political scientist Elinor Ostrom and her talented colleages, vigorously asserts two messages with equal fervor. The first is that \\"it is possible for individuals to act collectively to manage shared natural resources on a sustainable basis.\\" (215) The second message is that the existing structure of academic disciplines in the system of higher learning deeply handicaps researchers from attaining true insights of this type. The possibility of people managing their own common pool resources through democratic and egalitarian participation was determined through research \\"based on field studies, laboratory and field experiments, game theory, and agent-based models,\\" and no discipline recognizes the legitimacy of models that span such a broad range of statistical, qualitative thick description, formal analytical and computer simulation methods.

This book shows dramatically how seriously the feudal structure of the behavioral scientific disciplines is harming our ability to advance useful knowledge in the area of social and economic policy. The well-known story of the seven wise men each exploring a different part of the elephant and coming up with seven different, equally absurd, \\"theories\\" of the creature is a fairly literal depiction of what happens when economists, sociologists, political scientists, psychologists, and anthropologists address the issue of the regulations of the commons, or virtually any other complex social problem. Each has important insights that are ignored or negated by the others. In the words of Poteete, Janssen, and Ostrom, \\"Unfortunately, there are still considerable `battles' among scholars who rely on different methods or assumptions. Some scholars engaged in in-depth descriptions of cases challenge the usefulness of efforts to seek general patterns, while some who do large-N observational research do not recognize the value of case studies or experiments in untangling causal process. Likewise, scholars from different disciplines or theoretical perspectives often hold different assumptions about the world works, or disagree about priorities, both in research and in policy.\\" (266)

Not only researchers, but funding agencies such as NSF and NIH should be encouraged by the stunning results reported in this volume to redouble their efforts to create a truly unified and transdisciplinary ensemble of behavioral science disciplines.ts in untangling causal process. Likewise, scholars from different disciplines or theoretical perspectives often hold different assumptions about the world works, or disagree about priorities, both in research and in policy.\\" (266) Not only researchers, but funding agencies such as NSF and NIH should be encouraged by the stunning results reported in this volume to redouble their efforts to create a truly unified and transdisciplinary ensemble of behavioral science disciplines.

What Darwin Got Wrong

A Poor Attempt at Discrediting Natural Selection Theory — Rating: 2/5

When I went to college, Sartre, Freud, Marx, and Darwin were the Great Thinkers. I studied them avidly, even learning German, French, and Biology to do so. Now Sartre, Freud and Marx have been reduced to human size, if not completely discredited. Will Darwin follow in their footsteps? Fodor and Piattelli-Palmarini do not take so extreme a position. Rather, they affirm the Darwinian genealogy of species (the so-called tree of life), but hold that natural selection is vacuous and hence should be thrown into the dust-bin of history---the same dust-bin, I imagine, that is currently occupied by existential nausea, penis envy, and historical materialism.

Fodor and Piattelli-Palmarini's argument is not relevant to the voguish religiously inspired critique of evolutionary theory, which centers on whether our species descended from earlier species or is the product of \\"special creation\\" by an \\"intelligent designer.\\" By contrast, the issue addressed by Fodor and Piattelli-Palmarini is \\"by what process does an ancestor species differentiate into its descendants,\\" (1-2) the Darwinian answer to which is: natural selection. The authors actually rarely discuss speciation directly, but rather deal with the population biology version of the problem, which they characterize as that of \\"explaining how the phenotypic properties of populations change over time in response to ecological variables.\\" (3)

I am rarely enthusiastic about a philosopher's critique of a scientific discipline, or of a member of one discipline's critique of the standard practices or beliefs of another. However, when such critiques are successful, they can be particularly rewarding, as Bishop Berkeley's critique of the use of infinitesimals by Newton, and the psychologist Daniel Kahneman's critique of the economist's version of rational choice. So I suffered through this blessedly slim volume hoping for useful insights. I did not find any. Fodor and Piattelli-Palmarini have blown the famous \\"spandrels\\" analysis of Stephen Jay Gould and Richard C. Lewontin (\\"The Spandrels of San Marco and the Panglossian Paradigm: A Critique of the Adaptationist Programme\\", Proceedings of the Royal Society of London B 205 (1979):581-598) from a short story into a gothic novel, and what was an admonition against unwarranted belief in \\"just-so stories\\" for Gould and Lewontin becomes a rejection of the whole theory of natural selection for Fodor and Piattelli-Palmarini. The Gould-Lewontin analysis was a brilliant cautionary tale aimed at the explanatory excesses of some brands of evolutionary psychology. Fodor and Piattelli-Palmarini's magnification of the argument is painful, tendentious, and unconvincing.

Perhaps this close connection between Gould and Lewontin's spandrel critique of adaptationism and this book's critique of natural selection explains Richard Lewontin's cautiously favorable review of this book in the New York Review of Books (May 27, 2010). \\"If you make a living by inventing scenarios of how natural selection produced, say, xenophobia and racism or the love of music,\\" Lewontin observes, \\"you will not take kindly to the book. Even biologists who have made fundamental contributions to our understanding of what the actual genetic changes are in the evolution of species cannot resist the temptation to defend evolution against its know-nothing enemies by appealing to the fact that biologists are always able to provide plausible scenarios for evolution by natural selection. But plausibility is not science. True and sufficient explanations of particular examples of evolution are extremely hard to arrive at because we do not have world enough and time...Even at the expense of having to say \\"I don't know how it evolved\\" most of the time, biologists should not engage in idle speculations. \\"

Lewontin's defense of Fodor and Piattelli-Palmarini is tendentious and incorrect. I am certainly one of those people who makes a living in part by developing mathematical models of evolutionary processes, calibrated to real, historical, social processes using the best estimates archeology and paleontology have to offer us, that might have led to the emergence of behavioral traits observed in social animals today. I always say \\"I don't know how this evolved, but here is a plausible scenario.\\" To call this idle speculation is absurd. Are biologists to develop models of the evolution of RNA or DNA, or the double helix guilty of idle speculation? Of course not.

The authors characterize natural selection as follows: \\"(a) Phenotypic variation `expresses' genotypic variation; (b) Genotypic variation from one generation to the next is the effect of random mutation; (c) Macromutations are generally lethal; (d) The phenotypic expression of viable mutations is generally random variation around population means.\\" (15-16) Only points (a) and (b) are central to natural selection. Point (c) is true but not of central importance, and point (d) is a assumption of some population genetic models, may well be true if by \\"phenotypic expression\\" we mean \\"fitness effects,\\" but almost certainly false if in some qualitative phenotypic space. It follows that Fodor and Piattelli-Palmarini's critique of (c) and (d) are not very pertinent, and I will not go over them.

The authors accept (a), but they aim their heavy guns at (b), arguing that mutations are not \\"random,\\" but rather are closely structured by the constitution of the organism. In making this argument, they compare Natural selection to Skinnerian behaviorism, which, like Natural selection, is driven by \\"random variation\\" followed by selection. For behavioral psychology, there was no looking into the \\"black box\\" of the mind, whence all changes in behavior were considered either novel and hence \\"random,\\" or were reinforced or extinguished previously random variations,

governed by the principle of effect. Fodor and Piattelli-Palmarini point out that cognitive psychology discredited behavioral psychology by showing that there are substantive cognitive processes governing the learning process in the mind of the individual thinker, so that it is false that individual psychology is simply the selection among randomly generated variation. Similarly, they argue, natural selection makes genetic change a \\"black box\\" summarized by \\"random variation,\\" so that species are characterized by the way they have become accommodated to their environments. It is this that the authors call \\"adaptationism.\\"

In this analysis, however, the authors have used an improper definition of \\"random.\\" By \\"random,\\" in natural selection theory is meant \\"non-teleological\\"; i.e., not preconceived by a planner, as would be the case of an engineer redesigning some aspect of a mechanical system. \\"Random\\" in natural selection theory does usually include \\"random with respect to fitness,\\" although there are now documented cases where at least the rate of mutation is a function of the opportunities for fitness-enhancement of the organism. But the natural selection conception of \\"randomness\\" does not include random with respect to the physical and chemical forces operating within the organism. The notion of randomness as independent from the dynamics of the organism would indeed be as indefensible as is the behavioral psychologist's idea that there are no \\"structural psychological constraints\\" on behavior. But natural selection theory does not depend upon the notion that the array of mutations generated in an organism is independent from the internal physical and chemical structure of the organism. Fodor and Piattelli-Palmarini thus incorrectly critique natural selection by claiming that the dependence of gene frequency change on the constitution of biological organisms undermines its plausibility. \\"In essence,\\" they proclaim, \\"we report cases when optimal structures and processes have been found in biological systems. There are naturally occurring optimizations, probably originating the laws of physics and chemistry. We think other self-organization processes by autocatalytic collectives are almost sure to be elucidated in the near future.\\" (xvii--xviii). It is astounding to me that a serious scientist could consider this observation to be a critique of natural selection theory, but in fact a good deal of the book is devoted to such arguments. The authors even consider the fact that specific gene complexes are conserved through millions of years of evolution a strike against natural selection theory, which they incorrectly assert requires that any phenotypic trait be generated by a wide variety of genetic mechanisms.

Fodor and Piattelli-Palmarini's attempt to discredit natural selection by comparing it to behavioral psychology is a scientific critique (although wrong). But the \\"randomness\\" argument is not Fodor and Piattelli-Palmarini's central charge against natural selection theory. Rather, the authors' main critique is based on the concept of \\"intensional explanation\\" and the role of \\"counterfactuals\\" in scientific explanation. The authors argue that \\"there is at the heart of adaptionist theories of evolution, a confusion between (1) the claim that evolution is a process in which creatures with adaptive traits are selected and (2) the claim that evolution is a process in which creatures are selected for their adaptive traits. We will argue that; Darwinism is committed to inferring (2) from (1); that this inference is invalid...; and that there is no way to repair the damage consonant with commitments to naturalism\\" (xv).

This argument is unpersuasive in part because the notion that natural selection is intensional is not correct. Without going into the philosophy of logic, the authors critique in this respect comes down to the assertion that if two traits are perfectly correlated and both evolve, there is no way to assert which of the two traits was \\"selected for.\\" For instance, suppose all hearts are noisy. Then there is no way in principle for natural selection to distinguish between the two traits. Thus, the assertion that \\"the heart was selected for its blood-pumping ability\\" and the assertion that \\"the heart was selected for its noise-making ability\\" cannot be distinguished from each other on scientific grounds. This argument is completely specious. It may be difficult to distinguish between the two assertions, and indeed, both pumping ability and noisiness may contribute to the adaptive value of the heart. Natural selection can distinguish between perfectly correlated traits because natural selection is a cause, scientific process. The Fodor and Piattelli-Palmarini intensionality critique is thus just smoke and mirrors.

Even were the intensionality critique correct, Fodor and Piattelli-Palmarini's argument would not be cogent. All that is needed for the validity of natural selection theory is that creatures with adapted traits be selected. Claim (2) is not needed at all. Of course traits are not necessarily selected for their adaptive

traits, although they may be. Natural selection depends on adaptive traits being selected, not necessarily selected for. Fodor and Piattelli-Palmarini here set up a straw man and knock him down.

Consider one of their favorite examples. Suppose hearts pump blood and make noise (p. 100). Because the correlation between pumping blood and making noise is perfect, we cannot say that hearts evolved through natural selection because of the fitness advantage they bestow upon organisms. It could equally well be that hearts evolved because they make noise. There is simply no causal analysis that can distinguish between these two explanations, they proclaim. They are correct, of course. Hearts could have evolved because they were noisy, scaring away predators (for instance), and developed a network of oxygen supplies to provide for vigorous noise-making. In later times, when the fitness advantage supplied by noisy hearts ebbed, hearts could have been retained because they supplied oxygen to other organs. This scenario is not very plausible, but it would in no way compromise natural selection theory. The current function of (read fitness advantage conferred by) the heart need not be responsible for its evolutionary emergence. Indeed, it could have been (but probably was not) that the developmental genes responsible for forming the heart \\"hitch-hiked\\" on nearby genes that were fitness enhancing for unrelated reasons, the heart being a sort of tumor going along for the ride. Nothing in the theory of natural selection suggests the impossibility of this situation. Of course, if a phenotypic trait does evolved by hitch-hiking, and that trait is costly in fitness terms, it is likely that mutations that lead to the breakdown of the developmental process leading to the expression of the trait will entail the disappearance or consignment to residual status of the trait. Fodor and Piattelli-Palmarini do not question this.

Adaptations could always be spandrels without undermining natural selection. Were this the case, the process of ascertaining the facts concerning evolution would be vexingly complicated, but natural selection would not be compromised.ations, probably originating the laws of physics and chemistry. We think other self-organization processes by autocatalytic collectives are almost sure to be elucidated in the near future.\\" (xvii--xviii). It is astounding to me that a serious scientist could consider this observation to be a critique of natural selection theory, but in fact a good deal of the book is devoted to such arguments. The authors even consider the fact that specific gene complexes are conserved through millions of years of evolution a strike against natural selection theory, which they incorrectly assert requires that any phenotypic trait be generated by a wide variety of genetic mechanisms.

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Adaptations could always be spandrels without undermining natural selection. Were this the case, the process of ascertaining the facts concerning evolution would be vexingly complicated, but natural selection would not be compromised.

Meltdown: A Free-Market Look at Why the Stock Market Collapsed, the Economy Tanked, and Government Bailouts Will Make Things Worse

No Empirical Basis for the Authors' Bizarre Claims — Rating: 1/5

Update, February 2013. There is increasing evidence that underregulation, not overregulation was responsible for the financial meltdown of 2008. From the New York Times, February 8, 2013: \\"the boom in subprime lending was financed by investors who were told they had supersafe securities. The bubble would not have happened without S &P [the autditing firm] and its peers [the other mega-auditing firms].\\" S & P is now being sued

The first question is: why were corporations allowed to choose their own auditors? The \\"free market\\" argument is that auditors will be diligent and truthful to preserve their \\"reputations.\\" But if the audited firms hire the auditors, the relevant \\"reputation\\" will obviously be for giving the company favorable reports. The second question is: why did investors believe the auditors' reports when they knew (or should have known) that the incentives for the auditors are perverse? I have no answer for this. Ultimately, the problem is: who should appoint the auditors if not the audited firms? There are simple answers for other industries---e.g., zoning, health and safety regulations, tax reporting. Similar measures should be implement for financial auditing.

Update, July 2011: Much more empirical work has been done on this topic since my review, and it supports the position I took in this review. See Paul Krugman's summary (Google \\"Fanny Freddy Phooey\\") and follow the links therein to their sources. Ast it turns out, default rates on Fanny Mae and Freddy Mac were about the same as the average for all home mortgages, and about 1/3 as high on subprime mortgages.

The thesis of this slim volume is that \\"The current crisis was caused not by the free market but by the government's intervention in the market" (2) Author Thomas E. Woods argues that \\"Fannie Mae and Freddy Mac, government-sponsored enterprises (GSEs) that enjoy various government privileges alongside their special tax and regulatory breaks, were able to draw far more resources into the housing

sector than would have been possible on the free market.\\" (2) In addition, says Woods, \\"the greatest single government intervention in the economy, and the institution whose fingerprints are all over our current mess [is] America's central bank, the Federal Reserve System." (2-3) Woods holds that Federal Reserve monetary policy artificially fosters high-level economic activity by maintaining artificially low interest rates, thus encouraging unsustainable credit expansions, the long-run effects of which are financial bubbles such as that of 2007. Moreover, instead of reacting to the financial crisis by allowing the free market to restore a normal interest rate structure, the Obama administration bailed out the financial sector by further flooding the market with artificially-induced liquidity, thus ensuring the perpetration of the crisis. They took this tack, says Woods, because the administration is in the pay of the securities and investment industry: \\"Congressmen who voted in favor of the bailout when it appeared before the House on September 29 had received 54 percent more money in campaign contributions from banks and securities firms than had those who voted against it.\\" (5)

Woods acknowledges that not only the political influence of the securities and investment industry, but also dominant macroeconomic monetary theory, is involved in the perpetration of government policies that make financial crises inevitable. By contrast, Woods holds that the Austrian School of economic thought, founded by Ludwig von Mises and Friedrich von Hayek and others in the late nineteenth and early twentieth century, correctly predicted the sad events of 2007: \\"perhaps 10 or 12 of the country's 15,000 professional economists saw the economic crisis coming... but hundreds of economists who belong to Mises' Austrian School of economic thought sure saw it... And the primary culprit, from their point of view, is the Federal Reserve.\\" (8)

Woods' recommendations for preventing future distress situations in the financial sector include setting a policy of non-intervention (\\"Let them go bankrupt\\", p. 147), abolishing Fannie Mae, Freddy Mac and other government-sponsored enterprises in the housing market, ending government manipulation of the money supply and either abolishing the Federal Reserve or seriously restricting its latitude for regulatory intervention.

How are we to assess Thomas Woods' claims? First, Woods is completely disingenuous and entirely misleading in suggesting that \\"hundreds\\" of Austrian-school economists foresaw the events of 2007. The truth is that Austrian school economists have a theory that says that excessive state intervention in interest rate formation leads to financial crises and thence to economic downturns. But they did not predict this crisis. Moreover, there have been periodic financial crises in American economic history, and only a fool would predict that we have seen the last of them (although Federal Reserve chairman asserted that he was completely dumbfounded by the crisis of 2007, and hence must have believed that credit crises were consigned to the history books). In this sense, any reasonable economists would have said in 2006 that there will be a financial crisis at some time in the future---which is neither more nor less than what the Austrians might have said.

Second, Woods' implication of the GSEs in the subprime meltdown is seriously overdrawn. It is based on the notion that the government has implicitly guaranteed stockholders investments in the GSEs, putting them in a no-lose situation in which they can take great risks with subprime mortgages and reap the profits when things go well, but can offload their losses to the taxpayer when things go bad. However, Fannie Mae and Freddie Mac stockholders have been clobbered by the financial meltdown, and stock prices in these two institutions have fallen to near zero. Stockholders could not have plausibly expected that their stock values would be immune from steep decline.

Moreover, Federal regulations placed serious restraints on the ability of the GSEs to assume high-risk debt. Indeed, by definition these GSEs did not engage in subprime lending because their legal statutes prohibited them from issuing mortgages without substantial down payments and closely validated assurances concerning family income and wealth. Indeed, Fannie Mae and Freddie Mac began to recede from the forefront of mortgage lending when the housing bubble emerged in the years after 2003. Fannie Mae and Freddie Mac executives panicked when their positions in mortgage markets began to deteriorate, and they introduce questionably legal procedures (\\"expanded approval\\" for Fannie Mae and \\"A minus\\" for Freddie Mac) to recapture market share. But these efforts were basically unsuccessful because the GSE lenders were saddled with fixed-rate loan structures. The share of GSEs in the mortgage market faded rapidly in the latter years of the housing bubble.

Third, there is absolutely no empirical evidence suggesting that Woods' policy alternatives might work. There is considerable debate concerning the nature of credit crunches and the Austrian school story is perhaps in the running in explaining them (most economists think the Austrian explanation is bizarre and wrong-headed---Paul Krugman once compared it to the phlogiston theory in chemistry), but there is no support for the notion that an advanced capitalist economy would do better adhering to the gold standard and foregoing active monetary intervention. Moreover, there is widespread opinion among monetary economists, based on a century of experience in financial regulation, that an economic downturn is always a period of excess demand for liquidity, that the financial sector cannot supply such liquidity in a downturn, so the best monetary policy is to flood the economy with liquidity, to whatever degreeis required to satisfy the demands of industry. This of course flies in the face of the Austrian theory that it is an excess of liquidity that leads to the downturn, but I believe the historical experience supports the conventional wisdom over the Austrian school.

The Austrian school has had many years to provide the evidence in favor of its model of the free market economy, and it has failed abjectly to do so. The Austrian school founders were notorious for their contempt for empirical evidence, claiming that economic principles are praxeological--self-evident and purely logical in principle, but subjective and highly complex in the human individual, and hence inaccessible to empirical analysis. This argument has little merit, in my estimation---I spend a good part of my time gathering and analyzing evidence concerning human (and other animal) behavior so as to better understand social dynamics and the realm of the possible in social policy. What the Austrians consider logical appears to the rest of the world (and most assuredly to myself) as the ponderous prejudices of free-market fundamentalists for whom science based on evidence is replaced by faith based on wishful thinking.

The lack of evidence for the Austrian theory does not mean that it is wrong. There is little evidence in favor of any of the competing macroeconomic theories (Keynesian and rational expectations schools being the most prominent). Indeed, to my mind these are not theories at all, but rather toy models so severely stripped-down from the complex reality of a market system as to bear no relationship whatever to the reality they purport to model. Of course, traditional macroeconomists do care intensely about empirically verifying their models, but they all are very poor predictors, rarely doing any better than simple extrapolations from the recent past.

The fact is that the evidence does not support any of the alternative macro models out there, which is why the Austrian policy prescriptions could possibly work. The fact is that they have never been tried. All modern economies use fiat money, have extensive financial controls, and intervene regularly in the operation of the market system. I prefer the standard approaches to monetary policy because they have worked in the past, and only a near-fanatical belief system, such as that cherished by the Austrian school, could believe that a free-market system without government intervention might work in the future.

I am often asked why macroeconomic theory is in such an awful state. The answer is simple. The basic model of the market economy was laid out by Leon Walras in the 1870's, and its equilibrium properties were well established by the mid-1960's. However, no one has succeeded in establishing its dynamical properties out of equilibrium. But macroeconomic theory is about dynamics, not equilibrium, and hence macroeconomics has managed to subsist only by ignoring general equilibrium in favor of toy models with a few actors and a couple of goods. Macroeconomics exists today because we desperately need macro models for policy purposes, so we invent toy models with zero predictive value that allow us to tell reasonable policy stories, the cogency of which are based on historical experience, not theory.

I think it likely that macroeconomics will not become scientifically presentable until we realize that a market economy is a complex dynamic nonlinear system, and we start to use the techniques of complexity analysis to model it. I present my arguments in Herbert Gintis, \\"The Dynamics of General Equilibrium\\", Economic Journal 117 (2007):1289-1309.s could not have plausibly expected that their stock values would be immune from steep decline.

Moreover, Federal regulations placed serious restraints on the ability of the GSEs to assume high-risk debt. Indeed, by definition these GSEs did not engage in subprime lending because their legal statutes prohibited them from issuing mortgages without substantial down payments and closely validated assurances concerning family income and wealth. Indeed, Fannie Mae and Freddie Mac began to recede

from the forefront of mortgage lending when the housing bubble emerged in the years after 2003. Fannie Mae and Freddie Mac executives panicked when their positions in mortgage markets began to deteriorate, and they introduce questionably legal procedures (\\"expanded approval\\" for Fannie Mae and \\"A minus\\" for Freddie Mac) to recapture market share. But these efforts were basically unsuccessful because the GSE lenders were saddled with fixed-rate loan structures. The share of GSEs in the mortgage market faded rapidly in the latter years of the housing bubble.

Third, there is absolutely no empirical evidence suggesting that Woods' policy alternatives might work. There is considerable debate concerning the nature of credit crunches and the Austrian school story is perhaps in the running in explaining them (most economists think the Austrian explanation is bizarre and wrong-headed---Paul Krugman once compared it to the phlogiston theory in chemistry), but there is no support for the notion that an advanced capitalist economy would do better adhering to the gold standard and foregoing active monetary intervention. Moreover, there is widespread opinion among monetary economists, based on a century of experience in financial regulation, that an economic downturn is always a period of excess demand for liquidity, that the financial sector cannot supply such liquidity in a downturn, so the best monetary policy is to flood the economy with liquidity, to whatever degreeis required to satisfy the demands of industry. This of course flies in the face of the Austrian theory that it is an excess of liquidity that leads to the downturn, but I believe the historical experience supports the conventional wisdom over the Austrian school.

The Austrian school has had many years to provide the evidence in favor of its model of the free market economy, and it has failed abjectly to do so. The Austrian school founders were notorious for their contempt for empirical evidence, claiming that economic principles are praxeological--self-evident and purely logical in principle, but subjective and highly complex in the human individual, and hence inaccessible to empirical analysis. This argument has little merit, in my estimation---I spend a good part of my time gathering and analyzing evidence concerning human (and other animal) behavior so as to better understand social dynamics and the realm of the possible in social policy. What the Austrians consider logical appears to the rest of the world (and most assuredly to myself) as the ponderous prejudices of free-market fundamentalists for whom science based on evidence is replaced by faith based on wishful thinking.

The lack of evidence for the Austrian theory does not mean that it is wrong. There is little evidence in favor of any of the competing macroeconomic theories (Keynesian and rational expectations schools being the most prominent). Indeed, to my mind these are not theories at all, but rather toy models so severely stripped-down from the complex reality of a market system as to bear no relationship whatever to the reality they purport to model. Of course, traditional macroeconomists do care intensely about empirically verifying their models, but they all are very poor predictors, rarely doing any better than simple extrapolations from the recent past.

The fact is that the evidence does not support any of the alternative macro models out there, which is why theAustrian policy prescriptions could possibly work. The fact is that they have never been tried. All modern economies use fiat money, have extensive financial controls, and intervene regularly in the operation of the market system. I prefer the standard approaches to monetary policy because they have worked in the past, and only a near-fanatical belief system, such as that cherished by the Austrian school, could believe that a free-market system without government intervention might work in the future.

I am often asked why macroeconomic theory is in such an awful state. The answer is simple. The basic model of the market economy was laid out by Leon Walras in the 1870's, and its equilibrium properties were well established by the mid-1960's. However, no one has succeeded in establishing its dynamical properties out of equilibrium. But macroeconomic theory is about dynamics, not equilibrium, and hence macroeconomics has managed to subsist only by ignoring general equilibrium in favor of toy models with a few actors and a couple of goods. Macroeconomics exists today because we desperately need macro models for policy purposes, so we invent toy models with zero predictive value that allow us to tell reasonable policy stories, the cogency of which are based on historical experience, not theory.

I think it likely that macroeconomics will not become scientifically presentable until we realize that a market economy is a complex dynamic nonlinear system, and we start to use the techniques of

complexity analysis to model it. I present my arguments in Herbert Gintis, \\"The Dynamics of General Equilibrium\\", Economic Journal 117 (2007):1289-1309.

The Politics of Happiness: What Government Can Learn from the New Research on Well-Being

A Paragon of the Application of Science to Social Policy — Rating: 5/5

Derek Bok, long-time President of and now Research Professor at Harvard University, is among the most prominent of contemporary American intellectuals. The scientific enterprise upon which this book is predicated began decades ago with the evidence presented by Richard Easterlin in 1974 that subjective measures of happiness are not much affected by decades of strong economic growth. Since this time several eminent researchers have continued the investigation of the sources of happiness by asking people how happy they are, on a numerical scale of one to seven (or ten, or whatever), or by asking them to pick themselves out of a series of pictures of faces of people varying from the depressed and miserable to the joyously happy.

There are four major findings in this area. First, a country can double its per capita income without experiencing a noticeable change in the average level of happiness of its citizens. Second, people seem to be poor predictors of what will make them happy. In particular, people generally think that more money will make them happier, whereas the evidence is that even very large changes in income (e.g., by winning a national lottery) do not affect personal happiness. Third, increasing income inequality does not lower the happiness of the less-well-off. This is surprising because many had thought that it is the fact that happiness is based on relative, not absolute, income that explains the failure of higher average incomes to entail higher average happiness. Finally, there is no correlation between the fraction of gross national income that governments devote to help the poor and other vulnerable groups, and the happiness of the target groups.

Despite the failure of the received wisdom on personal happiness, a number of researchers have found several sources of happiness (other than basic temperament) that are strong and systematic across research as samples, as summarized as follows (see, for instance, the work of economist Andrew Oswald): (a) being happily married;(b) being employed; (c)feeling in good health; (d) being religious; (e) helping others; and finally, (f) living in a free country with a democratic form of government.

Now, it is worth reading this list over carefully, because if we believe social policy should promote happiness, then very important policy recommendations flow from the above list. The most important is obviously that we should abandon economic growth in the form of every higher GDP in favor of an economic with low growth that promotes human happiness. Bok confronts this recommendation head on, but his analysis is rather weak. An economist would suggest not that we promote \\"no growth\\" but rather \\"growth in what promotes happiness.\\" This calls for redefine GDP to include factors that are important in happiness, such as a low divorce rate, a low unemployment rate, a high level of private charity activity, and a responsive democratic government. Moreover, if there are groups that have been left out of the happiness equation (e.g., minorities in dysfunctional communities), then material resources could be directed to meet their needs, even as the better-off are aided in achieving more self-actualizing goals.

The various chapters of Bok's book, following his exposition of the empirical research and an insightful evaluation of its validity and of the various pitfalls in its interpretation, are devoted to the various areas that have been shown to contribute to personal happiness, including poverty, pain and suffering, broken families, dysfunctional education, and the failures of democratic government to capture the approval of citizens.

This is only the beginning of policy research in this area, but Derek Bok has placed his valuable imprimatur upon it, and with some luck and courage, it will be an area of increasing research activity in the future. It is an excellent example of the application of scientific research to social policy, avoiding the political bombast of traditional political philosophies (which, in my estimate, are due to be replaced

by systems of greater relevance to our contemporary situation).ditional political philosophies (which, in my estimate, are due to be replaced by systems of greater relevance to our contemporary situation).

The Elements of Investing

Listening to these experts can save you from the financial sharks — Rating: 5/5

Malkiel's Random Walk Down Wall Street is one of the best finance books ever written. It is still a pleasure to read. This book is more nuts-and-bolts, but the advice is absolutely first rate. Here are their four main points:

1. Save regularly and start early.

2. Use company- and government-sponsored retirement plans to supercharge your savings and minimize your taxes.

3. Diversify broadly over different securities with low-cost \\"total market\\" index funds and different asset types.

4. Rebalance annually to the asset mix that's right for you.

5. Stay the course and ignore market fluctuations; they are likely to lead to serious and costly investing mistakes. Focus on the long term.

I think point 4 is way overstated, however. I would rebalance every ten years, or maybe even twenty years, unless there is a real reason for doing so. Rebalancing is costly.

Here is an example of the savings from using low-cost mutual funds (point 3 above). Suppose you put $1000 every year for 30 years into stocks. The average rate of return, historically, is about 8.6%, so if there are not brokers' fees, you would have $138,420 at the end of 30 years. With yearly brokers' fees of 1.15% (the industry average), you end up with $103,890 after 30 years, which means the brokers get 25% of the total. Moreover, had you invested in Treasury bills for the same period, you would have earned about $55,000, so the total increase in your wealth from using the broker is $103,420 - $55,000 = $48,420. of which the broker gets $34,530, or 70% of the net gain from using the broker.

When you buy domestic index mutual funds, you need never pay more than one fifth of one percent in overhead per year. International mutual funds, you will have to violate this rule, however. At this rate, after 30 years you will have $134,447 and the broker will earn $3,972, or about 5% of the net gain from using the broker.

Don't buy only index stocks. Also index bond funds.

Anyone who tells you he can beat the market without being an expert is a liar or a fool. Even an expert can only beat the market by a tiny bit with \\"inside information\\" and an understanding of market dynamics.

Malkiel and Ellis tell it all. Give this book to your parents if you want to inherit in your old age, and to your children if you want them not living with you in their middle-fourties.rket without being an expert is a liar or a fool. Even an expert can only beat the market by a tiny bit with \\"inside information\\" and an understanding of market dynamics. Malkiel and Ellis tell it all. Give this book to your parents if you want to inherit in your old age, and to your children if you want them not living with you in their middle-fourties.

What Is Sociology? (European Perspectives: a Series in Social Thought & Cultural Ctiticism)

What Sociology is, but Should not Be? — Rating: 3/5

Norbert Elias, born in 1987, was a German Jew of middle class background. He is a true political intellectual of his time. He volunteered for the German army in World War I and was employed as a

telegrapher. He was an active member of the German Zionist movement, where he met Erich Fromm, Leo Strauss, and other young Zionists. In 1933, Elias left his family for good, fleeing the Nazis, and stopping for two years in Paris. In 1935, he moved to England where he wrote his most famous work, The Civilizing Process. In 1940 Elias, like other German citizens, was detained by the British at internment camps (talk of bureaucratic stupidity). In 1941, the year his mother died in Auschwitz, Elias taught classes in Cambridge, Leicester and elsewhere, and trained as psychoanalyst. He then taught in the Sociology Department in Leicester until he retired in 1962. He travelled and taught in Africa and in universities throughout Europe, and died in 1990.

What is Sociology was written in 1970, but published in English only in 1978. This book is upbeat and optimistic, not reflecting in any obsessive way with fascism or communism, and quite devoid of any sense of Zionist spirit. Elias is here the public intellectual of the late twentieth century. His basic message is (a) sociology is a science; (b) sociology is relatively autonomous from natural science and biology; and (c) sociology deals with the emergent properties of human society (we would now say \\"as a complex system\\"). Like Simmel, Weber, Durkheim, Parsons, and other major sociological theorists, Elias is concerned with the long-term social dynamics that make modern society possible and determine its character.

I found the first seventy pages of this 175 page book a rather tedious argument outlining the above three points---all this stuff is well-worn argumentation. Of course, this argument does not distinguish sociology from the other behavioral disciplines, such as economics and anthropology, but Elias nowhere goes into this issue. In chapter 3, \\"Game Models,\\" Elias makes the strikingly fruitful argument that society requires its own theorizing because humans engage in strategic interaction, something missing from natural science, human biology, and even psychology. \\"This is the reason why sociology cannot be reduced to psychology, biology, or physics: its field of study---the figurations of interdependent human beings cannot be explained if one studies beings singly.\\" (p. 72)

The term \\"figuration\\" is key here. In the place of the overarching view of a totalizing social system, characteristic of Durkheim and Parsons, Elias sees society as a mosaic of overlapping and interrelated \\"figurations\\" that individuals come to understand and learn to operate within. It is interesting that Elias never defines the term \\"figuration,\\" but rather shows pictures with complex arrays of lines and arrows with almost no labeling, leaving the reader to piece together what the term means. Elias here reminds me of Bourdieu's treatment of his pet idea, that of the habitus, which is equally central to Bourdieu's thought yet treated systematically in a nebulous and impressionistic manner. The reason, I believe, is that we cannot analytical define a \\"social frame\\" outside the rational actor model, epistemic game theory, and the social-psychological theory of norms (see my argument in my book, The Bounds of Reason). Elias gets so close to game theory, placing it front and center in his delineation of the specificity of sociological theory, but never getting to the point of actually using game theory as more than an allusional device. Of course, Elias is merely following standard sociological tradition in this respect: the decrepit state of sociological theory can be attributed precisely to the unwillingness of its practitioners to bite the bullet and go to full game-theoretic, rational actor route.

Elias' treatment of \\"figuration\\" is by hand waving. \\"Examples,\\" he asserts, \\"may help to convey the meaning of the concept of figuration as it is used here. It can be applied to relatively small groups just as well as to societies made up of thousands or millions of interdependent people. Teachers and pupils in a class, doctor and patient in a therapeutic group, regular customers at a pub, children at a nursery school---they all make up relatively comprehensible figurations with each other.\\" (p. 151) I teach my students to use examples, but never define by example. Elias doesn't have the analytical capacity to follow this advice.

Elias perpetrates another weakness of standard sociology, that of severely downplaying the importance of studying the behavior of non-human organisms towards explaining human society. He makes the standard argument that outside of humans, social arrangements are purely genetically determined, whereas the differences among human societies are due virtually completely to cultural differences. Therefore, he concludes, the organization of social life in non-human species is of no interest for us. Of course, modern sociobiology denies all of this. Elias makes the reasonable distinction among brute physical matter, the lowest level of organization, biological multicellular species, the next higher level of organization, and human society, the highest level. However, sociobiology has shown us that complex

social organization occurs in many species, and the prime question in understanding human society is how our social organization differs from that of other species. This question is of the same order of importance as why different human societies display distinct forms of social structure, culture, and human dynamics.

I won't go through Elias long defense of the standard sociological notion that sociology can do without biology. It is as well done as it is incorrect. We can forgive him for not having read E. O. Wilson's great 1975 book Sociobiology, Elias' book having been published in 1970, and the ideological battles over sociobiology not abating until recently. This forgiveness does not, of course, extend to contemporary sociologists, whose ignorance of sociobiology is as deep and as fatal as their ignorance of game theory and the rational actor model.

This book is worth reading if you want a historical vignette of the incredible contrast between the insightfulness and intellectual vigor of a great sociologist and the deplorable absence of theoretical content to which this insightfulness might be fruitfully attached.eaning of the concept of figuration as it is used here. It can be applied to relatively small groups just as well as to societies made up of thousands or millions of interdependent people. Teachers and pupils in a class, doctor and patient in a therapeutic group, regular customers at a pub, children at a nursery school---they all make up relatively comprehensible figurations with each other.\\" (p. 151) I teach my students to use examples, but never define by example. Elias doesn't have the analytical capacity to follow this advice. Elias perpetrates another weakness of standard sociology, that of severely downplaying the importance of studying the behavior of non-human organisms towards explaining human society. He makes the standard argument that outside of humans, social arrangements are purely genetically determined, whereas the differences among human societies are due virtually completely to cultural differences. Therefore, he concludes, the organization of social life in non-human species is of no interest for us. Of course, modern sociobiology denies all of this. Elias makes the reasonable distinction among brute physical matter, the lowest level of organization, biological multicellular species, the next higher level of organization, and human society, the highest level. However, sociobiology has shown us that complex social organization occurs in many species, and the prime question in understanding human society is how our social organization differs from that of other species. This question is of the same order of importance as why different human societies display distinct forms of social structure, culture, and human dynamics. I won't go through Elias long defense of the standard sociological notion that sociology can do without biology. It is as well done as it is incorrect. We can forgive him for not having read E. O. Wilson's great 1975 book Sociobiology, Elias' book having been published in 1970, and the ideological battles over sociobiology not abating until recently. This forgiveness does not, of course, extend to contemporary sociologists, whose ignorance of sociobiology is as deep and as fatal as their ignorance of game theory and the rational actor model. This book is worth reading if you want a historical vignette of the incredible contrast between the insightfulness and intellectual vigor of a great sociologist and the deplorable absence of theoretical content to which this insightfulness might be fruitfully attached.

Homo Sociologicus.

Offers a Useful Glimpse into our Intellectual Past — Rating: 3/5

Despite its centrality to sociological theory, role theory is rarely subjected to extended critical scrutiny. There is an old book by Bruce Biddle that I have not read, a nice chapter by Sarbin and Allen in an old Handbook of Social Psychology, and a quite balanced chapter by Jonathan Turner in the Handbook of Sociological Theory. Dahrendorf's book actually precedes these, as it was written in 1957, when Dahrendorf was 28, and before his well-known contributions. Dahrendorf describes role theory in passing, but his real goal in this book (continued in a short paper he wrote some twelve years later) is to take on, however diffidently, the role-theoretic side of Talcott Parsons' work. Now in 1958, Parsons was at the top of his power, and he had move on from role theory (actually, he called it the \\"theory of action\\") to structural functionalism. Parsons was ultimately dethroned and indeed rather completely discredited, both for his theory of action and his structural-functionalism. Personally, I don't think structural-functionalism is that important, although I think his critics are generally far off the mark.

The usual critique is that Parsons focuses on social integration and conformity and does not deal with social change and other conflictive dynamical phenomena. This is true only in part (recall his use of cultural evolutionary theory to explain social institutions), and bids supplementing his approach, not deep-sixing it (remember the story of the baby and the bathwater). No one suggests, for instance, that we reject Gray's Anatomy because not everyone enjoys the ideal human body, or reject DNA sequencing because there are individual genetic differences. Mostly, when I read Parsons' critics, I feel sorry for their limited capacity for clear thought.

Parsons' theory of action is much of the same. It is fundamentally sound but it must be seriously revised to deal with social and cultural change. The most famous expression of this sentiment was Dennis Wrong's famous article on Parsons' \\"oversocialized man.\\" Quipping on this state of affairs, economist James Duesenberry remarked, \\"Economics is all about how people make choices. Sociology is all about why they don't have any choices to make.'\\" I was firmly of the same opinion as Wrong in a reply I wrote to Parsons' critique of some of my work in the Quarterly Journal of Economics in 1974. I certainly exhibited at least as great a \\"limited capacity for clear thought\\" that I attribute to Parsons' major critics (I was 33 years old when I responded to Parsons---old enough to know better).

Dahrendorf's critique is more humanistic than Wrong's and less decisive. It is more of a recognition that Parsons is correct, but this recognition leads to a really dismal view of the relationship between individual and society. \\"How does the human being of our everyday experience relate to the glass men of social science? Must we and can we defend our artificial, abstract creatures against real human beings?\\" (p. 4)

\\"What are we doing,\\" Dahrendorf asks, \\"if we develop theories which imply an image of man as a composite of roles?... the more precise we render the category of social role, the more threatening becomes the problems of homo sociologus, sociological man, whose every move express a role imposed on him by the impersonal agency of society. Is homo sociologus a totally alienate man given into the hands of man-made power, and yet with no chance of escaping them? ... For society and sociology, socialization invariable means depersonalization, the yielding up of man's absolute individuality and liberty to the constraint and generality of social roles. ...Unfortunately a society populated by homines sociologici, i.e., the massive reification of the basic assumptions of sociological theories, is only too easily conceivable today. America's \\"lonely crowd\\" comes as close to being social a society as Russia's \\"democracy without liberty.\\" \\" (p. vi,25,39,76,83)

The problem with the oversocialized man critique of Parsons' action theory is simple: conformity with ethical and social norms are valued by most individuals when these norms are deemed legitimate and when others are conforming as well, but people weigh the costs and benefits of conformity, in some cases constantly and in others only periodically, and when these costs become too high, or when they are deemed illegitimate, individuals will abandon, sometimes reluctantly and with guile, and other time with energy and fanfare, the behaviors associated with their role positions. I wrote about this in two papers a few years ago:, \\"Solving the Puzzle of Human Prosociality\\", Rationality and Society 15,2 [may] (2003):155-187; and, \\"The Hitchhiker's Guide to Altruism: Genes, Culture, and the Internalization of Norms\\", Journal of Theoretical Biology 220,4 (2003):407-418.versocialized man critique of Parsons' action theory is simple: conformity with ethical and social norms are valued by most individuals when these norms are deemed legitimate and when others are conforming as well, but people weigh the costs and benefits of conformity, in some cases constantly and in others only periodically, and when these costs become too high, or when they are deemed illegitimate, individuals will abandon, sometimes reluctantly and with guile, and other time with energy and fanfare, the behaviors associated with their role positions. I wrote about this in two papers a few years ago:, \\"Solving the Puzzle of Human Prosociality\\", Rationality and Society 15,2 [may] (2003):155-187; and, \\"The Hitchhiker's Guide to Altruism: Genes, Culture, and the Internalization of Norms\\", Journal of Theoretical Biology 220,4 (2003):407-418.

Theories of Social Order: A Reader, Second Edition (Stanford Social Sciences)

Cogent Introduction to an Oxymoron--Sociological Theory — Rating: 4/5

The mark of arrival of a mature field is its possession of a core theoretical structure, agreed upon by all researchers in the field as a starting point for creative experimentation and theory building. Of course, infrequently but virtually inevitably, some parts of the core theory are discredited because of their inability to explain a novel phenomenon, or their incorrect predictions. In a mature field, it does not take long for a single, uniformly accepted, superior explanation, one that can do all the older core theory could do an more, to displace the discredited theory.

I am certain that I will be attacked as an antediluvium heretic for affirming the previous paragraph in the face of several decades of the postmodernist critique of science. Yes, I have a deep appreciation for Thomas Kuhn's paradigm concept and Wittgenstein's Philosophical Investigations, but the relativist interpretations of these great thinkers are just drivel. I knew Kuhn personally, and heard him lament many times the nefarious and incorrect use to which his Nature of Scientific Revolutions was put by the radical relativists. I am sure Wittgenstein would be equally shocked at the application to his ideas by David Bloor and the \\"social construction of knowledge\\" crew or the Critical Theorists.

If you want to really understand the scientific method read about Imre Lakatos (one of my intellectual and political heroes---he changed his name to that of a famous Hungarian general who stood up to the Nazi deportation of the Jews when they controlled his native country), whose theory of \\"research programs\\" is a creative synthesis of Kuhn, Popper, Duhem, and Marx.

I offer this exegesis on a matter seemingly tangential to an undergraduate reader in sociological theory to stress the point that there is no core sociological theory. One learns sociology the way one learns philosophy or art, by learning to appreciate a parade of superstars, each of whom is careful to differentiate his product from all of the others (unless they are long-dead, and hence no real threat to intellectual or artistic supremacy). One learns sociology normally by reading the works of Weber, Durkheim, Pareto, Simmel, Parsons, Marx, Mead, Hobbes, Goffman, and so on. Sociologists do not agree on what any two of these thinkers have in common, much less all of them. In a realistic understanding that sociologists will not teach from this book unless it remained faithful to the pluralistic disarray of the field, yet yearning for a scientific approach to the study of society, the authors decided to organize their material not around the Great Masters, but rather the Great Ideas of sociology. This book is called \\"Theories...\\" rather than \\"Theorists\\" for this reason, and \\"Theories...\\" rather than \\"Theory...\\" because they do not want to single out one set of ideas as superior to another set, or even to suggest that there might be \\"One True Theory\\" of which the fragments presented in this book are simply important aspects.

The authors organize their material around \\"five solutions to the problem of social order\\" (p. 340). These are individuals, hierarchies, markets, groups, and networks. I doubt that the authors really believe that these are alternative solutions, as opposed to aspects of a unified explanation of social, but presenting the material in this way with no attempt to show the links among the five probably speaks to the horror prospective teachers might have in using a book that undermined the \\"creative diversity\\" of sociological thought.

In their introductions to above five topics, the authors in fact do take certain stands that favor some approaches to social theory over others, although they do not dwell on this point. For instance, in dealing with the relationship between social structure and individual behavior, they suggest that macro structure --------> individual internal states -------> individual action ------> macro outcome, although they do add a direct link macro-structure ------>macro outcome. Now, even including individual-level variables is hostile to many theories of social order, as is suggesting that there is any value in mediating the link between macro structure and macro outcome by the constitution and behavior of individuals. Many structurally- and systems-oriented brands of social theory have no use for human psychology and choice behavior, and treat individuals as simply \\"bearers\\" of their social relations and who, when the proper time comes, carry out the demands of the macro system automatically, much as the molecules in your teapot react to being heated by obligingly increasing their mean velocity. By contrast, other approaches to social theory would not permit a direct link between macro structure and macro outcome at all (I personally favor such theories).

Despite the profession of irreducible heterodoxy in sociological theory, there is in fact a virtually uniform belief in all sociological variants (I know of no exception among the great sociologists) that rational behavior is the antithesis of moral behavior, of emotional behavior, and of habitual behavior. Here is how Hechter and Horne put it: \\"In existing theories, the most common behavioral assumption is rational egoism. ...At the same time, we know that everyone is not rational all of the time. Individuals might also be acting according to values, emotion, habit, or some other motivation.\\" (p. 21) This treatment of human motivation, which I consider completely incorrect, goes back at least to Pareto (not excerpted in this book), but is well expressed by Weber, whose treatment from Economy and Society is the first entry in the book under \\"individuals.\\" [Disclosure ethics bids that I reveal that the second entry is that of Ernst Fehr and myself.] \\"Social action,\\" says Weber, \\"can be oriented in four ways.\\" The first of these he calls \\"instrumentally rational\\" (zweckrational in German), and takes the form of choosing means that are most effective in achieving one's ends. The second is \\"value rational\\" (Wertrational in German), which he characterizes as \\"determined by a conscious belief in the value for its own sake of some ethical, aesthetic, religious , or other form of behavior, independently of its prospects of success.\\" The third is \\"affectual (especially emotional), that is, determined by the actor's specific affects and feeling states.\\" Finally, the fourth is \\"traditional, that is, determined by ingrained habitualism.\\" This widely accepted description of motive heterogeneity, despite its long-standing acceptance in sociology is just wrong, and accounts, in my estimation, for the inability of sociology to develop a core theory. I will devote the rest of this review to this important point.

Rational behavior can be deeply ethical and moral. General Lakatos defied the German directive to round up the Hungarian Jews for deportation because this behavior violated his ethical principles, yet his renown stems from his instrumental capacity to organize an effective military force against German occupation. Rational behavior can also be deeply value-oriented, as when we keep our promises in market and other contractual exchanges. Honesty and trustworthiness are not simply constraints on behavior, and surely are not followed irrespective of its costs or \\"independently of its prospects of success,\\" as Weber would have it. If the cost of being honest increases, individuals will be increasingly tempted to be dishonest, and if the costs are high enough, almost all individuals will be dishonest (e.g., when the Nazis kidnapped Lakatos' son and promised to release him only if Lakatos surrendered his military position, Lakatos abandoned his struggle against the Germans). Moreover, the idea that rational and ethical behavior must be non-emotional is a Kantian-like distortion of human nature. Read, for instance, Antonio Damasio's Descartes' Error and references therein, or Jesse Prinz on the emotional basis of morality. Finally, traditional behavior consists of a set of values and beliefs about the nature of society and the natural world that is routinely overturned when these values and beliefs are successfully challenged or ineffectual.

One can unify all of Weber's categories in a broad but cogent version of the rational actor model in which individuals have material and moral goals determined by the actor's physiology, tastes, and moral constitution. The resulting preference ordering of the individual is consistent and hence can be represented by a \\"utility function,\\" the maximization of which accurately describes individual choice (the individual of course does not consciously maximize anything, any more than an optimally foraging ant is consciously maximizing). It seems clear to me that this version of the rational actor model can serve as a part of core sociological theory. Of course, this model is considerably oversimplified, and must be carefully expanded to deal with any but the simplest situations.

For instance, most expositions of the rational actor model assume that the individual makes choices based upon his beliefs (so-called subjective priors), but in fact in complex situations where beliefs are fallible and it is costly or impossible to get sufficient information for accurate decision-making, the individual will generally consult others, or refer to a reservoir of social wisdom (tradition?). Thus beliefs are not really defined at the individual, but rather at the group level, and the dynamics of belief formation and change follow the macro to micro back to macro structural paradigm. For an exposition of this point of view, see my book, The Bounds of Reason (Princeton 2009).achieving one's ends. The second is \\"value rational\\" (Wertrational in German), which he characterizes as \\"determined by a conscious belief in the value for its own sake of some ethical, aesthetic, religious , or other form of behavior, independently of its prospects of success.\\" The third is \\"affectual (especially emotional), that is, determined by the actor's specific affects and feeling states.\\" Finally, the fourth is \\"traditional, that is, determined by ingrained habitualism.\\" This widely accepted description of

motive heterogeneity, despite its long-standing acceptance in sociology is just wrong, and accounts, in my estimation, for the inability of sociology to develop a core theory. I will devote the rest of this review to this important point. Rational behavior can be deeply ethical and moral. General Lakatos defied the German directive to round up the Hungarian Jews for deportation because this behavior violated his ethical principles, yet his renown stems from his instrumental capacity to organize an effective military force against German occupation. Rational behavior can also be deeply value-oriented, as when we keep our promises in market and other contractual exchanges. Honesty and trustworthiness are not simply constraints on behavior, and surely are not followed irrespective of its costs or \\"independently of its prospects of success,\\" as Weber would have it. If the cost of being honest increases, individuals will be increasingly tempted to be dishonest, and if the costs are high enough, almost all individuals will be dishonest (e.g., when the Nazis kidnapped Lakatos' son and promised to release him only if Lakatos surrendered his military position, Lakatos abandoned his struggle against the Germans). Moreover, the idea that rational and ethical behavior must be non-emotional is a Kantian-like distortion of human nature. Read, for instance, Antonio Damasio's Descartes' Error and references therein, or Jesse Prinz on the emotional basis of morality.Finally, traditional behavior consists of a set of values and beliefs about the nature of society and the natural world that is routinely overturned when these values and beliefs are successfully challenged or ineffectual. One can unify all of Weber's categories in a broad but cogent version of the rational actor model in which individuals have material and moral goals determined by the actor's physiology, tastes, and moral constitution. The resulting preference ordering of the individual is consistent and hence can be represented by a \\"utility function,\\" the maximization of which accurately describes individual choice (the individual of course does not consciously maximize anything, any more than an optimally foraging ant is consciously maximizing). It seems clear to me that this version of the rational actor model can serve as a part of core sociological theory. Of course, this model is considerably oversimplified, and must be carefully expanded to deal with any but the simplest situations. For instance, most expositions of the rational actor model assume that the individual makes choices based upon his beliefs (so-called subjective priors), but in fact in complex situations where beliefs are fallible and it is costly or impossible to get sufficient information for accurate decision-making, the individual will generally consult others, or refer to a reservoir of social wisdom (tradition?). Thus beliefs are not really defined at the individual, but rather at the group level, and the dynamics of belief formation and change follow the macro to micro back to macro structural paradigm. For an exposition of this point of view, see my book, The Bounds of Reason (Princeton 2009).

The Rewards of Punishment: A Relational Theory of Norm Enforcement

New Dimension in the Analysis of Human Cooperation — Rating: 4/5

The most amazing thing about this book is that it is a theory of cooperation based upon and validated in part by laboratory experiments. This is this amazing because sociologists neither like nor (generally) understand the experimental method at all. Francis Alice Kellor, an absolutely remarkable woman who never completed her PhD at the University of Chicago, wrote a book on delinquency involving experimental methods in 1901 (you can download this OCR copy for free from Google--hooray for Google!). Ernest Greenwood, Professor of Social Welfare at UC Berkeley, published Experimental Sociology: A Study in Method in 1945, with a preface by Paul Lazersfeld, and wrote his dissertation on experimental sociology at Columbia University in 1953. I am happy to be corrected on this, but the only two sociologists that I know who systematically use behavioral experiments in the laboratory are Karen Cook (Stanford) and Robb Willer (Berkeley). Michael Hechter informs me that there is a small but important experimental initiative in sociology. He writes (private communication): \\"There's a long-standing (if rather small) experimental tradition in sociological social psych... It got its start in the 50s or 60s at Stanford under Berger, Cohen and Zelditch... as well as the late Dick Emerson. It has been well-supported by the NSF for years. Current experimentalists - in addition to the few you listed - include people like Toshio Yamagishi... Linda Molm (Arizona), Cecilia Ridgeway (Stanford), Ed :Lawler (Cornell),...David (South Carolina), Barry Markovsky (also South Carolina), and other people at Iowa, Texas A&M), etc.\\"

I won't claim I know why sociologists dislike laboratory experiments, but one plausible explanation is that in its formative years after World War II, the discipline of sociology had to struggle to distinguish itself from economics, anthropology, and social psychology. It deep-sixed economic by rejecting the rational actor model (shooting itself in the foot, in my estimation). It differentiated its product from anthropology by limiting its range to complex societies with states, money, and social classes (there goes the second foot, a bizarre move indeed). And it eluded the grasp of social psychology by refusing to take the laboratory seriously (if sociology had three feet, this would be shooting itself in its only remaining foot).

If this claim is correct, it explains why sociological theory has no analytical core (the Great Sociological Thinkers are like Great Novelists---they distinguish themselves by their unique take on the world, not by their contribution to a body of knowledge). This is why studying sociology means engaging with the Parade of the Historical Masters, whereas a true science can be exposited with only passing obeisance to the Greats of the Past (e.g., Ohm's Law). Karen Cook, Robb Willer, and now Christine Horne are true scientists while at the same time true theorists. Perhaps they are a sign of sea-change in sociology.

There is now a huge literature in economics, biology, and social psychology, well known if sparingly cited by Horne, attempting to explain how humans come to cooperate on a large scale in social dilemma situations (a social dilemma is a situation in which all gain from cooperating, but a self-regarding agents will always do better by free-riding, no matter what the other agents do). Perhaps the most well-know sociological answer is the \\"social conformity\\" theory of Sherif (1936), Asch (1951) and Cialdini (1951). According to this theory, people embrace social norms by simply following the majority without assessing costs or benefits. The main problems with this approach is that it cannot explain why behavior ever changes, and it does not recognize that costs and benefits are in fact central to agents' choices. A second type of sociological theory is what Horne calls \\"the meanings approach,\\" whose adherents include Elster, Berger and Luckmann, and the phenomenologists in general. According to this approach, social norms are valued for their own sake and are shared among social actors, allowing them to coordinate their activities without risking free-rider defection. This approach is appealing, but it really suffers from the same problems as the social conformity approach; indeed, it is simply a version of the social conformity approach in which the shared social norm is the basis of conformity. The meanings approach is indeed considerably more powerful than the social conformity approach, because the meanings approach can explain how people work together as a team in which different members do different things, and may even carry out completely novel behaviors in the process of embracing a collective social norm.

Horne calls the third existing body of theory the \\"consequentialist approach\\" because unlike the others it takes the material costs and benefits of behavior into account. The main sociological theory of this type is probably Coleman's (1990) \\"demand for norms\\" theory. Coleman argues that cooperation is efficient only when social norms are tailored to the organization of the division of tasks, so norms evolve that more and more effectively solve coordination problems. Coleman assumes individuals are rational and self-interested, so the only effective social norms are incentive compatible in the sense of traditional economic theory. However, there is a new \\"consequentialist\\" school (my coauthors and I are cited as members thereof) that uses laboratory experiments to show that individuals may be rational, but they are not always self-regarding. In particular, this school stresses that may subjects around the world are \\"strong reciprocators\\" (I coined the term in a 2000 Journal of Theoretical Biology paper) who prefer to cooperate in a social dilemma so long as the rate of free-riding is not too high, and like to punish free-riders when possible, even when a self-regarding agent would refuse to assume the costs of punishing, so long as this induces cooperation and the costs are not too high. Horne has two criticisms of the consequentialist approach. The first is that people often enforce behaviors that are not good for group members (e.g., foot-binding and genital cutting). The second is that people do care about norms, and don't simply react mechanically in participating in and defending a set of behaviors.

I do not accept these criticisms. I think they are ploys Horne uses to differentiate her product, which she calls \\"a relational theory of norm enforcement,\\" from existing models. In truly scientific fields (which sociology currently is not, at least at the highest theoretical level), researchers offer their creations as building on the past, and are deeply appreciative of previous generations of researchers. In sociology, a \\"new\\" theory is supposed to trash its predecessors, not build on them. While the first

wave of papers in (my branch of) the \\"consequentialist\\" school did not discuss social norms, the results of large-scale field studies with high levels of cultural variation across sites led those of use following a behavioral game theory approach to take social norms very seriously, and to interpret the willingness to cooperate and to punish defectors as ethical and norm-driven. See, for instance my edited collection Moral Sentiments and Material Interests (MIT, 2005), Game Theory Evolving, Second Edition (Princeton, 2009), The Bounds of Reason (Princeton 2009) as well as Fehr and Gintis, Annual Review of Sociology (2007).. Some of the field studies involved are Henrich (2004) and Herrmann, Thöni and Gächter (Science, 2008). Moreover, the now huge literature on third-party punishment is firmly predicated on a normative approach (e.g., Fehr and Fischbacher in Evolution & Human Behavior, 2004).

Horne's relational theory adds two dimensions missing from the behavioral game theory repertoire, which deals with costs, benefits, and social norm enforcement through altruistic punishment. These are \\"interdependence\\" and \\"metanorms.\\" The interdependence dimension reflects the fact that groups are likely to engage in more altruistic interaction the more strongly interdependent the members are in achieving collective goals. The hard it is to opt out of the cooperative effort, and the greater the gains from this effort, the more cooperation will occur and the more willing strong reciprocators will be to punish free-riding. This is a plausible addition to the theory, and Horne's experiments (mostly published in Rationality and Society) test some parts of the \\"interdependence\\" dimension. The second addition is the notion that a metanorm (which is what Horne calls a social norm that regulates cooperation) can be enforced positively as well as negatively; i.e., we can reward people who follow the norms and we can also reward people who punish others for violating the norm. The negative aspect of norm sanctioning is well known in the literature, but we severely underestimate how often people are kind to others simply because the others behave as good citizens.

Horne's additions are very useful and deserve more research and testing. However, there are aspects of the behavioral game theory approach that deserve to be included in Horne's account of the \\"relational theory of norm enforcement.\\" Most important are character virtues, such as honesty, loyalty, and trustworthiness that are not really \\"relational\\" at all, but rather are personal ethical standards that people treat as normative ends, not means to other ends. Second, Horne goes to great lengths not to use game theory or the rational actor model explicitly, probably because sociologists can't deal with the mathematical sophistication of these analytical constructs. However, if she wants to be serious in contributing to this research area, it is important to insist on embracing and understanding the theoretical tools that made research in this field possible and productive. I know social psychologists do experiments without the rational actor model or game theory, but social psychology shares with sociology the lack of an analytical core. Horne cannot even formally analyze the game behind an experiment and has no way of expressing the fact that behaviors reflect preferences and beliefs without game theory and the rational actor model.

A final point: Horne argues that her theory applied over a wide range of normative behaviors, not simply social dilemmas. Her discussion of these areas is interesting and refreshing, although I think they are very speculative---more work for experimentalists of the future.his induces cooperation and the costs are not too high. Horne has two criticisms of the consequentialist approach. The first is that people often enforce behaviors that are not good for group members (e.g., foot-binding and genital cutting). The second is that people do care about norms, and don't simply react mechanically in participating in and defending a set of behaviors. I do not accept these criticisms. I think they are ploys Horne uses to differentiate her product, which she calls \\"a relational theory of norm enforcement,\\" from existing models. In truly scientific fields (which sociology currently is not, at least at the highest theoretical level), researchers offer their creations as building on the past, and are deeply appreciative of previous generations of researchers. In sociology, a \\"new\\" theory is supposed to trash its predecessors, not build on them. While the first wave of papers in (my branch of) the \\"consequentialist\\" school did not discuss social norms, the results of large-scale field studies with high levels of cultural variation across sites led those of use following a behavioral game theory approach to take social norms very seriously, and to interpret the willingness to cooperate and to punish defectors as ethical and norm-driven. See, for instance my edited collection Moral Sentiments and Material Interests (MIT, 2005), Game Theory Evolving, Second Edition (Princeton, 2009), The Bounds of Reason (Princeton 2009) as well as Fehr and Gintis, Annual Review of Sociology (2007).. Some of the field studies involved are

Henrich (2004) and Herrmann, Thöni and Gächter (Science, 2008). Moreover, the now huge literature on third-party punishment is firmly predicated on a normative approach (e.g., Fehr and Fischbacher in Evolution & Human Behavior, 2004). Horne's relational theory adds two dimensions missing from the behavioral game theory repertoire, which deals with costs, benefits, and social norm enforcement through altruistic punishment.These are \\"interdependence\\" and \\"metanorms.\\" The interdependence dimension reflects the fact that groups are likely to engage in more altruistic interaction the more strongly interdependent the members are in achieving collective goals. The hard it is to opt out of the cooperative effort, and the greater the gains from this effort, the more cooperation will occur and the more willing strong reciprocators will be to punish free-riding. This is a plausible addition to the theory, and Horne's experiments (mostly published in Rationality and Society) test some parts of the \\"interdependence\\" dimension. The second addition is the notion that a metanorm (which is what Horne calls a social norm that regulates cooperation) can be enforced positively as well as negatively; i.e., we can reward people who follow the norms and we can also reward people who punish others for violating the norm. The negative aspect of norm sanctioning is well known in the literature, but we severely underestimate how often people are kind to others simply because the others behave as good citizens. Horne's additions are very useful and deserve more research and testing. However, there are aspects of the behavioral game theory approach that deserve to be included in Horne's account of the \\"relational theory of norm enforcement.\\" Most important are character virtues, such as honesty, loyalty, and trustworthiness that are not really \\"relational\\" at all, but rather are personal ethical standards that people treat as normative ends, not means to other ends. Second, Horne goes to great lengths not to use game theory or the rational actor model explicitly, probably because sociologists can't deal with the mathematical sophistication of these analytical constructs. However, if she wants to be serious in contributing to this research area, it is important to insist on embracing and understanding the theoretical tools that made research in this field possible and productive. I know social psychologists do experiments without the rational actor model or game theory, but social psychology shares with sociology the lack of an analytical core. Horne cannot even formally analyze the game behind an experiment and has no way of expressing the fact that behaviors reflect preferences and beliefs without game theory and the rational actor model. A final point: Horne argues that her theory applied over a wide range of normative behaviors, not simply social dilemmas. Her discussion of these areas is interesting and refreshing, although I think they are very speculative---more work for experimentalists of the future.

The Myth of the Framework: In Defence of Science and Rationality

Go Get'em, Karl! — Rating: 4/5

Karl Popper (1902--1994) established a formidable reputation as a philosopher of science. His most famous principle is that a scientific theory must be capable of falsification on the basis of empirical observation. One cannot ever prove a theory is true (induction is defeasible), but a single aberrant observation can prove a theory false, Popper claimed. The world is full of people who deny Popper's insight for one reason or another. For instance, a logician might say, if theory p is falsified by observation o, then theory (not p) is verified by the single observation o. A defender of Popper might say that if p is a theory, then (not p) is not a theory at all, because theories must be expressed by universal quantification, or covering laws, or what have you. Similarly, a historian of science might claim that a single observation never led scientists to chuck a prized theory unless there was available and alternative theory that explained everything the old theory did, plus the new observation.

All this is very interesting to the philosopher, but for with limited tolerance for hair-splitting, Popper holds quite a different significance. Popper was the avowed and indefatigable enemy of Freudian psychology, Hegelian/Marxian philosophy and political theory, and other highly emotive and value-laden ideologies that appealed to True Believers but had no serious roots in the scientific method. If he were alive today, he would be launching his attacks on post-modernism, creationism, and other such drivel that has taken away the rationality of so many smart people in recent years. So, I Love Popper! I'm sure you will love Popper, too, unless you are among decorticate folk who believe that some ideas are just too precious to be subjected to empirical testing.

\\"I may be wrong and you may be right,\\" says Popper, \\"and by an effort, we may get nearer to the truth.\\" (p. xii) Actually, if you really understand this assertion and can defend it, you don't really need this book. This says it all.

Popper's falsification approach is actually very well defended in the first essay in this little book of essays. Popper argues that science has a Darwinian dynamic. A scientific theory can reproduce itself from mind to mind and generation to generation, but anomalies in the theory reduce its \\"fitness\\" and random mutations in the theory (theoretical paradigm shifts and emendations) sometimes produce a less anomalous offspring which then replaces the earlier theory, and hence is akin to biological adaptation. It follows that scientific progress requires both close attention to the facts and the willingness of scientists to entertain \\"heretical\\" views.

\\"One of the components of modern irrationalism is relativism (the doctrine that truth is relative to our intellectual background, which is supposed to determine somehow the framework within which we are able to think)\\" says Popper in the second essay (p. 33). Relativism will always be attractive to many people because it affirms a radical tolerance of the views of others. However, in science relativism is a poison, because it leads people to leave off struggling over truth, and hence it renders scientific progress impossible. Popper fully understands that different intellectual frameworks make discursive interaction difficult, just as he understands that there are few bald \\"facts\\" that exist independent from a theoretical framework to interpret these facts. However, he notes by observing the history of science that inter-framework discourse and struggle has been constant and fruitful. \\"I am very ready to admit that a discussion among participants who do not share a common framework may be difficult [but]... a discussion between vastly different frameworks can be extremely fruitful.\\" (p. 35)

Among the topics covered in these essays is Popper's perspective on the famous \\"positivism debate\\" between such rationalists as Karl Popper and the Frankfurt School of critical philosophy, which included Theodor Adorno, Max Horkheimer, and Jürgen Habermas in the 1960's. Popper actually takes a \\"sociology of knowledge\\" approach to the critical theorists, observing that the Germans public is impressed by big words and complex-sounding arguments, even if they are trivial in content or make no sense at all. Popper treats Adorno as a peddler of platitudes and Horkheimer as a minor cultural critic. Moreover, he argues that the critical school's treatment of culture is arrogant and elitist, prejudice rather than insight. He says the same of Habermas, although I think Habermas has developed quite important ideas in recent decades. I think Popper's assessment of \\"critical theory\\" is right on the mark, and it is developed in this book in a highly cogent and entertaining manner. By the way, the idea that Popper is a positivist is quite ludicrous---consider, for instance, his strong critique of Francis Bacon's scientific methodology, which is also sketched in one of the book's essays.Theodor Adorno, Max Horkheimer, and Jürgen Habermas in the 1960's. Popper actually takes a \\"sociology of knowledge\\" approach to the critical theorists, observing that the Germans public is impressed by big words and complex-sounding arguments, even if they are trivial in content or make no sense at all. Popper treats Adorno as a peddler of platitudes and Horkheimer as a minor cultural critic. Moreover, he argues that the critical school's treatment of culture is arrogant and elitist, prejudice rather than insight. He says the same of Habermas, although I think Habermas has developed quite important ideas in recent decades. I think Popper's assessment of \\"critical theory\\" is right on the mark, and it is developed in this book in a highly cogent and entertaining manner. By the way, the idea that Popper is a positivist is quite ludicrous---consider, for instance, his strong critique of Francis Bacon's scientific methodology, which is also sketched in one of the book's essays.

Thought in a Hostile World: The Evolution of Human Cognition

Brilliant, Creative, and Insightful Synthesis — Rating: 5/5

When I studied philosophy in college many years ago, it was an article of faith that one need not, indeed ought not, refer to any `facts' derived from natural or behavioral science in erecting theories of mind or morality. It was considered legitimate to draw upon the `facts' of everyday life as well as the insights derived from introspection, I was taught, but any serious dependence of philosophical theory upon the findings of contemporary sciences, except of course in dealing with the philosophy of that science, is to

make a category error. Probably this accounts in part for the equally hostile treatment given to philosophy in the sciences. I recall that when, as a graduate student in economics at Harvard in 1963 or so

Thankfully, that prejudice lies largely in the past, contemporary philosophers dealing with the nature of being human having becomes rather attentive to current scientific findings. Kim Sterelny, whose formal training is in philosophy and is both Professor of Philosophy at Victoria University and a member of the Research School of the Social Sciences at the Australian National University, exemplifies the best of the new breed of research-savvy philosophers. Thought in a hostile world is a brilliant book that sifts through virtually all areas of modern research into human behavior, and synthesizes a coherent picture of the nature of human cognition. The synthesis is accurate to the facts but is sufficiently speculative to make his vision both exciting and imaginative. I happen to agree with Sterelny on virtually all points, and some of his more imaginative sallies have forced me to rethink several major points that I had thought to have already nailed down. This book is quite accessible to the novice, but should be read quite carefully as well by evolutionary biologists, economists, sociologists, and all others involved in the behavioral sciences.

Sterelny has two major goals this ambitious book. The first is to offer an explicit and substantive theory of the evolution of human intelligence [Homo sapiens is by far the most intelligent of species, and the gap between ourselves and other intelligent species is stunningly large]. The second is to explain the relationship between \\"folk psychology\\" as exhibited in virtually all know societies, and an \\"integrated scientific conception of human cognition.\\" (p. viii) Sterelny handles the first goal by developing three critical modeling tools: group selection, niche construction, and phenotypic plasticity. All of these depend on the fact that humans are the only known species to sustain cumulative cultural evolution. Because culture can be maintained across generations, groups can be selected on the basis of the extent to which their cultural practices are biological fitness enhancing. Niche construction for humans takes the form of humans creating the very environment to which their own genetic development is subjected, so the combination of group selection and cumulative culture leads to gene-culture coevolution [Sterelny does not use this term], the dynamic phenomenon that accounts for human nature. Phenotypic plasticity means that the neuronal and cognitive structure of the individual are subject to environmental influence, so the human brain does not simply deal with a given evolved architecture, but emerges during individual development according to the nature of its early experiences. Phenotypic plasticity also includes an immense capacity to learn technical ways of understanding and dominating nature, and the internalization of culturally specific ethical norms, making humans virtually \\"programmable,\\" like computers, with socially valuable goals, such as honesty, hard work, loyalty, piety, and the like.

Sterelny's study suggests that the \\"massively modular\\" view of human cognition promulgated so assiduously by the Evolutionary Psychologists is radically incorrect (see also David C. Geary, The Origin of Mind: Evolution of Brain, Cognition, and General Intelligence (Washington, DC: American Psychological Association, 2005). Massive modularity is simply incompatible with phenotypic plasticity and the multi-modal manner that humans react to novel environments, allowing us to occupy a wider variety of ecological niches than any other vertebrate.

Probably the most innovative argument in Thought in a Hostile World is Sterelny's defense of the \\"folk psychology\\" model of human cognition, according to which human behavior can be explained by humans having (a) preferences, (b) constraints, and (c) beliefs, so that behavior consists of choosing the behavior that is most favorable to preferences, given the individuals beliefs concerning the structure and dynamics of the outside world, and subject to the time, effort, and other material constraints that the individual faces. Sterelny presents compelling arguments that this \\"folk psychology\\" is virtually universal, and has evolved biologically because it is a basically accurate model of human behavior that allows people to predict and understand the behavior others, thus enhancing their biological fitness. In recent years several researchers have found that humans have a \\"theory of mind\\" not possessed by most creatures, that facilitates social learning and strategic interaction (Baron-Cohen, Frith and Frith, Pinker, Tomasello, Povinelli). Sterelny adds to this to human \\"theory of mind\\" power a highly sophisticated \\"model of behavior\\" based on motives, beliefs, and constraints.

Sterelny's \\"folk psychology\\" model is of course the rational actor model of standard economic theory, although Sterelny defends a sophisticated version of the model proposed by Jerry Fodor's The Language of Thought (1975). Fodor proposes what he calls the \\"Simple Coordination Thesis,\\" which holds that human successfully predict the behavior of others in complex situations because their model of mind, based on preferences, beliefs, and constraints, is an accurate representation of how humans really think. Now, of course, there are limits to this argument. Humans also have a \\"folk physics\\" that they use to successfully manipulate the world, but some of its principles are simply incorrect. Indeed, modern physics took off when it replaced false folk notions (e.g., an object tends to slow down unless it is continually acted upon) by more sophisticated and non-intuitive notions (e.g., Galilean equivalence). We probably can expect the same from sophisticated alternatives to folk psychology, but as Leonard Savage showed in his Foundations of Statistics (1954), highly simplified axioms that can be expected to hold for most living creatures generate something very close to the folk psychology model, which thus holds not only for humans but for most other creatures as well, although with \\"beliefs\\" replaced by simpler notions of how the external world is represented internally to the creature. Sterelny argues also, reasonably enough, that simple organisms simply have \\"sensations,\\" whereas complex animals have \\"preferences,\\" which are themselves highly complex representations of categories of objects that satisfy specific needs. This argument is reminiscent of the Lancaster-Intriligator model of consumption, a model that makes much more sense than the traditional consumer model.ognition, and General Intelligence (Washington, DC: American Psychological Association, 2005). Massive modularity is simply incompatible with phenotypic plasticity and the multi-modal manner that humans react to novel environments, allowing us to occupy a wider variety of ecological niches than any other vertebrate.

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Genealogies of Citizenship: Markets, Statelessness, and the Right to Have Rights (Cambridge Cultural Social Studies)

A Worthy, but Misdirected, Response to the Ills of Contemporary Capitalism — Rating: 4/5

Until the elections of Margaret Thatcher in Britain and Ronald Reagan in the United States, along with the collapse of Communist parties throughout Europe in the wake of the success of the European Community, intellectuals from all sides of the political spectrum considered to see socialism as a viable alternative to capitalism. Until the rise of Amnesty International and other Human rights groups, as well as the emergence of the civil right and feminist movements and the resurgence of ethnic nationalism, the central political opposition was the class struggle between the rich and privileged on the one hand and the industrial working class on the other. It was then realistic to see the central political battle in the world economic system to be that between liberal democratic capitalism and democratic socialism.

The civil rights, anti-Vietnam War, and gender equality movements of the period starting in 1965 marked the collapse of the intellectual Left, as well as dissolution of the working class as a primary agent of social change. This dissolution was not accomplished through coercion, but rather through a change in the structure of the labor force and a concomitant change in the political understandings and commitments of working class men and women. The conservative counterrevolution was, if anything, spearheaded by working class voters who failed to see the traditional left unionism as relevant to their welfare and capable of realizing their aspirations. To add to the woes of the Left, the Soviet Union collapsed in the late 1980's and China embraced the market economy after 1979, inspired by the economic reforms of Deng Xiaoping's. Finally, Third World socialism, never very hearty, withered as well during this period, in the face of the success of the Pacific Basin countries, as well as the Latin American capitalist successes in Argentina, Brazil, Costa Rica, and elsewhere.

In the wake of these massive social changes, the intellectual left has abandoned the vision of fundamental social change. Capitalism is with us for the foreseeable future, and the best that progressives can hope for is to render the system the least destructive as possible for its victims. It has also become clear that the major economic victims in the contemporary world economies are those condemned to penury by corrupt and despotic states rather than the capitalist fat-cats of the past. For this reason, most progressive intellectuals today are emphatic supporters of political democracy and extensive civil liberties. In a sense, Amnesty International, Human Rights Watch, and other civil liberties groups have become the leading edge of progressive social change. Moreover, it has become equally clear that a major enemy of human emancipation throughout the world is the patriarchal family, embedded either in tribalism or predatory statism. Thus, movements embracing cultural alternatives to patriarchal ideology, including feminism, gay and Lesbian rights, and alternative family organization have become especially successful in dissolving the traditional forms of patriarchal oppression around the world. Finally, it is clear now that liberal democratic capitalism is capable of meeting the needs of the vast majority of its citizen, the major group left out being the poor, who are often in intolerable and lamentable straits even in the affluent liberal democratic capitalist countries.

All this is clear, but the intellectual left has not developed a unified and coherent political philosophy attuned to the current state of economic affairs in the advanced capitalist countries. In Genealogies of Citizenship, Margaret Somers, who is Professor of Sociology and History at the University of Michigan, has taken on the task of supplying such a political philosophy. I am certain many people will find her political ideas attractive. Indeed, she recently received the Lewis A. Coser Award for Innovation and Theoretical Agenda Setting, and additional awards will be forthcoming.

Somers is inspired by three great thinkers, Karl Polanyi (the embeddedness of markets in social life), Hannah Arendt (the right to have rights), and T. H. Marshall (social citizenship). Somers takes as given that we live, and will continue to live, in a liberal democratic capitalist society, but the current society suffers from an excessive expansion of the market sector into traditional civil society, thereby undermining the legitimate rights of citizens. \\"Whether these conflicts result in regimes of relatively democratic socially inclusive citizenship rights or regimes of social exclusion and statelessness largely

depends on the ability of civil society, the public sphere, and the social state to exert countervailing force against the corrosive effects of market-driven governance (p. 1).

Somers is not an enemy of the market, but rather an enemy of its hegemonic tendencies. \\"Disproportionate market power, \\" she says \\"disrupts this carefully constructed balance, as the risks and costs of managing human frailties under capitalism once shouldered by government and corporations get displaced onto individual workers and vulnerable families.\\" (p. 2) This and similar statements point clearly to the central problem with disproportionate market power is that it overwhelm \\"the frail,\\" who are not capable of competing in the competitive marketplace. The traditional welfare state, she maintains, was the fallback for such individuals, who were afforded a decent way of life by virtue of income and social services supplied by the state, under the banner of \\"citizen rights.\\" This system disappeared, she maintains, through the process of \\"contractualizing citizen rights,\\" by which she means transforming inalienable citizen rights into \\"conditional privileges\\" contingent upon successful labor market performance. The delegitimation of the traditional social welfare system was due to a shift in \\"public discourses\\" from attributing social problems from \\"structural conditions\\" to \\"alleged defects of individual moral character.\\" (p. 3) To counter this tendency, Somers proposes that \\"the right to have rights\\" should be reaffirmed by a \\"robust social sphere,\\" and that these rights include social support independent from success in the market economy. She singles out the \\"basic income right,\\" which is a guaranteed income by virtue of citizenship rather than performance in the economy, as an inalienable \\"citizen right,\\" as well as payment for \\"devalued labor (e.g., raising children, doing household work, unpaid child care).\\" (p. 44)

Somers' analysis is well worth reading as she is full of interesting ideas and insights. But, I am afraid her proposed agenda does not have much chance of success, and it should be decisively rejected by those seeking to solve the problems of poverty and dependency. The main reason is that the voting public is not likely to embrace the notion that people deserve support independent of their personal behavior and the particular reasons for their dependent condition. In our study of the welfare revolt in the United States (\\"Reciprocity and the Welfare State\\", in Jean Mercier-Ythier, Serge Kolm and Louis-Andre (Eds.) Handbook on the Economics of Giving, Reciprocity and Altruism, Amsterdam: Elsevier, 2002), Christina Fong, Sam Bowles and I found that most voters are quite willing to support those who are incapable of supporting themselves because of mental or physical illness or defect, but consistently withdrew this support from those who they felt were capable in principle of acting prosocially, but in fact used their welfare dependency to act in selfish and socially pathological ways. I the work since then that I have been involved with concerning social cooperation and altruism, my coworkers and I have found that the central principle that induces people to cooperate is a sense of community (not democracy or civil status), and most people are what we call \\"strong reciprocators:\\" they prefer to cooperate altruistically, but react to free-riding and defection on the part of others by withdrawing their cooperation, and even punishing the miscreants if they are capable of doing so, and even when carrying out this punishment is personally costly. Moreover, we have found this pattern of behavior to occur in many different economics and cultural settings, although of course the norms of proper prosocial behavior differ from society to society, and the \\"community\\" that people recognize as worthy of support is culturally specific.

It may seem that the moral values underlying \\"strong reciprocity\\" are inherently inimical to the solution of social problems surrounding poverty and dependency. This impression is incorrect. People generally identify with their social community as are willing to help community members who are in trouble (citizenship is not central here, although illegal status may be in certain situations). These communitarian moral values include helping those whose distressed position is no fault of their own, and even include giving second and third chances to community members who have brought on their own misfortune. However, it does not extend to unconditional support for those who habitually exhibit socially pathological behavior by not contributing to the cooperative process through which society reproduces itself. Thus, unconditional income grants are likely to be rejected by voters as immoral and unjust.

Somers suggests that in a liberal community tolerance for diversity should be the rule, and hence she supports a notion of multiculturalism in which culturally distinct groups tolerate their differences. However, multiculturalism cannot be invoked to justify why one cultural group should be taxed to

support the anti-social behavior of another group in the name of \\"tolerance.\\" Indeed, every community has a set of core values that it expects all members to uphold, and exhibits limited tolerance for deviation from these values. This is why it is important for a group to struggle for acceptance by asserting the good moral standing of its basic principles. Thus, for instance, gay persons do not simply want to be left alone; they want to be legitimized by being able to marry and to openly profess their sexual orientation. The notion that we should confer moral value on all groups independent of their behavior or their manner of contributing to the social good is not part of a feasible moral system for advanced liberal democratic capitalist society.

I do not have a comprehensive alternative to Somers' well thought-out system, but I think a few facts should be kept in mind in working out such a system. First, the major cause of poverty and dependency in the world today is the predatory state, monopolizing a country's valuable resources on behalf the rich and powerful, at the expense of economic development. The major instruments for dismantling such regimes are the ideals of democracy, civil liberties, and market competition, which forces the rich and powerful, who prefer the ease of monopoly profits, to compete to the benefit of the public. Second, in the United States and many other advanced capitalist countries, the poor are overwhelmingly new immigrant groups. In the United States, with its competitive labor markets, most immigrant groups integrate almost perfectly after two or three generations. In other advanced countries with large immigrant populations, we should advocate competitive labor markets on the grounds of fairness. If competitive labor markets lead to excessively low living standards for the poor, we should advocate higher minimum wages, earned income tax credits, job training, and other measures that reward people for prosocial behavior, and hence are highly attractive to voters. Third, if there are groups that do not assimilate economically, such as American black males, we should advocate redressing the social conditions thatreproduce such groups' chronic dependency.

I would give this book five stars for thoughtful exposition, but the realizability of Somers' vision takes away two stars. If you disagree with my analysis, her book might be just right for you.altruistically, but react to free-riding and defection on the part of others by withdrawing their cooperation, and even punishing the miscreants if they are capable of doing so, and even when carrying out this punishment is personally costly. Moreover, we have found this pattern of behavior to occur in many different economics and cultural settings, although of course the norms of proper prosocial behavior differ from society to society, and the \\"community\\" that people recognize as worthy of support is culturally specific. It may seem that the moral values underlying \\"strong reciprocity\\" are inherently inimical to the solution of social problems surrounding poverty and dependency. This impression is incorrect. People generally identify with their social community as are willing to help community members who are in trouble (citizenship is not central here, although illegal status may be in certain situations). These communitarian moral values include helping those whose distressed position is no fault of their own, and even include giving second and third chances to community members who have brought on their own misfortune. However, it does not extend to unconditional support for those who habitually exhibit socially pathological behavior by not contributing to the cooperative process through which society reproduces itself. Thus, unconditional income grants are likely to be rejected by voters as immoral and unjust. Somers suggests that in a liberal community tolerance for diversity should be the rule, and hence she supports a notion of multiculturalism in which culturally distinct groups tolerate their differences. However, multiculturalism cannot be invoked to justify why one cultural group should be taxed to support the anti-social behavior of another group in the name of \\"tolerance.\\" Indeed, every community has a set of core values that it expects all members to uphold, and exhibits limited tolerance for deviation from these values. This is why it is important for a group to struggle for acceptance by asserting the good moral standing of its basic principles. Thus, for instance, gay persons do not simply want to be left alone; they want to be legitimized by being able to marry and to openly profess their sexual orientation. The notion that we should confer moral value on all groups independent of their behavior or their manner of contributing to the social good is not part of a feasible moral system for advanced liberal democratic capitalist society. I do not have a comprehensive alternative to Somers' well thought-out system, but I think a few facts should be kept in mind in working out such a system. First, the major cause of poverty and dependency in the world today is the predatory state, monopolizing a country's valuable resources on behalf the rich and powerful, at the expense of economic development. The major instruments for dismantling such regimes are the ideals of

democracy, civil liberties, and market competition, which forces the rich and powerful, who prefer the ease of monopoly profits, to compete to the benefit of the public. Second, in the United States and many other advanced capitalist countries, the poor are overwhelmingly new immigrant groups. In the United States, with its competitive labor markets, most immigrant groups integrate almost perfectly after two or three generations. In other advanced countries with large immigrant populations, we should advocate competitive labor markets on the grounds of fairness. If competitive labor markets lead to excessively low living standards for the poor, we should advocate higher minimum wages, earned income tax credits, job training, and other measures that reward people for prosocial behavior, and hence are highly attractive to voters. Third, if there are groups that do not assimilate economically, such as American black males, we should advocate redressing the social conditions that reproduce such groups' chronic dependency. I would give thisbook five stars for thoughtful exposition, but the realizability of Somers' vision takes away two stars. If you disagree with my analysis, her book might be just right for you.

Core Questions in Philosophy (5th Edition)

An Unexpected Delight — Rating: 5/5

My work deals with understanding cooperation in humans. Since social interaction has a moral element, I have been ineluctably concerned with philosophical ethics. Although I studied a fair amount of philosophy in school, I did not study ethics, and I feel I have a rag-tag grounding in this aspect of modern philosophy. This is why I obtained Sober's undergrad textbook, which is really an intro to all of Western philosophy.

This book is nothing like my own introduction to philosophy, which consisted exclusively in reading excerpts from the great philosophers of the past, accompanied by the professor's lectures, which went 'way over my head. Now, my background was in math and physics, and I never read the classics in those fields (you need a dictionary to understand these old guys, and their notation was usually horrible). Sober's text is so refreshing! In each of the major areas of philosophy (he doesn't deal with logic, philosophy of science, philosopchy of mathematics, and other specialized areas) he provides a lucid overview as well as a critique of the various views and his own assessment of which is correct and which is not. I agreed with him almost 100% of the time, and I found his analysis quite cogent and lucid.

The bottom line is that this book is excellent both for beginners and those who want to brush up. It is also a great read.

Sober's treatment of ethical philosophy gets five stars for exposition, but only three for analysic and critique, in my view. I share Sober's deep appreciation for Aristotle and virtue ethics in general, the major attraction of which is its self-characterization as a set of principles for leading the good life. Virtue ethics thus avoids the utilitiarian/deontological problem: why should we be moral? For virtue ethics, moral behavior is its own reward, the main problem being (a) have the fortitute and self-discipline to behave morally, and (b) figuring out exactly what the moral thing to do is. If this view is correct (I think it is) then the ethical theories of the past few centuries, virtue ethics aside, are completely misguided. As to the content of morality, Sober correctly criticizes Aristotle for thinking that virtue is unitary, when in fact his own conceptual framework is more consonant with the view that there are many virtuous paths, and virtue is in part culturally specific.

Recently, there have been serious efforts to answer the question as to the content of morality by treating moral discourse in much the same manner as communicative discourse: there are some basic organizing principles, but basically there are many different moral discourses and our job as scientists is assess their comunalities and differences, as well as modeling how moral discourses diffuse, expand, contract, become extinct, mutate and emerge, etc. In this sense, ethical theory should be like linguistics, where the structure of valid utterances are deduced from social practice, not by the idle intuitions of professional philosophers. See, for instance, David Wong's Natural Moralities: A Defense of Pluralistic Relativism.think it is) then the ethical theories of the past few centuries, virtue ethics aside, are completely misguided. As to the content of morality, Sober correctly criticizes Aristotle for thinking that virtue is unitary, when in fact his own conceptual framework is more consonant with the view that there

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Economics and Sociology: Redefining Their Boundaries. Conversations with Economists and Sociologists

Worthy of careful study, but lots of fun conversations — Rating: 4/5

Richard Swedberg, who is one of the most eminent sociologists in the world, is currently Professor of Sociology at Cornell University. His books include Sociology as Disenchantment: The Evolution of the Work of Georges Gurvitch (1982), Economic Sociology: Past and Present (1987), Joseph A. Schumpeter: His Life and Work (1991), Max Weber and the Idea of Economic Sociology (1998); Principles of Economic Sociology (2003), and Tocqueville's Political Economy (2009). Swedberg is a sociologist through and through, but a major passion throughout his career has been facilitating a rapprochement of some sort between economics and sociology. Rather than taking a fixed position on exactly how such a rapprochement might take place (economic theory \\"replacing\\" sociological theory, as in Gary Becker's work, or sociology replacing economics, as in the work of Harrison White and Mark Granovetter, or perhaps some architectural structure supervening the two disciplines and creating a common and concordant interface between them), Swedberg has consistently worked to \\"let a thousand flowers bloom\\" in the interstices between economics and sociology.

This volume is an early contribution, but it fully exemplifies Swedberg's infectious enthusiasm for a consilience between economics and sociology. The book consists of Swedberg interviewing eighteen high-profile economists and sociologists (about half and half), most of whom have contributed to economic sociology in one way or another. While the interviews are sufficiently free-form to appear fresh and spontaneous, Swedberg formulates a small set of key questions which he takes pains to ask each interviewee, in addition to whatever else they talk about, thus lending considerable coherence to the volume. While reading these interviews is no substitute for reading the works of the authors themselves, there is much to be learned from the rather informal remarks of the interviewees.

Economists and sociologists have standard critiques of each other, and they are more or less forcefully repeated in this volume. I think there is only one cogent critique of Neoclassical economics, and that is that its model of the individual, so-called Homo Economicus, is a social cripple because (a) he makes his decisions in social isolation based on implausible amounts of information, and (b) he is relentlessly selfish and amoral, caring about his own rewards to the exclusion of the needs of others and collective social interests. Similarly, there is only one important critique of modern sociology, and that is that it is totally lacking in core theory and sociologists don't seem to be annoyed by the situation at all. Speaking of his own experience with the Harvard sociology department, Kenneth Arrow says \\"It was just as though every sociologist was starting the subject from the beginning.... It didn't seem as if all these people were building on something.\\" (p. 136)

Now, there is certainly no way that the two disciplines can forge a productive research alliance if one (economics) considers the goal of research to be adding to and transforming core social theory, whereas the other (sociology) treats social theory as a political manifesto, and expression of personal vision, or an instantiation of political philosophy. Nor is such an alliance possible if sociology rejects the rational actor model---the central structure upon which the Neoclassical treatment of individual behavior stands. Moreover, it is unlikely that economists will ever accept the historical/descriptive/interpretive approach to social theory that is favored in sociological circles, nor will sociologists ever be happy with highly abstruse mathematical models that abstract from every aspect of humanity and culture except those needed to produce accurate representations of aggregate price and quantity movements.

Gary Becker takes the position of the determined \\"economic imperialist,\\" holding that standard economic methodology will eventually replaced all standard sociological theory. \\"Will economics be able to solve,\\" Swedberg asks Becker, \\"all those problems that sociology has failed to solve... Is rational choice really that powerful in your opinion?\\" Becker replies, \\"Yes, in the limited sense that rational choice can solve more of them than have been solved thus far. I don't know what the limits are.\\" (p.39) There can be no doubt but that James Coleman basically agreed with this assessment, as his own strong embracing of the rational actor model and his loyalty to Becker at the University of Chicago attest (Coleman asked Becker to join the Sociology Department at Chicago, and the two ran joint seminar for several years). Yet in his interview, Coleman maintains his loyalty to his discipline, answer virtually the same question with \\"I think the answer is \\"no.\\" I think that the economists have shown certain kinds of fundamental narrowness and blindness, and that it will rather turn out that economics will become a kind of subdiscipline of sociology in the future.\\" (p. 57) Note that the two thinkers, with virtually identical theoretical programs, give diametrically different answers. The reason is that Becker's answer is that economic theory with take over sociological theory, whereas Coleman's answer is that sociologists have the breadth and sensitivity to apply the same theory over a much broader range of topics.

A second view, expressed strongly by Harrison White and Mark Granovetter is that economic theory is just all wrong and will be replaced by sociological theory. \\"I am a little appalled by the recent resurrection of rational choice theory... We have been through all of this before, and I am unaware of any new great idea that can justify a renewed interest.\\" (p .89) The new economic sociology, based on network analysis and social embeddedness, adds Granovetter, \\"is much more ready to argue that sociologists have something to say about standard economic processes and that this supplements and in some cases also replaces what economic theory has to say...what economic sociology can contribute is more than just the last five percent tacked on to the end of the regression equation to sop up the little bit of variance that somehow neoclassical theory missed.\\" (p. 107) I should note that Granovetter, unlike White, does not reject the rational actor model, and indeed uses it to explain why economic actors create networks to permit market exchanges that would be impossible in the simple world of traditional economics, where the cost of contract enforcement is assumed zero and the quality of all goods is public information.

George Akerlof, Arthur Stinchcombe, and Kenneth Arrow take an intermediate position, basically saying that economics and sociology should keep their distance. \\"I am not sure bringing in a lot of maximization into sociology is going to be a good thing. I like what I read in sociology because people are talking about things outside of maximization from economics.\\" (p.74) Stinchcombe says, \\"Well, it seems to me that for some subparts of social science, rationality can work as a unifying element...But it seems to me that there also exist other kinds of behavior, which are really hard to explain this way.\\" (p. 288--89) For Arrow, \\"the attempt to explain all social interaction as economic interaction in a generalized sense of the word \\"economic\\" only represents one side of the coin. The other is that a lot of the environment in which economic transactions take place is social and historical in nature.\\" (p. 136)

My own view, which is that the rational actor model is an important part of every aspect of social structure and dynamics, but cannot by itself explain these forces, is expressed by Albert Hirschman (please forgive his vagueness): \\"[to get rid of the artificial boundaries between disciplines] you then have to include certain things into the motivation of the rational actor that are normallyleft outside...If you accept that it is rational for an actor to build up his own identity or to consolidate some collective identity, then participation in collective action and the refusal of any `free ride' become perfectly rational.\\" (p. 161) I spent half a year in a study group with Hirschman in 1975 studying Mancur Olson at the Institute for Advanced study, and these sentences are more incisive than anything I heard or said at that seminar. Equally reasonable, and correct, I believe, is Thomas Schelling's position: \\"What I would rather hope for in economics is that...there are maybe ways to couple the rationality assumption with some other phenomenon, so they can be compatible and complementary with each other... I also enjoy the work of Dan Kahneman and Amos Tversky. ...because they accept a general model of rationality, they can also enrich it.\\" (195) Jon Elster expresses a similar assessment. Pearls of wisdom, these!ases also replaces what economic theory has to say...what economic sociology can contribute is more than just the last five percent tacked on to the end of the regression equation to sop

up the little bit of variance that somehow neoclassical theory missed.\\" (p. 107) I should note that Granovetter, unlike White, does not reject the rational actor model, and indeed uses it to explain why economic actors create networks to permit market exchanges that would be impossible in the simple world of traditional economics, where the cost of contract enforcement is assumed zero and the quality of all goods is public information. George Akerlof, Arthur Stinchcombe, and Kenneth Arrow take an intermediate position, basically saying that economics and sociology should keep their distance. \\"I am not sure bringing in a lot of maximization into sociology is going to be a good thing. I like what I read in sociology because people are talking about things outside of maximization from economics.\\" (p.74) Stinchcombe says, \\"Well, it seems to me that for some subparts of social science, rationality can work as a unifying element...But it seems to me that there also exist other kinds of behavior, which are really hard to explain this way.\\" (p. 288--89) For Arrow, \\"the attempt to explain all social interaction as economic interaction in a generalized sense of the word \\"economic\\" only represents one side of the coin. The other is that a lot of the environment in which economic transactions take place is social and historical in nature.\\" (p. 136) My own view, which is that the rational actor model is an important part of every aspect of social structure and dynamics, but cannot by itself explain these forces, is expressed by Albert Hirschman (please forgive his vagueness): \\"[to get rid of the artificial boundaries between disciplines] you then have to include certain things into the motivation of the rational actor that are normally left outside...If you accept that it is rational foran actor to build up his own identity or to consolidate some collective identity, then participation in collective action and the refusal of any `free ride' become perfectly rational.\\" (p. 161) I spent half a year in a study group with Hirschman in 1975 studying Mancur Olson at the Institute for Advanced study, and these sentences are more incisive than anything I heard or said at that seminar. Equally reasonable, and correct, I believe, is Thomas Schelling's position: \\"What I would rather hope for in economics is that...there are maybe ways to couple the rationality assumption with some other phenomenon, so they can be compatible and complementary with each other... I also enjoy the work of Dan Kahneman and Amos Tversky. ...because they accept a general model of rationality, they can also enrich it.\\" (195) Jon Elster expresses a similar assessment. Pearls of wisdom, these!

Handbook of Sociological Theory (Handbooks of Sociology and Social Research)

Full of interesting stuff — Rating: 4/5

Jonathan H. Turner has been an indefatigable promoter of sociological theory, such as the many editions of The Structure of Sociological Theory and this book, the Handbook of Sociological Theory. Turner approach to theory is inclusive: anything that calls itself sociological theory is welcome into the fold for Turner, although he of course has his own favorites (I tend to agree with his assessments). This book includes a number of contributions from postmodernism (which I consider mindless, presumptuous, fatuous, and not worth following) to symbolic interactionism (great fun, greatly overrated), systems theory (tedious functionalism), evolutionary sociology (should be a lot more widely represented), and the inevitable array of contributions covering power, conflict, stratification, and social dynamics.

I purchased this book because I was interested in two slim chapters, Role Theory (Ralph Turner) and Action Theory (Hans Joas and Jens Beckert). Of course, I did not expect to see anything new in here (handbooks aren't supposed to be new, but rather inclusive and representative of the state of the art). However, I also found a gem of a synthetic chapter by Siegwart Lindenberg, who offers an exceptionally insightful exposition and critique of the rational actor model. I will describe these contributions, keeping in mind my central goal, which is to see what prevents a fruitful interaction between economics and sociology, and what theoretical innovations will be necessary to bridge the formidable gap between the two---a gap predicated upon the proliferation of theoretical inconsistencies wrapped up in the unquenchable prejudices of theorists in both camps.

Economic theory has a simple taxonomy. There are consumers, workers, and entrepreneurs. There are firms, households, and a state sector. There are multiple industries within each of which there is a more

or less fine division of productive roles (types of employment). Sociology sees the world through a much more complex prism. In addition to the above, there are males and females, young and old, diverse ethnicities and races, multiple creeds and a plethora of statuses. However, economics and sociology will share consonant taxonomies if each sociological role is a substantive expansion of an economic type. This is precisely how Ralph Turner develops the role concept in his chapter on \\"Role Theory.\\" For Turner, the division of labor in economics becomes the functional differentiation of society into roles. A social role consists of three properties or characteristics: \\"functionality,\\" \\"representationality,\\" and \\"tenability.\\" Functionality represents the role's contribution to the reproduction of the system, an extension of the economic concept of a productive input. In economics, we only think of labor as a productive input, but in the larger social perspective, there are many institutions besides firms that must be reproduced by role-occupants. The \\"tenability\\" of a role is the manner in which incentives are arranged so that role-occupants are induced to carry out the tasks assigned to them. These include simple economic incentives, plus prestige and social esteem. Turner does not discuss this, but it would be easy to add that roles have associated normative principles, these principles may be obeyed either as constraints or internalized as ethical goals, and in many situations the ethical and normative aspect of role tenability are paramount. The third characteristic of roles is their \\"representability,\\" by which Turner means that a role-occupant may be expected to behave is concordant ways in role-positions quite removed from the functionality of the role itself. For instance, star athletes are expected to lead exemplary lives even out of the public view, and politicians may be expected to attend church. Especially interesting is the concept of \\"role-merger,\\" in which a role-incumbent so internalizes the functional and moral aspects of the role-positionthat the role becomes part of the occupant rather than being a mere instrument to other ends.

In contrast to this insightful exposition of role theory, Joas and Beckert's treatment of action theory is a showcase in misunderstanding the rational actor model, but in a way which is shared by the overwhelming majority of sociologists. Joas and Beckert begin by characterizing the rational actor model as claiming that \\"actors' decisions can be understood from their motivation to optimize their utility.\\" (p.269) Even the most elementary exposition of the model, by contrast, stresses that if individuals have consistent preferences, we can represent their behavior as maximization, but this is not their \\"motivation\\" any more than the fact that we can represent the motion of light waves by minimizing a Hamiltonian means that \\"light waves want to travel minimal paths.\\" So, is simply absurd to think that economists believe it is rational to be \\"motivated to optimize.\\" Joas and Beckert then assert that \\"the debate on action in sociology tends to focus primarily on rational choice theory on the one hand and on normative theories of action on the other... The competition between economics and sociology is largely founded on radically opposed action theories. The most influential sociological alternative to rational actor theory has been the normative model of action.\\" (p. 270-271) Now, I do not want to deny that this is the case, but I do want to deny, categorically, that there is any conflict between rational action and normative action. There is nothing in the rational actor model that precludes normative elements in the actor's preference function. Nor is there anything in the normative model that precludes individuals from making welfare-improving trade-offs between normative principles (e.g., fairness, honesty, trustworthiness) and self-regarding concerns (material goods and services, leisure, prestige). Indeed, a raft of experiments in behavioral game theory exhibit the consonance of self-regarding interests, other-regarding interests, and character virtues in the preferences of rational agents. The failure of sociologists to understand this point is probably the chief reason core sociological theory has never had a chance to develop (economics has its own problems, of course, but that is a matter better discussed elsewhere).

Siegwart Lindenberg's contribution, \\"Social Rationality versus Rational Egoism,\\" shows exactly how the economist's rational actor model can be enriched to serve sociological purposes without abandoning the analytical clarity and power of economic theory. I tend to stress that the rational actor model requires no more that preference consistency, and refer for support to the success of the model in game-theoretic models of animal behavior. Now, animals are hardly rational according to most meanings of the term \\"rational,\\" but they do tend to satisfy preference consistency, and hence their strategic interactions can be cogently modeled as rational action---even if the creatures are pond scum or dung beetles. However, sociologists demand a richer concept of rationality, and Lindenberg offers an expanded concept of rationality, one that conserves yet goes beyond what economists care about. He

argues of human individuals that (a) they are resourceful and goal-motivated; (b) they are constrained and confronted with scarcity of time, energy, and resources; (c) they form expectations and learn; (d) they differentially value distinct states of the world; (e) they are motivated to achieve; (f) in novel situations, they search for the proper frame for the event in their reservoir of know event types. (p. 636) Of course, these characteristics are plausible and in no way conflict with the rational actor model.

So, why then does the chasm between sociology and economics persist? Good question.comes part of the occupant rather than being a mere instrument to other ends. In contrast to this insightful exposition of role theory, Joas and Beckert's treatment of action theory is a showcase in misunderstanding the rational actor model, but in a way which is shared by the overwhelming majority of sociologists. Joas and Beckert begin by characterizing the rational actor model as claiming that \\"actors' decisions can be understood from their motivation to optimize their utility.\\" (p.269) Even the most elementary exposition of the model, by contrast, stresses that if individuals have consistent preferences, we can represent their behavior as maximization, but this is not their \\"motivation\\" any more than the fact that we can represent the motion of light waves by minimizing a Hamiltonian means that \\"light waves want to travel minimal paths.\\" So, is simply absurd to think that economists believe it is rational to be \\"motivated to optimize.\\" Joas and Beckert then assert that \\"the debate on action in sociology tends to focus primarily on rational choice theory on the one hand and on normative theories of action on the other... The competition between economics and sociology is largely founded on radically opposed action theories. The most influential sociological alternative to rational actor theory has been the normative model of action.\\" (p. 270-271) Now, I do not want to deny that this is the case, but I do want to deny, categorically, that there is any conflict between rational action and normative action. There is nothing in the rational actor model that precludes normative elements in the actor's preference function. Nor is there anything in the normative model that precludes individuals from making welfare-improving trade-offs between normative principles (e.g., fairness, honesty, trustworthiness) and self-regarding concerns (material goods and services, leisure, prestige). Indeed, a raft of experiments in behavioral game theory exhibit the consonance of self-regarding interests, other-regarding interests, and character virtues in the preferences of rational agents. The failure of sociologists to understand this point is probably the chief reason core sociological theory has never had a chance to develop (economics has its own problems, of course, but that is a matter better discussed elsewhere). Siegwart Lindenberg's contribution, \\"Social Rationality versus Rational Egoism,\\" shows exactly how the economist's rational actor model can be enriched to serve sociological purposes without abandoning the analytical clarity and power of economic theory. I tend to stress that the rational actor model requires no more that preference consistency, and refer for support to the success of the model in game-theoretic models of animal behavior. Now, animals are hardly rational according to most meanings of the term \\"rational,\\" but they do tend to satisfy preference consistency, and hence their strategic interactions can be cogently modeled as rational action---even if the creatures are pond scum or dung beetles. However, sociologists demand a richer concept of rationality, and Lindenberg offers an expanded concept of rationality, one that conserves yet goes beyond what economists care about. He argues of human individuals that (a) they are resourceful and goal-motivated; (b) they are constrained and confronted with scarcity of time, energy, and resources; (c) they form expectations and learn; (d) they differentially value distinct states of the world; (e) they are motivated to achieve; (f) in novel situations, they search for the proper frame for the event in their reservoir of know event types. (p. 636) Of course, these characteristics are plausible and in no way conflict with the rational actor model. So, why then does the chasm between sociology and economics persist? Good question.

The Logic of Practice

Beyond Structure and Practice, Redux — Rating: 3/5

Who was Pierre Bourdieu? Quoting from an appreciation by sociologist Loïc Wacquant, \\"the grandson and son of sharecroppers from a marginal province [of France], he rose to the apex of the French cultural pyramid and became the world's most cited living social scientist. Reared to join the high caste of philosophers, the supreme intellectual species in postwar France, he embraced instead the lowly and

then-moribund discipline of sociology, which he helped revitalize and renew.\\" This appreciation is quite accurate, except that (a) not sociology, but rather core sociological theory, was lowly and moribund, and (b) Bourdieu did nothing to help revive sociological theory. Rather, he exemplifies its ills.

Modern sociology is populated with politically correct social pleaders of all sorts, and Bourdieu was one himself, especially in the last two decades of his life. But, modern sociology also has produced penetrating, insightful, and socially relevant analysis of social problems through the skillful collection and analysis of data and the use of basic, low-level but robust social theory. Bourdieu began his career with such down-to-earth social analyses, mid-way between sociology and anthropology, starting with The Sociology of Algeria (1962). Indeed, throughout his life, Bourdieu made sure not to wander too far from concrete data collection, analysis, and interpretation. However, Bourdieu was educated in the Continental philosophical tradition, was conversant in the languages of Marx, Hegel, Husserl, Sartre, Merleau-Ponty, and the rest of the gang, and had pretentions of theoretical grandeur. He learned the Continental manner of saying little with many erudite words, choosing his political commitments to maximize his popularity with the intellectual elites.

It is an indication of the sad state of sociological theory that Bourdieu's contributions could be called \\"theory\\" at all. In fact, Bourdieu invents a few neologisms, such as habitus, illusio, and symbolic capital, but these terms have not become, and likely never will become, part of a general sociological theoretical discourse. Bourdieu the theorist is an idiosyncratic social philosopher, a thinker more like an artist than a scientist, like a poet who is appreciated and analyzed, but not copied. Indeed, there is a considerable amount of pleasing poetry in this book, The Logic of Practice. For instance, Bourdieu tells us \\"Practice has a logic which is not that of the logician.\\" (p. 86) Of course, this is a knock-off of Blaise Pascal's famous \\"Le coeur a ses raisons, que la raison ne connaît point. (The heart has its reasons that reason knows not at all),\\" but cute just the same.

The intellectual message of The Logic of Practice is very simple. There are two main strands of sociological theory, subjectivism (phenomenology, ethnomethodology, etc.) and objectivism (structuralism, functionalism, systems theory). Both are wrong because each is one-sided in recognizing part of social reality and attempting to subsume the remainder as an epiphenomenon. Now, to my mind there is a perfectly reasonable consolidation of subjectivism and objectivism in structure/action theory, according to which social institutions create the space of possibilities within which strategic action takes place, as well as supplying the incentives for role-performance. Thus structure structures practices and practices maintain and transform structures. We can model this system using game theory, the rational actor model, the sociological theory of norms, and the like. Bourdieu, of course, will have none of such a solution (he has mounted vigorous, if to my mind uniformed, critiques of each of the building blocks of what seems to me to be the correct approach). Rather, he opts for creating the new term habitus, which is a sort of philosophical solution to the problem. \\"The conditionings associated with a particular class of conditions of existence produce habitus, systems of durable, transposable dispositions, structured structures predisposed to function as structuring structures, that is as principles which generate and organize practices and representations that can be objectively adapted to their outcomes without presupposing conscious aiming at ends or an express mastery of the operations necessary in order to attain them.\\" (p.53) Habitus is thus neither objective (it is not a structure because it resides in individuals) nor subjective (it is not thought, it has no conscious aims, it is not reasoned, it is not choice).

Unfortunately, Bourdieu's eloquence and erudition are not likely to turn habitus into a major theoretical concept. It is of course true that individuals do not re-solve problems anew each time the pertinent situation arises. One brushes one's teeth without heavy calculation, and one drives to work each day traversing the same route as the previous day. Living one's life is an exercise in routinization, and it takes a considerable alteration in structural conditions or personal situation to induce one to revise one's habitual choices. However, the concept of habitus does not solve any problems, but rather describes the situation of the individual whose problems have already been solved, or at least accommodated. An integration of structure and subjectivity must say how the content of habitus is determined and changes over time. Of this, the logic of practice gives us no hint.e, transposable dispositions, structured structures predisposed to function as structuring structures, that is as principles which generate and organize practices and representations that can be objectively adapted to

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The Stag Hunt and the Evolution of Social Structure

Insightful Exploration of Social Games — Rating: 4/5

Brian Skyrms is one of the few philosophers who has been elected to the National Academy of Sciences of the United States. He is an outstanding example of what seems to me to be a trend in modern philosophy of science, which is to learn the relevant scientific practices thoroughly so that one's contribution as a philosopher is at a high technical level of expertise. This book is accessible to the interested non-professional, but the journal articles on which it is based are quite sophisticated. I am not sure whether we should consider Skyrms' ideas as contribution to social theory, social philosophy, or both. Then again, perhaps it doesn't matter.

Skyrms' preferred method is to take a simple two-player game like the stag hunt or the prisoner's dilemma and explore the implications of repeating the game, playing it on a lattice, allowing player strategies to evolve, and otherwise enriching the game's structure to better approximate some forms of real social interaction. Skyrms is above all an explorer rather than an exhaustive taxonomist. He wanders through the forest of exotic plausible assumptions for two-person games, stops here and there to admire a particularly interesting specimen, and the moves on. This is a delightful approach for both the casual reader, who is not interested in complex details, and the professional student of game theory, who is tired of taking a highly specific game and absolutely beating it to death with forays of analytical purity.

One serious limitation of this book is that Skyrms is almost single-mindedly concerned with two-player games, whereas understanding human social life requires n-player games for fairly high n (at least 20 in some important cases). While a deep understanding of two-person games does shed light on behavior in larger games, it also can be very misleading. Certainly human society is much more complicated than one might infer from the workings of the prisoner's dilemma, the stag hunt, and the hawk-dove game.

I also believe that Skyrms' major point in this book is just dead wrong. In the Preface, Skyrms says \\"If one simple game is to be chosen as an exemplar of the central problem of the social contract, which should it be? Many modern thinkers have focused on the prisoner's dilemma, but I believe that this emphasis is misplaced. The most appropriate choice is not the prisoner's dilemma, but rather the stag hunt.\\" (p. xii) Now, the stag hunt is a pure coordination game of the following form. Suppose there are n players (Skyrms prefers two players, but any n will do). If all players \\"hunt stag,\\" each will receive an payoff of 1000 calories of meat. However, if any player decides instead to \\"hunt rabbit,\\" the stag hunt will fail, and all players will get no calories except the rabbit hunter, who gets 100 calories. This is a coordination game, or an assurance game, because a player can be assured of getting 100 calories no matter what the others do (by hunting rabbit), but if the players can coordinate so all hunt stag, they will all do much better.

Skyrms defends his statement that human social life is basically a stag hunt-like coordination game as follows. At first sight, social cooperation seems to be a prisoner's dilemma, or in the n-player case, a

public goods game. In this game, by cooperating an individual helps all the other members of the group, but at a cost to himself. Therefore, a self-regarding player will never cooperate. It follows that social cooperation requires altruistic players---people must cooperate even though this is personally costly and the others alone benefit from one's prosocial behavior. It is easy to see why the public goods game is an allegory for social cooperation among humans. For instance, if we all hunt, if hunting is dangerous and exhausting, and we must share the kill equally, then a self-regarding hunter will prefer to shirk rather than hunt. Cooperation in this case requires altruistic hunters. Skyrms' point, however, is that if the game is repeated indefinitely, then cooperation among self-regarding agents is possible using what are known as \\"trigger strategies.\\" A trigger strategy for a player is to cooperate on every round, as long as all other players cooperate as well. However, the first time one player defects, the trigger strategy dictates that all players defect on every succeeding round. It is easy to see that in this case, even selfish players will cooperate on all rounds, because the gains they have from defecting on one rounds may be swamped by the losses incurred by not benefiting from others' efforts on the succeeding rounds.

Why is Skyrms wrong? Note first that the repeated prisoner's dilemma or n-player public goods game (the latter is just a prisoner's dilemma with n players) is not really a stag hunt game at all. The stag hunt game has exactly two equilibria, one where everyone hunts rabbit and one where everyone hunts stag. The repeated public goods game (rppg) has an infinite number of equilibria! For instance, suppose it costs 100 calories to generate 1000 calories for the other players. Now suppose in a ten player repeated public goods game, all players cooperate on all rounds, except player 1, who defects on all rounds. With an obvious alteration in the trigger strategies of players 2 through n, we still have a Nash equilibrium of the rppg. This is because 9,000 calories are generated in each period, so each player gets 900 calories, and players 2 through 10 only expend 100 calories, so they have a net gain of 800 calories and hence are willing to participate. Now, by varying who participates and how much, we can generate an infinite number of equilibria for the rppg. In game theory, this is known as the Folk Theorem of Repeated Games.

Despite the fact that the stag hunt is not exactly the same as the rppg, Skyrms would be correct in principle if it were true that the rppg were a coordination game, like the stag hunt. But the rppg is NOT a coordination game at all! In fact, in the rppg, a self-regarding player has an incentive to shirk if he can get away with it; i.e., if others do not observe his shirking. This is not the case in the stag hunt.

Economists generally treat the Folk Theorem as a brilliant solution to the problem of cooperation among many self-regarding agents, and Skyrms is here merely following their lead. My study of the Folk Theorem, by contrast, shows that the Folk Theorem is no solution at all, except for groups of size two, or larger groups under generally implausible informational conditions (see my book, The Bounds of Reason, Princeton University Press, 2009). The reasons is that cooperation in the rppg requires that each player send a very accurate signal to each other player indicating cooperation or defection, and the same signal must be transmitted to all players if they are to coordinate in their manner of reacting to a defection. When different players get different signals (e.g., when each player sees only a subset of the other players) and/or when the signals have a significant probability of being inaccurate (e.g., a hunter worked hard but by chance failed to be successful in the hunt), the cooperative equilibrium to the rppg will not exist, or will exist but will be extremely inefficient.

The implication of Skyrms' position for social theory is quite dramatic. If he were correct, it would follow that humans could cooperate very effectively even if they were perfectly self-regarding, with absolutely no need for altruistic preferences, empathy, no predisposition for cooperating and sharing, nor any other prosocial behavior that goes beyond simple mutualism: An individual would help the group only as a byproduct of helping himself. In fact, there is a great deal of evidence that humans have fundamental other-regarding preferences, including a predisposition to follow legitimate social norms, and to make personal sacrificeson behalf of the group if they perceive that others are make such sacrifices as well.

My reading of the empirical evidence is that humans have evolved a cognitive psychology that allows for \\"team cognition.\\" Team cognition means that humans can understand that they are part of a team, that all team members have the same team goal, and that other members also realize this. Most animals completely lack this form of cognition, or have it only to a severely limited degree. The writings of Michael Tomasello offer, to my mind, the most persuasive evidence on team cognition. However team

cognition has nothing to do with the stag hunt. In groups of several agents, even with team cognition, it will usually be the case that one of the group can defect and the project will still be worth doing, and hence will benefit the defector. Thus, team cognition will generally be embedded in games of the public goods type, for which altruistic motivation is required for success. This altruistic motivation is a social psychology that leads individuals to cooperate with others even when there is a personal cost, so long as others are doing the same. This implies that to sustain cooperation in a social group, we need a lot more than to simply coordinate on the high-yield strategy. We need a social system that fosters a sense of morality that includes caring about others and sacrificing on behalf of society. When that morality is absent or in disrepair, life will be \\"poore, nasty, brutish, and short,\\" to use Hobbes' famous words.hunt. But the rppg is NOT a coordination game at all! In fact, in the rppg, a self-regarding player has an incentive to shirk if he can get away with it; i.e., if others do not observe his shirking. This is not the case in the stag hunt.

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Why We Cooperate (Boston Review Books)

Another Penetrating Contribution — Rating: 4/5

Michael Tomasello is a cognitive and developmental psychologist who has worked extensively with chimpanzees, as well as human infants and children. A central problem on which he has worked for a number of years is the exact nature of the difference between apes and humans in the structure of

cognition. For many years the general opinion among evolutionary psychologists was that the observed differences are quantitative but not qualitative. That is, chimpanzees think pretty much the same way we do, but just at a lower level of cognitive capacity. In recent years, many cognitive psychologists have rejected this notion in favor of the idea that there are qualitative epistemological capacities possessed by humans that are missing in chimpanzees and other non-human primates. Perhaps the most well known is the notion that human have a \\"theory of mind\\" (Premack & Woodruff, 1978) in the sense that they attribute mental states to conspecifics of the same sort that they experience (Cheney & Seyfarth 1990, 1992).

Tomasello has been a major contributor to this line of research. His study of how chimpanzees and human teach and learn led him to a model in which, for humans, there is a \\"shared intentionality\\" consisting of a tripartite cognition of the form teacher/-learner/object of knowledge, whereas for chimpanzees, there are only a set of dualities, skilled individual-object, unskilled individual-object, skilled individual-unskilled individual. Naturally, without the tripartite episteme, true leaning by imitation cannot occur, and indeed, that is a major conclusion in the literature. See, for instance, Michael Tomasello, Susan Savage-Rumbaugh, and A. C. Kruger (1993) Imitative learning of actions on objects by children, chimpanzees, and enculturated chimpanzees. Child Development 64:1688-1705.

More recently Tomasello has researched the cognitive prerequisites of high-level cooperation. The move was natural for Tomasello, since the transfer of culture across generations through teaching and learning is a major form of human cooperation with only the faintest counterpart in other species. Tomasello argues that there are two major forms of human culture, cumulative technology, which consist of knowledge of how the world works (science), and social norms (convention and morality). He argues that altruism in children is manifested most strongly in relation to social norms, and consist of an eagerness to help and to share, to obey conventional and moral precepts, and to punish, or at least disapprove of, children who do not exhibit the appropriate degree of prosociality. \\"As they grow,\\" he asserts, \\"human children are equipped to participate in the cooperative groupthink through a special kind of cultural intelligence, comprising species-unique social-cognitive skills and motivations for collaboration, communication, social learning, and other forms of shared intentionality.\\" (p. xvi) Tomasello's evidence for this position is extensive and detailed, but only briefly summarized in this small book, with extensive references to the primary literature for the ambitious (or professional) reader.

In addition to the obvious importance of this argument for cognitive psychology, it is of central importance to economics, game theory, Bayesian decision theory, and all other disciplines that use the rational actor model to explain human behavior. The theoretical justification of the rational actor model lies in the so-called Savage axioms, as presented in Leonard Savage's famous Foundations of Statistics (1954). These axioms picture an isolated individual facing a choice under uncertainty, where the probability of different outcomes are given by the individuals \\"subjective prior.\\" Interestingly, these axioms can be given an evolutionary justification, assuming that individual preferences and behavior evolved in an \\"environment of evolutionary adaptation,\\" so that individuals tend to choose in a manner that maximizes biological fitness. Since biological fitness is a scalar (expected number of offspring reaching reproductive maturity), preferences must be transitive and individuals should update their probability assessments rationally in the face of new information.

However, humans did not evolve as individuals in social isolation, but rather in highly complex and integrated social groups. Therefore the rational actor model, which we can expect to hold for virtually all organisms that make choices in an uncertain environment [nota bene: many people erroneously assume that by using the word \\"rational,\\" the model can only apply to highly intelligent and sophisticated agents; this is simply not the case], is certainly not a sufficient tool for understanding human behavior, assuming Tomasello's argument is correct. This certainly does not mean that we should reject the rational actor model---it has been and continues to be extremely successful in explaining human choice. Rather, it means that we will have to add to the model complexities that reflect the additional epistemic power of human, which have evolved according the powerful dynamic of gene-culture coevolution.

In Chapter 2, Tomasello moves from characterizing the mind-sets of infants and children to analyzing the role of altruism and mutualism in explaining human cooperation. I believe Tomasello's argument here is both wrong and incoherent, but I first will first outline it as cogently as possible. \\"I do not

believe altruism is the process primarily responsible for human cooperation... altruism is only a bit player. The star is mutualism, in which we all benefit from our cooperation but only if we work together...\\" (p. 52) Tomasello notes that altruism is need to present free-riding in cooperative endeavors, but he asserts, \\"in the most concrete cases---where you and I must work together to move a heavy log, for instance---free-riding is not really possible because each of our efforts is required for success, and shirking is immediately apparent.\\" (p. 53) [I can't avoid noting that social cooperation among large numbers of individuals is not the same as two people moving a log.]

\\"We know from the work of Brian Skyrms,\\" Tomasello continues, \\"that in building human-style collaboration... we do not face a prisoner's dilemma... Rather, our scenario is a stag hunt in which everyone prefers to collaborate because of the rewards doing so brings each of us and our compatriots.\\" Tomasello then reduces the problem of cooperation first to the \\"social-cognitive skills and motivations for coordinating and communicating with others in complex ways involving joint goals and coordinated division of labor among the various roles---what I will call skills and motivations for shared intentionality.\\" (P. 54-55); second, humans had to become \\"more tolerant and trusting of one another than are modern apes\\"; and third, \\"humans had to develop some group-level, institutional practices involving public social norms and the assignment of deontic status [i.e., having moral force] to institutional roles.\\"

Tomasello suggests that both the tolerant and trusting predisposition of humans and their capacity to cooperate through institutions with deontic status are based on \\"a uniquely human sense of \\"we,\\" a sense of shared intentionality.\\" (p. 57) Here Tomasello joins a considerable list of thinkers who stress the notion of collective or shared intentionality in explaining human cooperation, a list including John Searle, Margaret Gordon, Michael Bratman, Robert Sugden, and Michael Bacharach. \\"In mutualistic collaborative activities,\\" says Tomasello, \\"we both know together that we both depend on one another for reaching our joint goal. This basically transforms the individual normative of rational action... into a kind of social normativity of joint rational action.... The force of cooperative norms thus comes from our mutually recognized interdependence and our natural reaction tothe failures of both ourselves and others.\\" (p. 90)

What is wrong with this argument? Let us start with the notion of \\"shared intentionality.\\" I have read the literature on this subject have been less then overwhelmed with the cogency of the arguments by philosophers and economists for the existence of this phenomenon. For instance, it is argued that players on a sports team have a \\"collective intentionality\\" to coordinate their activities so as to win the game. Generally, however, the owners and the fans want to \\"win the game,\\" whereas for each player, winning is part of a larger goal of maintaining and improve his reputation, and of avoiding personal injury. It is not clear that there is any \\"collective\\" intentionality left when these individual motivations are properly accounted for.

However, I think Tomasello makes a strong case for the existence of shared intentionality in humans in his analysis of imitation and learning in chimpanzees vs. humans (The Origins of Human Communication, 2008). When I help my brother chop down a tree for firewood, each of us adjusts naturally to the exigencies of the moment and the movements of the other in a manner that only makes sense in terms of our possessing a joint intentionality to accomplish the task. My own preferred defense of the notion is that without shared intentionality, it is impossible for rational agents to comprehend the notion of \\"playing a game\\" by inventing a set of rules and assuming that it is common knowledge among the players that they are indeed engaged in a joint enterprise of \\"playing the game.\\" Another way of saying this is that the concept of \\"common knowledge of the rules of game\\" can only be justified, as far as I can see, by appeal to a sense of shared intentionality---a sense that is almost certainly lacking in even the most advanced non-human primates.

Tomasello's mistake is moving too swiftly from a notion of shared intentionality as an epistemic concept to shared intentionality as a motivational concept. The fact that the members of a group involved in a collective task cognize their task through shared intentionality does not mean that they are individually motivated to carry out their assigned tasks. Tomasello attributes the \\"tolerance and trust\\" that are required for cooperation, and the \\"assignment of deontic status to institutional roles\\" to the shared intentionality of the participants. But, this is surely an error. It is precisely the other-regarding predilection of participants, their altruistic joint commitment to a collective task and their individual

embracing of a morality that counsels private sacrifice for the social good (the \\"deontic status of institutional roles\\") that accounts for cooperation. These altruistic preferences may presuppose shared intentionality, but are not explained by shared intentionality.

Tomasello's assertion that mutualism explains human cooperation is thus untenable. Of course, Tomasello shares this view with most neoclassical economists, as well as with such notable social philosophers as Ken Binmore and Brian Skyrms, but they are all wrong. I do not want to repeat my criticisms of Binmore and Skyrms here (the interested reader can see my other Amazon reviews as well as papers on my web site). Rather, I will quote extensively from Joan Silk's reply to Tomasello in this volume. While these remarks take up a scant eleven pages, they are to my mind devastating. \\"Tomasello argues that the benefits gained from participating in mutualistic endeavors,\\" says Silk, \\"favored the evolution of the distinctive human capacities he has identified. In this account, altruism plays a minor role. I am not convinced by this argument, and here I will try to explain why.\\" (p. 113)

\\"The stag hunt,\\" she continues, \\"is an extremely special case... the interests of the two hunters are perfectly aligned... If many situations in nature conformed to the simple payoff scenario of the stag hunt, then cooperation would be ubiquitous... But circumstances encountered in nature are often not so clear cut. Cheating is a potential problem whenever the interests of the two parties are not aligned perfectly, and such misalignments are common.\\" She concludes that \\"there are actually very few examples of conspecific mutualism.\\" (p. 116)

Silk moreover notes that if mutualism explained human cooperation, there would be no need for the sort of empathy, spontaneous sharing, and altruistic cooperation and punishment that humans routinely exhibit. \\"Mutualism does not necessarily make you nice,\\" she notes. \\"We don't get from mutualism to Nelson Mandela, but rather from mutualism to Niccolo Machiavelli.\\" (p. 119). Amen.What is wrong with this argument? Let us start with the notion of \\"shared intentionality.\\" I have read the literature on this subject have been less then overwhelmed with the cogency of the arguments by philosophers and economists for the existence of this phenomenon. For instance, it is argued that players on a sports team have a \\"collective intentionality\\" to coordinate their activities so as to win the game. Generally, however, the owners and the fans want to \\"win the game,\\" whereas for each player, winning is part of a larger goal of maintaining and improve his reputation, and of avoiding personal injury. It is not clear that there is any \\"collective\\" intentionality left when these individual motivations are properly accounted for. However, I think Tomasello makes a strong case for the existence of shared intentionality in humans in his analysis of imitation and learning in chimpanzees vs. humans (The Origins of Human Communication, 2008). When I help my brother chop down a tree for firewood, each of us adjusts naturally to the exigencies of the moment and the movements of the other in a manner that only makes sense in terms of our possessing a joint intentionality to accomplish the task. My own preferred defense of the notion is that without shared intentionality, it is impossible for rational agents to comprehend the notion of \\"playing a game\\" by inventing a set of rules and assuming that it is common knowledge among the players that they are indeed engaged in a joint enterprise of \\"playing the game.\\" Another way of saying this is that the concept of \\"common knowledge of the rules of game\\" can only be justified, as far as I can see, by appeal to a sense of shared intentionality---a sense that is almost certainly lacking in even the most advanced non-human primates. Tomasello's mistake is moving too swiftly from a notion of shared intentionality as an epistemic concept to shared intentionality as a motivational concept. The fact that the members of a group involved in a collective task cognize their task through shared intentionality does not mean that they are individually motivated to carry out their assigned tasks. Tomasello attributes the \\"tolerance and trust\\" that are required for cooperation, and the \\"assignment of deontic status to institutional roles\\" to the shared intentionality of the participants. But, this is surely an error. It is precisely the other-regarding predilection of participants, their altruistic joint commitment to a collective task and their individual embracing of a morality that counsels private sacrifice for the social good (the \\"deontic status of institutional roles\\") that accounts for cooperation. These altruistic preferences may presuppose shared intentionality, but are not explained by shared intentionality. Tomasello's assertion that mutualism explains human cooperation is thus untenable. Of course, Tomasello shares this view with most neoclassical economists, as well as with such notable social philosophers as Ken Binmore and Brian Skyrms, but they are all wrong. I do not want to repeat my criticisms of Binmore and Skyrms here (the interested reader can see my other

Amazon reviews as well as papers on my web site). Rather, I will quote extensively from Joan Silk's reply to Tomasello in this volume. While these remarks take up a scant eleven pages, they are to my mind devastating. \\"Tomasello argues that the benefits gained from participating in mutualistic endeavors,\\" says Silk, \\"favored the evolution of the distinctive human capacities he has identified. In this account, altruism plays a minor role. I am not convinced by this argument, and here I will try to explain why.\\" (p. 113) \\"The stag hunt,\\" she continues, \\"is an extremely special case... the interests of the two hunters are perfectly aligned... If many situations in nature conformed to the simple payoff scenario of the stag hunt, then cooperation would be ubiquitous... But circumstances encountered in nature are oftennot so clear cut. Cheating is a potential problem whenever the interests of the two parties are not aligned perfectly, and such misalignments are common.\\" She concludes that \\"there are actually very few examples of conspecific mutualism.\\" (p. 116) Silk moreover notes that if mutualism explained human cooperation, there would be no need for the sort of empathy, spontaneous sharing, and altruistic cooperation and punishment that humans routinely exhibit. \\"Mutualism does not necessarily make you nice,\\" she notes. \\"We don't get from mutualism to Nelson Mandela, but rather from mutualism to Niccolo Machiavelli.\\" (p. 119). Amen.

An Invitation to Reflexive Sociology

An Invitation that I will Pass Up — Rating: 2/5

Pierre Bourdieu, who died in 2002, was perhaps the leading sociological theorist in the last quarter of the twentieth century. I have been rereading his many contributions both for their own sake, as well as to help me understand why the discipline of sociology is in the bizarre situation it now finds itself. This situation, in brief, consists of (a) considerable sophistication in the empirical analysis of concrete social problems (b) a total lack of core social theory; and (c) a tendency to overvalue political correctness at the expense of scientific coherence. I find the lack of core theory disheartening because it leads the other behavioral disciplines that deal with modeling human behavior, especially economics and biology, to ignore key aspects of human mental and social organization that sociologists have carefully documented and simply take for granted.

I should note that both economics and biology do have core theories. In economics, the theory includes the rational actor model, the Walras-Arrow-Debreu general equilibrium theory, the capital assets pricing model in financial theory, and the general methodology of neoclassical economics. While each of these pillars of core theory is imperfect and sorely in need of improvement, they are together strong enough to form a common basis that economic theorists may use to venture into new and more powerful analytical models. In biology, the evolutionary theory of Charles Darwin was supplemented by the genetics of Gregor Mendel, giving rise to a synthesis forged in the first half of the twentieth century by Ronald Fisher, Sewall Wright, J. B. S. Haldane, Theodosius Dobzhansky and others that served as the basis for the triumph of sociobiology in the second have of the century, based on innovations by William Hamilton, Robert Trivers, David Sloan Wilson, Edward O. Wilson, Mark Feldman, Luca Cavalli-Sforza, Robert Boyd and Peter Richerson.

Sociology did have a period of core theory consolidation, in the person of Talcott Parsons, whose contributions in the three decades starting in 1937 were systematically geared towards synthesizing the greats of traditional sociology (Max Weber, Emile Durkheim, and Vilfredo Pareto), as well as indicating precisely how the sister disciplines of psychology, economics, and political science might articulate with core sociological theory. There is no doubt but that Parsons' body of theory is seriously flawed, but there was much more than enough to build on in forging a core sociological theory. Parsons correctly started with the division of social life into roles occupied by actors who internalize the norms and values associated with these roles. However, he made the mistake of identifying the rational actor model of economic theory with Homo economicus, the socially isolated selfish material maximizer. It is true that this is how the rational actor model was depicted in economic theory, but only by happenstance, not intrinsic logicality. Extending the rational actor model to include moral elements as well as material elements, self-regard as well as other-regard, would have given Parsons exactly the tool he needed to create a core sociological theory. However, he did not take this step, probably because (a) Pareto had

convinced him that the economics/sociology split was just the norms and values/material self-interest split, and (b) he was a poor mathematician can couldn't handle the sophistication of the rational actor model. So he moved on to structural-functionalism, which is useful and insightful, but quite incapable of supporting an analytically cogent sociology.

My analysis of Parson's failure, however, was not the reaction of other leading sociologists of the time. Rather, Parsons was bitterly criticized and rejected whole cloth. The offenders---and I here choose my words carefully---were mostly crusading left-wing sociologists who considered sociology an instrument of social change first, and a science onlysecond. They include Alvin Gouldner, Theda Skocpol, George Homans, Lewis Coser, Ralf Dahrendorf, C. Wright Mills, Tom Bottomore, and many others. These pseudo-theorists in fact had no idea what social theory should look like, and railed against Parsons because he did not directly deal with social oppression and his language was not inherently emancipatory. To my mind, this is like criticizing da Vinci's studies of human anatomy because they don't deal with cancer and the plague---infinitely shortsighted and even risible. Habermas and others criticized Parsons on the grounds that systems theory is inherently hostile to action theory. This too is just a terrible mistake, since Parsons' theory of action was from the very first a pillar of his social theory. And what have these critics given us in place of Parsons' core theory? Some entertaining stories and a little credible philosophy, but nothing in the form of social theory.

The critique of Parsons exploded sociological theory into a thousand glittering but laughably parochial fragments of nano-theories. The contemporary culture of sociology is to treat social theory as set of personal expressions of literati and pseudo-philosophers. Surveying contemporary sociological theory is like going to the art museum. There we see lots of brilliant works, each the product of an artist's imagination. Certainly there is no attempt by artists to form a unified aesthetic vision. Nor should there be. But science is not art. A science becomes mature when the efforts of all researchers are coordinated by an underlying core model. This truth is denied in contemporary sociological culture. Bourdieu is a case in point.

\\"Pierre Bourdieu,\\" Wacquant tells us in the preface to this book, \\"is viscerally opposed to the dogmatization of thought that paves the way for intellectual orthodoxies.\\" (p. xiv) This sentiment is fine for artists, but it is the kiss of death for scientists. Maxwell's equations are intellectual orthodoxy, and nevertheless a crowning achievement of human intellect. Of course orthodoxies are ripe for overturning and being replaced by new and more powerful orthodoxies. But orthodoxy is good, not bad, the contemporary culture of sociology not withstanding.

Bourdieu enters stage with two grand European sociological traditions battling for supremacy. The first is the structuralism of Saussure, Levi-Strauss, Althusser, and Foucault, in which all human agency is absent. The second is the subjectivist theories of Sartre, Garfinkel, Berger and Luckmann, which denies all structure. Bourdieu, reacts by creating \\"a non-Cartesian social ontology that refuses to split object and subject, intention and cause, materiality and symbolic representation.\\" (p. 5) The problem is that structure and action are not fused in society, but rather relate to one another as mutually constitutive, a fact that Bourdieu is unwilling to recognize, because it would require taking structure and action both fundamentally. Bourdieu does develop a structure-surrogate, which he calls a \\"frame\\", but he refuses to relate this to any previous work of structuralist-oriented theorists. He also recognizing something akin to an action framework, in the form of \\"habitus,\\" but he refuses to relate this to the economist's rational actor model or an action-type model as proposed by Parsons and his coworkers. This is a terrible, but typical mistake. Certainly in both economic and biological theory, we have well-developed models of the mutual constitution of individuals and structures---for human society in biological theory in the form of gene-culture coevolution (Boyd and Richerson, Feldman and Cavalli-Sforza) , and the general equilibrium model in economics. Bourdieu, by contrast, reject both structure and action in favor of the primacy of relations: \\"Against all forms of methodological monism that purport to assert the ontological priority of structure or agent, system or agent, the collective or the individual, Bourdieu affirms the primacy of relations.\\" (p. 15) But relations must be relations among agents mediated by structures, so why not accept the proven models available in biology and economics as a starting point for developing more powerful sociological constructions?

Here is what Bourdieu gives as a justification for abandoning the analytically clear rational actor model in favor of the fuzzy notion of habitus: \\"Bourdieu does not deny that agents face options, exert

initiative, and make decision. What he disputes is that they do so in the conscious, systematic, and intentional (in short, intellectualist) manner expostulated by rational-choice theorists.\\" (p.24) This critique is just silly and uninformed. There is nothing in rational choice theory about consciousness, systematicity, or intentionality. The concept of habitus is perfectly compatible with rational choice theory in circumstances where information is costly to acquire subject to error. But not for Bourdieu, who offers us such poetic excesses as \\"rational action puts the mind of the scientist who conceptualizes practice in the place of the causally constituted practical sense of the agent.\\" (p. 123) Note that Bourdieu is correct in noting that the subjective priors of the rational actor model appear to come from nowhere. This, however, is grounds for extending, not rejecting, the rational actor model. I could give even more vapid criticisms of the rational actor model offered by Bourdieu in this volume, but I will move on to other matters.

There is no contradiction between the social norms of Durkheim or Parsons and the frames of Bourdieu, although Bourdieu does not accept this. Wacquant suggests that for Bourdieu, \\"each field simultaneously presupposes and generates a specific form of interest incommensurate with those that have currency elsewhere.\\" (p. 117) Bourdieu responds, \\"Precisely. Each field calls forth and gives life to a specific form of interest, as specific illusio...the properly social magic of institutions can constitute just about anything as an interest.\\" [\\"illusio\\" is not a misprint---it is one of Bourdieu's many neologisms] There is of course truth to Bourdieu's statement, but he insists in clothing it in his own set of neologisms---neologisms that his followers interpret as brilliance, whereas in fact are simply forms of product differentiation that help preserve his preeminence, at the expense of science.

Bourdieu then proceeds to reject structural linguistics because \\"the meaning of linguistic utterances cannot be derived, or deduced, from the analysis of their formal structure.\\" (p. 142) Once again, the point is to reject all scientific work that is not created by ones' self. This particular critic is like that of a chef rejecting chemistry because it cannot deal with the culinary experience. How can anyone take such argumentation seriously?

There is much of descriptive interest in Bourdieu's analysis (e.g., pp. 124-137), well worthy of systemic development. However, by creating his own terms and pushing them around according to his current whim, Bourdieu contributes to the maintenance of theoretical incoherence in contemporary sociology.t of human intellect. Of course orthodoxies are ripe for overturning and being replaced by new and more powerful orthodoxies. But orthodoxy is good, not bad, the contemporary culture of sociology not withstanding. Bourdieu enters stage with two grand European sociological traditions battling for supremacy. The first is the structuralism of Saussure, Levi-Strauss, Althusser, and Foucault, in which all human agency is absent. The second is the subjectivist theories of Sartre, Garfinkel, Berger and Luckmann, which denies all structure. Bourdieu, reacts by creating \\"a non-Cartesian social ontology that refuses to split object and subject, intention and cause, materiality and symbolic representation.\\" (p. 5) The problem is that structure and action are not fused in society, but rather relate to one another as mutually constitutive, a fact that Bourdieu is unwilling to recognize, because it would require taking structure and action both fundamentally. Bourdieu does develop a structure-surrogate, which he calls a \\"frame\\", but he refuses to relate this to any previous work of structuralist-oriented theorists. He also recognizing something akin to an action framework, in the form of \\"habitus,\\" but he refuses to relate this to the economist's rational actor model or an action-type model as proposed by Parsons and his coworkers. This is a terrible, but typical mistake. Certainly in both economic and biological theory, we have well-developed models of the mutual constitution of individuals and structures---for human society in biological theory in the form of gene-culture coevolution (Boyd and Richerson, Feldman and Cavalli-Sforza) , and the general equilibrium model in economics. Bourdieu, by contrast, reject both structure and action in favor of the primacy of relations: \\"Against all forms of methodological monism that purport to assert the ontological priority of structure or agent, system or agent, the collective or the individual, Bourdieu affirms the primacy of relations.\\" (p. 15) But relations must be relations among agents mediated by structures, so why not accept the proven models available in biology and economics as a starting point for developing more powerful sociological constructions? Here is what Bourdieu gives as a justification for abandoning the analytically clear rational actor model in favor of the fuzzy notion of habitus: \\"Bourdieu does not deny that agents face options, exert initiative, and make decision. What he disputes is that they do so in the conscious, systematic, and intentional (in short, intellectualist) manner expostulated by rational-choice theorists.\\" (p.24) This critique is just silly and

uninformed. There is nothing in rational choice theory about consciousness, systematicity, or intentionality. The concept of habitus is perfectly compatible with rational choice theory in circumstances where information is costly to acquire subject to error. But not for Bourdieu, who offers us such poetic excesses as \\"rational action puts the mind of the scientist who conceptualizes practice in the place of the causally constituted practical sense of the agent.\\" (p. 123) Note that Bourdieu is correct in noting that the subjective priors of the rational actor model appear to come from nowhere. This, however, is grounds for extending, not rejecting, the rational actor model. I could give even more vapid criticisms of the rational actor model offered by Bourdieu in this volume, but I will move on to other matters. There is no contradiction between the social norms of Durkheim or Parsons and the frames of Bourdieu, although Bourdieu does not accept this. Wacquant suggests that for Bourdieu, \\"each field simultaneously presupposes and generates a specific form of interest incommensurate with those that have currency elsewhere.\\" (p. 117) Bourdieu responds, \\"Precisely. Each field calls forth and gives life to a specific form of interest, as specific illusio...the properly social magic of institutions can constitute justabout anything as an interest.\\" [\\"illusio\\" is not a misprint---it is one of Bourdieu's many neologisms] There is of course truth to Bourdieu's statement, but he insists in clothing it in his own set of neologisms---neologisms that his followers interpret as brilliance, whereas in fact are simply forms of product differentiation that help preserve his preeminence, at the expense of science. Bourdieu then proceeds to reject structural linguistics because \\"the meaning of linguistic utterances cannot be derived, or deduced, from the analysis of their formal structure.\\" (p. 142) Once again, the point is to reject all scientific work that is not created by ones' self. This particular critic is like that of a chef rejecting chemistry because it cannot deal with the culinary experience. How can anyone take such argumentation seriously? There is much of descriptive interest in Bourdieu's analysis (e.g., pp. 124-137), well worthy of systemic development. However, by creating his own terms and pushing them around according to his current whim, Bourdieu contributes to the maintenance of theoretical incoherence in contemporary sociology.

Science of Science and Reflexivity

Imaginative Response to Imaginary Threat — Rating: 2/5

Throughout his life, Pierre Bourdieu found himself embracing yet moderating the radical tendencies that characterize French intellectual life. When Marxism was rampant (infecting even J. P. Sartre), Bourdieu offered a critical stance on capitalist inequality that recognized the power of capital and the oppressive nature of hierarchy, while at the same time rejecting historical materialism and the necessity/desirability of revolution. With Marxism quelled, the French intelligencia turns its spotlight on what it perceived as the overextended claims of modern science, and responded with a thorough \\"post-modern\\" critique of the pretensions of science. Bourdieu here takes a middle ground according to which science deserves an exalted position, but this position is reserved almost exclusively for a critical science that recognizes the constraining power relations and the inequalities of modern society, and uses its power to contain and reverse the dominance relations in modern society.

The Age of Empathy: Nature's Lessons for a Kinder Society

A Manifesto For Our Time — Rating: 5/5

In this highly entertaining, lovingly written, and amply documented book, de Waal reverses his usual direction of argumentation, using the fact that primates exhibit rudimentary forms of human prosociality to assert that human sociality is fundamentally empathetic and altruistic. Indeed, de Waal suggests that chimpanzees exhibit a mix of hierarchical and egalitarian sensitivities, and empathetic and ruthlessly aggressive sensitivities similar to that of humans. De Waal does not even entertain the Romantic idea that humans are inherently benevolent but corrupted by an evil society, but he returns repeatedly to a critique of the American conservative tendency to view human nature as basically selfish.

The bottom line is that de Waal develops a concept of human nature block by block, chapter by chapter, and then uses this concept to build a novel and very attractive political economy for our time.

The evidence for de Waal's model of human, monkey, and ape nature is a combination of anecdote (as in other de Waal books) and controlled laboratory experiment. The latter element is of course central, because people have been speculating about human and animal nature for centuries without even approaching a consensus. The major implication of this research for humans, which uses behavioral game theory and experimental economics, is that we now know with almost perfect certainty that humans are not the selfish sociopaths of traditional economics and sociobiology, but rather are motivated by a complex mix of self-regarding, other-regarding and fundamentally moral objectives. De Waal goes through this evidence enough to make his point, without becoming bogged down in the sort of detail that is of critical importance for experts in the field, but boring for the general reader. What is new in this book is a similar emphasis on controlled laboratory research on non-human primate \\"nature.\\" His conclusion is that primates, as expected from elementary evolutionary biology, exhibit in rudimentary form, the same mixture of selfish and prosocial behaviors as found in humans.

One of the neuroscientific developments that I learned for the first time from this book is the relationship between Von Economo neurons (VEN cells) and what de Waal calls the \\"co-emergence hypothesis.\\" This hypothesis holds that self-awareness (e.g., recognizing oneself in a mirror) and empathy (recognizing feelings in others) co-emerged in several mammal species, including humans, some apes, dolphins, whales, and elephants. The new fact is that VEN cells, which are long, spindle-like neurons that reach deep into the brain, connecting cortex to the more primitive parts of the brain, have been found in these, and only these, animals!

It is popular these days to treat the results of behavioral game theory as providing a fatal critique of economic theory and a shining endorsement of evolutionary biology. This is certainly not the case, and de Waal treatment in this book is balanced and accurate. In fact, the whole methodology of behavioral game theory is based on the economist's rational actor model, simply dropping the ancient prejudice that rationality implies selfishness. Indeed, it is my experience that economists have no problem embracing the fact that people have altruistic motives, whereas evolutionary biologists just can't seem to digest the idea that nature, red in tooth and claw, could ever produce a truly moral creature.

How natural selection, involving survival of the fittest, could produce morality, has been another major research question of the past two decades, and de Waal ably describes the basics of this research. Primates, including humans, are fundamentally social creatures who have developed behaviors and intentions that are costly to the individual but highly useful to the group. Groups that have many individuals who exhibit such prosocial behaviors simply do better than those that lack them, so they expand overtime at the expense of groups composed of highly selfish individuals. There is endless debate among population biologists as to whether this dynamic is based on gene selection, individual selection, or group selection, but the issue is of limited importance, as compared with the fact that human nature, and more generally primate nature, is a complex intermixture of prosociality and selfishness.

While the implications of the research on humans is relatively clear and the interpretation given above widely shared (except for biologists who just can't bring themselves to believe that any critter could really be anything other than completely selfish, and a few other stragglers that have a political bone to pick), the same is not true for the interpretation of games played by non-humans. There are been extremely prominent primate researchers who have found non-human primates completely devoid of prosociality in the laboratory, while de Waal argues that this finding is due to placing non-human primate subjects in situations that they simply do not comprehend, and in situations that they do understand, they exhibit human prosocial behaviors in rudimentary form. Sometimes de Waal's argument is directly contradictory with well-known results in the literature, and we will just have to wait for the experts to come to agreement. I suspect that we will learn a lot about primate epistemology in the process.

This book is full of simple statements that are deeply insightful, and yet are completely incompatible with the received wisdom in various academic disciplines (I should warn the reader that I believe that the extreme parochialism of the behavioral disciplines is the major impediment of our time in understanding social behavior). Here is one of my favorites: \\"Instead of each individual independently

weighing the pros and cons of his or her own actions, we occupy nodes within a tight network that connects all of us in both body and mind.\\" (p. 63) By contrast, imitation is virtually unnoticed as a form of rational behavior in standard decision theory.

De Waal's political philosophy flows rather neatly from his analysis of human nature. De Waal is most hostile to the philosophy of material acquisitiveness and hard-nosed distain for the less well off, perfectly exhibited by the famous speech by Gordon Gekko in the movie Wall Street. \\"The point is, ladies and gentleman,\\" Gekko announces, \\"that greed -- for lack of a better word -- is good. Greed is right. Greed works. Greed clarifies, cuts through, and captures the essence of the evolutionary spirit. Greed, in all of its forms -- greed for life, for money, for love, knowledge -- has marked the upward surge of mankind. And greed -- you mark my words -- will ... save ... that ... malfunctioning corporation called the USA.\\" De Waal's point is not that material acquisition is not part of human nature, but rather it is only one facet of human nature, and if it appears in hypertrophied form unaccompanied by the empathetic side of human nature, the results for society are likely to be disastrous. Referring to the Gekko sentiment, de Waal says \\"...this is only half the truth. It misses by a mile the intensely social nature of our species. Empathy is part of our evolution, and not just a recent part, but an innate, age-old capacity.\\" (p. 205)

De Waal's political philosophy, at its core, suggests that the twin models of man as acquisitive dominator and empathetic cooperator are both quite accurate, but they must be merged to forge a healthy society. \\"Both Europe and the United States pay a steep price, albeit different ones,\\" he asserts, \\"for stressing one fairness ideal at the expense of the other....it is a false choice: it's not as though both fairness ideals couldn't be combined.\\" (p. 198)

I only found one statement of de Waal's that I found questionable. \\"A society based purely on selfish motives and market forces,\\" he says, \\"may produce wealth, yet it can't produce the unity and mutual trust that make life worthwhile.\\" (p.221) I doubt very much that a society based purely on selfish motives could produce wealth, or indeed anything other than lives that are poor, nasty, brutish, and short.f rational behavior in standard decision theory. De Waal's political philosophy flows rather neatly from his analysis of human nature. De Waal is most hostile to the philosophy of material acquisitiveness and hard-nosed distain for the less well off, perfectly exhibited by the famous speech by Gordon Gekko in the movie Wall Street. \\"The point is, ladies and gentleman,\\" Gekko announces, \\"that greed -- for lack of a better word -- is good. Greed is right. Greed works. Greed clarifies, cuts through, and captures the essence of the evolutionary spirit. Greed, in all of its forms -- greed for life, for money, for love, knowledge -- has marked the upward surge of mankind. And greed -- you mark my words -- will ... save ... that ... malfunctioning corporation called the USA.\\" De Waal's point is not that material acquisition is not part of human nature, but rather it is only one facet of human nature, and if it appears in hypertrophied form unaccompanied by the empathetic side of human nature, the results for society are likely to be disastrous. Referring to the Gekko sentiment, de Waal says \\"...this is only half the truth. It misses by a mile the intensely social nature of our species. Empathy is part of our evolution, and not just a recent part, but an innate, age-old capacity.\\" (p. 205) De Waal's political philosophy, at its core, suggests that the twin models of man as acquisitive dominator and empathetic cooperator are both quite accurate, but they must be merged to forge a healthy society. \\"Both Europe and the United States pay a steep price, albeit different ones,\\" he asserts, \\"for stressing one fairness ideal at the expense of the other....it is a false choice: it's not as though both fairness ideals couldn't be combined.\\" (p. 198) I only found one statement of de Waal's that I found questionable. \\"A society based purely on selfish motives and market forces,\\" he says, \\"may produce wealth, yet it can't produce the unity and mutual trust that make life worthwhile.\\" (p.221) I doubt very much that a society based purely on selfish motives could produce wealth, or indeed anything other than lives that are poor, nasty, brutish, and short.

The Darwin Myth: The Life and Lies of Charles Darwin

Exciting story, but unfortunately not of the Real Charles Darwin — Rating: 1/5

Wiker mostly is interested in discrediting evolutionary biology, and in this pursuit this book offers nothing new. Wiker's claim to fame is that he attributes Darwin's discoveries to his rampant atheism.

I have read several biographies of Charles Darwin, but this is the least compelling, written clearly to discredit the man and the evolutionary biology that he initiated. The motive of Darwin, in The Origin of the Species and other works, according to Wiker, was to give support for Darwin's strongly-held atheistic beliefs, and to apply a deadly thrust to theistic beliefs. Of course, only an individual of limited mental capacity could reason that if Darwin had ulterior motives in his research, the results should be rejected. Evolutionary theory has been validated literally thousands of times and never has been contradicted. It is now the basis for all of biological theory. Moreover, Darwinian evolution in no way undermines a belief in God, although it is incompatible with some religious cosmologies, including the fact that the Universe is many billions of years old and humans and chimpanzees have a common ancestor.

The fact is that Darwin was a believer for most of his life, and his faith was shattered only when his beloved daughter Annie was taken from the world a the age of ten. Darwin later likened this event with what appeared to be the egregious horrors in the battle for survival exhibited by many natural species. Certainly Darwin was never hostile to religion. His wife was deeply religious and Darwin himself was involved in religious practices to the end of his days.

Darwin was ill and wracked with pain most of his life, but he was a rather upstanding, highly moral, scientist, father, and husband. Darwin regretted his agnosticism, and always considered himself as a believer in a higher being, his agnosticism being only a scientist's reaction to the lack of proof of the exisence of this higher being. Nor was Darwin himself ever a supporter of what came to be known as \\"Sccial Darwinism,\\" a highly popular but pernicious political doctrine.

I have not read Darwin's autobiography, but the Rev. Paul Fayter reports on his web site the following facts, which confirm my analysis:

Near the end of his life, Darwin thought it impossible to conceive that \\"this immense and wonderful universe\\" was \\"the result of blind chance or necessity.\\" No, it still seemed that the world had been willed into being. \\"I feel compelled to look to a First Cause having an intelligent mind in some degree analogous to that of man,\\" he wrote in his autobiography, \\"and I deserve to be called a Theist.\\" At the same time, Darwin believed that \\"the mystery of the beginning of all things\\" was simply unsolvable; and so he also declared, \\"I for one must be content to remain an agnostic.\\"

I do not believe in ad hominem argument, and I am willing to believe that those who detract from Darwin's image as a decent person are motivated purely by their love of God, and do not suffer from the bigotry and limited intelligence that they appear to reveal. However, this does not absolve them from responsibility for their errors. The love of God is not an excuse for egregious and blatant error.e to be known as \\"Sccial Darwinism,\\" a highly popular but pernicious political doctrine. I have not read Darwin's autobiography, but the Rev. Paul Fayter reports on his web site the following facts, which confirm my analysis: Near the end of his life, Darwin thought it impossible to conceive that \\"this immense and wonderful universe\\" was \\"the result of blind chance or necessity.\\" No, it still seemed that the world had been willed into being. \\"I feel compelled to look to a First Cause having an intelligent mind in some degree analogous to that of man,\\" he wrote in his autobiography, \\"and I deserve to be called a Theist.\\" At the same time, Darwin believed that \\"the mystery of the beginning of all things\\" was simply unsolvable; and so he also declared, \\"I for one must be content to remain an agnostic.\\" I do not believe in ad hominem argument, and I am willing to believe that those who detract from Darwin's image as a decent person are motivated purely by their love of God, and do not suffer from the bigotry and limited intelligence that they appear to reveal. However, this does not absolve them from responsibility for their errors. The love of God is not an excuse for egregious and blatant error.

The Life You Can Save: Acting Now to End World Poverty

Charity is nice, but fighting corruption and exploitation is better — Rating: 4/5

I was prepared to hate this book, because I have found Singer's writings to be arrogant, sanctimonious, and preachy. There are shades of this attitude in this book, as when he says \\"with the simple act of saving money for retirement, we are effectively refusing to use that money to help save lives. ... If it is in your power to prevent something bad from happening, without sacrificing anything nearly as important, it is wrong not to do so.\\" (pp. 14, 15) He later sums up his position as \\"in order to be good people, we must give until if we gave more, we would be sacrificing something nearly as important the bad things our donation can prevent.\\" (p. 140) In other words, according to Singer, as long as there is poverty, we must give until either there is no poverty, or we are on the verge of being poor; as long as there is preventable child mortality, we must give until either there is no more preventable mortality, or our own children are on the verge of succumbing to preventable disease; as long as there is polluted water, we must give until either water is clean throughout the world, or we are on the verge of using polluted water ourselves.

Now, I know insufferable, sanctimonious people who have some bizarre morality or other, they try to live it themselves, and they are contemptuous of those who do not share their values, or who do but fail to live up to it. Indeed, I know more of these people that I care to know, and I do not give them an inch. I assure such people that I have as much contempt for them as they for me, and self-righteousness is almost as venal a sin as selfishness and cruelty. Thus my being prepared to hate this book.

But in fact, Singer recognizes that there is something in his moral theory that is deeply at odds with human nature. For instance, he agrees that good parents prefer the well-being of their children to that of abstract poor children around the world. It is human nature, Singer agrees, to prefer the health of one's own to that of unknown others. He also agrees that while most of us will risk considerable harm and personal loss to help a stranger drowning in a lake, but would not think of providing equal help to unknown poor individuals around the world. Singer thus makes the reasonable pitch that, given human nature, we should at least give 5% of our income to cure poverty, and he asserts that this will indeed cure poverty around the world.

Peter Singer comes across in this book as a humble, caring person, suggesting a course of action that, while far short of fully moral, does not impose draconian measures upon us. The least we could do is to give the 5%, one is tempted to conclude. If you agree with Singer, I encourage you to do just that. However, there are serious problems with Singer's argument, and it is not clear to me that his approach is the approach most likely to cure world poverty.

There are two big problems with Singer's argument. The first is that his moral theory is severely compromised, and hence not to be believed. One obvious property of a correct moral theory is that it be internally consistent. Singer's inconsistency lies in holding that a fully moral person sacrifices his children on behalf of all children in the world, while recognizing that being a good parent involves preferring the well-being of your children to the well-being of all children. This internal contradiction undermines his whole argument, because there must be some correct morality in which we trade off our personal desires against the needs of others, and Singer has no criterion whatever for determining how that tradeoff should be made. All he says is that saving the life of a child is more important that drinking an expensive soft drink, and 5% of your income is the minimum you should give to charity. What if I just disagree with these off-the-cuff valuations? Certainly most Americans disagree in practice, since even those who contribute considerably to charity prefer to fight local poverty, breast cancer, helping co-ethnics, or saving the whales to combating world hunger. In short, because Singer's ethic is internally inconsistent, it is wrong, and we need not accept any part of it. I do not accept any part of it, personally.

The second problem with Singer's argument is that he has an incorrect model of world poverty. Poverty in third world countries is mostly caused by the corruption and exploitative behavior of the powerful. Poverty in the modern world is not generally the product of neglect, but rather the result of the rich and powerful lining their pockets at the expense of the less powerful. Singer envisions poverty as a \\"trap\\" that we can catapult people out of, as though being poor is like being at the bottom of a deep hole, in need of a ladder to make it to freedom. \\"We can enable [the poor] to join the worldwide community,\\" he claims (p. xii) \\"if only we can help them get far enough out of poverty to seize the opportunity.\\" What he does not realize is that in many places in the world, improving the position of the poor simply increases the incentive of their exploiters to grab from them even more than usual.

Singer understands, but then proceeds to ignore, the many differences between direct helping and third-world giving. In the direct case, you have complete control over fate of the child, whereas in the indirect case, there are many others who could take your place, there are many intermediaries who could passively or actively nullify your charity, and the forces that cause poverty could also appropriate your charity. For instance, a woman abused by her drunken husband may be capable of providing a decent life for her children and herself if she had a cow, but if she were given a cow, her husband's family would simply take it from her and eat well for a month.

The fact that poverty is caused by exploitation is perhaps why some of the most compelling forms of poverty relief takes the form of providing medical care, such as Doctors Without Borders, and fighting diseases and polluted water (as Gates' work on malaria) by experts from developed countries. Those who made you poor or keep you poor have nothing to gain from taking the eyesight that has been restored to you, or from re-polluting your water.

Singer thus sometimes seems incredibly naïve. \\"It seems scarcely possible,\\" he says, \\"that if we truly set out to reduce poverty, and put resources into doing so that match the scale of the problem -- including resources to evaluate past failures and learn from our mistakes -- we will be unable to find ways of making a positive impact.\\" Yet the whole world conspires to render Singer's hope futile. Even the aid agencies are populated by people who favor their personal professional reputations over combating poverty, in situations where they have no real incentive to help the needy rather than hob-knobbing with celebrities for photo shoots.

In my opinion, a case can be made for helping the poor in areas where this help cannot be appropriated by exploiters, and for supporting human rights organizations that combat corruption and supporting democratic movements around the world that undermine the objective conditions of world poverty.east cancer, helping co-ethnics, or saving the whales to combating world hunger. In short, because Singer's ethic is internally inconsistent, it is wrong, and we need not accept any part of it. I do not accept any part of it, personally. The second problem with Singer's argument is that he has an incorrect model of world poverty. Poverty in third world countries is mostly caused by the corruption and exploitative behavior of the powerful. Poverty in the modern world is not generally the product of neglect, but rather the result of the rich and powerful lining their pockets at the expense of the less powerful. Singer envisions poverty as a \\"trap\\" that we can catapult people out of, as though being poor is like being at the bottom of a deep hole, in need of a ladder to make it to freedom. \\"We can enable [the poor] to join the worldwide community,\\" he claims (p. xii) \\"if only we can help them get far enough out of poverty to seize the opportunity.\\" What he does not realize is that in many places in the world, improving the position of the poor simply increases the incentive of their exploiters to grab from them even more than usual. Singer understands, but then proceeds to ignore, the many differences between direct helping and third-world giving. In the direct case, you have complete control over fate of the child, whereas in the indirect case, there are many others who could take your place, there are many intermediaries who could passively or actively nullify your charity, and the forces that cause poverty could also appropriate your charity. For instance, a woman abused by her drunken husband may be capable of providing a decent life for her children and herself if she had a cow, but if she were given a cow, her husband's family would simply take it from her and eat well for a month. The fact that poverty is caused by exploitation is perhaps why some of the most compelling forms of poverty relief takes the form of providing medical care, such as Doctors Without Borders, and fighting diseases and polluted water (as Gates' work on malaria) by experts from developed countries. Those who made you poor or keep you poor have nothing to gain from taking the eyesight that has been restored to you, or from re-polluting your water. Singer thus sometimes seems incredibly naïve. \\"It seems scarcely possible,\\" he says, \\"that if we truly set out to reduce poverty, and put resources into doing so that match the scale of the problem -- including resources to evaluate past failures and learn from our mistakes -- we will be unable to find ways of making a positive impact.\\" Yet the whole world conspires to render Singer's hope futile. Even the aid agencies are populated by people who favor their personal professional reputations over combating poverty, in situations where they have no real incentive to help the needy rather than hob-knobbing with celebrities for photo shoots. In my opinion, a case can be made for helping the poor in areas where this help cannot be appropriated by exploiters, and for supporting human rights organizations that combat corruption and supporting democratic movements around the world that undermine the objective conditions of world poverty.

Common Sense Economics: What Everyone Should Know About Wealth and Prosperity

Conservative Common Sense, but not Full Common Sense — Rating: 4/5

This book is a careful, sober, and measured conservative economic manifesto, something in the spirit of Henry Hazlett's famous Economics in One Lesson (Three Rivers Press, 1979), but longer and more detailed, with an addition on personal finance. The authors are rather sober and pedantic, so the reading is not great fun, but it is clear and logical.

The section on personal finance is the best part of the book, and covers virtually all important points about wise personal finance. Only the first two of the authors' twelve points require some emendation. Their first point is \\"discover your comparative advantage.\\" (p. 123) This is of course true---you should do with your life what you are good at doing, not what others want you to do or what you think is morally the best thing to do. We humans have very heterogeneous capacities and we are most contented when we get to exercise those capacities that represent our relative strengths. However, among those activities in which you have a comparative advantage, to that which will give you the most personal satisfaction---this they do not mention. In particular, if you think that you should simply pick a profession that will maximize your income, you are making a bad mistake. Wealth is nice, but not if it is purchased by activities that you do not value and daily routines that you tolerate only because of what they offer in terms of material reward.

Their second point is \\"Be entrepreneurial. In a market economy, people get ahead by helping others and discovering better ways of doing things.\\" I think this point is probably just wrong. The entrepreneurial spirit is one of several personality types, and is not necessarily associated with \\"helping others\\" or \\"discovering better ways of doing things.\\" The latter two activities are not correlated either. It might be better said that one should try to change the world for the better, either by entrepreneurship, helping others, or being creative.

The authors also offer \\"ten key elements of economics,\\" \\"seven major sources of economic progress,\\" and \\"ten elements of clear thinking about economic progress and the role of government.\\" In every case, the authors offer good advice, but sometimes this advice is, to my mind, biased in an unwarranted way towards a conservative world view. Let me give some examples.

The first of the authors' \\"ten key elements of economics\\" is \\"Incentives matter.\\" This, of course, is a central message of economic theory. If you want people to behave in certain ways, you must supply incentives that lead them to choose to behave as you wish. However, it is simply empirically incorrect that people are only motivated by personal gain and material reward. In a health economy, people have altruistic tendencies that lead them to help others, they have pride in doing their appointed jobs well, for their own sake, and they recognize such character virtues as honesty, trustworthiness, as sense of fairness, and a commitment to reciprocity. It is simply a mistake to think that these moral preferences are simply forms of enlightened self-interest, and that people behave prosocially only because they fear punishment for breaking moral rules. This issue is important because the view that people are selfish money maximizers leads to bad economic policy advice in such areas a criminal law and creating a culture of virtue rather than of corruption in a firm or in society at large.

Their second economic principle is that \\"there is no free lunch.\\" What they mean by this is that virtually every proposal for intervention in the market economy will benefit some and hurt others. We should always be mindful of who gains, who loses, and how much. For instance, we may impose a quota on imports that saves the jobs of 1,000 workers, but the cost will be to consumers and taxpayers, and can easily amount to two or three times the yearly wages of the workers involved. However, there certainly may be government interventions that create a net surplus of gain for the winners over the cost to the \\"losers\\"---I put losers in quotes because in many cases those that pay for an intervention gain from it and do not consider themselves losers at all. For instance, an anti-poverty program that gives young people skills and values that make them into productive and fulfilled citizens may be valued positively by the taxpayers who foot the bill for the program.

The authors' seventh principle is \\"people earn income by helping others.\\" What they mean is that the salaries of high-paid professionals and the profits of entrepreneurs are not forms of exploitation of the less well off, but rather reflect their contribution to society. This is a very important point---many people deserve every cent that they earn and the idea that their earnings are illegitimate is just wrong-headed. But, what about people who earn by lying and cheating, as we have seen frequently in industry and finance in recent years? They earn money by hurting. Moreover, what about those who have the privilege of inheriting wealth that they have not worked for? It may be that their wealth is justly acquired, but they are not necessarily helping anybody.

The authors' ninth point is that \\"the `invisible hand' of market prices directs buyers and sellers toward activities that promote the general welfare.\\" This principle is largely correct, but we know that there are several sorts of \\"market failures\\" that lead market prices to diverge from social welfare. Conservatives do not like to talk about \\"externalities,\\" \\"public goods,\\" and \\"increasing returns industries,\\" but they are a central part of standard economic theory. When there are market failures, it is worth investigating whether there are state interventions that might correct them. Of course, there are also \\"state failures,\\" that might make the cure worse than the disease. Still, it is always worth looking for ways of improving market economies through wise state regulation.

I know that many modern social democrats will disagree with the authors' \\"seven major sources of economic progress,\\" because they involve promoting competitive markets and limiting the extent of government regulation and maintaining low tax rates. However, I think these principles are quite reasonable. There are social problems that require regulation and taxation, including fighting poverty, investing in education and health care, and contributing to environmental integrity. But in many countries regulation and taxation are captured by special interest groups who use the state for personal wealth aggrandizement (so-called \\"rent-seeking\\"), and these should be opposed single-mindedly by taxpayers and voters.

As for the \\"ten elements of clear thinking about economic progress and the role of government,\\" some of their principles are highly contentious. Their second is \\"government is not a corrective device.\\" This is completely incorrect. There is no advanced modern economy without a strong and large government sector, and the reason for this is that government regulation is a strong and healthy corrective to unbridled market competition. Of course, government can also be captured by special interests, as we have seen above. But social security, public health insurance, food and drug regulation, environmental controls, and a dozen other areas are well served by government regulation. Their sixth principle is that \\"government slows economic progress when it becomes heavily involved in trying to help some people at the expense of others.\\" (p. 78) This point is generally true, but unemployment insurance, aid to those who are temporarily impoverished, or who are or chronically impoverished through no fault of their own, is not very costly and is immensely socially beneficial. Of course, most of the time when the government helps some, the \\"some\\" are well-off middle-class or rich voters with political clout, asthe authors stress.

Towards the end of the book, the authors propose draconian constitutional changes that take the power away from the legislative branch of government in the name of fiscal conservatism (p. 117). This includes a constitutional requirement of three-fourths majority in both Houses of Congress for federal expenditures, federal borrowing, and state mandates. This is just right-wing craziness. The idea that our economic ills are due to a bloated government and excessive taxation is seriously overblown, and we have the right to elect legislators that work on majority rule, not something close to unanimity.

Most of the points I have tried to make in my criticism of the authors' economic principles are pretty obvious, and they could be incorporated profitably into their argument. Of course, theirs would not then be a conservative manifesto. It would just be common sense.economies through wise state regulation.

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wealth aggrandizement (so-called \\"rent-seeking\\"), and these should be opposed single-mindedly by taxpayers and voters.

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EconoPower: How a New Generation of Economists is Transforming the World

Old Wine in New Bottles, but Pretty Good Wine — Rating: 4/5

The uninitiated reader will probably never realize that the intellectual roots of this interesting volume lie deep in the past, with the great thinkers of the Austrian school of economics, led by Ludwig von Mises and Friedrich von Hayek. The Austrians picked up the tattered banner of classical liberal economic thought (laissez-faire) in the first half of the twentieth century, and held it high while others were turning to Marxism, Keynesianism, Institutionalism, and other \\"statist\\" ideologies that recognized a need for state intervention in the economy to correct \\"market failures\\" and provide the tools that turn formal democracy into a substantive instrument with which the common folk can construct their society of the future.

Why does Skousen not make it clear that this \\"new generation\\" is really old wine (Austrian school economics) in new bottles (Skousen and a few modern economic policy experts who heed the ancient Austrian doctrine)? I think probably the reason is that the Austrians were extremely elitist and arrogant, having little appreciation for the ignorant masses who actually vote leaders into and out of office in a democratic society. Hayek himself, a brilliant thinker and Nobel prize winner, once said, when asked what he thought of the brutal Chilean dictator Pinochet, that he preferred a \\"liberal dictator\\" to a \\"democratic government lacking liberalism\\" (of course, \\"liberalism\\" here means classical free market ideology, not the modern American liberalism, which is more akin to social democracy, which the Austrians despised).

Because of their rigid purism in defense of free markets and a minimal state, their policy views have been largely ignored in the modern world. There is no nation that even remotely conforms to the Austrian idea of laissez-faire. Nor will there ever be one, in my opinion, because (a) the Austrians were incorrect in their belief that a laissez-faire economic could be dynamically stable, and (b) no electorate in a democratic society would ever vote for such a system, and in a despotic society, there is little chance

the dictator would be of Hayek's cherished \\"liberal\\" sort, any more than would the fox in the hen house set out to establish chicken paradise.

This does not mean, however, that the Austrians have nothing to contribute to contemporary policy debates. They certainly do, and Skousen does a fine job in this book in modernizing, democratizing, and softening Austrian positions so that they make economic sense and might serve the needs of the common folk. Skousen's strategy is to start with the well-known policy suggestions of the behavioral economists (e.g., change the default position on voluntary savings plans from \\"not contribute\\" to \\"contribute\\"), as well as the solid stock market advice of previous generations of economists (e.g., treat the stock market as a random walk, diversify your portfolio, and the like). Then he moves into one of the most attractive successes of the free-market ideologues, the Chilean system of private retirement savings plans. This system was the brainchild of the Chicago school economists whom Pinochet asked to come reorganize the economy after he overthrew a democratically elected socialist government in Chile. Now, the Chicago school certainly bears the brand of laissez-faire, but they were (and are) dedicated to empirically testing theories and finding alternatives that are viable and widely popular (democracy was restored to Chile many years ago, but they have not given up their private retirement plans). As Skousen notes, the Chilean system has been copied in many countries, and parts of it are reflected in the US 401(k) retirement plans.

It is critical to understand why the Chilean system works: it is not purely private, but an intimate entanglement of state regulation and private initiative. For instance, workers are required to contribute at least 10% of their salaries to the retirement fund, although they may contribute up to 20% if they so desire. Second, workers may choose from about two dozen government approved private retirement funds, but these funds are highly regulated so that they have virtually zero possibility of bankruptcy. Finally, there is a minimum guaranteed pension provided by the government, should a worker's private savings be wiped out by market forces.

The relevance of the Chilean and 401(k) plans to the recent debate about privatizing the Social Security system is obvious. American liberals generally dislike markets and don't believe people can make choices in their own interest, and hence favor the current system of social security. Some free-market crazies believe that people should not be forced to save at all. If someone ends up in poverty after a lifetime of work, that's his or her problem. The alternative presented in EconoPower is powerful and nuanced, providing a cogent alternative to the ideologues of right and left. Most of the proposals in this book are similarly transformed Austrian ideas, presented to the public as desirable alternatives for the non-well-to-do, and without the slightest trace of laissez-faire ideology. Old wine in new bottles, but attractive wine.y so desire. Second, workers may choose from about two dozen government approved private retirement funds, but these funds are highly regulated so that they have virtually zero possibility of bankruptcy. Finally, there is a minimum guaranteed pension provided by the government, should a worker's private savings be wiped out by market forces. The relevance of the Chilean and 401(k) plans to the recent debate about privatizing the Social Security system is obvious. American liberals generally dislike markets and don't believe people can make choices in their own interest, and hence favor the current system of social security. Some free-market crazies believe that people should not be forced to save at all. If someone ends up in poverty after a lifetime of work, that's his or her problem. The alternative presented in EconoPower is powerful and nuanced, providing a cogent alternative to the ideologues of right and left. Most of the proposals in this book are similarly transformed Austrian ideas, presented to the public as desirable alternatives for the non-well-to-do, and without the slightest trace of laissez-faire ideology. Old wine in new bottles, but attractive wine.

Logicomix

A Lovely Combination of Art and Mathematics, with Fun Thrown In — Rating: 5/5

Logicomix is a 335 page, beautifully produced and artfully drawn, comic book. Unlike most comic books, the heroes are several of the most prominent mathematicians and logicians of the twentieth century. Also unlike most comics, the subject matter is not fantastic and juvenile, but rather tells the story of the quest for the axiomatization of logic and mathematics in the first half of the twentieth

century. The period is passionately interesting because late-nineteenth century innovations, especially Cantor's set theory, opened new vistas for the working mathematician, but the foundations of the new ideas was more than a little shaky.

Cantor himself had proved that the power set of any set is strictly larger than the set, which means that the power set of the set of all sets is larger than the set of all sets! This is of course absurd. Bertrand Russell later located a fatal flaw in Frege's axiomatization of logic, famously known as Russell's Paradox. Cantor's paradox, and the related Burali-Forti paradox, are quite simple to expound, but not simple enough for the authors, but their exposition of Russell's paradox is well done. Somewhat later Goedel proved that any system complex enough to included the elementary axioms of arithmetic were such that there are sentences that are true but cannot be proved within the system. Moreover, he showed that if a system of sufficient complexity could prove its own consistency, then it must be inconsistent! Logicomix describes Goedel's incompleteness theorem, but does not explain the difference between `provable' and `true.'

Russell's paradox is absurdly simple. Some sets are members of themselves---e.g., the set of abstract ideas is an abstract idea. Some sets are not---e.g., the set of all bluebirds is not a bluebird. What about the set S of all sets that are not members of themselves. If S is a member of itself, then it is not in S, so it is not a member of itself, a contradiction. Thus S is not a member of itself, from which we conclude that it is a member of itself. Thus S both is and is not a member of itself so the logic leading to this result is inconsistent, and hence can `prove' anything.

The story line is a biographical account of Bertrand Russell's quest for a firm foundation for logic, and a reduction of mathematics to logic. This led to the monumental Principia Mathematica, coauthored with Alfred Whitehead. This book made Russell even more famous than his paradox, but it was not well received, and most logicians do not believe it solves the problems it poses. Moreover, there was an alternative developed by Zermelo and Fraenkel that appears to have solved the problem, in the sense that now, a century later, no one has found an inconsistency in the Zermelo-Frankel system.

The general problem can be easily stated. Frege had an axiom that says that if P is any predicate, then the ensemble of all things that satisfy P form a set. Since sets can be elements of other sets in Frege's system, this led directly to the various antinomies described above. Russell and Whitehead developed a theory layered types to circumvent this problem, but Zermelo-Fraenkel used the simpler notion that predicates define only subsets of already constructed sets. Then, follow a suggestion of von Neumann, we can build the whole hierarchy of sets from the empty set using a few simple axioms.

The authors clearly convey the beauty of the mathematics and the passion and dedication of the mathematicians that produce it. I was totally enchanted by the book, but I am not sure how it will be received by those for whom the math is unknown or uninteresting.

I came away from this book wondering why the comic format is not used more frequently to convey serious ideas. I mean really serious ideas. If it is math, it should have boxes with the equations in their normal form, and proofs in their normal form. But I think students would really appreciate the visual presentation that the comic format makes possible.ssible.

Foundations of Social Theory

With Friends like Coleman, Rationality Needs no Enemies — Rating: 2/5

James Coleman, University Professor of Sociology at the University of Chicago, died in 1995. He was one of the leading American sociologists of the past half century. He established his reputation with a serious of empirical and middle-level theoretical analysis of \\"burning issue\\" social problems. At a time when Americans were concerned about an anti-social turn in teenage culture, Coleman studied the social relations of ten Midwestern high schools, his finding summarized in The Adolescent Society (1961). He was the lead author of the famous \\"Coleman Report\\" (1966) on educational inequality in the United States, and in 1976, he analyzed the \\"white flight\\" from the inner city that followed enforced school desegregation. Coleman's work showcases the strengths of modern sociology---the use of statistics and common-sense middle-level social theory to analyze complex social problems.

Coleman was not known for his theoretical contributions before the appearance of The Foundations of Social Theory in 1990. He apparently worked on this book for two decades, on and off, and it weighs in at more than three pounds and one thousand pages. It was taken quite seriously, and was reviewed in several sociology journals by leading sociologists of the age. Nearly all reviews praised Coleman's ambitious and encyclopedic effort, but most review were bitterly critical of the result. I am not sure Coleman expected otherwise, or cared. Sociology has been in a sad state for decades because of its rejection of the rational actor model, which is the centerpiece of Coleman's book. The critiques are almost wholly centered on Coleman's championing this model, and Coleman surely expected this. I conjecture that he expected his book to inspire a generation of young sociologists to throw off the yoke of traditional sociological anti-rationality prejudice. This did not happen before his death, and I am quite certain that it will not, ever.

Coleman's advocacy of the rational actor model, the centerpiece of economic theory, was courageous and far-sighted, but he imported from economics only one aspect of the model, and the part he imported is wrong. Economists, until the past decade or so, in practice identified rationality with selfishness and the capacity to calculate gains and losses without regard to the well-being of others, moral virtues, or the needs of the larger society. It is precisely this sociopathic conception of rationality that Coleman makes the centerpiece of this book. A reviewer in Theory and Society correctly characterized Coleman's position as \\"a more viable social theory...would begin from rational choice rather than norms.\\" The idea that social norms and rational choice are alternative hypotheses is about as reasonable as \\"running on wheels\\" vs. \\"running on gasoline\\" in understanding an automobile. The same reviewer later notes, completely correctly, and completely at odds with Coleman's treatment, that \\"we cannot evaluate the rationality of an action...apart from the circle of value that has shaped the persons and their relationsips to one another in a given society.\\"

The critique of Coleman by the sociology profession was well-deserved. This book is almost completely wrong-headed. Curiously, Nobel prize-winning economist Gary Becker made his name by applying economic theory to traditional sociological problems, and Becker also assumed rationality included pure selfishness. But unlike Coleman, Becker chose his subject matter very carefully, and his analysis is always both brilliant and cogent. Coleman, by contrast, applies the model willy-nilly to every possible social situation, and the result is at best awkward, and often simply bizarre, such as when Coleman wonders how workers can be talked into doing and believing things that are not in their material self-interest, or why mothers appear to love their children.

For an instance, unlike Becker, Coleman is forced by the nature of his disciplineto deal with the natural of socialization, through which individuals are led to internalize important social values, so that they conform to these values purely volitionally, even when there is no chance of being subject to external sanctions. For exampe, many people are generally honest even when no one is looking, so they could easily cheat with impunity. Coleman never does explain why a rational individual would submit to internalization and would not just shrug it off having attained adulthood. Moreover his idea of internalization is that internalized values are psychic constraints on action. That is, people behave prosocially because they would feel guilty if they did not. In fact, the evidence indicates that internalized norms are integrated into the individual's preference function, so people often feel good when they act morally. Indeed, as stressed by virtue philosophers from the time of Aristotle to the present, virtuous people are not crippled by their overactive superegos, but rather are happier and more complete that the sociopaths that populate Coleman's world.

Coleman is clearly inspired by economic theory, but it is not clear he has a serious grasp of the rational actor model. He never references the basic works in this area, those of Savage and di Finetti, and he never bothers to mention that economic rationality is defined as preference consistency and Bayesian updating. Nowhere in the basic theory is it said that people are selfish, are indifferent to social concerns, or that they attempt to maximize anything. There is nothing irrational about voting, loving your alma mater's lacrosse team, or giving to charity. The degree to which sociologists understand the rational actor model that they love to criticize is abysmal, and Coleman merely reinforces the standard sociological prejudices. Coleman's description of the rational actor model is absolutely ripe for caricaturing. \\"Actors have a single principle of action,\\" he says, \\"that of acting so as to maximize their realization of interests." (p. 37) This sure sounds sociopathic, but in fact the rational actor theory does not say that people act to maximize anything, any more than light rays act to minimize transit

time, and an individual's interests can include not only self-regarding goods and services, but altruistic goals and the well-being of others.

Coleman's critics rarely fail to mention that he has no place for culture or symbolic communication in his approach, and they blame this on his reliance on rational action. The critique is certainly correct, but the reason is incorrect. In fact, the rational actor model only makes sense when closely allied with game theory, and Coleman does not use game theory, except for a few examples. Social interactions for Coleman are either dyadic interactions that mimic market exchange, and large-scale behavior based on corporations that control their employees. When we recognize that most social interactions involve strategic interaction based on social norms, and social norms are legitimated and interpreted properly only in the context of a group's cultural traditions and nexus of symbolic meanings, the interaction between rationality, morality, and culture can be properly modeled (see papers and references on my web site, [...] Coleman knows none of this.cialization, through which individuals are led to internalize important social values, so that they conform to these values purely volitionally, even when there is no chance of being subject to external sanctions. For exampe, many people are generally honest even when no one is looking, so they could easily cheat with impunity. Coleman never does explain why a rational individual would submit to internalization and would not just shrug it off having attained adulthood. Moreover his idea of internalization is that internalized values are psychic constraints on action. That is, people behave prosocially because they would feel guilty if they did not. In fact, the evidence indicates that internalized norms are integrated into the individual's preference function, so people often feel good when they act morally. Indeed, as stressed by virtue philosophers from the time of Aristotle to the present, virtuous people are not crippled by their overactive superegos, but rather are happier and more complete that the sociopaths that populate Coleman's world. Coleman is clearly inspired by economic theory, but it is not clear he has a serious grasp of the rational actor model. He never references the basic works in this area, those of Savage and di Finetti, and he never bothers to mention that economic rationality is defined as preference consistency and Bayesian updating. Nowhere in the basic theory is it said that people are selfish, are indifferent to social concerns, or that they attempt to maximize anything. There is nothing irrational about voting, loving your alma mater's lacrosse team, or giving to charity. The degree to which sociologists understand the rational actor model that they love to criticize is abysmal, and Coleman merely reinforces the standard sociological prejudices. Coleman's description of the rational actor model is absolutely ripe for caricaturing. \\"Actors have a single principle of action,\\" he says, \\"that of acting so as to maximize their realization of interests." (p. 37) This sure sounds sociopathic, but in fact the rational actor theory does not say that people act to maximize anything, any more than light rays act to minimize transit time, and an individual's interests can include not only self-regarding goods and services, but altruistic goals and the well-being of others. Coleman's critics rarely fail to mention that he has no place for culture or symbolic communication in his approach, and they blame this on his reliance on rational action. The critique is certainly correct, but the reason is incorrect. In fact, the rational actor model only makes sense when closely allied with game theory, and Coleman does not use game theory, except for a few examples. Social interactions for Coleman are either dyadic interactions that mimic market exchange, and large-scale behavior based on corporations that control their employees. When we recognize that most social interactions involve strategic interaction based on social norms, and social norms are legitimated and interpreted properly only in the context of a group's cultural traditions and nexus of symbolic meanings, the interaction between rationality, morality, and culture can be properly modeled (see papers and references on my web site, [...] Coleman knows none of this.

Democracy's Discontent: America in Search of a Public Philosophy

A Defective Critique of Liberalism, but Sandel Makes Important Points — Rating: 3/5

First, if you are new to moral philosophy, you should first read Sandel's, Justice: What's the Right Thing to Do? (New York: Farrar, Strauss and Giroux, 2009). This book is a real pleasure to read and covers the basic issues, although it's more about personal behavior rather than political philosophy.

Second, there is a very enlightening exchange between dyed-in-the-wool Rawlsian liberal Thomas Nagel and Michael Sandel in the New York Review of Books. Nagel bitterly critiques Democracy's Discontent in \\"Progressive But Not Liberal (NYRB May 25, 2006), and Sandel replies in The Case For Liberalism: An Exchange (NYRB October 5, 2006). I found Democracy's Discontent well worth reading, but somewhat long-winded, with several tedious exegeses on legal issues, and the main points attacked tangentially with Sandel's argument spread out over many chapters and with little attempt to deal with obvious objections to his thesis. The exchange with Nagel illuminates both his theory and its relation to contemporary liberalism.

The meat of this book was written and delivered at Northwestern University School of Law in 1989, and the book was published in 1996. Because Sandel presents his argument as a reaction to the tenor of political debate some two decades ago, some of his arguments do not sound exactly right today. \\"The loss of self-government,\\" he asserts (p. 3), \\" and the erosion of community together define the anxiety of the age.\\" I do not perceive these as problems in American life at all. Yes, people are much less satisfied with their government than they were in the peaceful 1950's, but that was a very special period of lull in political conflict. As for loss of community, that appears to me to be just wrong. Americans value their communities and participate in their communities, even though the nature of community has changed with a high level of female labor force participation and the Internet as a new medium of community action.

Despite this rough start, Sandel's book does clearly outline a debate within liberalism between two visions of the polity. One view is that of John Stuart Mill and John Rawls (if you haven't read Mill's On Liberty recently, do so---it is a masterpiece; if you haven't read Rawls' A Theory of Justice, consider yourself lucky---read a wiki summary and save yourself the agony of Rawls complex and prolix prose), for whom the Good Society gives individuals to live their lives as they see fit, the limits of liberty being the other guy's equal rights. In this view, there is no need for a public argument concerning the nature of the Good or the Right---each individual is given the power to decide for himself. Moreover, this liberal philosophy preaches not only to be tolerant of those who are different from oneself, but to respect the individuality of others and accord them the esteem they deserve as human beings and members of the community.

This liberal philosophy of dignity and tolerance shines brightly when confronting religious bigotry and political intolerance, and indeed helps one understand how someone seemingly different from oneself might have deep and abiding virtues that one can even learn from, and that such learning is not an affront to one's own moral principles. Sandel certainly appreciates this aspect of what he calls \\"procedural liberalism,\\" but he argues that a philosophy of radical \\"live and let live\\" fragments the political community and undermines the idea that liberty depends on sharing in self-government.

According to Sandel, we need a formative politics in which political discourse develops the capacities of citizens for self-rule. The radical laissez-faire of procedural liberalism makes it impossible to use political discourse to probe fundamental morality. For instance, one of the rallying cries of choice advocates in the abortion controversy is \\"If you are opposed to abortion, then don't have one!\\" The message here is that abortion is apersonal choice, and I'll make mine the way I wish, and you should do the same. But please don't tell me that I must follow your views on the matter rather than my own.

Contrary to this procedurally liberal approach to abortion, Sandel asserts, the republican tradition in liberalism requires that we debate the morality of abortion and come to some understanding through public discourse. Similarly, rather than supporting the institution of gay marriage or that of mothers with young children remaining in the labor force on the grounds \\"to each his own---de gustibus no est disputandem,\\" Sandel insists that we must debate the implications of these institutions on how they will affect the fabric of our communities and the development of individual character in the future as a result of living with these institutions.

Sandel stresses that conservatives, who flatly reject the principles of Mill and Rawls, have no trouble addressing the substantive issues. \\"The Christian Coalition and similar groups,\\" Sandel notes in one of his writings, \\"seek to clothe the naked public square with narrow, intolerant moralisms. Fundamentalists rush in where liberals fear to tread.\\" In his republican liberalism, Sandel would not hesitate to debate the issues, not just the procedures. It is simply not true, Sandel asserts, that \\"rights\\" trump \\"the good,\\" as Mill and Rawls suggest.

The problem with Sandel's position, in my mind, is that it is a caricature of the traditional liberal position. Mill defended free speech, for instance, not on the grounds of \\"live and let live,\\" but rather on the grounds that this is the best way to foster innovation and creativity, as well as improving the capacity of citizens to entertain and evaluate contrasting arguments. How else could we in good conscious prohibit some kinds of speech and writing (hate speech, how to build bombs from grocery store items)? Similarly, the argument that abortion is simply a woman's absolute, inviolable right is argued by some, but not by most supporters of choice, and when it is argued, the reasons are not procedural but substantive (e.g., the slippery slope argument against prohibiting late-term abortions).

In recent years in the United States, there have been extensive debates about the progressivity of taxation, the treatment of illegal immigrants, giving psychotropic drugs to unruly children, school choice, anti-discrimination laws, the wars in Iraq and Afghanistan, what to do about nuclear proliferation, and a host of other issues. It should be clear that there is absolutely no way to deal such issues using a \\"live and let live\\" philosophy of tolerance. In this sense, Sandel's whole argument appears to be to be severely overstated.

This is not to deny Sandel's point that we must collectively decide on a general conception of the good life that we actively affirm and that we are willing to defend intellectually and impose by force. Live and let live does not apply to soccer hooligans, public drunks, wife beaters, hop heads, and child abusers. You can believe in \\"man-boy love,\\" for instance, but if you practice it we will lock you up. My point is simply that we knew that all along, and the people who defend these proscribed practices by invoking the rules of tolerance and respect for civil liberties are just using bad arguments.

In his critique of Sandel's position, Thomas Nagel argues, \\"Liberalism may be a minority conviction in the world at large. To most people values are values, and political power should be used to implement them: What else is it for? But Sandel's ideal republic of comprehensive virtue would abandon a form of civic respect that has been of inestimable value, and threaten one of the indispensable grounds of political stability in our free, stormy, magnificently diverse nation. To use a phrase of Jürgen Habermas, constitutional patriotism should be enough to satisfy what Sandel calls our \\"hunger for a public life of larger meaning.\\" A hunger that demands more from the state will lead us where history has shown we should not want to go.\\" Amen.of choice, and when it is argued, the reasons are not procedural but substantive (e.g., the slippery slope argument against prohibiting late-term abortions). In recent years in the United States, there have been extensive debates about the progressivity of taxation, the treatment of illegal immigrants, giving psychotropic drugs to unruly children, school choice, anti-discrimination laws, the wars in Iraq and Afghanistan, what to do about nuclear proliferation, and a host of other issues. It should be clear that there is absolutely no way to deal such issues using a \\"live and let live\\" philosophy of tolerance. In this sense, Sandel's whole argument appears to be to be severely overstated. This is not to deny Sandel's point that we must collectively decide on a general conception of the good life that we actively affirm and that we are willing to defend intellectually and impose by force. Live and let live does not apply to soccer hooligans, public drunks, wife beaters, hop heads, and child abusers. You can believe in \\"man-boy love,\\" for instance, but if you practice it we will lock you up. My point is simply that we knew that all along, and the people who defend these proscribed practices by invoking the rules of tolerance and respect for civil liberties are just using bad arguments. In his critique of Sandel's position, Thomas Nagel argues, \\"Liberalism may be a minority conviction in the world at large. To most people values are values, and political power should be used to implement them: What else is it for? But Sandel's ideal republic of comprehensive virtue would abandon a form of civic respect that has been of inestimable value, and threaten one of the indispensable grounds of political stability in our free, stormy, magnificently diverse nation. To use a phrase of Jürgen Habermas, constitutional patriotism should be enough to satisfy what Sandel calls our \\"hunger for a public life of larger meaning.\\" A hunger that demands more from the state will lead us where history has shown we should not want to go.\\" Amen.

Justice: What's the Right Thing to Do?

The Best Book Ever for Practical Morality — Rating: 5/5

This book will not satisfy the elite of hair-splitting moral philosophers, but to my mind it is the best book I have ever seen explaining moral philosophy to neophytes. The examples come mostly from contemporary American social life and many are well-known in the literature. But many were new to me, and included some of the most morally conflictual issues I have ever encountered. I just cannot imagine a better way to present the content of modern moral philosophy to the world.

Michael Sandel is a quite famous political philosopher with a reputation for extreme adherence to a particular brand of community-oriented virtue theory that is critical of the two major traditions in moral philosophy---utilitarianism (Jeremy Bentham, John Stuart Mill, Peter Singer) and deontology (Immanuel Kant, John Rawls). However, the reader will likely not discover this fact until the very end of the book, so even-handed and appreciative is Sandel of the alternative approaches. Indeed, the book is filled with the tension of a World Cup match, where the top players in the world are paraded before us in all their splendor, and where it is difficult to call any one a looser. This attitude contrasts sharply with the standard behavior of professional philosophers, who have hissy-fits when confronted with arguments with which they disagree (Sandel is capable of this as well, of course, but not in this elegant volume).

The most important thing the student learns from this book is that morality is for real, and leading a moral life is the highest goal to which we can aspire. I learned moral philosophy in an era dominated by the sort of analytical philosophy according to which moral statements are meaningless utterances, and moral behavior is irrational and constricting. At its best, I was taught that moral principles were an individual's private property, and were about as important as one's musical or artistic taste. For Sandel, morality is not an accoutrement of the genteel life, but is the source of all meaning in life, and he conveys this message to the reader without an ounce of preachiness or self-righteousness.

In his previous writings, Sandel has been a major critic of John Rawls's theory of justice, which has been the centerpiece of liberal democratic political philosophy for almost forty years. Rawls' embraces a Kantian ethic that extends the Categorical Imperative (do unto others...) in a way relevant to social policy and political philosophy. According to Rawls, we must erect social institutions using principles that we would individually be willing to accept if we were behind a \\"veil of ignorance\\" that prevented us from knowing what position we would hold in the resulting social order. He suggests two major principles. The first is the lexical priority of liberty, meaning that no social order has the right to constrain freedom in the name of some type of social engineering. The second is the principle that society should be organized so that the well-being of least well off is maximized. This leads to a radical egalitarianism in which the question of the justice of the distribution of wealth and income is the major moral issue in society. In particular, it leads to a hyper-individualism in which the moral principles of individuals is of no importance in their claim to a \\"just share\\" of the material wealth of society, and individuals are worthy of respect whatever they happen to choose as a way of life, provided they leave room for others to pursue their individual goals. Sandel rightly rejects this political philosophy on the grounds that by favoring \\"rights\\" over \\"the good,\\" we necessarily degrade political democracy and republican virtues.

Sandel's alternative is to embrace a form of virtue ethics according to which the moral is what would be enacted by the virtuous individual, and we can tell what is virtuous by inspecting the character of human nature and the embeddedness of individuals in a close fabric of social life. The virtuous individual will \\"flourish\\" through acting in according with his or her highest nature, and immorality is a form of self-destruction brought on through ignorance or laziness.

The main thing missing from this book is an appreciation for the science of human morality. Humans make morality in the same sense that they make food, babies, art, music, and war. Sandel does not appear to realize that theories of morality should explain moral behavior, much as linguistics attempts to explain human verbal communication. Philosophers appear to have the idea that the philosophical \\"experts\\" have no more reason to study people's actual moral beliefs than physicists have to study folk-physics. This is a serious error, which leads philosophers to seek the \\"one true theory\\" from which all moral truths can be deduced. There is no \\"one true theory.\\" All of the major branches of moral philosophy are represented in the everyday moralizing of people. Obligation, consideration of consequences, a sense of virtue, and even visceral feelings of cleanliness and propriety are all involved in how people make moral choices.

Because Sandel does not treat moral behavior as worthy of scientific study, he misses one major point about human morality: the strong underlying unity of moral sensibility across all societies and covering most social issues. The motivating force of Sandel's book is moral conflict, either in the form of an individual having to make choices that necessarily involve opting for the lesser evil (for instance, should soldiers kill an innocent shepherd to save the lives of nineteen patriotic soldiers, or should a living fetus be sacrificed to satisfy the preferences of the importuned mother), when in fact most major moral choices concern good versus evil, and what is considered good and evil is pretty much the same the world over. Everywhere, people cherish honesty, loyalty, hard-work, bravery, considerateness, trustworthiness, and charity. Similarly, everywhere people prefer insiders to outsiders, and take pleasure in hurting those who violate personal integrity or social rules. It is these moral values that have made humanity the imposing presence it has upon the planet, and if we are to survive into the future, it is these basic moral values, which are universal from small tribes of hunter-gathers to the vast populations of advanced technological society, that will provide the energy for the tasks that lie ahead of us.irtuous individual will \\"flourish\\" through acting in according with his or her highest nature, and immorality is a form of self-destruction brought on through ignorance or laziness. The main thing missing from this book is an appreciation for the science of human morality. Humans make morality in the same sense that they make food, babies, art, music, and war. Sandel does not appear to realize that theories of morality should explain moral behavior, much as linguistics attempts to explain human verbal communication. Philosophers appear to have the idea that the philosophical \\"experts\\" have no more reason to study people's actual moral beliefs than physicists have to study folk-physics. This is a serious error, which leads philosophers to seek the \\"one true theory\\" from which all moral truths can be deduced. There is no \\"one true theory.\\" All of the major branches of moral philosophy are represented in the everyday moralizing of people. Obligation, consideration of consequences, a sense of virtue, and even visceral feelings of cleanliness and propriety are all involved in how people make moral choices. Because Sandel does not treat moral behavior as worthy of scientific study, he misses one major point about human morality: the strong underlying unity of moral sensibility across all societies and covering most social issues. The motivating force of Sandel's book is moral conflict, either in the form of an individual having to make choices that necessarily involve opting for the lesser evil (for instance, should soldiers kill an innocent shepherd to save the lives of nineteen patriotic soldiers, or should a living fetus be sacrificed to satisfy the preferences of the importuned mother), when in fact most major moral choices concern good versus evil, and what is considered good and evil is pretty much the same the world over. Everywhere, people cherish honesty, loyalty, hard-work, bravery, considerateness, trustworthiness, and charity. Similarly, everywhere people prefer insiders to outsiders, and take pleasure in hurting those who violate personal integrity or social rules. It is these moral values that have made humanity the imposing presence it has upon the planet, and if we are to survive into the future, it is these basic moral values, which are universal from small tribes of hunter-gathers to the vast populations of advanced technological society, that will provide the energy for the tasks that lie ahead of us.

Going to Extremes: How Like Minds Unite and Divide

I hope he conveys this advice to his new boss — Rating: 4/5

Cass Sunstein is a public intellectual who creatively combines scholarship, popular writing, and public service. He is an advisor to President Barack Obama, and has moved from his position as Professor at Harvard Law School to head the Office of Information and Regulatory Affairs in the Obama administration. His wife, Samatha Power, is a human rights and genocide expert advising the Obama administration.

Sunstein's specialty is behavioral decision theory, for which Princeton

psychologist Daniel Kahneman received the Nobel prize in Economics in 2002. Behavioral decision theorists have shown that in laboratory settings, people do not form beliefs using rational deliberation alone. Going to Extremes is based on evidence that when like-minded people interact, their views become even more extreme. For instance, subjects in one experiment were asked their opinions on such

controversial issues as global warming, abortion, and gay marriage. Those who self-identified as `liberal' were then asked to form one group to discuss these issues, while those who self-identified as `conservative' formed a second group. After fifteen minutes of discussion, virtually all the liberals became more liberal and the conservatives became more conservative.

Sunstein concludes from this and a mass of other evidence that people tend to seek others with similar ideas, and the process of interaction with the like-minded gives rise to \\"group polarization.\\" His key example is religious terrorism, perpetrated by young men who pray together, meet together, plan together, read the same materials, and reinforce the legitimacy of one another's complaints, generating an unwarranted justification for their violent intentions and an unwarranted optimism in

their ability to succeed.

Going to Extremes is also a cautionary tale for the incoming President Obama. President George W. Bush had been widely criticized for his handling of the Iraq occupation in the years following the fall of Saddam Hussein, especially for failing to supply sufficient troupes and equipment to the Iraq rebuilding initiative. Bush's failure to entertain this criticism was often attributed by the Democratic opposition to his team of advisors being hand-picked for their willingness to accept the \\"party line\\" of Secretary of Defense Donald Rumsfeld. Eventually, President Bush replaced Donald Rumsfeld with Robert Gates as Secretary of Defense in early November, 2006, but only after the disastrous Republican defeat in 2006 mid-term elections. After extensive consultation with experts, in early January 2007, President Bush authorized a dramatic increase in troupe levels in Iraq.

Sunstein argues that it is a sign of good leadership to have a diversity of advisory opinion so that executive policy does not become irrevocably committed to a single course of action, unwavering despite the unfolding of historical events. By maintaining a small group of people all committed to one viewpoint, Bush's advisors moved to a position more extreme, and less tenable, than any advisor would have held in isolation.

It would be auspicious indeed if the generation of collective false beliefs were largely the product of the sorts of self-segregation described in Sunstein's laboratory experiments. Such, however, is not the case. \\"Belief contagion,\\" even in the absence of self-segregation, often leads large numbers of people to accept outlandish notions for which there is no credible evidence. For example, in the mid-twentieth century psychoanalyst Bruno Bettelheim asserted, with only the most perfunctory anecdotal evidence, that autism was caused by \\"cold mothers.\\" Psychologists and psychiatrists from the 1960's to 1980's widely endorsed Bettelheim's view, leading to years of victimizing the mothers of autistic children and misdirecting therapeutic energies. This view is now commonly regarded as erroneous.

A more recent example of runaway beliefcontagion is the late-twentieth century preoccupation with \\"recovered memories,\\" leading to numerous prosecutions for sexual abuse in various parts of the United States based mainly on rehearsed child testimony and irregular court proceedings. Consider the McMartin family, who ran a preschool in Manhattan Beach, California. They were jailed for sexual abuse in 1984, and subjected to criminal trial beginning in 1987. The ordeal began when the mother of a student charged a McMartin teacher with sodomizing her son. The police sent the parents of all students in the school a sexually explicit letter suggesting that their children may have been abused. The ensuing hysteria led to a crescendo of allegations, seven McMartin family members and staff being arrested on 321 counts of child abuse involving 48 children. Following six years of investigation and trial, all charges were dropped in 1990, no credible evidence having been found supporting any of the 321 counts.

Prejudice is a far more potent generator of false beliefs that self-segregation. Anti-black sentiments were widely fueled in the post-bellum South by self-seeking politicians and rag newspapers. Nazi politicians spread anti-Semitic stories for political reasons, but prejudice rendered these stories plausible.

Going to Extremes is a fine book chock full of insightful evidence and intelligent commentary on modern political life. Sunstein's vision of emancipatory political discourse (a vision championed by the great modern philosopher Juergen Habermas) is salutary, and the world would probably be a better place if we followed it. However, I think most voters in America do not self-select into extreme positions, political polarization in the USA is probably weaker now that in the past century, and terrorism is an effective tactic (albeit of dubious moral status) for non-state actors with political goals.with \\"recovered memories,\\" leading to numerous prosecutions for sexual abuse in various

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The Idea of Justice

What is old is very good. What is new is disappointing. — Rating: 3/5

Amartya Sen, recipient of the Nobel prize in Economics in 1998, is a very special economist. He has first-rate technical skills, he is a fine interpreter of the empirical evidence on the causes of famine and poverty around the world, he has a deep commitment to egalitarian social change, and he is a looming figure in modern political philosophy. Sen is a key contributor to the current movement towards integrating the insights of the various social sciences towards better understanding of society and increasing our capacity to improve social policy interventions in to economic and political life.

The Idea of Justice is a large, meandering book that is accessible to the novice in social theory and political philosophy, and includes most of the ideas Sen has championed in his long and productive career, plus a new idea that leads him beyond such established contemporary political philosophers as John Rawls and Ronald Dworkin.

In much the same way as German philosopher Jürgen Habermas, Sen's commitment to freedom and democracy is based not on distributional issues, but rather on a deep understanding of the importance of communicative discourse and public debate in making the good society. This commitment fits well with Sen's major contribution to welfare economics, which is providing an alternative to the selfish and materialistic Homo Economicus of standard neoclassical economics. For traditional economics, well-being is a function of the goods and services and individual enjoys. For Sen, well-being is a function of how fully and vigorously an individual exercises his human capabilities. Democracy, then, is less about who gets what, and more about how people come to craft both their personal life-meaning and their collective destiny through political participation and discourse.

As an indication of the power of Sen's reasoning, he shows clearly how a commitment to a capabilities orientation to human welfare helps understand why income and welfare are conceptually and factually distinct and only somewhat correlated. Sen treats poverty as an inability to develop and exercise one's personal capacities. Thus, a family in the United States can have much higher income than another in a third world country and yet suffer from poverty while its third world counterpart does not. This is because the US family may be socially dysfunctional, or may live in a community that fails to provide the social relations and cooperative institutions that allow people to develop their capacities even though lacking in income.

Sen's innovation in this book is to critique the \\"transcendental institutionalism\\" of such traditional moral philosophers as Hobbes, Rousseau, Kant, Dworkin and Rawls, who seek to define a set of social institutions that foster \\"perfect justice,\\" Sen argues that perfect justice is not capable of attainment,

and it is better to focus on how society can be improved from its current state, give its actual pattern of injustices.

I have two major criticisms of this book. The first is that Sen has not updated his model of the individual or his critique of the neoclassical model of economic man since his important contributions of thirty or forty years ago. You would not discover by reading this book that there has been a virtual revolution in economic thought concerning human nature starting in the 1980's with behavioral game theory, experimental economics, and more recently, neuroeconomics. We can now go far beyond Sen's rather diffident and anemic argument that people are not always completely selfish. Perhaps Sen considers this new research deficient in some way. Or, perhaps such empirical findings do not belong in the same league as the venerable Western and Indian philosophers he quotes so liberally. We simply do not know what Sen thinks about this, or what his motives were to ignore this rich vein of research of obvious relevance to his argument.

My second problem is a bit more fundamental. I am extremely skeptical concerning the whole approach to justice that has dominated analytical philosophy since Rawls' seminal A Theory of Justice. Sen critiques John Rawls, Ronald Dworkin, G. A. Cohen and other left-liberal thinkers on grounds of the impossibility of perfect justice. However, the real problem with these thinkers is that they believe justice is a matter of the distribution of wealth and income. This is not at all what justice means to most voters and citizens, who rather follow Robert Nozick in believing that justice consists in individuals getting that to which they are entitled by virtue of legitimate production, exchange, and inheritance. Serious thinkers must find the idea that ideal justice consists of complete social equality to be deeply repugnant.

In this view, justice is not fairness at all. Nevertheless, we can accept an entitlement view of justice and yet recognize that poverty, not some abstract inequality of income and wealth, is a real enemy of social wellbeing, not because it is unfair but because it is a preventable disease, like malaria, that we should not permit to inflict the young and innocent. Full social equality, then, is not a lamentable unattainable ideal state, but rather a thankfully unattainable monstrosity because it presupposes the absence of personal accountability and effectivity.

Sen's critique of the Rawlsian tradition is anemic and trivial. For this reason I find this book deeply disappointing. It is altogether too genteel in dealing with a philosophical tradition that deserves to be bitterly criticized, not gently reproached for its excessive zeal in the pursuit of an unattainable ideal.cal concerning the whole approach to justice that has dominated analytical philosophy since Rawls' seminal A Theory of Justice. Sen critiques John Rawls, Ronald Dworkin, G. A. Cohen and other left-liberal thinkers on grounds of the impossibility of perfect justice. However, the real problem with these thinkers is that they believe justice is a matter of the distribution of wealth and income. This is not at all what justice means to most voters and citizens, who rather follow Robert Nozick in believing that justice consists in individuals getting that to which they are entitled by virtue of legitimate production, exchange, and inheritance. Serious thinkers must find the idea that ideal justice consists of complete social equality to be deeply repugnant. In this view, justice is not fairness at all. Nevertheless, we can accept an entitlement view of justice and yet recognize that poverty, not some abstract inequality of income and wealth, is a real enemy of social wellbeing, not because it is unfair but because it is a preventable disease, like malaria, that we should not permit to inflict the young and innocent. Full social equality, then, is not a lamentable unattainable ideal state, but rather a thankfully unattainable monstrosity because it presupposes the absence of personal accountability and effectivity. Sen's critique of the Rawlsian tradition is anemic and trivial. For this reason I find this book deeply disappointing. It is altogether too genteel in dealing with a philosophical tradition that deserves to be bitterly criticized, not gently reproached for its excessive zeal in the pursuit of an unattainable ideal.

Natural Moralities: A Defense of Pluralistic Relativism

This is what moral philosophy should be, but rarely is — Rating: 5/5

In every language with which I am acquainted, normative statements are treated as having truth-values, just as factual statements about the natural world. Because normative statements do not refer to natural phenomena, and hence cannot be supported or contradicted by empirical observation, positivist

philosophers (e.g., A. J. Ayer and the early Ludwig Wittgenstein) hold that applying truth values to them is simply a naïve error. To say \\"giving to charity is good\\" does not mean \\"it is true that giving to charity is good,\\" but rather something like \\"hooray for giving to charity,\\" or \\"I believe in giving to charity.\\" If this were so, then it would be possible to disagree about the nature of the good, but it would be impossible to adjudicate such disagreements using the philosopher's tool of reasoned argument. Perhaps for this reason, most philosophers have mostly rejected the positivist treatment of ethics in favor of alternatives in which moral statements, in accord with common usage, do indeed have truth values.

So we can indeed argue about which moral view are true and which are false. This creates another problem. Let us assume that we never accept a moral belief unless we deem it true. Are we then obliged to respect the moral beliefs of individuals with different beliefs, knowing that they are false? If I believe that shaving the day after my father's death is a filial impiety, and you believe that it is not, must I tolerate your false belief, or am I obliged to correct your error, or to persecute you for fostering false moral beliefs? Most philosophers seem to believe that moral disagreement is akin to scientific disagreement: the truth is very hard to attain, popular expressions of moral truth are likely to be naïve and wrong-headed, bigotry and persecution of those with differing moral sentiments is a poor way to settle disagreements, but through sustained intellectual and reasoned discourse, moral truth can be attained.

Thus it is that most philosophers hold to ethical theories that are \\"universalist,\\" in the sense that there is only one true set of moral principles, and it is the philosopher, as expert in the field, to discover the content of that true set of moral principles. If, for instance, we discover that cannibalism is morally prohibited, the fact that humans have practiced cannibalism for tens of thousands of years is no more a problem than our believing the big bang theory of the origins of the universe, despite the fact this theory corresponds to no origins story in any known society. Moral philosophers, like natural scientists, thus tend to hold a \\"universalist\\" meta-ethical theory, in which their role is to discover moral truths and convey these truths to the naïve public, whose members lack the expertise to arrive at these truths unaided.

The justification of the physicist's arrogance in believing to have a access to truth unavailable to the casual folk theorist is the success of physical theory in developing an increasingly powerful and universally accepted set of physical principles. Unfortunately, the philosopher has no such justification for asserting a special relationship to moral truth. There is no cumulative moral philosophy. Aristotle and St. Thomas Aquinas are read today not just as historical reliquia, but as living document from which new insights can be drawn. The succession of great moral philosophers are read and appreciated in much the same way as the great novelists or painters---each has his own brilliant insights, ignored or contradicted by the others.

Perhaps, then, moral universalism is not true. Perhaps folk morality is qualitatively different from folk physics or folk psychology---quaint fictions that are trumped by the findings of the experts. Perhaps some form of moral relativism, in which individuals can disagree on the content of morality in a manner that cannot be adjudicated through a careful examination of the evidence or becausethey differ concerning matters of fact that, if resolved, would lead their moral differences to evaporate. This is a highly unpopular idea among philosophers, because then it is not clear if there is any role for a reasoned investigation of morality at all. De gustibus, as the saying goes, non est disputandum. More important, if we relinquish the notion of a universal morality, then must we not accept a unvarnished moral relativism in which there is no real right or wrong, but only differences in what people believe to be right or wrong. And does it not follow from this that since our moral beliefs have no status privileged by our superior expertise, education, or scholarly dedication, are we not obliged to tolerate moral beliefs and practices that we consider vile, abhorrent, and disgusting? The answer philosopher David Wong gives to these questions in Nature Moralities is in the negative.

Wong is well aware of the low standing any sort of moral relativism holds in his profession. \\"Moral relativism,\\" he says in the opening sentence of the book, \\"is overwhelmingly a term of condemnation, frequently of scorn or derision...\\" Wong's alternative to universality, which he calls pluralistic relativism, holds that \\"there is no single true morality. However, it recognizes significant limits on what can count as a true morality.\\" (p. xii) The reason for these limitations is that morality is

the product of the evolutionary history of our species, serving the role of social cohesion by endowing all, or at least most, members of a group whose survival depends on cooperation with a set of common commitments, expectations, and conventions that promote group solidarity. Wong's explanation is clearly dependent upon the facts of human existence, and is far from the sort of empirical blindness that is favored by many philosophers. Wong shows in this book that he has read widely and wisely in many areas of the social and behavioral sciences, and is often as inspired by a scientific finding as by a brilliant philosophical argument.

Wong shares with Gilbert Harman, Philippa Foot, and a few other philosophers, a naturalistic conception of morality. Because I am a behavioral scientist, this naturalistic conception likely accounts for my virtually complete agreement with Wong as to the nature of human morality. However, I would have chosen different grounds for my basic support of pluralistic relativism. Where Wong (like most philosophers) spends most of the book discussing the relationship of his views to that of other philosophers, I would have spent more time outlining the content of the moral universals that prevent relativism from degenerating into subjectivism or conventionalism. This was done years ago by Donald Brown in his brilliant book Human Universals (1991), which is an anthropological investigation of communalities and differences among moral rules across dozens of societies. I would also stress the commonalities in the moral teachings of the great religions of the world, deriving from the fact that the religions that survived the process of Darwinian cultural evolution did so because they stressed social harmony and cohesion. For an exposition of this theme see, for instance, David Sloan Wilson's Darwin's Cathedral: Evolution, Religion and the Nature of Society" (University of Chicago Press, 2003).

Wong's central defense of the proposition that there exist more than one true morality is the existence of moral ambivalence, which is the fact that we can disagree with someone about a moral point and yet respect the position of the person with whom we disagree. I do not have much sympathy with this defense. I can disagree with someone whom I respect, but that does not mean I must recognize some validity to their position. I can also disagree with a position that I believe is wrong but I respect because I also believe that I may be proved wrong and my opponent right. But I do not respect a position that I know is wrong. I actively disrespect such a position.

I believe that pluralistic relativism is best defended by stressing the naturalistic aspect of human morality. Morality, like language, is the product of the coevolution of genes and culture that characterize our species. Both the universality of core human moral universals and the diversity of concrete moral practices are the product of social evolution and social dynamics. The idea that there is an ideal moral realm of which concrete ethical systems are more or less imperfect realization simply has no credible support in either Reason, science, or history.

I hope there is a bright future for this and related efforts to bring moral theory from Kantian and utilitarian ruminations to the realm of the real. I find little the moral universalists say to be of great interest, except that their critiques of one another are often cogent and insightful. By contrast, it seems to me that the sort of virtue theory first proposed by Aristotle and revived in recent years by G. E. M Anscombe, Philippa Foot, Martha Nussbaum and Amartya Sen to be of great philosophical importance, and interacts fruitfully with pluralistic relativism.ientific finding as by a brilliant philosophical argument.

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The Real Wealth of Nations: Creating a Caring Economics

Inspiring, Well Reasoned, Knowledgeable in Many Subjects — Rating: 4/5

Eisler presents a well thought-out model for a better society based on an alternative social and political philosophy. Eisler portrays her alternative as `economics,' going beyond existing models of capitalism and socialism to \\"ensure that human needs and capacities are nurtured and our natural habitat is conserved.\\" (p. 148) This new economy will be based on moving from a \\"domination\\" to a \\"partnership\\" economy. In my review, I want to suggest, first, that hers is in fact best seen as an alternative society based on modern liberal democratic capitalism. I want to suggest, finally, that while Eisler's passion and dedication are admirable, and while it would be totally wonderful if many, many more people shared her vision and worked toward its realization, she is in fact pushing an at least partially open door: history has been, and hopefully will continue to be on her side. I want to suggest, third, that her critique of the current \\"domination economy\\" is severely overdrawn and inaccurate. The world would be a much better place, I believe, if the institutions of liberal democratic capitalism were to spread to today's backward societies based on patriarchal, caste and tribal ties with corrupt and predatory governments. We have the luxury of trying to do better than the domination economy, but we are, as it were, standing on the shoulders of a giant and beating about the ears. On a personal note: my grandparents fled such bigoted and predatory pre-\\"domination economy\\" societies to come to America's \\"domination economy,\\" where hard work and a type of caring not recognized by Eisler---the hard work and sacrifice of patriarchal men with the testosterone-imbued fortitude of my grandfather-- made it possible for my generation to countenance and even implement a more caring partnership society.

Eisler offers five foundations for a partnership society. First is a \\"full-spectrum economic map\\", in which \\"the life-supporting activities of households, communities, and nature\\" are added to the traditional measure of market GDP in assessing our economic progress. Second is \\"a set of cultural beliefs and institutions that value caring and care-giving.\\" Third is \\"caring economic rules, policies, and practices\\" that promote a more nurturing economy. Fourth is an expansion of social indicators from GDP to an alternative that includes measuring improvements in caring and the natural environment. Finally, we need \\"economic and social structures that support partnership rather than domination.\\" (p. 4)

I understand and approve of all of these principles, but as far as I can see, none of these suggests changes conflict with or go beyond capitalist economic institutions in any way. For instance, Eisler

maintains that firms that embrace a caring mentality and institute partnership-type policies in the place of domination policies actually do better than traditional firms. If this is true, then their practices will be copied by traditional profit-seeking firms, provided the cultural changes she espouses are widely instituted in the larger society. Eisler does espouse some policies that I think are inefficient, infeasible, and otiose, such as \\"fair wages\\" in the form of \\"equal pay for equal work.\\" This surely does not go beyond capitalism, but it would create vast bureaucracies in the executive or judiciary branch of government that could not interface efficiently with labor market institutions. Similarly, Eisler laments the fact that day-care workers get no training and earn $10/hour, while highly trained plumbers and electricians earn $60/hour. In fact, the idea of increasing the entry qualifications for day-care workers will limit their supply and raise the cost of day-care to working parents. A better alternative is just to subsidize the wages of care workers. This will increase their supply and their well-being, while lowering the costs of day-care to parents. Of course, the taxpayers will bear the cost, but if the cultural changes she proposes kick in, taxpayers will endorse this policy. Another suggestion Eisler endorses is \\"time dollars\\" where community members exchange services using i.o.u.'s issued by the community rather than money issued by the government. If this worked well, it would simply be a superior, community-enabling form of capitalist exchange. But, it is unlikely to work well, except in very restricted cases (e.g., baby-sitting). It has been tried, and not taken off, many times over the past two centuries. Finally, she endorses \\"social entrepreneurs\\" (p. 209), who combine the profit motive with the ideal of contributing to the public good. I also endorse social entrepreneurs and think there should be, and could be, more of them. There is nothing going beyond capitalism, however, involved in the concept of social entrepreneurship.

Eisler makes the mistake of faulting economic theory for crimes the theory may have committed fifty years ago, but surely no longer commits. She insists that neoclassical economics is \\"neoconservative,\\" and preaches laissez-faire, free-market economic institutions. This is just false. Modern economic theory analyses both the strength and weakness of markets and both the strength and weaknesses of government regulation. Market weaknesses are called \\"market failures,\\" and there is a whole list of them that every economist learns in the first year of graduate school. There are also \\"state failures,\\" because political power is rarely exercised altruistically on behalf of the public good, and interventions, unless carefully crafted and render accountable to the public, are just as likely to make things worse as better, and to line the pockets of the powers-that-be in the process.

Eisler could be more careful in her critique of how competitive markets work, although she is not really that bad. One faux pas is her analysis of the unwillingness of pharmaceutical companies to research birch bark as a cure for herpes. Because birch bark can't be patented, she says (p. 176) big pharma wouldn't touch it. In fact, if the treatment were really successful, the birch trees of the world would be exhausted in a few weeks with the great demand for bark. It is not birch bark, but one of its chemical ingredients, that has the medicinal effect. The company that isolates the effective constituent and synthesizes it can patent the synthetic product, which may be produced in great quantities without harming the trees.es kick in, taxpayers will endorse this policy. Another suggestion Eisler endorses is \\"time dollars\\" where community members exchange services using i.o.u.'s issued by the community rather than money issued by the government. If this worked well, it would simply be a superior, community-enabling form of capitalist exchange. But, it is unlikely to work well, except in very restricted cases (e.g., baby-sitting). It has been tried, and not taken off, many times over the past two centuries. Finally, she endorses \\"social entrepreneurs\\" (p. 209), who combine the profit motive with the ideal of contributing to the public good. I also endorse social entrepreneurs and think there should be, and could be, more of them. There is nothing going beyond capitalism, however, involved in the concept of social entrepreneurship. Eisler makes the mistake of faulting economic theory for crimes the theory may have committed fifty years ago, but surely no longer commits. She insists that neoclassical economics is \\"neoconservative,\\" and preaches laissez-faire, free-market economic institutions. This is just false. Modern economic theory analyses both the strength and weakness of markets and both the strength and weaknesses of government regulation. Market weaknesses are called \\"market failures,\\" and there is a whole list of them that every economist learns in the first year of graduate school. There are also \\"state failures,\\" because political power is rarely exercised altruistically on behalf of the public good, and interventions, unless carefully crafted and render accountable to the public, are just as likely to make things worse as better, and to line the pockets of the

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Why Not Socialism?

Read this and you will know why not — Rating: 3/5

Gerald Allan Cohen was a Marxist political philosopher at All Souls College, Oxford. He was a curious combination of rigorous analytical thinker and yet supporter of virtually unsupportable Marxian doctrines, including an economically determinist version of historical materialism, and a view of human nature according to which Marx's 1875 Critique of the Gotha Program doctrine \\"From each according to his ability, to each according to his need.\\" I never met Jerry (as he was called), although he had close intellectual exchanges with several of my closest colleagues, including John Roemer, Jon Elster, and Samuel Bowles. At the cost of being uncharitable to a keen intellect, I suspect that his studied ignorance of standard social and psychological theory, common among philosophers of the mid-Twentieth century, who did not want their judgments to depend on empirical facts, accounts for his ability to spout socially bizarre theories in a perfectly logical and reasonable manner.

This little book---and I do mean little, being about 3% to 10% as long as your usual academic offering---is Cohen's last word on the subject of socialism published before his death. Cohen shows no trace of the historical materialism he formerly, and brilliantly, espoused, and he does not believe that the modern economy is conducive to a socialist alternative. Rather, Cohen argues that markets are morally offensive institutions that most people would be happy to get rid of if they could figure out some alternative compatible with the standard of living we are accustomed to in advanced market societies. \\"The market\\" says Cohen, \\"is intrinsically repugnant...Every market, even a socialist market, is a system of predation.\\" (pp. 78,82)

In place of the market, Cohen celebrates the caring and voluntary mutual aid that occurs in small groups of friends (he never mentions family), and believes this can be extended to a community of strangers as well. He calls this \\"communal reciprocity.\\" (p. 39)

Cohen's distaste for markets is that market competition destroys community and undermines egalitarian principles. In place of our natural feelings for helping one another to the best of our ability, market competition fosters selfish greed and quashes human compassion. Cohen recognizes two guiding principles for socialism: an egalitarian principle and a community principle. He distinguishes three levels of egalitarianism. Bourgeois egalitarianism eliminates arbitrary social restrictions on occupying social positions (e.g., class, caste, or race). Left-liberal egalitarianism eliminates accidents of birth to institute equality of opportunity independent of social class or quality of family life. Radical, or socialist egalitarianism, which Cohen prefers, eliminates differences in natural ability. Inequality can still exist because of poor judgment or just luck. Much of such inequality would be corrected according to his principle of community solidarity, which requires a high degree of equality of outcome.

Cohen is far from optimistic about the feasibility of the sort of socialism he espouses. \\"There are two contrasting reasons,\\" he argues, \\"why society-wide socialism might be thought infeasible...the limits of human nature and the limits of social technology.\\" (pp. 54-55) Cohen concludes that there is no problem with human nature, since people are sufficiently generous under the appropriate conditions. He observes that \\"doctors, nurses, teachers and others do not...gauge what they do in their jobs according to the amount of money they're likely to get as a result.\\" (p. 59) He argues that this is not because of some special properties of those who work in these professions, but rather because the culture of medicine and teaching are humanist rather than capitalist. There is no reason, he believes, why such culture could become a general characteristic of work in a socialist community.

Rather than lamenting the incompatibility of socialist community and human nature, Cohen faults our meager social technology; there is simply no known machinery for harnessing natural human generosity. He calls this an \\"insoluble organizational design problem.\\" \\"In my view,\\" he remarks, \\"the principal problem that faces the socialist ideal is that we do not know how to design the machinery that would make it run.\\" (p. 55)

I think there are two problems with Cohen's argument. First, there is a reason why we lack the organizational institutions that harness human generosity, and it has to do with a side of human nature that Cohen does not recognize. There is a great deal of heterogeneity among people in the degree to which they privilege the personal, including self and family, over the social. Everyday observation, reinforced by a huge body of empirical evidence---see my book, Bounds of Reason (Princeton, 2009) for details---that unless there are safeguards against the free-rider tendencies of the selfish, the natural tendency for the majority to cooperate will be undermined, and cooperation will unravel. Moreover, the larger the group, the harder it is to identify and punish the free-riders, even though most people are willing to incur personal costs to do so. Markets work because they discipline firms, who then discipline workers, thus solving the free-rider problem. Moreover, markets discipline firms by forcing them to compete and therefore reveal to the public exactly what are the limits of the possible in satisfying consumer needs and using technology efficiently. The knowledge of production possibilities unleashed through market competition cannot be revealed in any other way that we know of.

A second problem with Cohen's argument is that his personal social values are not likely to be shared by more than a small fraction of citizens of advanced capitalist economies, and this is not because of the hegemony of \\"capitalist ideology,\\" but rather because humans have goals that conflict with, and often are more salient than, egalitarianism and community values. For instance, family is virtually universally, in every successful society, more salient than community. In every known society, people favor kin over non-kin, and their commitment to strangers is far weaker than their commitment to family members. In advanced liberal democratic societies, the ties of family by no means eclipse the feeling people have for their compatriots and the members of their residential and work communities. But no analysis of the good society can avoid dealing with the relationship between our public and parochial motivations.

A second arena of moral disagreement is the importance of social equality as a goal of the good society. There is a certain fraction of the population that takes social equality extremely seriously, but a far larger fraction, I believe, places concerns with procedural justice far above those of equal outcomes. The idea that one's family should not be able to affect the social success of one's children conflicts deeply with the natural family orientation exhibited by humans in almost every social setting. The notion that people should not be allowed to benefit from their natural capacities is equally repugnant to the individualist values upon which contemporary democratic ideals and support for human rights are based.

Cohen celebrates one side of human capacities, the side that cherishes affiliation and group solidarity, but seems completely unaware of the equally important side in which individuals strive for excellence, seek victory through competition, and spurn the mass psychology of the crowd in order to innovate and create. The idea that competition, even market competition, is just predation does not ring true at all, even when there are serious material and social consequences for both winners and losers.ty of socialist community and human nature, Cohen faults our meager social technology; there is simply no known machinery for harnessing natural human generosity. He calls this an \\"insoluble organizational design problem.\\" \\"In my view,\\" he remarks, \\"the principal problem that faces the socialist ideal is that we do not know how to design the machinery that would make it run.\\" (p. 55)

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A Theory of Case-Based Decisions

Nice theme with interesting variations---a real contribution — Rating: 4/5

Itzhak Gilboa and David Schmeidler, Theory of Case-Based Decisions (Cambridge University Press, 2001)

In his path-breaking and definitive axiomatization of Bayesian decision theory, Leonard Savage (The Foundations of Statistics, 1954) was careful to limit the proposed validity of his axioms to a \\"small world\\" context where the decision-maker is confident of the stochastic and welfare-enhancing properties of the various alternatives open to him. Gilboa and Schmeidler have no problem with this theory, but offer an alternative that is useful when dealing with decision problems that lie outside Savage's \\"small world.\\" Their examples range from the mundane (buying a new car and trading in an old one, where the relevant probability distributions are unknown) to the momentous (military intervention into a civil war situation).

Gilboa and Schmeidler's alternative, given a decision problem p, is to assume the decision-maker has a repertoire M of \\"cases\\" [q,a,r], where q is another decision problem, a is the action taken in that case, and r is the result of the action. The decision-maker then forms a subjective \\"similarity\\" s[p,q], a positive number, of the current problem p with the problem q, and set the value U[a] = sum s[p,q]u[r], where u[r] is the utility of the result, and where the sum is taken over all cases [q,a,r] in the repertoire M. Finally, the decision-maker chooses the action a that maximizes U[a].

Gilboa and Schmeidler's alternative, for which they supply a plausible axiomatization, is especially useful because it dispenses with the complete knowledge assumption of the Bayesian theory in favor of

the more realistic knowledge embedded in the repertoire M, which could be very small or very large, but is expressly limited by what the decision-maker actually knows.

I especially like their alternative because it is easily extended to a \\"social repertoire\\" M, in which cases include not only those experienced by the decision-mater, but also those experienced by others with whom the decision-maker is acquainted. This possibility repairs a central weakness in the Bayesian decision model, that of its failure to use the choice experience of others in updating one's own knowledge base. While Gilboa and Schmeidler do not explicitly address this possibility, their examples do. Indeed, in their example of buying a new car, they assert that Mary's expectation of getting $4000 for her old car came from (a) the \\"similarity\\" of her old car to John's old car, and (b) the fact that John got $4000 as a trade-in on his old car. Similarly, Mary expect to get her new car for $9000 because that's how much her friend Jim paid for his \\"similar\\" new car. She also believes she can borrow the $5000 difference from a bank, because her friend Sarah, who is in \\"similar\\" financial circumstances, did just that the previous week.

The only additional point missing from Gilboa and Schmeidler's account of Mary's car buying is that she must also assess the utility of the new car, and she will do that not only by reaching back into her own past experience, but also by assessing how much others \\"like her\\" in some important way have liked this car or \\"similar\\" cars. In general, the social dimension in Bayesian decision-making should extend to the assessment of utilities as well as probabilities. This is easily incorporated into Gilboa and Schmeidler's case-based decision theory.

Gilboa and Schmeidler stress that theirs is not contradictory to Bayesian theory. Indeed, if we interpret \\"similarity\\" as the \\"probability\\" that the act a will lead to the result r, then case-based leads to Bayesian decision theory, where the choice set is limited to what the decision-maker actually knows.

One of the most intriguing possibilities is that the repeated application of case-based decision-making, under appropriate conditions, might lead to standard Bayesian choices in the long run. This is especially important because, although humans are excellent Bayesian decision-makers on the level of language acquisition, word recognition, and the like, they are notoriously poor formal decision-makers, as has been repeatedly shown by Daniel Kahneman, Amos Tversky, and their colleagues. Because in real-life, most decisions depend on assessing how others have fared making \\"similar\\" decisions rather than on a purely subjective expected utility maximization, case-based reasoning may lead to quasi-Bayesian outcomes in the long run.decision-makers on the level of language acquisition, word recognition, and the like, they are notoriously poor formal decision-makers, as has been repeatedly shown by Daniel Kahneman, Amos Tversky, and their colleagues. Because in real-life, most decisions depend on assessing how others have fared making \\"similar\\" decisions rather than on a purely subjective expected utility maximization, case-based reasoning may lead to quasi-Bayesian outcomes in the long run.

Development as Freedom

Freedom, Yes. — Rating: 4/5

Sen's deepest enemy in this book is the so-called \\"Lee thesis,\\" attributed to Singapore prime minister Lee Kuan Yew, to the effect that in the Third World, those political systems that suppress democracy and civil liberties are likely to grow faster. Democracy and political rights, according to the Lee thesis, are luxuries that must await affluence. By contrast, Sen asserts that freedom is the very goal of economic development, and economic development will not occur without a parallel development of economic freedom.

Sen's argument was formulated in the mid-1990's, when there was some serious question as to whether authoritarian development, as in Singapore and China, was indeed superior to democratic development, as in India. Some ten or fifteen years later, the attractiveness of the Lee thesis has waned. Without democracy and political rights, governments inevitably become corrupt and inefficient, the result being neither development of freedom or wealth. We must admire Sen for staking out in a completely uncompromising way a reasonable position on the relationship between freedom and development. Sen

stresses not only the evils of corruption and the short-sightedness of thinking of wealth in purely material terms, but also the intensely liberating effects of gender equality in not only empowering women, but in undermining the tribal and patriarchal roots of backwardness.

This book reads like an official United Nations document. It is formal and repetitive. The book could be cut to 80 pages instead of its current 366, and it would be an exciting read. Sen is also a bit tedious and pompous, ever playing the role of the wise patrician. Nevertheless, it is a wonderful work that deserves to be respected.

Mistakes Were Made (But Not by Me): Why We Justify Foolish Beliefs, Bad Decisions, and Hurtful Acts

Raises lots of interesting questions — Rating: 3/5

Probably 90% of the readers of this book already know the message, but if even 10% learn something new, it will have been worth researching, writing, and publishing it. The authors' main point is that when you make a mistake you should 'fess up, and lots of people don't. Why should you 'fess up? Because (a) if people know that you are the one who made the mistake, you are just compounding the mistake with loss of reputation; (b) you can't correct your behavior unless you admit it, not just to yourself, but to others.

The book actually offers no solid evidence that you are better off confessing your sins. My own feeling is that lots of mea culpa is really boring and self-serving. For instance, when a top tennis player loses a big match, it is sniviling to say \\"I wasn't on my game today---it was all my fault.\\" The correct thing to say is \\"My opponent had a great day. There was nothing I could do to win.\\" You should say this whether you were or were not on your game.

Despite the authors' hammering away at the 'fess up message, I find it boring to hear people incessantly talking about their mistakes. \\"My brother died, and I was so mean to him. I never got a chance to apologize. My life is ruined because of this.\\" I don't wanna hear it, friend.

The authors blame the unwillingness to admit mistakes to Leon Festinger's cognitive dissonance (Aronson worked with Festinger many years ago). I don't believe it for a moment. There are personality types that cannot admit they are ever wrong (narcissitic, authoritarian, and super-arrogant personalities).

The book has lots of nice examples and is well-written. In a way it is an example of the modern \\"Google book\\": find a theme, Google it, then write down the top 1,000 relevant links that come up, and by gosh, you've got a book!

Filthy Lucre: Economics for People Who Hate Capitalism

Great at Telling us What Not to Do; Poor at Telling us What To Do — Rating: 4/5

Joseph Heath is a philosopher who has studied a lot of economics. His exposition of economic principles is highly accurate, and he delivers his message with a rare sense of humor. Heath's natural tendencies are towards left-wing anti-capitalism, but experience has taught him the pitfall of the proposed alternatives to the capitalist market-place. He wants us all to get the message not so we will stop seeking a better world, but rather so that we will seek a possible rather than an impossible world.

\\"Economic illiteracy on the left,\\" says Heath, \\"leads people of good will to waste countless hour promulgating or agitating for schemes and policies that have no reasonable chance of success or that are unlikely to actually help their intended beneficiaries." (p. 5) He gives the example of a documentary on worker cooperatives in Argentina. \\"While the material is quite affecting and some of the footage is remarkable, the events of the film are presented in what can only be describes an intellectual vacuum...You would never know, watching the film, that there is an extensive economic literature on the

subject of cooperatives---written by socialists and nonsocialists alike---dating back over a century, that raises serious doubts about the possibility of structuring an economy along these lines.\\" (p. 5)

Heath begins by asserting that there has been a real \\"end of ideology\\" narrowing-down in the past several decades of substantive disputes concerning how an economy should be run. \\"There is a stark difference,\\" he notes, \\"between [the current] ethos and a time when mild-mannered, middle-class people actually thought it might be helpful to tear down various pillars of Western civilization and rebuild everything from the ground up.\\" (p. 23) This is precisely the case, in my estimation. And for this reason, the standard ideologies of the Left and the Right are irrelevant and misleading in attempting to deal creatively with contemporary economic problems. \\"The scope of state action,\\" Heath observes, \\"and the appropriate level of taxation cannot be settled at the level of political ideology; they now depend upon the answer to empirical questions concerning the occurrence and severity of collective action problems and the effectiveness of government in resolving them.\\" (39) Oh, if only our ideologues of Left and Right only understood this, and turned their impressive intellect and social commitment to solving real problems in really solvable ways!

Heath is duly critical of traditional economic theory's hostility to the notion that morality plays a role in the economy. \\"Levitt and Dunbar,\\" he writes, \\"repeatedly draw on an invidious contrast between \\"morality\\"--described as \\"the way we would like the world to be\\"---and \\"economics\\"---the study of how the world actually is. The message is pretty clear: Morality is for girls. Economics is for tough guys, who are able to stare the world in the eye and come to terms with the things are.\\" (p. 48) Even more pithy, he writes \\"Social scientists who take morality seriously are called \\"sociologists,\\" whereas those who think it's all a scam call themselves \\"economists.\\" Of course this is somewhat tongue-in-cheek because the rise of behavioral economics in the past two decades has returned morality to the economy in a big way, as Heath spends the rest of the chapter assuring us.

Some of what Heath tells us in this book is so obvious that it is painful to recognize it bears repeating. Here is Heath on so-called Tax Freedom Day: \\"Every year, in dozens of countries around the world, right-wing anti-tax groups calculate and the solemnly declare a \\"Tax Freedom Day,\\" in or to let people know what day the `stop working of the government and start working for themselves.' ...You're not really `working for the government' when your kids are going to public school, you're commuting on public roads, and you expect the government to pay your hospital bills when you're old and infirm. You're simply financing your own consumption.\\" (p. 90)

To explain international trade (against the protectionists and the anti-globalization people), Heath uses an explanation due to David Friedman: \\"There are two ways for Americans to produce automobiles: they can build them in Detroit, or they can grow them in Iowa....simply put the wheat onto ships and sent them out into the Pacific ocean. The ships come back a short while later with Toyotas on them.\\" (p. 112)

Heath stresses correctly throughout the book that there are no known alternatives to capitalism. He doesn't tell us to stop looking, but he is completely intolerant of those who offer us warmed-over, historically failed, solutions. \\"Here's a question that causes proponents of worker co-ops some measure of discomfort: Given that they enjoy massive tax advantages in many jurisdictions, why are there not more of them? Furthermore, why are supplier and consumer cooperatives not more common?\\" (p. 190) The answer, of course, is that they are very inefficient except in certain small niche situations (e.g., law firms are generally partnerships).

Heath's analysis of wages is generally accurate and informative. The arguments are rather complex here, but he strongly supports the notion that trying to achieve social equality through mandating particular wage configurations (e.g., equal pay for equal work, \\"fair trade\\" coffee) is a losing proposition because such measures have unintended consequences that work against the egalitarian goals of the policies. Heath believes that one of the most anti-moral aspects of capitalism is that jobs are not paid their \\"moral worth,\\" but rather what the market will bear. Heath identifies \\"what the market will bear\\" with how easily a worker can be replaced. Thus, the men that remove Heath's garbage and trash work a lot hard and for less intrinsic satisfaction than Heath does as a philosopher, but they earn far less. Heath argues that nothing can be done to correct this violation of elementary justice without causing even more violations of justice as well as promoting serious economic inefficiencies. This is correct.

Heath overstates this immorality, however. He repeatedly asserts that wages do not reflect the value of what workers create. This may be true if we use a concept of \\"intrinsic\\" value that deviates from market value. But if he means wages deviate from the market value of what the worker creates, this is essentially wrong. He supports the notion that wages are disconnected from the value of the product of labor by noting that a factory worker in a poor country might make 1/100 the wage of the same worker in a similar factory in a rich country, yet they produces exactly the same good. This may be true, but their marginal productivity could be very different. When the wage is very low, labor will be used very intensively and hence the marginal product of labor will be low. In equilibrium, the marginal product of labor just equals the wage. In the rich country, wages are very high so labor is used \\", and its marginal product will be high---again equal to the wage.

In his treatment of poverty, Heath faults the Left for believing that \\"the only thing wrong with poor people is that they have no money.\\" (p. 259) \\"Would that this were true,\\" he notes, \\"since then we would know how to fix their problems. In reality, poverty tends to be a symptom, rather than a cause, of a much deeper set of problems. His treatment of this issue is very incisive and his use of the data is excellent. For instance, he notes that \\"There are empirical studies that examine how people handle large lump-sum cash transfers---such as lottery winnings or bequests---and the results are pretty devastating. A 2001 study in the United States suggested that about 70% of people who receive large lump-sum payments spend it all in the first two years.\\"

My only critique of the book, and it is a seriousone, is that Heath gives the impression that serious social problems and dislocations associated with economic growth have no cures at all. \\"This book lacks a happy ending\\" Heath asserts in the closing pages. The fault lies with Heath, not our economic system. It is hard to think of a serious economic problem, including poverty, global warming, environmental destruction, government corruption, gender inequality, and so on, that cannot be seriously and vigorously addressed and cured without imposing unacceptable economic burdens on people. This does not mean that such solutions are easy to carry out. They are not. But, they are difficult to achieve because there are powerful groups that gain from the status quo and will fight vigorously against any change that impinges on their prerogatives. The struggle for a better world is ineluctably a deeply divisive struggle of progressive grass-roots movements against the illegitimate powers that deprive people of what they need to live decent and productive lives. Heath's book is useful because he tells us some ways not to pursue this struggle, but it is demoralizing because he does not tell us what to do instead.stice without causing even more violations of justice as well as promoting serious economic inefficiencies. This is correct. Heath overstates this immorality, however. He repeatedly asserts that wages do not reflect the value of what workers create. This may be true if we use a concept of \\"intrinsic\\" value that deviates from market value. But if he means wages deviate from the market value of what the worker creates, this is essentially wrong. He supports the notion that wages are disconnected from the value of the product of labor by noting that a factory worker in a poor country might make 1/100 the wage of the same worker in a similar factory in a rich country, yet they produces exactly the same good. This may be true, but their marginal productivity could be very different. When the wage is very low, labor will be used very intensively and hence the marginal product of labor will be low. In equilibrium, the marginal product of labor just equals the wage. In the rich country, wages are very high so labor is used \\", and its marginal product will be high---again equal to the wage. In his treatment of poverty, Heath faults the Left for believing that \\"the only thing wrong with poor people is that they have no money.\\" (p. 259) \\"Would that this were true,\\" he notes, \\"since then we would know how to fix their problems. In reality, poverty tends to be a symptom, rather than a cause, of a much deeper set of problems. His treatment of this issue is very incisive and his use of the data is excellent. For instance, he notes that \\"There are empirical studies that examine how people handle large lump-sum cash transfers---such as lottery winnings or bequests---and the results are pretty devastating. A 2001 study in the United States suggested that about 70% of people who receive large lump-sum payments spend it all in the first two years.\\" My only critique of the book, and it is a serious one, is that Heath gives the impression that serious social problems and dislocations associated with economic growth have no cures at all. \\"This book lacks a happy ending\\" Heath asserts in the closing pages. The fault lies with Heath, not our economic system. It is hard to think of a serious economic problem, including poverty, global warming, environmental destruction, government corruption, gender inequality, and so on, that cannot be seriously and vigorously addressed and cured

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Luhmann Explained: From Souls to Systems (Ideas Explained)

Less boring than Luhmann, thank the Lord — Rating: 4/5

Niklas Luhmann was a student of Talcott Parsons, from whom he apparently learned only how to write impossibly vague and convoluted prose. I have found reading Luhmann extremely soporific, so I though perhaps this book might be refreshingly lucid and penetrating. Perhaps, I thought, if I could only stay awake, I could learn a lot from Luhmann. Alas, such does not appear to be the case.

The central epithet that applies to Luhmann's work is \\"vague.\\" Luhmann describes in great detail the intepenetrations of institutions and interactions in complex modern societies, but in no way does he analyze these higher-level aspects of social organization. Moreover, there are no human actors in Luhmann's narrative--all we find out is that people yearn for simplicity and the role of institutions is to reduce complexity to the point that the world is understandable.

Luhmann is more like an artist with words than a scientist. There is no way to test his theories, and his opinions are ideosyncratic and boring. If your teen-ager is bad, don't ground him; make him write an essay on the sociological theory of Niklas Luhmann.

Economics in One Lesson: The Shortest and Surest Way to Understand Basic Economics

A Bit of a Stretch, but Fun and Informative — Rating: 4/5

Henry Hazlett was a journalist and economist active during the heyday of Keynesian economics, roughly from the Roosevelt to Carter years. Hazlett was a classical liberal who railed continually against the reigning ideology of massive state intervention. Hazlett wrote Economics in One lesson in 1946, and was a weekly columnist for Newsweek for the next two decades. He wrote many books, but Economics in One Lesson has been the most popular, and is a real classic. Hazlett palled around with all the free-market gurus, including Hayek and von Mises, but he wrote in a simple and engaging style that was unknown in the Austrian school of economics.

Hazlett's `one lesson' is actually one sentence: \\"The art of economics consists in looking not merely at the immediate but at the longer effects of any act or policy; it consist in tracing the consequences of that policy not merely for one group but for all groups.\\" (p. 17) The book consists of applying this principle to 25 areas of economic policy. Several of these areas involve correcting very common economic fallacies, including the introduction of labor-saving machinery, tariff protectionism, saving inefficient industries, and government price-fixing.

Some of his applications, however, seem less clear-cut. Several chapters deal with a critique of Keynesian aggregate demand policies. While such a critique might be in order, Hazlett never addresses the problem of underutilized resources and the role of Keynesian policies in restoring full employment. This may be because the free-market analysis of the business cycle and depression cannot be handled by Hazlett's single principle. I believe he should have added that the market tends to full employment unless impeded by government interference and widespread anti-competitive collusion.

Others of his applications do consider the long-term costs of interventions, such as rent control and minimum wage laws, but does not seriously engage the reader in balancing the costs and benefits. My

own reading of the matter is that rent control has disastrous long-term consequences for a community but might be salutary for a short period of time while other measures to deal with the inequities of the housing market are put into place, but minimum wage laws have no long-term deleterious effects, except of course the possibility of entailing higher unemployment rates among the unskilled.

If you read the financial pages of the Wall Street Journal or The Economist, this book may not tell you anything you don't already know. But you might recommend it to your uniformed Uncle Ernie, or to your children who never get beyond the sports pages of the local newspaper. Tell them to take it all with a grain of salt, though; there's more to economics than this volume dreams of.benefits. My own reading of the matter is that rent control has disastrous long-term consequences for a community but might be salutary for a short period of time while other measures to deal with the inequities of the housing market are put into place, but minimum wage laws have no long-term deleterious effects, except of course the possibility of entailing higher unemployment rates among the unskilled. If you read the financial pages of the Wall Street Journal or The Economist, this book may not tell you anything you don't already know. But you might recommend it to your uniformed Uncle Ernie, or to your children who never get beyond the sports pages of the local newspaper. Tell them to take it all with a grain of salt, though; there's more to economics than this volume dreams of.

The Other America: Poverty in the United States

A Classic Masterpiece, still Relevant — Rating: 5/5

The Other America has been around for a very long time. I read it when it first came out in 1962, and did not like it at all, because its basic thesis is that poverty is the result of cultural pathology (except in the case of the elderly). At the time I was a radical SDS anti-poverty and anti-war activist, and our ideology was that the poor were exploited and discriminated against, and simply lacked money. We had nothing but contempt for the notion of a \\"culture of poverty,\\" because that implied that the poor were responsible for their own fate.

Well, I and my friends were very wrong. There is a culture of poverty and it accounts for much poverty, and this does not mean that we should ignore it because it's the poor's own fault. There but for the Grace of God go I, and you, dear reader, as well.

The deep accuracy and sensitivity with which Harrington portrays cultures of poverty ring as true today as a half century ago. The tragedy is that the War on Poverty and other anti-poverty measures of the last third of the Twentieth Century did not understand Harrington's analysis, and treated poverty as the simple lack of material resources. How could the Federal Government have build public housing complexes, true breeding grounds of social pathologies, after reading Harrington's depiction of urban poverty. What an unmitigated tragedy.

Many years ago I changed from criticizing the \\"blame the victim\\" mentality to embracing the notion that the victims should always blame themselves, because they are the only one who have the combined power and will to change things. When I am oppressed it is my fault and I better damn well figure out how to change the situation. Poverty in America will only be overcome when the culture of poverty is attacked, with vengeance and steadfastness, by the communities that are exploited by their pathological cultures of apathy and ignorance.

Conscience of a Conservative

Good on foreign policy, weak on domestic policy — Rating: 3/5

I have always liked Barry Goldwater's famous statement that \\"extremism in pursuit of liberty is no vice.\\" Many of my friends were horrified at this statement, which implies that we should seek victory over rather than coexistence with the Soviet Union. I deeply appreciate that Goldwater, Reagan, and other American conservatives rejected this pusillanimous position in favor of pressing a struggle for democracy over totalitarianism.

I have also been curious concerning the philosophical and moral foundations of various political philosophies, including liberalism and conservatism. This brought me to read this 1960 publication, which reignited the American conservative movement. The book was ghostwritten by Goldwater's speechwriter of the 1950's, J. Brent Bozell, Jr., and hence probably reflected Goldwater's positions better than Goldwater could have written himself.

\\"Conservatives,\\" says Goldwater, \\"take account of the whole man, while the Liberals tend to look only at the material side of man's nature.\\" (p. 6) This critique of American Liberals seems quite apposite to me. Of course, both Liberals and Conservatives value freedom and democracy, but Liberals seem to obsess over the distribution of income and wealth, as though more equal is always better, and have less income that someone else is prima facie unfair and personally debilitating. Contemporary American Liberals have taken to talking of family values and dropping the God-word whenever possible, but at least until Barack Obama, it has been unclear whether American Liberals have any really vision except redistributing wealth to the \\"middle-classes.\\"

Goldwater continually preaches the importance of \\"individual responsibility\\" in this tract, and faults the Left for wanting to place the responsibility for well-being on the state rather than the individual. He argues repeatedly that when state power is extended in such manner as bureaucracy replaces individual initiative, freedom will inevitably be compromised. Indeed, Goldwater's most important critique of increasing the size and the power of the state is that this will undermine individual liberties. I find this a curious and unsupportable claim. Of course, in the era of Communist totalitarian regimes, many would find this argument plausible. But it is not. I don't see any reason that the state could not assume an extensive level of power without compromising freedom, provided we are careful to limit the state's jurisdiction and to maintain a high level of freedom of the press and association. \\"Politics\\" says Goldwater, \\"is the art of achieving the maximum amount of freedom for individuals that is consistent with the maintenance of the social order.\\" (p. 7) This sounds plausible to me, and indeed eloquent. However, it is not clear that freedom is ever in conflict with the maintenance of social order.

Much of Goldwater's argument relates directly to political issues of the day (e.g., farm price supports, the role of labor unions, states' rights) and are unexceptional, if characteristically conservative (e.g., school segregation is evil, but we have no right to interfere with Louisiana and Mississippi). His general stance is \\"conservative\\" in a sense that today would render him politically irrelevant. \\"The government must begin to withdraw,\\" he asserts, \\"from a whole series of programs that are outside it constitutional mandate---from social welfare programs, education... and all the other activities that can be better performed by lower levels of government or by private institutions or by individuals.\\" (p. 44) Of course, who could possibly disagree? The problem is to identify exactly when such activities \\"can be better performed\\" by actors other than the Federal Government. I take this to be a case-by-case empirical question, not one of basic political philosophy.

Like virtually all contemporary conservatives, Goldwater is strong on freedom, a great critic of governmentbloat and pandering to special interests, but shows no compassion for the poor and has no vision of how we might create a society in which all members have the conditions necessary for them to develop their full potential as human beings. It is fine to say that people are responsible for their own well-being, but in what sense are poor children raised in debilitating circumstances responsible for their own failures? How about giving people a second chance? How about attacking the roots of poverty and social pathology? For Barry Goldwater these are not even interesting questions. They believe that simply cutting back on the welfare state will undermine the causes of persistent social pathology. I wish this were true, but it is not.bloat and pandering to special interests, but shows no compassion for the poor and has no vision of how we might create a society in which all members have the conditions necessary for them to develop their full potential as human beings. It is fine to say that people are responsible for their own well-being, but in what sense are poor children raised in debilitating circumstances responsible for their own failures? How about giving people a second chance? How about attacking the roots of poverty and social pathology? For Barry Goldwater these are not even interesting questions. They believe that simply cutting back on the welfare state will undermine the causes of persistent social pathology. I wish this were true, but it is not.

The Myth of the Rational Market: A History of Risk, Reward, and Delusion on Wall Street

Don't believe the title, but read the book — Rating: 5/5

A few years ago business and economics journalist Justin Fox went to the University of Chicago to talk to Efficient Markets guru Eugene Fama and behavioral economist Richard Thaler. He then went back to New York and wrote an article entitled \\"Is the Market Rational?\\" The headline for the article read \\"No, say the experts. But neither are you---so don't go thinking you can outsmart it.\\" Out of this encounter came this pretty mammoth, extremely informative, and lively written narrative of modern financial economics. If you read this book and take its arguments seriously, you can avoid the major pitfalls that doom some investors to penury. On the other hand, if you think you can beat the market through personal testosterone and shrewdness, don't bother buying the book. Save your money. You'll be on the bread line soon enough.

Saying that people are irrational and the market is irrational is of course now all the rage. But, if you think you can romp your way to financial security by taming your animal spirits and feeding off the market's irrationality, I assure you, and Justin Fox assures you, that such is not the case. \\"While behaviorists and other critics have poked a lot of holes in the edifice of rational market finance, they haven't been willing to abandon that edifice.\\" (p. 301). The reason is that the edifice is usually correct, although it can experience spectacular failures. The problem is that we don't know when it will experience these failures. We do know, or at least I strongly believe, that the failures are due to herd behavior of investors, which undermines the applicability of the normal statistical distribution, the mainstay of traditional financial theory.

The theory that financial markets are rational is called the Efficient Markets theory. It has two parts. The first is that unless the investor has some inside information not available to other investors, he cannot tell if stock prices are too low, too high, or just right. This means that on average you can't gain by using a general theory that says when stocks are over- or under-valued. The evidence in favor of this theory is overwhelming. If your stockbroker tells you he can pick winners, run as fast as you can. Indeed, the best policy is simply to invest in low-overhead mutual funds, and look VERY closely at the overhead. You'll do very well that way over the long haul. Trust me.

The second half of the efficient markets theory is that market imbalances cannot persist for more than a very short time, because as soon as they are discovered, they will be arbitraged away. There is fairly good evidence that this half of the theory is often wrong; the stock market, for instance, can suffer run-ups for long periods of time; everyone knows the market is out of balance, but no-one knows when to get off the gravy train. Moreover, a financial manager that fails when all others fail (e.g., after a melt-down) will not be blamed, but one who gets off the train too soon will be widely vilified and discredited. I recall that some economists were predicting a financial crisis a full three years before it actually occurred. This is okay for on-lookers, but real players cannot get off the train too soon. Whence the failure of the second half of efficient markets theory.

This book is an extremely valuable resource for the non-professional. There are no equations, but Fox gives one a pretty good idea of what assumptions lie behind a theory, and what arguments and data can be erected for and against it. Financial economics is about the most difficult area of economics because it uses very high-powered math, including stochastic differential equations. The huge amount of financial data makes it relatively easy to test financial theories, so we know fairly well what works and what doesn't. Fox does a totally convincing job of being balanced without ever being boring or simply taking the middle-road. The book deserves it widespread popularity.

Beyond War: The Human Potential for Peace

Great View of the Future, Questionable view of the Past — Rating: 4/5

Douglas Fry is professor of anthropology at the Abo Akedemi in Finland and an adjunct research scientist at the University of Arizona. His long-term interest is in understanding conflict and conflict

resolution. His goal in this book is to counter what he calls the \\"neo-Hobbesian\\" view that prehistoric human communities, overwhelmingly hunter-gatherer in organization, were overwhelmingly fierce and war-like. He does this mostly by reviewing what we know about existing simple societies of the hunter-gatherer type.

Fry's is a marvelous way to gain insight into human possibilities. We lived most of our evolutionary history in hunter-gatherer societies, so human nature is without doubt the product of the social relations of hunter-gatherer life. Fry shows, through analyzing a welcome variety of small-scale societies that virtually every such society has complex and sophisticated rules for avoiding and resolving conflict, and there are many such societies that simply do not engage in warfare. Fry therefore uses anthropological evidence to persuade the reader that warfare in human society is not inevitable, and that human nature includes many tools for the peaceful resolution of conflict.

A second claim Fry puts forward in this book is that warfare is in fact uncommon in modern-day hunter-gatherer societies, and probably was uncommon in our Pleistocene hunter-gatherer past, To show this, he provides much argument but little evidence. Moreover, my colleague Samuel Bowles has recently completed a careful study of the extent of war among both prehistoric and historic hunter-gathers and comes to the opposite conclusion (Samuel Bowles, \\"Did Warfare Among Ancestral Hunter-Gatherers Affect the Evolution of Human Social Behaviors?\\" Science 324:1293--1298. He included the eight ethnographic sources and the fifteen archeological sources containing the relevant data on the fraction of adult males that perished in war, as opposed to natural causes and intra-group violence. He found that the ethnographic and archeological sources indicated a mean between 12% and 16% war mortality.

Moreover, Bowles found that this level of warfare was sufficient to explain a high level of intra-group altruistic predispositions in humans. If Bowles is correct, and if there are no other factors promoting human altruism, we are in the curious position of being the most prosocial and cooperative species outside the eusocial insects precisely because we are among the most warlike of social species. I suspect there is a lot more to be said on this topic, and I suspect that there are sources of human solidarity and altruism beside war. However, there is every reason to believe that Fry is correct is stressing the possibility of conciliation and peace in the future of our species, and his book is a welcome addition to the literature on the topic.ound that the ethnographic and archeological sources indicated a mean between 12% and 16% war mortality. Moreover, Bowles found that this level of warfare was sufficient to explain a high level of intra-group altruistic predispositions in humans. If Bowles is correct, and if there are no other factors promoting human altruism, we are in the curious position of being the most prosocial and cooperative species outside the eusocial insects precisely because we are among the most warlike of social species. I suspect there is a lot more to be said on this topic, and I suspect that there are sources of human solidarity and altruism beside war. However, there is every reason to believe that Fry is correct is stressing the possibility of conciliation and peace in the future of our species, and his book is a welcome addition to the literature on the topic.

Evolution’s Rainbow: Diversity, Gender, and Sexuality in Nature and People

A Curious but Exhilarating Romp through Evolutionary Biology — Rating: 4/5

This is an exhilarating and yet strange book, written by a passionate and highly talented scientist. The book is exhilarating because it weaves personal experience and academic research into a highly politicized plea for tolerance of, indeed affection for, diversity of sexual expression. The book is strange because the object of attack, Darwinian sexual selection theory, is not a real political enemy at all. I dare say that a huge majority of evolutionary biologists both accept Darwin's theory in some form, yet also accept homosexuality, same-sex marriage, and sex change (Roughgarden reports elsewhere that when she went to Condoleezza Rice, Provost at her home institution, Stanford University, to ask if she could keep her job as tenured professor after she had a sex change operation, Rice was totally supportive). Conversely, those who are intolerant of sexual diversity are most likely to be Creationists for whom

Darwinism is as close to the Devil as homosexuality. Roughgarden, it is clear, chooses her battles emotionally, not strategically.

Roughgarden rejects Darwin's theory of sexual selection because (a) it is incorrect, and (b) it perpetrates intolerance of human sexual diversity. It is wrong because it portrays sex in animals as highly uniform, with females investing heavily in each gamete (eggs are very large) and being coy and conservative concerning mating, and males being promiscuous and investing very little in gametes (sperm being exceedingly tiny). It is perpetrates intolerance because it promotes the myth that divergence from the sexual stereotype is abnormal and pathological.

Roughgarden has been accused of committing the \\"naturalistic fallacy,\\" which says that \\"was is, is good.\\" In this case, it is easy to think that Roughgarden claims that because there is sexual diversity in nature, and because there is homosexuality and gender change in nature, therefore it is natural that humans are sexually diverse, and those that oppose diversity are enemies of the nature expression of sexuality. This argument is of course fatally flawed. It is easy to find species in which adultery is common, species in which a new male mate kills the young of the previous male, species in which individuals abandon their young with high probability, species in which females generally mate with all the males in the group, and species in which individuals eat each other's feces. This does not make adultery, killing and abandoning offspring, or sharing feces at dinnertime, acceptable practice for humans. In fact, Roughgarden does not commit the naturalistic fallacy. Her argument is that since Victorian times we have lived in a culture that is hostile to sexual diversity, that this is a morally bad cultural bias, and it both oppresses gays, lesbians, and transsexuals today, and accounts for the poor interpretation of sexual dynamics in Darwinian theory. Moreover, she argues that it is illegitimate to use the argument that these diverse sexual practices are \\"against nature\\" as a valid critique, just as criticisms of adultery cannot be based on the absence or rarity of \\"adultery\\" in other species.

About 80% of this book is a pure pleasure to read, as well as being extremely informative concerning the variety of sexual behaviors in the animal world and a wide variety of human cultures through time and space. Evolution's Rainbow is also a good source of instruction in evolutionary biology as long as \\"Darwin's theory of sexual selection\\" is not in question.

The basic argument of the book is that sex is basically cooperative, not competitive and conflictive, as is presented in standard evolutionary theory. I am not sympathetic to this argument. I learned standard evolutionary biology, and accepted both the widespread validity of the coy female/promiscuous male theory without (a) believing that it is universally valid for the animal world, or (b) at all valid for humans. Moreover, I learned from modern biological theory that cooperation is just as important as competition and conflict. Indeed, the modern biological interpretation of the increase in biological complexity since the first bacteria is due to the synergy of cooperation among units of one level of complexity leading to the emergence of a new level of complexity. This process is inherently cooperative, but the emergence of a new level depends on suppressing conflict among individuals on the older level. All of biological life, I learned and I still believe, is an interaction of cooperation and conflict. This include relations between (among?) the sexes in reproduction and nurturing of offspring.

It is not impossible to treat Roughgarden's \\"counterexamples\\" as merely oddities or simple exceptions to the rule. Certainly this is what I thought before I read this book. She has convinced me that this is a poor way to think of sexual diversity in the animal world. She has also convinced me that there may be subtle but important forms of sociality in animals to which one is blind if one interprets everything through the lens of Darwin's version of sexual selection. She has not proved the case even in a single species, but she certainly raises plausible alternatives to traditional explanations.

A major issue is treated confusedly in the book, and I have found it to be perpetrated in even the most erudite reviews of the book. Darwin's theory of male decoration was what has been called the \\"sexy male\\" theory, as developed analytically by Ronald Fisher and others. This theory says that through random drift, females come to prefer some fitness-neutral aspects of the male, and the female will both mate preferentially with males having this attribute and pass the gene preferring this attribute on to her offspring. There is thus \\"runaway sexual selection\\" which is fitness-reducing for the species since it is costly to produce the trait for the male, and costly to be choosy over the trait for the female. As far as I can tell, and I have studied this theory closely, it has absolutely no support either theoretically or empirically. It is just a dead theory, despite its being a favorite of evolutionary psychology--a field

dominated by researchers who cannot understand the math and do not study non-humans, but who are great popularizers and appear to have convinced a gullible public of its importance.

The correct version of the Darwinian sexual selection theory is the \\"costly signaling\\" approach, which says that decorated males are likely to have \\"good genes,\\" and hence to increase the fitness of the female's offspring. Roughgarden implicitly accepts the \\"good genes\\" approach without argument, merely complaining that females care about the total contribution of the male, not just the quality of the genes passed on to the offspring. However, her general critique of the standard account of sexual dynamics in Darwinian evolutionary theory is misguided. Roughgarden gives no proof that the \\"good genes\\" theory is incorrect, or that her \\"social selection\\" theory is universally, or even frequently, superior. Her alternatives are creative and interesting, such her suggestion that male decoration is a signal of general prosociality. But it is certainly not proved. Moreover, her claim that the standard signaling theory behind the good genes model is based on generalized \\"deceit\\" perpetrated by the male is just wrong. The first principle of signaling theory is that signals that persist over time must be on balance veridical, or else the receiver would increase fitness by ignoring the signal, so some mutant that ignores the signal will eventually emerge and will eventually displace the gullible signal receivers.

Roughgarden rejects the \\"good genes\\" theory on grounds that females care about their mates' total contribution to the social resources of the group, not just the genetic quality of the male. But, what determines such total contribution if not thegenetic quality of the male? One can hypothesize that males have certain personal characteristics that are not incorporated in its genome, but for most species, this is not at all plausible.

I suspect that Roughgarden's research will broaden and enrich existing models of strategic sexual interaction rather than replace them. Despite Roughgarden's insistence that her ideas are an alternative to Darwin's, I find the two quite compatible, and I suspect Darwin, were he still around, would agree.

Another peculiarity of the book is that Roughgarden treats all deviations of sexuality from the standard coy female/promiscuous male model as adaptations that improve the fitness of the individuals involved. I believe generally that costly species' characteristics that required many cooperative mutations to occur are almost certain to be adaptations. But the huge variety of sexual practices and their close association with speciation makes it likely that much of this variety is random drift rather than an adaptation. In particular, it does not follow from \\"evolution's rainbow\\" that extensive sexual diversity is adaptive either for the individual or the group. Moreover, who cares? We can accept sexual diversity for its own sake, not because it arose as an adaption or is serves some adaptive purpose in modern society.

Many researchers, even those with strong moral incentives to do scientific research, are put off by how intimately Roughgarden links her moral principles to her scientific theories. This certainly makes me uncomfortable. I can work with other research intimately for years without finding out, or being interested in the least in, their political or moral positions. No one knows from my published work on human cooperation and conflict what my political and ethical view are, and I am happy to keep it that way. On the other hand, Roughgarden's personal commitment is refreshing and is an attractive aspect of this bookhis theory closely, it has absolutely no support either theoretically or empirically. It is just a dead theory, despite its being a favorite of evolutionary psychology--a field dominated by researchers who cannot understand the math and do not study non-humans, but who are great popularizers and appear to have convinced a gullible public of its importance. The correct version of the Darwinian sexual selection theory is the \\"costly signaling\\" approach, which says that decorated males are likely to have \\"good genes,\\" and hence to increase the fitness of the female's offspring. Roughgarden implicitly accepts the \\"good genes\\" approach without argument, merely complaining that females care about the total contribution of the male, not just the quality of the genes passed on to the offspring. However, her general critique of the standard account of sexual dynamics in Darwinian evolutionary theory is misguided. Roughgarden gives no proof that the \\"good genes\\" theory is incorrect, or that her \\"social selection\\" theory is universally, or even frequently, superior. Her alternatives are creative and interesting, such her suggestion that male decoration is a signal of general prosociality. But it is certainly not proved. Moreover, her claim that the standard signaling theory behind the good genes model is based on generalized \\"deceit\\" perpetrated by the male is just wrong. The first principle of signaling theory is that signals that persist over time must be on balance veridical, or else the receiver

would increase fitness by ignoring the signal, so some mutant that ignores the signal will eventually emerge and will eventually displace the gullible signal receivers. Roughgarden rejects the \\"good genes\\" theory on grounds that females care about their mates' total contribution to the social resources of the group, not just the genetic quality of the male. But, what determines such total contribution if not the genetic quality of the male? One can hypothesize that males have certain personal characteristics that are not incorporated in its genome, but for most species, this is not at all plausible. I suspect that Roughgarden's research will broaden and enrich existing models of strategic sexual interaction rather than replace them. Despite Roughgarden's insistence that her ideas are an alternative to Darwin's, I find the two quite compatible, and I suspect Darwin, were he still around, would agree. Another peculiarity of the book is that Roughgarden treats all deviations of sexuality from the standard coy female/promiscuous male model as adaptations that improve the fitness of the individuals involved. I believe generally that costly species' characteristics that required many cooperative mutations to occur are almost certain to be adaptations. But the huge variety of sexual practices and their close association with speciation makes it likely that much of this variety is random drift rather than an adaptation. In particular, it does not follow from \\"evolution's rainbow\\" that extensive sexual diversity is adaptive either for the individual or the group. Moreover, who cares? We can accept sexual diversity for its own sake, not because it arose as an adaption or is serves some adaptive purpose in modern society. Many researchers, even those with strong moral incentives to do scientific research, are put off by how intimately Roughgarden links her moral principles to her scientific theories. This certainly makes me uncomfortable. I can work with other research intimately for years without finding out, or being interested in the least in, their political or moral positions. No one knows from my published work on human cooperation and conflict what my political and ethical view are, and I am happy to keep it that way. On the other hand, Roughgarden's personal commitment is refreshing and is an attractive aspect of this book

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The Conservative Mind: From Burke to Eliot

A Fine Contribution, but of Limited Contemporary Relevance — Rating: 5/5

Russell Kirk, an American political theorist and social critic, published this book in 1953. The first chapter is a succinct and almost eloquent statement of his political philosophy, and the remainder of the book is his account of the life, times, and political philosophies of great Anglo-American conservatives in the tradition of Edmund Burke, including John Adams (who supplied conservatism its theory of the naturality of ruling elites), Walter Scott, George Canning, Samuel Coleridge, John C. Calhoun, Fenimore Cooper, de Tocqueville, Santayana, and several others.

I am not a liberal or a conservative, and generally (but not invariably) I find individuals who take on such labels to be unimaginative and opinionated. Nevertheless, it should be possible to put together a political philosophy that generally gives acceptable answers to political and policy questions without the need of going into intricate and detailed particularities of the issues. We certainly cannot expect the average voter, who is interested in being a good citizen but is otherwise not overly devoted to the study of social issues, to spend more than a small portion of his time in evaluating the alternatives. A hearty political philosophy may require that citizens spend some time becoming political and socially aware, but like a good financial investment, the cost should be borne early and the payout, in the form of simplified decision-making, should be valuable and enduring.

I picked up Russell Kirk's book because it is a classic written in an era before the influence of Milton Friedman on conservative thought would become pervasive. I think it is valuable to become acquainted with these writings, if only to discover how alien some of the ideas now appear, as well as to find that some ancient truths remain truths today. There are two major conditions today that are very different from the period in which these men wrote. The first is that there is no longer a pretense that there is a viable alternative to liberal democratic capitalism for countries that have evolved in the Anglo-American tradition. Therefore, the emphasis on the value of tradition in conservative thought, and the characterization of \\"the enemy\\" as radicals attempting Utopian transformation of society on the basis of Reason and Science, no longer rings true. \\"The essence of of social conservatism is

preservation of the ancient moral traditions of humanity,\\" says Kirk (p. 7). This may have some reverberation in the modern conservative notion of strict construction in the Supreme Court, but not elsewhere in the modern American conservative agenda.

The second major change is that the United States, Britain, and most other liberal democratic capitalist countries no longer consist of a hegemonic ethnic/national group with either no significant minority/immigrant presence, or a situation in which minorities and immigrants are effectively disenfranchised and rendered powerless. \\"Belief that a divine intent rules society,\\" asserts Kirk, as well as conscience, forging an eternal chain of right and duty which links great and obscure, living and dead.\\" (p. 7) Appeal to the weight of tradition and the obligation of the living to the dead, Kirk alludes approvingly to Burke's \\"description of the state as a divinely ordained moral essence, a spiritual union of the dead, the living and those yet unborn.\\" (p. 9) This depiction of our government simply pulls no weight with most voters, who lived in Europe, Africa, or Asia when the Founding Fathers did their work, and patriots galore sacrificed and died to secure our freedom. We have a duty to recognize their sacrifices and recognize their contributions, but contemporary politics is, and always will be, rooted in the here and now.

Some of Kirk's cherished principles appear to be true, but they are no longer widely contested. Kirk celebrates conservatives' \\"affection for the proliferating variety and mystery of traditional life, as distinguished from the narrowing uniformity and equalitarianism and utilitarian aims of most radical systems.\\" (p.8) We all now appreciate diversity and abhor uniformity, but it is worth recalling that this is a central aspect of freedom that people have fought and died for (and continue to fight and die for in contemporary despotic societies).

Perhaps the strongest of classical conservative principle is the notion that \\"property and freedom are inseparably connected.\\" (p. 8) This connection was stressed by Milton Friedman, and is probably the most cogent point in the critique of socialism. Some have objected that if property is unequally distributed, which it ineluctably will be in capitalist market societies, that freedom will also be unequally distributed, in which case it is not truly freedom at all. This is, however, a specious critique. The fact that water and enjoyment of life are inseparably connected does not entail that the unequal distribution of water implies unequal enjoyment of life. However, it is reasonable to say that a certain level of material security is a prerequisite of freedom, so liberal democratic capitalism cannot be fully defended as long as there is real material poverty. Curiously, conservatives, who stress so strongly the link between property and freedom, are rarely concerned with the amelioration of poverty.

I come away from The Conservative Mind with an appreciation of many conservative insights concerning the opposition to Utopian and state socialism, including Communism in all its forms. I would not be surprised if the time comes that these misgivings again become prominent in the face of some new onslaught upon liberal democratic society. But these concerns do not speak to the current situation either in the United States and other advanced technological societies, or in currently developing societies.e narrowing uniformity and equalitarianism and utilitarian aims of most radical systems.\\" (p.8) We all now appreciate diversity and abhor uniformity, but it is worth recalling that this is a central aspect of freedom that people have fought and died for (and continue to fight and die for in contemporary despotic societies). Perhaps the strongest of classical conservative principle is the notion that \\"property and freedom are inseparably connected.\\" (p. 8) This connection was stressed by Milton Friedman, and is probably the most cogent point in the critique of socialism. Some have objected that if property is unequally distributed, which it ineluctably will be in capitalist market societies, that freedom will also be unequally distributed, in which case it is not truly freedom at all. This is, however, a specious critique. The fact that water and enjoyment of life are inseparably connected does not entail that the unequal distribution of water implies unequal enjoyment of life. However, it is reasonable to say that a certain level of material security is a prerequisite of freedom, so liberal democratic capitalism cannot be fully defended as long as there is real material poverty. Curiously, conservatives, who stress so strongly the link between property and freedom, are rarely concerned with the amelioration of poverty. I come away from The Conservative Mind with an appreciation of many conservative insights concerning the opposition to Utopian and state socialism, including Communism in all its forms. I would not be surprised if the time comes that these misgivings again become prominent in the face of some new onslaught upon liberal democratic society. But these concerns do not

speak to the current situation either in the United States and other advanced technological societies, or in currently developing societies.

Debunking Economics: The Naked Emperor of the Social Sciences

Beats a Dead Horse and Lets the Live Horse Romp Free — Rating: 2/5

I am an economist. I am painfully aware of the shortcomings of my field. I am aware also of several important purely scientific developments that are likely to dramatically improve the explanatory power of economic theory, yet are slow on the uptake, and hence are not well reflected in the journals or textbooks in the field. I am often impatient with the slow-moving pace of the process of bringing the discipline up to date. Nothing of this sort would be tolerated in the natural sciences. Nevertheless, I find Steve Keen's broadside attack on economics unhelpful. In particular, his suggestion that neoclassical theory be jettisoned in favor of some mix of `heterodox' alternatives is unwarranted. Some non-mainstream theories have insights to offer us, but they must be integrated into the body of economic theory, rather than being wholesale replacements for current theory. Some impatient innovators believe that this cannot happen because the reigning orthodoxy in economics is impervious to change, but I think the experience of the past few decades suggests that this is simply not the case.

Keen is a serious critic, in the sense that his major arguments are with the analytical apparatus of economic theory; he does not disparage analytical approaches to economic theory per se (like the usual anti-economics moan and groaners) and indeed accuses economics of being backward and out of touch with modern mathematics. The casual reader will be rebuffed by many of the most pointed accusations, because they require a considerable understanding of economic theory to appreciate. Keen tries to supply this understanding by presenting much of the content of undergrad Intermediate Micro in a few figure-laden chapters. I admire Keen for trying this, but it is bound to be a failure. You can't teach a casual reader a body of theory that requires a lot of study time, homework problems, and multiple applications.

First Problem: Keen presents a laundry list of \\"heterodox\\" alternatives to traditional economics, including Austrian, Post-Keynesian, and Sraffian economics (he excludes Marxism, which he disparages almost as thoroughly as neoclassical economics). But he does not say how the traditional weaknesses are addressed and corrected in these alternative approaches. The only exception to this pattern of critique-without-better-alternative is his relatively careful treatment of heterodox financial theories (fractal/chaos theory of stock prices, chronic over-reacting to new information theories, and Post-Keynesian financial fragility theories), which indeed supply cogent insights not found in the traditional Efficient Markets Hypothesis. Even in this case, however, the problems with the neoclassical treatment of financial markets have nothing to do with Keen's critique of microeconomic theory.

By the way, people often ask me if I believe the Efficient Markets Hypothesis in financial economics, which says that stock prices incorporate all common knowledge concerning the expected future performance of stocks. My answer is that the central implication of this, the assertion that there is no \\"magic formula\\" for beating the stock market, and hence it is fruitless and even wasteful to try to \\"pick winners,\\" is absolutely correct. The stock market is a great investment opportunity for the long term, but the best policy is to put your money into low-overhead mutual funds (very, very, low overhead---look at the prospectus, and try for yearly service charges less that 0.1%) and just leave them there. As you move toward retirement, move money out of stocks and into bonds such that you are never required to change your standard of living when the bottom falls out of the market, as it appears to do with some regularity. A corollary of this advice is: don't spend a lot of money on fancy financial advisors. Do so every ten years or so to make sure you're not overlooking something important, and make sure you advisor doesn't sell you anyfinancial securities, but just gives you portfolio strategy advice.

However, another implication of the Efficient Market Hypothesis is that there is a strong tendency towards financial markets to return quickly from any shock to an equilibrium state. I don't think this is the case, and I think the reason is that the basic learning process for investors in financial markets is imitation, and imitation dynamics allow for bandwagon effects that lead to the sort of stock market

bubbles we see periodically. One might think that this refutes the previous paragraph, because if the market is out of kilter for discernable periods of time, we should be able to gain by forecasting the return to equilibrium and buying and selling securities accordingly. The problem is, as John Maynard Keynes purportedly said, \\"The markets can stay irrational longer than you can stay solvent.\\" On the other hand, I have personally done pretty well over the years by buying when most investors appear to be overly fearful and/or liquidity constrained, and selling when the market seems overheated. The important point is that such actions cannot be justified (if at all) more than once in a long while.

Second Problem: Keen seriously undervalues the practical contribution of traditional economics to economic policy and social planning, and hence to helping countries adopt efficient and growth-oriented economic systems. My ideal in practical economic theory is what is dealt out weekly in The Economist, and I recommend the magazine highly for both individuals and professionals. Keen stresses that neoclassical economics cannot \\"predict the future,\\" and concludes that the theory is worthless. I believe economics could do a better job of predicting if it employed large-scale agent-based modeling techniques, and I am dismayed that a larger number of financial economists did not predict the current financial crisis (some did, and The Economist nagged about the housing bubble for years before it burst--I sold two houses for family members about at the top of the market on the basis of this advice), but the fact is that \\"heterodox\\" financial theories always predict crisis, so they're right once in a while. That does not make them superior theories.

Simply stated, explanation rather than prediction is often the mark of a good theory. If you understand navigation, when the wind shifts you will be able to adjust your sails accordingly; you don't have to be able to predict when the wind will shift or by how much. My auto mechanic and my plumber do not often predict when my car will break down or when a pipe will leak in my house, yet they are capable of diagnosing and fixing problems when they arise.

Traditional economic theory has much to contribute in many areas of economic policy, despite Keen's categorical denial of this fact. Keen depicts all economists as market-fundamentalist who believe the market system is perfect and intervention will always make things worse off. This is not true of most economists (indeed, the free market fundamentalists rarely have any economic training at all, and base their beliefs on quasi-religious faith), and those economists for whom the epithet is apt are certainly not drawing on economic theory for support. Traditional economic theory has stressed since the 1950's the ubiquity of market failures and the fruitful role of state intervention in correcting such failures (provided there are not \\"state failures\\" that lead to worse outcomes from inept regulation than the original problems the regulation was meant to solve).

The policies of the IMF, for instance, are not dictated by economic theory, and highly prominent economists (including Nobel Prize winner Joseph Stiglitz) have been vitriolic in criticizing the IMF's policies on the basis of sound economic theory. Similarly, Alan Greenspan might have falsely believed that financial markets are self-correcting, but he did not get this idea from neoclassical economic theory, which has no dynamical theory of price movements in at all in multi-market systems (the reader might suggest that the Efficient Markets Hypothesis in financial economics is such a theory, but in fact, this hypothesis is based empirical observations and is not derived from microeconomic theory based on a general model of market interaction).

Third Problem: Keen presents as neoclassical orthodoxy a version of Marshallian economic theory that the graduate schools in the United States and Europe have not been teaching for forty years or so. The great economist Alfred Marshall's approach in the late nineteenth century was to study individual markets in detail based on the interaction of supply and demand schedules and an intricate model of firm production in which optimal firm size is a function of market price. I was trained in economics at Harvard in the mid-1960s, where the name of Marshall was revered but whose theories were simply not taught. After I completed my Ph.D., I did learn the Marshallian system by reading Marc Blaug's excellent exposition in his book Economic Theory in Retrospect. Also, I recall that Bishop taught micro at MIT for many years during my graduate years at Harvard, subjecting generations of hapless grad students to seemingly endless diagrams of Marshallian LRACs and MRACs, worthy of Keen's diagrammatic treatment in this book.

In place of Marshall, we learned the general equilibrium model of the Swiss economist Leon Walras, perfected after WWII by Kenneth Arrow, Gerard Debreu, Frank Hahn, Lionel McKenzie, and others. In

Marshall's time, there was a virtual war of ideas between Marshall's supporters (mostly in Britain) and those of the Walras (represented in England by the formidable but relatively isolated Francis Ysidro Edgeworth). The Walrasian orthodoxy has been the mainstay of graduate education in economics now for a half century. This model, however, is not even discussed in Keen's book. Nor does the Walrasian model suffer from the many problems identified by Keen (although it has problems of its own, as discussed below). Keen is simply debunking a long, long-dead economics.

The Walrasian model is itself seriously faulty, not so much because it says things that are wrong, but because it says very little. It does say enough for us to understand the nature of market externalities and missing markets, ideas central to the theory of market regulation. But it makes the mistake of depicting all markets as complete, third-party (judicially) enforceable, which means it doesn't properly model labor markets (you can't sell a particular quantity and quality of `labor'), capital markets (you can't enforce a promise to repay a loan if the borrower is broke), and even consumer goods markets (it isn't worth it to take Perdue Chicken to court if a chicken isn't up to snuff). For this reason, the Walrasian model treats equilibrium as market clearing, whereas in markets without third party enforcement (Samuel Bowles and I call them `contested exchange' markets---see our article on the topic, Samuel Bowles and Herbert Gintis, \\"The Revenge of Homo economicus: Contested Exchange and the Revival of Political Economy\\", Journal of Economic Perspectives 7,1 (1993):83-102, and/or Samuel Bowles and Herbert Gintis, \\"Walrasian Economics in Retrospect\\", Quarterly Journal of Economics 115,4 (2000):1411-1439), there is usually unemployment in equilibrium (for instance, an excess supply of labor, more people desiring loans at the going interest rate that lenders are supplying, and firms that sell quality goods maintain price way above marginal cost, so they always desire to sell more stuff at the going price). We call this `short-side power.'

Much more embarrassing about the Walrasian model, however, is it has absolutely no known dynamical properties. Every attempt to turn the theory into a model of how prices change over time has been an abject failure, as long as both production and consumption are included in the model, and there are more than three or four industries. The fact is that economist really know nothing about economic dynamics, although most pretend that the problem does not exist, and \\"one of these days,\\" someone will come up with the proper dynamical extension of the general equilibrium model. Problem: they've been saying this for sixty years! My own position is that a general equilibrium system is a complex dynamical nonlinear system, and it cannot be modeled using the usual tools of smooth manifold theory and differential equations. My own attempt to model the general equilibrium economy using agent-based techniques is, I believe, extremely successful, and points to future advances in this direction (see Herbert Gintis, \\"The Dynamics of General Equilibrium\\", The Economic Journal 117 (2007):1289-1309. This model also shows why financial markets can be extremely volatile even when there are no aggregate shocks to the economy.

How do we explain Steve Keen's intemperate treatment of standard economics? I think the answer lies in the nature of the undergraduate curriculum, which in my experience is still stuck in nineteenth century Marshallian economics. I taught Intermediate Microeconomics for several years in the mid-eighties, and I can attest to how absolutely obsolete was the treatment of production I was obliged to teach. Moreover, all the textbooks were the same! I finally gave up and refused to teach the stuff. Most important about the Marshallian model (not mentioned by Keen, surprisingly) is that it is not a theory of the firm, but rather a theory of the \\"plant,\\" whereas a firm can consist of many \\"plants\\" (think of a soft-drink firm, an auto maker, a beer firm, a fast food franchise, a multi-branch bank). Who cares about the theory of \\"optimal plant size,\\" except in very advanced and specialized courses on Industrial Organization? Except for very small firms, we might as well treat firms has having a horizongal supply curve, because a change in demand simply leads to a change in the number of plants, not the optimal size of a plant.

Of course, the textbooks all had an obligatory chapter on the \\"Edgeworth Box Diagram,\\" and hand-waved about \\"convergence to general equilibrium\\" as the number of sides of the box becomes large. But, all of this is light-years beyond the poor undergrad, who must sweat out LRACs, MRACs, Product Expansion Paths, Envelope Theorems, and the like. I am sure that if I had ever had a course in economics as an undergrad, I would never have become an economist.

I honestly do not know why the treatment of core economic theory in the undergraduate curriculum is so abjectly brainless, and I cannot imagine why economics professors teach stuff every day that that know is at best irrelevant, and often just plain wrong. It's like teaching about the four humors in anatomy class, or phlogiston and ether in physics class. There is plenty of interesting and veridical stuff to teach that still puts the student through his or her analytical paces. One of my joys in life is that I no longer have to teach this junk.theory of price movements in at all in multi-market systems (the reader might suggest that the Efficient Markets Hypothesis in financial economics is such a theory, but in fact, this hypothesis is based empirical observations and is not derived from microeconomic theory based on a general model of market interaction). Third Problem: Keen presents as neoclassical orthodoxy a version of Marshallian economic theory that the graduate schools in the United States and Europe have not been teaching for forty years or so. The great economist Alfred Marshall's approach in the late nineteenth century was to study individual markets in detail based on the interaction of supply and demand schedules and an intricate model of firm production in which optimal firm size is a function of market price. I was trained in economics at Harvard in the mid-1960s, where the name of Marshall was revered but whose theories were simply not taught. After I completed my Ph.D., I did learn the Marshallian system by reading Marc Blaug's excellent exposition in his book Economic Theory in Retrospect. Also, I recall that Bishop taught micro at MIT for many years during my graduate years at Harvard, subjecting generations of hapless grad students to seemingly endless diagrams of Marshallian LRACs and MRACs, worthy of Keen's diagrammatic treatment in this book. In place of Marshall, we learned the general equilibrium model of the Swiss economist Leon Walras, perfected after WWII by Kenneth Arrow, Gerard Debreu, Frank Hahn, Lionel McKenzie, and others. In Marshall's time, there was a virtual war of ideas between Marshall's supporters (mostly in Britain) and those of the Walras (represented in England by the formidable but relatively isolated Francis Ysidro Edgeworth). The Walrasian orthodoxy has been the mainstay of graduate education in economics now for a half century. This model, however, is not even discussed in Keen's book. Nor does the Walrasian model suffer from the many problems identified by Keen (although it has problems of its own, as discussed below). Keen is simply debunking a long, long-dead economics. The Walrasian model is itself seriously faulty, not so much because it says things that are wrong, but because it says very little. It does say enough for us to understand the nature of market externalities and missing markets, ideas central to the theory of market regulation. But it makes the mistake of depicting all markets as complete, third-party (judicially) enforceable, which means it doesn't properly model labor markets (you can't sell a particular quantity and quality of `labor'), capital markets (you can't enforce a promise to repay a loan if the borrower is broke), and even consumer goods markets (it isn't worth it to take Perdue Chicken to court if a chicken isn't up to snuff). For this reason, the Walrasian model treats equilibrium as market clearing, whereas in markets without third party enforcement (Samuel Bowles and I call them `contested exchange' markets---see our article on the topic, Samuel Bowles and Herbert Gintis, \\"The Revenge of Homo economicus: Contested Exchange and the Revival of Political Economy\\", Journal of Economic Perspectives 7,1 (1993):83-102, and/or Samuel Bowles and Herbert Gintis, \\"Walrasian Economics in Retrospect\\", Quarterly Journal of Economics 115,4 (2000):1411-1439), there is usually unemployment in equilibrium (for instance, an excess supply of labor, more people desiring loans at the going interest rate that lenders are supplying, and firms that sell quality goods maintain price way above marginal cost, so they always desire to sell more stuff at the going price). We call this `short-side power.' Much more embarrassing about the Walrasian model, however, is it has absolutely no known dynamical properties. Every attempt to turn the theory into a model of how prices change over time has been an abject failure, as long as both production and consumption are included in the model, and there are more than three or four industries. The fact is that economist really know nothing about economic dynamics, although most pretend that the problem does not exist, and \\"one of these days,\\" someone will come up with the proper dynamical extension of the general equilibrium model. Problem: they've been saying this for sixty years! My own position is that a general equilibrium system is a complex dynamical nonlinear system, and it cannot be modeled using the usual tools of smooth manifold theory and differential equations. My own attempt to model the general equilibrium economy using agent-based techniques is, I believe, extremely successful, and points to future advances in this direction (see Herbert Gintis, \\"The Dynamics of General Equilibrium\\", The Economic Journal 117 (2007):1289-1309. This model also shows why financial markets can be extremely volatile even when there are no aggregate shocks to the economy. How do we explain Steve Keen's intemperate treatment of standard

economics? I think the answer lies in the nature of the undergraduate curriculum, which in my experience is still stuck in nineteenth century Marshallian economics. I taught Intermediate Microeconomics for several years in the mid-eighties, and I can attest to how absolutely obsolete was the treatment of production I was obliged to teach. Moreover, all the textbooks were the same! I finally gave up and refused to teach the stuff. Most important about the Marshallian model (not mentioned by Keen, surprisingly) is that it is not a theory of the firm, but rather a theory of the \\"plant,\\" whereas a firm can consist of many \\"plants\\" (think of a soft-drink firm, an auto maker, a beer firm, a fast food franchise, a multi-branch bank). Who cares about the theory of \\"optimal plant size,\\" except in very advanced and specialized courses on Industrial Organization? Except for very small firms, we might as well treat firms has having a horizongal supply curve, because a change in demand simply leads to a change in the number of plants, not the optimal size of a plant. Of course, the textbooks all had an obligatory chapter on the \\"Edgeworth Box Diagram,\\" and hand-waved about \\"convergence to general equilibrium\\" as the number of sides of the box becomes large. But, all of this is light-years beyond the poor undergrad, who must sweat out LRACs, MRACs, Product Expansion Paths, Envelope Theorems, and the like. I am sure that if I had ever had a course in economics as an undergrad, I would never have become an economist. I honestly do not know why the treatment of core economic theory in the undergraduate curriculum is so abjectly brainless, and I cannot imagine why economics professors teach stuff every day that that know is at best irrelevant, and often just plain wrong. It's like teaching about the four humors in anatomy class, or phlogiston and ether in physics class. There is plenty of interesting and veridical stuff to teach that still puts the student through his or her analytical paces. One of my joys in life is that I no longer have to teach this junk.

2: The New Psychology of Language: Cognitive and Functional Approaches To Language Structure, Volume II

The New Science of Functional Linguistics On Parade — Rating: 5/5

I was a graduate student in Math and later Economics at Harvard in the heady years during which Noam Chomsky, down Mass Ave at MIT, was revolutionizing not just linguistics, but all of psychology as well (recall his famous critique of Skinnerian behavioral psychology in his review of Skinner's Verbal Behavior, which inaugurated modern cognitive psychology). Many of my friends and acquaintances in philosophy at Harvard and MIT, including Jerry Katz who was working with Jerry Fodor at the time, were generating genuinely new insights into philosophical psychology and epistemology. I recall sitting around listening to them talk and feeling that perhaps intellectual life was something real, not just books and exams.

The two things I really liked about structural linguistics were, first, that it was a science of human behavior, and I hated then, as I do now, all of those wishy-washy types that denied that a science of human behavior was possible (in the old days it was \\"critical theory,\\" while today it is \\"post-modernism\\"). Second, without knowing exactly why, I never bought either the \\"tabula rasa\\" view promoted by Locke and the other English Associationist philosophers of the time, or Kant's response, the \\"synthetic a priori\\" category of knowledge. Now I know that what was missing was sociobiology: the notion that we are evolved creatures and we have a basic nature laid down through the long, drawn-out process of gene-culture coevolution.

While Chomsky and his closest colleagues never really bought the notion that human language is an adaptation (perhaps they did not understand gene-culture coevolution), they definitely considered the existence of a universal grammar and the ease with which children acquire language to imply that humans have something like a \\"language module\\" in the brain that gives us the structure, if not the content, of language. I always accepted the idea of a language model, despite its affinity to Kant's synthetic a prior, because the facts seemed overwhelming.

Recent years have seen serious alternatives to structural linguistics and its accompanying ontological baggage. I am not a linguist and do not feel competent to judge the relative merits of the various arguments (I would actually like to see a serious attack on the new-fangled theories by members of the Chomsky camp, but I have not found one yet). Nevertheless, I can say that the development of

evolutionary developmental psychology in recent years (so-called \\"evo-devo\\") does heighted the possibility of an alternative model of human language, rooted in the evolved social nature of our species. This is because we have learned that the ontogeny of the human brain, and not only its phylogeny, is deeply evolutionary: the brain development of a child is a process of what might be called \\"survival of the fittest\\" on the level of the neuronal structure of the brain. In particular, a new-born has far more neurons that a three-year old, and which neurons survive and connect to others, and which become isolated and die, is a function of the child's environment and his interaction with other intentional beings. Thus, many behaviors which early evolutionary psychology attributed to \\"dedicated modules\\" (e.g., for recognizing faces, for forming plurals, for detecting cheaters, for behaving morally) are in fact dynamically ontogenetic products of a generalized capacity for the human brain to learn and creatively intervene in its environment. The human brain is simply not modular.

Structural linguistics is extremely impressive, with numerous analytical accomplishments and its ability to explain arcane aspects of many languages. Tomasello and his colleagues appreciate this analytical virtuosity, but claim that it is base on a highly restricted set of languages, mostly related to European languages. Moreover, its several successes in formally modeling has led, they hold, to a situation where the structural linguists have become satisfied to develop more and more arcane theoretical points, without the need to verify them in terms of real human linguistic behavior.

The most important weakness of the traditional theory, Tomasello suggests, is that its evidence is almost exclusively based on written language, and there is a huge gap between written texts and oral behavior. Tomasello and his colleagues, by contrast, base their models on \\"spontaneous spoken speech\\" (SSS). Based on speech, they argue that \\"there are very few if any specific grammatical constructions or markers that are universally present in all languages...Typological research has also established beyond a reasonable doubt that not only are specific grammatical constructions not universal, but basically none of the so-called minor word classes of English...are universal across languages either.\\" (p. 5)

I am embarrassed to say that I find the studies deployed in this edited collection persuasive, but I still yearn for the structural diagrams and formal mathematical language of the structuralist school. So sue me.more arcane theoretical points, without the need to verify them in terms of real human linguistic behavior. The most important weakness of the traditional theory, Tomasello suggests, is that its evidence is almost exclusively based on written language, and there is a huge gap between written texts and oral behavior. Tomasello and his colleagues, by contrast, base their models on \\"spontaneous spoken speech\\" (SSS). Based on speech, they argue that \\"there are very few if any specific grammatical constructions or markers that are universally present in all languages...Typological research has also established beyond a reasonable doubt that not only are specific grammatical constructions not universal, but basically none of the so-called minor word classes of English...are universal across languages either.\\" (p. 5) I am embarrassed to say that I find the studies deployed in this edited collection persuasive, but I still yearn for the structural diagrams and formal mathematical language of the structuralist school. So sue me.

The Crash of 2008 and What it Means: The New Paradigm for Financial Markets

More Truth and Less Unsupported Hype than Most Analyses — Rating: 4/5

George Soros presents a critique of and an alternative traditional economic theory, which denies the possibility of the sort of housing and credit bubbles that characterize the crash of 2008 in the United States. Soros is charming, disarming, self-effacing (except about his ability to conquer financial markets), never dismissive of other theories, and never aggrandizing his own approach by presenting straw-man versions of other approaches. I came away from this book with a good deal of respect for Soros as a thinker and as a human being.

Soros' central claim is that traditional economic theory holds that competitive markets tend toward equilibrium, and this is false. \\"The belief that markets tend toward equilibrium,\\" he writes, \\"...is

no better than Marxist dogma. Both ideologies cloak themselves in scientific guise in order to make themselves more acceptable, but the theories they invoke do not stand up to the test of reality.\\" (p. 75) Soros calls this faulty approach \\"market fundamentalism.\\"

I learned economic theory when I was a graduate student at Harvard. The central model I learned was called \\"general equilibrium (GE) theory,\\" initiated by Walras in the late nineteenth century, and perfected in the mid-twentieth century by Debreu, Arrow, Hurwicz, Hahn, McKenzie and others. GE theory is the basic, underlying model in all of contemporary economic theory. It is highly abstract, but by carefully specifying the conditions under which market equilibrium obtains, it provides an analytical basis for understanding not only markets, but also market failures (cases where competitive markets cannot exist, or lead to socially inefficient outcomes). If one accepts this model, one then analyzes a real-world economy by assessing where the real economy deviates from the model, and what we might expect to occur in light of of this deviation. There is no assurance that this methodology will be successful (Google the Theory of the Second Best), but generally it is the best we have, and it appears to work well in practice.

At the time the architects of GE theory achieved their successes in the mid-twentieth century, which consisted of proving the existence of equilibrium under very general conditions, they fully expected that the theory would extend to proving stability and perhaps even uniqueness in the course of time. To illustrate just how far GE theory was from a plausible dynamic model, Walras had proposed that equilibrium would be achieved by having an \\"courtier\\" (broker) or \\"crieur\\" (crier) call out prices and adjust them according to the degree of excess demand or supply in each market, until equilibrium was achieved. The idea of what in English we call the \\"auctioneer\\" equilibrating a decentralized market economy is so bizarre and indeed absurd that leaving GE theory at this level would of course be highly embarrassing to economic theory. To add insult to injury, it was shown by Saari in 1985 and Bala and Majumdar in 1992, that even with an auctioneer, and with very generous auxiliary assumptions, general equilibrium prices would be unstable, and indeed chaotic. The fact is that to this day there is no plausible model of general equilibrium exhibiting dynamic stability.

It follows that there is absolutely no reason given by economic theory for anything like the \\"market fundamentalism\\" that Soros critiques. In particular, there is nothing in economic theory that suggests the impossibility, or even rarity, of crashes, bubbles, and meltdowns. Nothing, I stress, at all.

Nevertheless, I have noticed that despite the above undeniable truth, most economists are indeed market fundamentalists when it comes to issues of stability of equilibrium (they are not fundamentalists when it comes to market failure and the need to regulate the market economy, however). I still recall the moment I heard Alan Greenspan, former Federal Reserve Chairman tell Congress that \\"Those of us who have lookedto the self-interest of lending institutions to protect shareholder's equity -- myself especially -- are in a state of shocked disbelief.\\" I myself stood in shocked disbelief that a real economist, not some free-market crazy, could harbor such theoretically ill-founded beliefs. But, in fact, some of the most influential and perceptive economic theorists share this same believe. In their book Animal Spirits, for instance, Nobel prize winning economic George Akerlof and distinguished (and iconoclastic) Yale professor Robert Shiller, say that \\"if we thought that people were totally rational, and that they acted almost entirely out of economic motives, we too would believe that government should play little role in the regulation of financial markets, and perhaps even in determining the level of aggregate demand.\\" (p. 173). This is a shockingly uninformed statement. There is nothing in economic theory that says that rational individuals interacting on markets will produce stable, efficient outcomes! The GE model, which is the general framework for investigating macroeconomic behavior on a theoretical level, says that if there are no market externalities, there are market-clearing equilibria that are Pareto-efficient. However, as has been long understood, this model has absolutely no attractive dynamical properties.

I conclude that Soros is correct, not in his critique of economic theory, but rather in his critique of market fundamentalism, the reigning ideology of mainstream economists. Where this ideology comes from, I do not know. I do not recall being taught it by my professors at Harvard, and I do not believe it is in the leading graduate microeconomic textbooks. This doctrine is indeed central to the \\"rational expectations\\" school of macroeconomics, and perhaps this is where the idea comes from. On the other hand, neither Greenspan nor Akerlof and Shiller belong to this school of thought, so the ideology is

probably of more general proportions. For the record, Soros' critique of the rational expectations school in this book is quite cogent, and I am in complete agreement with him. Only an academic the Ivory Tower could place credence in so bizarre a theory.

Soros' own analysis of where economics went wrong is incorrect. Soros studied at the London School of Economics at a time when the old Marshallian tradition was prominent, and before the GE theory took hold. The Marshallian school analyzed single markets in terms of supply and demand, and assumed that the determinants of supply and demand were distinct, so the two schedules were independent. Soros attacks this notion by claiming interdependence of supply and demand, and he dead right. However, the GE model explicitly accepts this interdependence, without which it would be easy to supply analytically tractable dynamics and plausible stability conditions. However, the market economy is inextricably interconnected, and there is no possibility of treating demand and supply independently.

Soros thus incorrectly attributes \\"market fundamentalism\\" to economic theory, whereas in fact it is an aspect of the ideology of economists, not an implication of the GE theory that they learn and use. Because Soros has not studied modern economic theory, he attributes the ideology to an improper independence of supply and demand, which is a attributed of old-fashioned Marshallian theory, not modern GE theory.

Soros then goes on to propose an alternative that is geared to overcoming the independence of the two sides of the market. He does this by developing a philosophical system in which individuals interact with the world in both a \\"cognitive\\" and a \\"manipulative\\" manner, the first having the aim of understand, the second of influencing and changing. According to Soros' reasoning, the two functions can operate at cross-purposes. Most important, we can analyze the past using the cognitive function and intervene in the present using the manipulativefunction, which leads to a situation in which the future cannot be known. This two-way connection between facts and opinions Soros calls \\"reflectivity.\\" Because of reflexivity, the economy involves fundamental uncertainty of form not recognized in standard economic theory. The impossibility of stability of equilibrium is due this reflexivity.

Soros' argument is too speculative for economists to take seriously. Economists work with models. Someone who does not like the GE model is obliged to find an alternative model that does a better job. Soros does not supply another model, so most economists will simply ignore him (given his business acumen, they will `respectfully' ignore him). However, I have worked in this area of the past six or seven years, and my research lends some serious support to his argument. Let me explain.

The GE model has no attractive dynamical properties, but the institutions it recognizes (markets, prices, consumers, producers, firms, money, capital goods, etc.) really exist and more or less operate the way the theory describes. The real world market economies show significant stochastic behavior (there are lots of more or less random fluctuations) but the fluctuations occur around an equilibrium condition that, while rarely attained, is more or less, on the average, approximated over the medium run, and which changes only in response to changes in underlying technology, resource availability, and consumer tastes. This indicated to me, as it does to Soros, is that the problem with the GE model is that it assumes individuals know too much, or rather, that they share too much knowledge. Rather, as stressed by the great economist Friedrich von Hayek, knowledge is distributed all over the economy, each individual economic actor only knowing a small part of the whole.

My reaction to this situation was to develop a computer model of the economy using what is called agent-based modeling. My model appears as \\"The Dynamics of General Equilibrium\\", Economic Journal 117 (2007):1289-1309. This model assumes (a) each individual knows only a small part of the total picture, and in particular, has his own, private estimate of prices, and (b) individuals improve their position as firms, workers, and entrepreneurs, by copying the behavior others who appear to be more successful than themselves, as well as experimenting and learning from variations in their own behavior. There are two main findings to be had from this exercise. The first is that the economy does tend toward equilibrium, and if shocked, tends to return to this medium-run equilibrium. Thus the economists' ideological faith in equilibrium seems vindicated.

However, the second finding is that there are significant excursions away from equilibrium, to the point that disequilibrium is the general conditions, as Soros says. Indeed, these excursions are frequent, and periodically sufficient to produce the sorts of bubbles and crises that we see around us. Moreover, these large excursions away from equilibrium occur without any aggregate macroeconomic shock, and are due

to what I call \\"local resonances\\" that are characteristic of the sort of complex, dynamical, and nonlinear system that a general equilibrium system seems to be. For an introduction to the economy as a complex system, see Eric Beinhocker, The Origins of Wealth: Evolution, Complexity, and the Radical Remaking of Economics (Harvard Business School Press, 2006). Such local resonances are perhaps the codification of Soros' reflexive tenencies.

In short, I believe Soros is closer to understanding the current crisis than the free-market fundamentalists, the liberal super-regulators, or the behavioral economists who blame human irrationality. My formal model, using agent-based techniques, produces the sorts of outcomes Soros stresses, and it does so for reasons that are analytical refinements of Soros' \\"reflexivity.\\" His pronouncements should be taken seriously, although considerable analytical refinement will be need to turn them into defensible policy tools.nown. This two-way connection between facts and opinions Soros calls \\"reflectivity.\\" Because of reflexivity, the economy involves fundamental uncertainty of form not recognized in standard economic theory. The impossibility of stability of equilibrium is due this reflexivity. Soros' argument is too speculative for economists to take seriously. Economists work with models. Someone who does not like the GE model is obliged to find an alternative model that does a better job. Soros does not supply another model, so most economists will simply ignore him (given his business acumen, they will `respectfully' ignore him). However, I have worked in this area of the past six or seven years, and my research lends some serious support to his argument. Let me explain. The GE model has no attractive dynamical properties, but the institutions it recognizes (markets, prices, consumers, producers, firms, money, capital goods, etc.) really exist and more or less operate the way the theory describes. The real world market economies show significant stochastic behavior (there are lots of more or less random fluctuations) but the fluctuations occur around an equilibrium condition that, while rarely attained, is more or less, on the average, approximated over the medium run, and which changes only in response to changes in underlying technology, resource availability, and consumer tastes. This indicated to me, as it does to Soros, is that the problem with the GE model is that it assumes individuals know too much, or rather, that they share too much knowledge. Rather, as stressed by the great economist Friedrich von Hayek, knowledge is distributed all over the economy, each individual economic actor only knowing a small part of the whole. My reaction to this situation was to develop a computer model of the economy using what is called agent-based modeling. My model appears as \\"The Dynamics of General Equilibrium\\", Economic Journal 117 (2007):1289-1309. This model assumes (a) each individual knows only a small part of the total picture, and in particular, has his own, private estimate of prices, and (b) individuals improve their position as firms, workers, and entrepreneurs, by copying the behavior others who appear to be more successful than themselves, as well as experimenting and learning from variations in their own behavior. There are two main findings to be had from this exercise. The first is that the economy does tend toward equilibrium, and if shocked, tends to return to this medium-run equilibrium. Thus the economists' ideological faith in equilibrium seems vindicated. However, the second finding is that there are significant excursions away from equilibrium, to the point that disequilibrium is the general conditions, as Soros says. Indeed, these excursions are frequent, and periodically sufficient to produce the sorts of bubbles and crises that we see around us. Moreover, these large excursions away from equilibrium occur without any aggregate macroeconomic shock, and are due to what I call \\"local resonances\\" that are characteristic of the sort of complex, dynamical, and nonlinear system that a general equilibrium system seems to be. For an introduction to the economy as a complex system, see Eric Beinhocker, The Origins of Wealth: Evolution, Complexity, and the Radical Remaking of Economics (Harvard Business School Press, 2006). Such local resonances are perhaps the codification of Soros' reflexive tenencies. In short, I believe Soros is closer to understanding the current crisis than the free-market fundamentalists, the liberal super-regulators, or the behavioral economists who blame human irrationality. My formal model, using agent-based techniques, produces the sorts of outcomes Soros stresses, and it does so for reasons that are analytical refinements of Soros' \\"reflexivity.\\" His pronouncements should be taken seriously, although considerable analytical refinement will be need to turn them into defensible policy tools.

Wild Justice: The Moral Lives of Animals

A Scientific Defense of Animal Rights — Rating: 3/5

There was a time when evolutionary biologists really believed Tennyson's famous description of \\"Nature, red in tooth and claw.\\" The Darwinian notion of \\"survival of the fittest\\" certainly indicated that ruthlessly competitive struggle was the natural world's ineluctable fate. In addition, the amorality of human life before civilization was an uncontested assumption of the classical political philosophers, for whom in the state of nature, to quote Thomas Hobbes, life was \\"solitary, poor, nasty, brutish and short.\\" The notion that human civilization is a delicate veneer covering an implacable and vicious self-centeredness that is characteristic of human nature was taken up and embroidered by evolutionary biologists in the mid-twentieth century.

The explanatory power of William Hamilton's inclusive fitness theory and Robert Trivers' reciprocal altruism (which was simply enlightened selfishness) convinced generations of researchers that what appears to be altruism---personal sacrifice on behalf of others---is really just long-run self-interest. Richard Dawkins, for instance, argued in his wildly popular book, The Selfish Gene (1976) that ``we are survival machines---robot vehicles blindly programmed to preserve the selfish molecules known as genes....This gene selfishness will usually give rise to selfishness in individual behavior." Dawkins allows for morality in social life, but it must be socially imposed on a fundamentally selfish agent. ``Let us try to teach generosity and altruism," he advises, ``because we are born selfish."

Even social morality, according to R. D. Alexander, the most influential ethicist working in the Hamilton tradition, can only superficially transcend selfishness. In his book, The Biology of Moral Systems (1987), Alexander asserts ``ethics, morality, human conduct, and the human psyche are to be understood only if societies are seen as collections of individuals seeking their own self-interest" (p. 3). In a similar state of explanatory euphoria, Michael Ghiselin (1974) claims ``No hint of genuine charity ameliorates our vision of society, once sentimentalism has been laid aside. What passes for cooperation turns out to be a mixture of opportunism and exploitation... Scratch an altruist, and watch a hypocrite bleed" (p. 247).

If one accepts this evolutionary vision, there is of course absolutely no possibility of non-human animals being \\"moral.\\" The only reason humans are \\"moral\\" in this vision is the patina of civilization that overlays our animal instincts. Because animals lack \\"civilization,\\" there is prima facie no possibility of their being moral.

Marc Bekoff and Jessica Pierce want us to believe that that is exactly the state of current theory, to which their book is a long-overdue corrective, based on thorough scientific research and attention to the evidence provided by the minute observation of our non-human primate relatives (and to a lesser, but important extent, other mammals, including mice, rats, wolves, and hyenas). This is a serious mischaracterization of research over the past several decades. Indeed, the idea that evolution is as much about the evolution of cooperation as competition is a central theme in modern evolutionary theory. Perhaps the broadest statement of this theme is in E. O. Wilson's Sociobiology (1975) and John Maynard Smith and Eors Szathmary's The Major Transitions in Evolution (1997), and in the seminal works on human sociality initiated by Luca Cavalli-Sforza and Marcus Feldman's Cultural Transmission and Evolution (1981) and Robert Boyd and Peter Richerson's Culture and the Evolutionary Process (1985). The idea that there is a genetic dimension to human morality, while still contested by some biologists and economists, has drawn considerable support in recent years, and is probably now the received wisdom. This literature is surveyed in Herbert Gintis et al., Moral Sentiments and Material Interests (MIT, 2005) and more recently, The Bounds of Reason (Princeton, 2009).

Typical of Bekoff and Pierce's cavalier treatment of the literature, they say \\"As far as we know, there has been no careful delineation of the prosocial in relation to the moral, either for humans or for animals.\\" (p. 12) If they cared to look, they would find literally dozens of papers in the major biology journals on the topic over the last few decades. Indeed, it is currently a top research agenda item for both humans and other species. For starters and references to the literature, see Lee Alan Dugatkin, Cooperation among Animals (New York: Oxford University Press, 1997); Lee Alan Dugatkin and Hudson Kern Reeve, Game Theory and Animal Behavior (Oxford: Oxford University Press, 1998); David Sloan Wilson and Edward O. Wilson, \\"Rethinking the Theoretical Foundation of Sociobiology\\", The Quarterly Review of Biology 82,4 (2007):327-348; Jung-Kyoo Choi and Samuel Bowles, \\"The Coevolution of Parochial Altruism and War\\", Science 318,26 (2007):636-640.and my own \\"The

Hitchhiker's Guide to Altruism: Genes, Culture, and the Internalization of Norms\\", Journal of Theoretical Biology 220,4 (2003):407-418.

Central to the analysis of prosociality and altruism in this literature is the distinction between self-regarding and other-regarding behaviors. Bekoff and Pierce do mention the terms (which they incorrectly call \\"philosophical lingo\\"), but get it completely wrong. \\"A self-regarding action,\\" they say, \\"affects no one other than the agent (the individual) performing the action. An action or behavior becomes other-regarding when it produces some benefit to another, cause some harm, or violates some social rule or obligation...\\" (p. 14) In fact, an agent is self-regarding if he makes decisions considering only how the outcome affect his own payoff, whereas when the payoffs to others are taken into account in making a decision, the agent is said to be other-regarding. Mutualism is other-regarding, and hence moral, using their faulty definition, whereas it is self-regarding, and hence amoral, according to the usual definition.

Virtually every animal behavior researcher now agrees that mammals and perhaps other sorts of animals have emotions---Darwin wrote a whole book about this---and animals that live in groups cooperate. Frans de Waal has enjoyed a distinguished career arguing that chimpanzees have many of the social skills, in somewhat elementary and primitive form, that characterize human behavior and make social living possible. Moreover, for the past few decades there are been many stories of empathy, caring, and helping in the animal world. Indeed, this book can be described as philosophizing about these well-known findings.

The problem is that, as the saying goes, \\"the plural of anecdote is not data.\\" The book uses data in much the same way as self-help books that announce miracle cures, attested by the personal experiences of dozens of users, but says nothing about the actual frequency of success or the extent of nasty side-effects. Anecdotes are wonderful sources of inspiration for researchers, but they are starting points, not endpoints. When researchers write a book for the lay public with the authority of experts, they should stick to the research findings, not inspirational material that is not substantiated by solid research. Bekoff and Pierce are, in effect, making an end-run around the professional journals by going to the public with wild speculations treated as virtually substantiated fact. Indeed, Pierce has no publications in this area at all, and Bekoff has two papers, both dealing with Grosbeaks, a bird species not discussed in the book.

The fact that animals cooperate does not make them moral beings. There is evidence that some animals feel empathy and jealousy, but no evidence that they have other social emotions that are connected to human morality, especially guilt, shame, pride, disgust, or remorse. Dogs,which have coevolved with humans for tens of thousands of years, may have a rudimentary sense of shame, but this is certainly not proven. Despite the book's title, there is no evidence that animals have a sense of justice in the egalitarian/equal rights sense that humans do, although I believe they do in the sense that in many species individuals have \\"rights\\" that they cherish and will fight to establish and be recognized by conspecifics.

Bekoff and Pierce have a political purpose in writing this book: they want to make a case for animal rights. Thus, in the concluding chapter they say \\"In drawing a picture of animals as beings with rich cognitive, emotional, and social lives, wild justice invites a serious reconsideration of the uses to which we put animals in research, education, for clothes and food...\\" (p.137) It is laudable for scientists to consider seriously the policy implications of their work, so this chapter is a laudable addition to the book. However, I think they could have supported their position more forcefully by sticking to the facts, and choosing their anecdotes less one-sidedly---for every story about how animals are cruel to one another and treat other species purely instrumentally, there are in this book ten stories (often the same ones repeated several times) about how empathetic and helpful they can be. This book is thus likely to be exploited by those animal rights activists (admittedly few, but quite dangerous) for whom truth and accuracy have no intrinsic value, and speculation will circulate as truth in their circles of acquaintances.

Are animals moral agents? Bekoff and Pierce say that some are, because they can voluntarily choose to be nasty or nice, and in fact many individuals in mammalian species do both. This capacity to choose between right and wrong requires a great deal of cognitive complexity and behavioral plasticity, which is why Bekoff and Pierce refuse to attribute morality to the social insects, despite their clearly altruistic behaviors. The authors' position is that animals that are moral agents should have rights, much as we

base human rights on status of human beings as moral agents. Personally, I would argue that animals have rights even when they are not moral agents. For instance, I would say chickens have the right to exercise their natural capacities and propensities even if they are not moral agents.

I think Bekoff and Pierce's argument for animal rights is possibly defensible (the above caveats aside), though they could have done a better job of explaining the why and how, as well as the severe limitations, of animal morality. Indeed, the authors' idea of the very meaning of morality is extremely rudimentary. It is that society has certain norms, and morality consists in conforming to these norms. \\"Behavior becomes immoral,\\" they assert, \\"when it goes against socially established expectations\\" (p. 16). This is a definition of conformity, not morality. If it is the norm for newly established alpha male chimps (or lions) to kill infants sired by the previous alpha male, that does not make it moral, and a new alpha male who tolerates and supports the stock of infants is not thereby immoral.

I believe human morality, as opposed to human social conformity, is based on the notion that individuals have rights and they have intrinsic dignity and value. Being moral is recognizing and protecting these rights, and treating others with the respect they deserve by virtue of their dignity and value. The irony of the situation is that if Bekoff and Pierce had a more plausible notion of morality, they might have made a better case for the moral status of animals. Let me give one example, which I take from an article of mine, \\"Herbert Gintis, \\"The Evolution of Private Property\\", Journal of Economic Behavior and Organization 64,1 (2007):1-16. In this paper I show that territoriality in many species is a social norm that is generally respected byconspecifics, and when their territorial rights are threatened, a territorial animal is prepared to fight, with the prospect of death or serious injury, to protect them. Territoriality in animals is evidenced in humans in the form of \\"individual rights\\" to person and the product of one's labor, and has the behavioral implication of loss aversion, which can be measured and substantiated in the experimental laboratory.

Bekoff and Pierce begin to be on the right track when they stress that play in mammal species often evidences the fact that individuals respect the rights of others and stay within the limits of both propriety and morality by not exploiting playfulness by turning it into domination. But there are not enough arguments based on a defensible notion of morality.which have coevolved with humans for tens of thousands of years, may have a rudimentary sense of shame, but this is certainly not proven. Despite the book's title, there is no evidence that animals have a sense of justice in the egalitarian/equal rights sense that humans do, although I believe they do in the sense that in many species individuals have \\"rights\\" that they cherish and will fight to establish and be recognized by conspecifics.

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A Failure of Capitalism: The Crisis of '08 and the Descent into Depression

A Fine Analysis, Despite the Dumb Title — Rating: 5/5

Richard Posner comes as close to a true American Intellectual, of the old Walter Lippmann type, as anyone alive. His fame and popularity are deserved, and this hard-hitting yet extremely accessible book is probably his most important contribution to American political debate. Financial economics is not all that difficult, there aren't widely divergent schools of thought on the subject, and it is pretty easy to explain, as long as international trade, balance of payments, and exchange rate factors are not at issue. Posner could not be more lucid, and I could discern no mistakes or biases. The title of the book is pretty wrong-headed, though: Posner shows that the failure is one of proper regulation of financial institutions, not of \\"capitalism,\\" and I very much doubt that we are descending \\"into depression,\\" as Posner and many other scare-mongers suggest (take a tip from me, dear reader: take any spare money you have and put it into the market, right now; you'll thank me later).

Says Posner at the outset: \\"Some conservatives believe that the depression is the result of unwise government policies. I believe it is a market failure...The movement to deregulate the financial industry went too far by exaggerating the resilience---the self-healing powers---of laissez-faire capitalism. \\"(p. xii) The conservative argument, which Posner does not even consider worth addressing in more than a passing manner, is that liberal politicians pushed the banking industry into taking on unwanted risk, using the bullying legislative power of Congress and the irresponsible semi-public mortgage institutions Fannie Mae and Freddie Mac. Posner gives short schrift to the equally dumb liberal argument that the financial crisis was caused by \\"corporate greed.\\"

Probably the most popular argument for the financial crisis is that put forth by George Akerlof and Robert Shiller, in their book Animal Spirits. This book is quite worth reading, but their argument that it is the \\"irrationality\\" of economic actors that causes such crises is probably wrong. Certainly Posner thinks so, as he directs his biggest guns toward showing that it is the normal operation of markets, populated by rational decision-makers, that leads to instability. Posner agrees with Akerlof and Shiller

that downward wage rigidity is a precondition for the sort of Keynesian economies we are used to seeing, and that this phenomenon is linked to the softer \\"social relations\\" side of the workplace that is usually left out of the economics textbooks. But, beyond this, he asserts, the standard rational calculations of economic actors can account for the housing and credit bubbles we have witnessed.

The first target of Posner's attack is the assertion, often suggested by professional economists and financial analysis, that extensive financial innovation in mortgage packaging (credit-debt swaps and the like) fooled bankers into thinking they had safe assess when in fact they did not. This situation may have held during the early years of the housing build-up, but as early as September 2002, The Economist, widely read by the economically literate, spotted the housing bubble, and the Financial Times followed suit by 2004. The fact that credit rating agencies rated these new instruments as AAA could not fool the bankers, who knew that the credit-rating agencies were chosen by and paid by the firms that they advised, and generally told them what they wanted to hear; what they wanted to hear was that the new mortgage instruments were sound. Of course, if housing prices were to fall precipitously, bank defaults would be inevitable. But the authorities in Washington, including the Chairman of the Fed, were saying that housing prices were bound to level off, but that \\"new fundamentals\\" would be established at much higher price levels than in the past. By 2006, houses were seriously overvalued in hindsight, as witnessed by the fact that speculation in houses by the well-to-doaccounted for a majority of home purchases even at the height of the bubble.

Posner rightly tresses that in business, investment behavior and general business practice develop by individuals imitating the successful behavior of others, and by assuming that the future will be more or less like the past, unless events indicate otherwise. Thus, asset bubbles sound irrational, but when rational agents are in the middle of one, they do not simply get off the gravy train because of a curious asymmetry of competition. If a large bank said in 2004 that it would no longer participate in the mortgage market, its shareholders would hold it accountable for the foregone profits in case housing prices continued to rise and stabilized at a high level, and would probably force a change in leadership over the course of a year or less. By contrast, if the bank went along with the general state of opinion, even in the case of collapse, they would be unlikely to be blamed because they merely followed the received wisdom of the marketplace. Posner here quotes Keynes approvingly: \\"The market can stay irrational longer than you can stay solvent.\\"

Moreover, Posner notes that the structure of executive compensation encouraged excessive risk-taking. \\"The tendency of corporate management to cling to a bubble and hope for the best...is strengthened if...executive compensation is both very generous and truncated on the downside. For then every day that you stay in you make a lot of money, and you know that when the bubble bursts you'll be okay because you have negotiated a generous severance package with your board of directors.\\" (p. 93) Posner is both accurate and eloquent in analyzing how virtually all participants, politicians, lawyers, accounting firms, boards of directors, find it in their interest to prolong the roller coaster ride as long as possible. The result is a disaster for the economy as a whole, and for the many lower-level workers and pensioners who are devastated by the resulting meltdown, but there is nothing irrational in the behavior of the major participants.

It is precisely for this reason that Posner calls the crisis a \\"failure of capitalism.\\" According to his logic, there will always be expansionary periods that get out of hand, in which the prudent are cast aside in favor of the risk-tolerant, and a tide of justifiable optimistic expectations ensues, even though in hindsight a coordinated retreat could have left all parties better off.

My own agent-based model of large-scale multi-market economies (\\"The Dynamics of General Equilibrium,\\" The Economic Journal 117 October 2007) quite supports Posner's analysis. The same high level of incomplete information that renders market economies so potent a force in aggregating the plans of millions of consumers, workers, and employers bears as a byproduct the tendency to tolerate and even promote large excursions of prices and quantities away from their equilibrium levels. No doubt there will be new sets of regulations preventing the recurrence of the conditions that led to the current crisis, but new conditions will lead to new bubbles. I'm not sure if this is a failure of capitalism, but it is a stable characteristic of capitalism that cannot be legislated out of existence, save at the cost of severely crimping innovation and growthof home purchases even at the height of the bubble. Posner rightly tresses that in business, investment behavior and general business practice develop by

individuals imitating the successful behavior of others, and by assuming that the future will be more or less like the past, unless events indicate otherwise. Thus, asset bubbles sound irrational, but when rational agents are in the middle of one, they do not simply get off the gravy train because of a curious asymmetry of competition. If a large bank said in 2004 that it would no longer participate in the mortgage market, its shareholders would hold it accountable for the foregone profits in case housing prices continued to rise and stabilized at a high level, and would probably force a change in leadership over the course of a year or less. By contrast, if the bank went along with the general state of opinion, even in the case of collapse, they would be unlikely to be blamed because they merely followed the received wisdom of the marketplace. Posner here quotes Keynes approvingly: \\"The market can stay irrational longer than you can stay solvent.\\" Moreover, Posner notes that the structure of executive compensation encouraged excessive risk-taking. \\"The tendency of corporate management to cling to a bubble and hope for the best...is strengthened if...executive compensation is both very generous and truncated on the downside. For then every day that you stay in you make a lot of money, and you know that when the bubble bursts you'll be okay because you have negotiated a generous severance package with your board of directors.\\" (p. 93) Posner is both accurate and eloquent in analyzing how virtually all participants, politicians, lawyers, accounting firms, boards of directors, find it in their interest to prolong the roller coaster ride as long as possible. The result is a disaster for the economy as a whole, and for the many lower-level workers and pensioners who are devastated by the resulting meltdown, but there is nothing irrational in the behavior of the major participants. It is precisely for this reason that Posner calls the crisis a \\"failure of capitalism.\\" According to his logic, there will always be expansionary periods that get out of hand, in which the prudent are cast aside in favor of the risk-tolerant, and a tide of justifiable optimistic expectations ensues, even though in hindsight a coordinated retreat could have left all parties better off. My own agent-based model of large-scale multi-market economies (\\"The Dynamics of General Equilibrium,\\" The Economic Journal 117 October 2007) quite supports Posner's analysis. The same high level of incomplete information that renders market economies so potent a force in aggregating the plans of millions of consumers, workers, and employers bears as a byproduct the tendency to tolerate and even promote large excursions of prices and quantities away from their equilibrium levels. No doubt there will be new sets of regulations preventing the recurrence of the conditions that led to the current crisis, but new conditions will lead to new bubbles. I'm not sure if this is a failure of capitalism, but it is a stable characteristic of capitalism that cannot be legislated out of existence, save at the cost of severely crimping innovation and growth

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Class War?: What Americans Really Think about Economic Inequality

A Reaffirmation of What We Have Long Known — Rating: 3/5

Class War? is a very short book on the attitudes of the American public towards egalitarian social policy. It is an easy and fast read, very informative, but could have been a 30 page journal article without losing any information. Americans, we are told, are \\"conservative egalitarians\\" who, by large majorities, believe in meritocracy, competitive markets, and success through hard work and ambition, yet are uncomfortable with the degree of inequality in America, and particularly in the excess of wealth concentrated in the very rich (these data do not reflect the wealth distribution following the financial crisis of 2007).

Page and Jacobs find that most responds would like to see egalitarian correctives, but only extremely focused correctives to deal with specific problems, like child care, job retraining, and funding education and health care.

Curiously missing is an assessment of how Americans rank income inequality among the pressing problems that face us. It is not reasonable to treat this distributional issue apart from its interrelation with other social problems. Another missing element is the attitude of Americans towards poverty, as opposed to middle-class vs. the rich issues.

Because of these gaps in the books argument, I do not believe the authors are justified in claiming that income redistribution from rich to the working and middle classes should be a prime issue on our political agenda. Back to the drawing board, Mssrs. Page and Jacobs!

Origins of Human Communication

Wittgenstein Meets Sociobiology — Rating: 5/5

Michael Tomasello is perhaps the consummate product of contemporary sociobiology. A tenet of sociobiology is that we can understand the behavior of a species by comparing and contrasting with closely related species, and with species that have found similar means for solving their social problems. Tomasello offers us deep insights into human communication and learning by comparing and contrasting our behavior with that of our nearest evolutionary relatives, the great apes.

Tomasello is not only a creative and incisive scientist, but also a learned intellectual, who is at ease bringing philosophical issues to bear on complex questions in behavioral science. In this book, we not only find out about human communication, but also are rewarded with an appreciation of the philosophy of the great Ludwig Wittgenstein. Wittgenstein is a difficult philosopher because he writes in quasi-aphorisms and follows something like the Socratic Method in asking questions rather than answering them. A good example is the quotation from the Philosophical Investigations with which Tomasello's book starts: \\"Point to a piece of paper. And now point to its shape---now to its color---now to its number... How did you do it?\\" Wittgenstein's point is that gestures as a form of communication are primary and part of our essence as humans. They are not translations of verbal linguistic structures into visual form. As Wittgenstein says in his unpublished notes (The Big Typescript, 2005[1933]), \\"What we call meaning must be connected with the primitive language of gestures.\\"

Tomasello takes Wittgenstein literally: we share with chimpanzees and other apes the capacity to communicate by gesture, so it is likely that this was a capacity possessed by our most recent common ancestor. \\"My central claim,\\" Tomasello writes (p. 2), \\"is that to understand how humans communicate...using a language...we must first understand how humans communicate...using natural gestures. Indeed, my evolutionary hypothesis will be that the first truly human forms of communication were pointing and pantomiming.\\" Tomasello does not prove this thesis (if it can be proved at all), but rather uses the differences between gesture in apes and humans to develop a story of why humans catapulted so far beyond the apes in the use of communicative tools.

Tomasello's hypothesis from a careful study in contrasts between the role of gesturing in human and non-human primate societies is that \\"there must be some fairly specific connections between the fundamentally cooperative structure of human communication...and the especially cooperative structure of human, as opposed to other primate, social interaction and culture in general.\\" (p. xi). Humans communicate because they want to help one another, he asserts, and a highly flexible system of communication is more helpful than a series of pants and grunts.

Tomasello gives a number of compelling examples contrasting human and other primate communication. Here is one: \\"When a whimpering chimpanzee child is searching for her mother,\\" he writes, \\"it is almost certain that all of the other chimpanzees in the immediate area know this. But some if nearby female knows where the mother is, she will not tell the searching child, even though she is perfectly capable of extending her arm in a kind of pointing gesture\\" (p .5). Human communication, he argues, is a fundamentally cooperative enterprise, dependent upon deep commonalties in the consciousness of humans, including a common conceptual ground and cooperative communicative motives.

This human commonality is what Tomasello calls \\"shared intentionality\\": \\"The proposal is thus that human cooperative communication...is one instance...of a uniquely human cooperative activity relying on shared intentionality.\\" At this point Tomasello relies on Gilbert and Searle, who are fine philosophers but whose theory of \\"collective intentionality\\" I think is completely without merit. Neither the conceptual arguments nor the empirical examples provided by these philosophers (and other of this school of thought) are compelling, and I believe that a combination of game theory, gene-

culture coevolutionary theory, and the psycho-social theory of norms is a better starting point to understand how individual intentional agents succeed in coordinating their activities so as to produce human cooperation.

The problem with the theory of collective intentionality is that it depicts cooperation as a process in which all participants have no motives except for that of accomplishing the \\"team goal,\\" whereas in fact this is rarely even remotely the case. The triumph of human cooperation is that people manage to coordinate their activities even though they generally have highly heterogeneous motives. For Tomasello, humans developed language because they want to help one another. However, it is not clear what fitness benefit comes from helping others, and the notion that we developed huge brains, complex voice boxes and its associated aural production physiology because we \\"want to help each other\\" is implausible. Indeed, among the more prominent predilections of humans is to lie, cheat, and attempt to free-ride on the prosocial behavior of others.

I find it more plausible to posit that human language flourished when humans became sufficiently adept at punishing social miscreants (gossip, shunning, beating, ostracizing) that it became plausible that communication would be truthful, on balance, and the detection and punishing of untruthful utterances could occur with high probability. Once the veracity of communication was ensured, it became possible to coordinate much more complex activities (e.g., warfare, conflict adjudication, hunting strategy, complex verbal agreements of intention), and individuals with the best command of language were afforded special privileges, including more and higher quality offspring, thus justifying the costs of developing the communication physiology.

I am not saying that Tomasello is wrong in stressing the humans have an inordinately highly developed propensity to help each other for purely altruistic reasons. They clearly do, and the predisposition towards prosocial behavior is one of the preconditions of human cooperation. However, the notion that language developed because people like to help each other and have a collective, or shared, intentionality is not a plausible basis for a theory of human communication. Human society is just more complicated than that.ts nor the empirical examples provided by these philosophers (and other of this school of thought) are compelling, and I believe that a combination of game theory, gene-culture coevolutionary theory, and the psycho-social theory of norms is a better starting point to understand how individual intentional agents succeed in coordinating their activities so as to produce human cooperation. The problem with the theory of collective intentionality is that it depicts cooperation as a process in which all participants have no motives except for that of accomplishing the \\"team goal,\\" whereas in fact this is rarely even remotely the case. The triumph of human cooperation is that people manage to coordinate their activities even though they generally have highly heterogeneous motives. For Tomasello, humans developed language because they want to help one another. However, it is not clear what fitness benefit comes from helping others, and the notion that we developed huge brains, complex voice boxes and its associated aural production physiology because we \\"want to help each other\\" is implausible. Indeed, among the more prominent predilections of humans is to lie, cheat, and attempt to free-ride on the prosocial behavior of others. I find it more plausible to posit that human language flourished when humans became sufficiently adept at punishing social miscreants (gossip, shunning, beating, ostracizing) that it became plausible that communication would be truthful, on balance, and the detection and punishing of untruthful utterances could occur with high probability. Once the veracity of communication was ensured, it became possible to coordinate much more complex activities (e.g., warfare, conflict adjudication, hunting strategy, complex verbal agreements of intention), and individuals with the best command of language were afforded special privileges, including more and higher quality offspring, thus justifying the costs of developing the communication physiology.I am not saying that Tomasello is wrong in stressing the humans have an inordinately highly developed propensity to help each other for purely altruistic reasons. They clearly do, and the predisposition towards prosocial behavior is one of the preconditions of human cooperation. However, the notion that language developed because people like to help each other and have a collective, or shared, intentionality is not a plausible basis for a theory of human communication. Human society is just more complicated than that.

Intentions in Communication (System Development Foundation Benchmark Series)

Lots of Controversial Material to Think About — Rating: 4/5

This big book (500+ pages) brings together researchers from several disciplines, from computer science and artificial intelligence to philosophy and psychology to address the problem of intentions in a theory of communication. The motivation for the book and many of its authors is the fact that standard artificial intelligence models of communication do not include intentionality, and such theories generally fail to explain human communication. Is intentionality key to human communication, and if so, how?

I purchased this book to read one paper in it, \\"Collective Intentions and Actions\\" (pp. 401--415). Searle's goal here to extend his theory of individual intentionality (he published a book with the title \\"Intentionality\\" in 1983) to a theory of collective intentionality. I wanted to find out Searle's defense of the notion of collective intentionality because several game theorists and their associated philosophers claim that there is a concept of \\"we-thinking\\" or \\"collective reasoning,\\" that goes beyond the aggregation of individual decision-making. I very much respect the economists and game-theoretically oriented philosophers who make this claim, including (the late) Michael Bacharach, Nathalie Gold, and Robert Sugden. However, I have been completely unpersuaded by their arguments. Parallel arguments have been made by philosophers Margaret Gilbert and Raimo Tuomela, but these are, if anything, even less persuasive. I have always found philosopher John Searle to be extremely creative and clear as a thinker, so it seemed to me that his analysis of collective intentionality might fill in the gaps the leave me skeptical of the literature.

Searle argues (a) collective intentionality obviously exists, and (b) it cannot be explained as an aggregation of individual intentionalities, but rather \\"is a primitive phenomenon.\\" His argument for (a) is that \\"It seems obvious that there really is a collective intentional behavior as distinct from individual intentional behavior. You can see this by watching a football team execute a pass play or hear it by listening to an orchestra.\\" (p. 401) However, this is not only not obvious, it is plainly wrong. What is experienced in this and similar cases is highly coordinated cooperative behavior. In both cases, the role of each participant has been carefully marked out by a single agent, whom I will call the \\"choreographer,\\" or perhaps a few interacting agents using a collective decision process to adjudicate differences among them in the content of the choreography, and conveyed to the members of the \\"team.\\" A \\"pass play\\" in football is diagrammed, memorized by the players, and carried out on precise cue under objectively given conditions. A similar analysis holds for the interpretation of a musical score and its execution by the musicians.

Searle argues that we can see the collective intentionality in the idea that there is a collective goal to the group---winning the football match, and producing beautiful music. However, individual group members may place some value on this \\"goal,\\" but are unlikely to be motivated thereby unless they are properly rewarded in other, usually more material, ways. Moreover, some group members may actually have the intention of out-performing other members, thereby gaining personally at the expense of the \\"collective intention\\" of the group. Similarly, group members may be performing solely for the pay, or for the chance to get a better job, or even to get a date with another group member. Perhaps Searle can introspect and discover that he has performed in a group with \\"collective intentional\\" behavior, but I have not. I am certain that I am not alone. Therefore, even should some people like Searle exist, it would be a miracle if they more than rarely constituted any real collectively interacting cooperative group.

The failure of the team-reasoning models, I believe, is purely empirical. The mental states and behavioralregularities they posit simply do not exist. It is interesting to consider why such plainly creative and intelligent thinkers could come up with such an implausible type of argument. I suspect that the problem is that game theorists and philosophers in the analytical tradition are fundamentally \\"methodological individualist,\\" believing that all social phenomena can be explained in terms of the aggregated characteristics of individual actors. If this were true, then if collective, highly coordinated cooperation is observed, it must because each individual is capable of \\"we-reasoning\\" or \\"collective intentionality.\\" Indeed, Searle says explicitly that \\"collective intentionality\\" is in the

head of each participant in the \\"team.\\" Searle says (p. 407) \\"There are intentions whose form is: We intend that we perform act A; and such an intention can exist in the mind of each individual agent who is acting as part of the collective.\\"

The alternative is to admit that there are social forces above the level of the individual that permit cooperation. For instance, humans have the ability to recognize that a certain situation indicates that a certain \\"game\\" is likely to be played by all individuals involved in that situation. The markers that indicate such a situation may be called a \\"frame\\" for the game. For instance, For instance, if I wave my hand at a passing taxi in a large city, both I and the driver of the taxi will consider this an event of the form ``hailing a taxi." When the driver stops to pick me up, I am expected to enter the taxi, give the driver an address, and pay the fare at the end of the trip. Any other behavior would be considered bizarre. Similar examples hold for commuting to work, going to church, and all other collective, cooperative activities. The point of social theory is to show how cooperation can emerge from the game-theoretically choreographed interaction of agents, each of whom is an intentional agent, and without the need for an assumption of collective intentionality. Or, so I argue in my book The Bounds of Reason (Princeton, 2009).ply do not exist. It is interesting to consider why such plainly creative and intelligent thinkers could come up with such an implausible type of argument. I suspect that the problem is that game theorists and philosophers in the analytical tradition are fundamentally \\"methodological individualist,\\" believing that all social phenomena can be explained in terms of the aggregated characteristics of individual actors. If this were true, then if collective, highly coordinated cooperation is observed, it must because each individual is capable of \\"we-reasoning\\" or \\"collective intentionality.\\" Indeed, Searle says explicitly that \\"collective intentionality\\" is in the head of each participant in the \\"team.\\" Searle says (p. 407) \\"There are intentions whose form is: We intend that we perform act A; and such an intention can exist in the mind of each individual agent who is acting as part of the collective.\\" The alternative is to admit that there are social forces above the level of the individual that permit cooperation. For instance, humans have the ability to recognize that a certain situation indicates that a certain \\"game\\" is likely to be played by all individuals involved in that situation. The markers that indicate such a situation may be called a \\"frame\\" for the game. For instance, For instance, if I wave my hand at a passing taxi in a large city, both I and the driver of the taxi will consider this an event of the form ``hailing a taxi." When the driver stops to pick me up, I am expected to enter the taxi, give the driver an address, and pay the fare at the end of the trip. Any other behavior would be considered bizarre. Similar examples hold for commuting to work, going to church, and all other collective, cooperative activities. The point of social theory is to show how cooperation can emerge from the game-theoretically choreographed interaction of agents, each of whom is an intentional agent, and without the need for an assumption of collective intentionality. Or, so I argue in my book The Bounds of Reason (Princeton, 2009).

On Deep History and the Brain

A meandering first cut at deep history for historians — Rating: 2/5

Daniel Lord Smail is a historian at Harvard University. He is perhaps motivated to write this book because his father, John R. W. Smail was a professor of Southeast Asian history who, out of step with his times, taught an undergraduate course called \\"The Natural History of Man.\\"

I bought this book because it got a good review in Science, which is not known for its attention to the historian's craft. True to form, Smail is a fine writer who can put together a coherent argument, as is the case for his Chapter 2, which analyzes insightfully why historians generally believe history begins with settled agriculture, urban life, and the written record.

Generally, however, this is a meandering, unfocused book that seems like the author's attempt to learn elementary paleontology, anthropology, brain science, and evolutionary psychology. There is no real history in the book, although there are good (if somewhat casual) introductions to modern sociobiology and neuroscience (especially the neurotransmitters and their role in human sociality). I especially liked his gentle but devastating critique of Evolutionary Psychology, of the sort that characterizes modern Homo sapiens as a \\"stone age mind in a modern skull.\\"

What is missing most from this book is what it's title promises: a deep history of human society as seen through the evolution of the human brain. Indeed, it is difficult to find such a deep history anywhere, and if it were to be written, it would have to be in the context of the evolution of craniates and vertebrates, of which our species is but one member.

The Housing Boom and Bust

Much that is New, Much that is True---And Critical Parts that are Not — Rating: 2/5

I once gave something I wrote to a colleague for comments. He told me \\"there is much that is new here, and much that is true. Unfortunately, that which is new is not true, and that which is true is not new.\\" I believe the same can be said for this, Thomas Sowell's contribution to understanding the housing bubble and financial meltdown of the past several years.

The most persuasive parts of the book concern Sowell's critique of the attempt of liberal legislators and activists in the early 1990's to induce private lending institutions to increase their lending to minority applicants in the inner city, on grounds that these institutions were engaged in illegal discriminatory practices. The idea that profit-driven lenders would care about the race, or any other characteristic, of their clients that did not impact on profitability is highly questionable, and I do not believe that there has ever been any credible evidence that the banks were in fact guilty, although the practice of \\"red-lining\\" may indeed be illegal even when profitable. Sowell spends the bulk of this book dredging up this old issue, with the allegation that the pressure of the government to lower credit standards created a climate of norms and expectations without which the subprime lending disaster could not have occurred.

It is this allegation, that the financial meltdown was caused by \\"excessive government regulation\\" rather than \\"greed\\" or \\"failure of the free market\\", that is new and is very likely untrue (the \\"greed\\" alternative is surely incorrect, and the \\"failure of the free market\\" should be seen as a failure of effective regulation of the free market). The free market true-believers, of whom Sowell is the most credible, were momentarily disarmed by the rapid unraveling of the US financial system. Former Federal Reserve chairman Alan Greenspan said just last year \\"Those of us who have looked to the self-interest of lending institutions to protect shareholder's equity -- myself especially -- are in a state of shocked disbelief.\\" However, they are coming back in full force to put the blame squarely on government regulation.

Sowell's main charge is that Fannie Mae and Freddie Mac, which are privately owned, stock-issuing companies, but are GSEs (government-sponsored enterprises) that are accorded special privileges established by Federal law, are really responsible for the reckless spate of subprime mortgage lending. \\"government agencies not only approved the more lax standards for mortgage loan applicants, government officials were in fact the driving force behind the loosening of mortgage loan requirements.\\" (p. 30) More specifically, \\"the development of lax lending standards, both by banks and by Fannie Mae and Freddie Mac standing behind the banks, came not from a lack of government regulation and oversight, but precisely as a result of governmet regulation and oversight, directed toward the politically popular goal of home ownership: through \\"affordable housing\\"...These lax lending standards were the foundation for a house of cards that was ready to collapse with a relatively small nudge.\\" (p. 57)

It is important to note that Sowell never substantiates this charge with any empirical evidence, and in fact they do not square up to the facts.

It is true that the NSEs have special privileges, among which are being exempt from state and local income taxes, Securities and Exchange Commission requirements and fees, and they have potential lines of credit with the Treasury of over $2.25 billion. In exchange, the President can appoint five of their eighteen board members. The most important effect of their Federal charters is, however, the implicit understanding that the Federal government would never permit Fannie Mae or Freddie Mac to fail, whatever the state of their portfolio.

Sowell's point is that this implicit guarantee appears to place stockholders in a no-lose situation in which they cantake great risks with subprime mortgages and reap the profits when things go well, but can offload their losses to the taxpayer when things go bad. Were this true, there is no doubt but that these the two GSEs would take on otherwise highly unprofitable levels of risk. This is the received wisdom, but in fact, stockholders have been clobbered by the financial meltdown, and stock prices in these two institutions have fallen to near zero. Stockholders understood that the institutions would be saved, but their stock values would not be immune from steep decline.

Moreover, just as housing prices began to increase rapidly several years ago, Federal regulators, responding to GSE accounting scandals, placed serious restraints on their ability to assume high-risk debt. Indeed, by definition these GSEs did not engage in subprime lending because their legal statutes prohibited them from issuing mortgages without substantial down payments and closely validated assurances concerning family income and wealth. [Professor Russell Roberts (Economics, George Mason University) commented on this point in personal communication: \\"As far back as 1999, Fannie and Freddie were using subprime mortgage purchases and the purchases of subprime backed MBS to satisfy their HUD requirements to purchase \\"affordable\\" mortgages, a requirement that began in the Clinton administration and that Bush continued with equal if not greater zeal. This has been documented by both the NYT and the Washington Post though without much detail. I've read through the annual reports of Fannie and Freddie where they admit in the early 2000s that subprime mortgages typically amount to 17% of their book of business--which amounts to hundreds of billions of dollars in some years. Edward Pinto, former CFO of one of them claimed in Congressional testimony that they were actually even more involved than this. I am skeptical of both of these claims to some extent. Informed folks have told me that the annual reports of Fannie and Freddie may be essentially fictional. And I'm not sure that Pinto's analysis is verifiable or accurate. Either way, it's clear and undeniable that Fannie and Freddie were non-trivial players in the subprime market. But how signficant is their involvement? Very hard to tell. While I've suggested that the above story may be important, it is mitigated (as is Sowell's story) by the fact that Ireland and Spain and South Africa (I think) also had housing bubbles. Did they have government-mandated expansion into the low-income sector? I suspect not. So all of the domestic explanations have to answer the magnitude question. Surely Fannie and Freddie contributed to the problem. But you have to establish the magnitude.] Indeed, Fannie Mae and Freddie Mac began to recede from the forefront of mortgage lending when the housing bubble emerged in the years after 2003.

Fannie Mae and Freddie Mac executives panicked when their positions in mortgage markets began to deteriorate, and they introduce questionably legal procedures (\\"expanded approval\\" for Fannie Mae and \\"A minus\\" for Freddie Mac) to recapture market share. But these efforts were basically unsuccessful because the GSE lenders were saddled with fixed-rate loan structures. The share of GSEs in the mortgage market faded rapidly in the latter years of the housing bubble.

Note that before being taken over by the government, the GSEs were private, market-oriented, investor-owned companies, and their behavior in excessive risk-taken was, if anything, less pronounced that the rest of the private financial sector. Nor did any Federal legislation, including the Community Investment Act of 1977, require that banks take on subprime assets. As Richard Posner says in his recent book on the subject, \\"the pressure exerted by the government to lower lending standards was a case of pushing on an open door...Banks wanted to make risky mortgage loans.' Indeed, never during the housing bubble dynamics did they protest that they were forced to behave irresponsibly. \\"The critical role of government in the crisis,\\" Posner concludes, was one of permission rather than encouragement.\\" (p. 242) In other words, the financial meltdown of 2007 and after was a failure of coherent regulation, not government meddling.

Sowell's book, in short, is very useful for his analysis of the \\"affordable housing\\" movement, but only the free-market fundamentalists will find his analysis of the current crisis appealing.

The current crisis is in fact a failure of appropriate regulation. The finance sector developed over the past decade a number of novel financial instruments, including credit default swaps, that could be bought, sold, and traded without the usual constraints (especially limitations on reserve requirements). The Garn-St. Germain act of 1982, which dropped New Deal era banking constraints, made this sort of innovation possible, and countries (e.g. Canada) that retained similar controls enjoyed stable banking

sectors despite the US financial crisis. The intense short-sidedness of the financial sector, itself a product of the industry's incentive structure, plus the power of banks to shop for auditors who would overlook the shakiness of the newly minted asset-types, allowed the financial sector to spiral out of control. The idea that the government's entanglement with GSE's is a key element in precipitating the crisis is just not plausible.

Incidentally, Sowell himself is not a free-market true believer (indeed, no one who has carefully studied modern economic theory could be), but rather a believer in the proposition that the government is rarely an effective regulator of the market, so should stay out of regulation under most conditions. This is not a bad thought, but it does not apply to the financial sector, which has shown itself to operate well only when regulated well.

Please do not infer from my assessment of Sowell's argument that I am a crusader for heavy regulation of the financial sector. I am not. I think that countries that dropped New Deal type regulations in the 1980s were correct to do so (this includes the US and Britain), because this led to many years of furious innovation and almost full employment. The failure of regulation occurred in the past decade, where the stupidity and avarice of politicians equalled if not exceeded that of financial sector operatives. The private sector operatives at least have the excuse that they were merely doing what competition dictated (I believe this is the case---see Richard Posner's new book on the topic for a cogent defense), whereas the politicians should have known better, and their economic advisors should be relegated to teaching in Jr. High School on the basis of their shockingly poor perspective on the situation. I would love to see Larry Summers and Alan Greenspan teaching twelve year olds for a few years (Wittgenstein did it, and it made him a lot more reasonable and creative).

For a careful assessment of the history of financial regulation in the US, see Moss, David A. (2004). When All Else Fails: Government as the Ultimate Risk Manager. Harvard University Press. ISBN 0-674-01609-2. http://www.amazon.com/dp/0674016092/. Moss notes that from 1792 to the Great Depression in 1933, financial crises occurred about every 15 to 20 years. Between 1933 and the mid-1980s there were no financial crises at all. This period of financial calm was largely the product of strong financial regulation, starting with the Glass-Steagall Act of 1933 and the Banking Act of 1935. The framers of these measures realized important economic regularities. For instance, federal deposit insurance would stop the threat of bank runs, but would lead banks to take excess rist, as they would be undisciplined by their depositors. Hence, these Acts included safeguards against excessive risk-taking. When these safeguards were largely dismantled in the 1980s and in the current era, the reappearance of financial fragility was assured, starting with the Savings and Loan debacle of the mid-1980s.

I am not arguing that we need iron-fist financial regulation. Far from it. I am arguing that the ideologues who believe that no regulation is the best regulation are just as much our enemies as those who would nationalize the financial system and replace financial experts with Citizens Councils.\\"The critical role of government in the crisis,\\" Posner concludes, was one of permission rather than encouragement.\\" (p. 242) In other words, the financial meltdown of 2007 and after was a failure of coherent regulation, not government meddling. Sowell's book, in short, is very useful for his analysis of the \\"affordable housing\\" movement, but only the free-market fundamentalists will find his analysis of the current crisis appealing. The current crisis is in fact a failure of appropriate regulation. The finance sector developed over the past decade a number of novel financial instruments, including credit default swaps, that could be bought, sold, and traded without the usual constraints (especially limitations on reserve requirements). The Garn-St. Germain act of 1982, which dropped New Deal era banking constraints, made this sort of innovation possible, and countries (e.g. Canada) that retained similar controls enjoyed stable banking sectors despite the US financial crisis. The intense short-sidedness of the financial sector, itself a product of the industry's incentive structure, plus the power of banks to shop for auditors who would overlook the shakiness of the newly minted asset-types, allowed the financial sector to spiral out of control. The idea that the government's entanglement with GSE's is a key element in precipitating the crisis is just not plausible. Incidentally, Sowell himself is not a free-market true believer (indeed, no one who has carefully studied modern economic theory could be), but rather a believer in the proposition that the government is rarely an effective regulator of the market, so should stay out of regulation under most conditions. This is not a bad thought, but it does not apply to the financial sector, which has shown itself to operate well only when regulated well. Please do not infer from my assessment of Sowell's argument that I am a crusader for heavy regulation of the financial

sector. I am not. I think that countries that dropped New Deal type regulations in the 1980s were correct to do so (this includes the US and Britain), because this led to many years of furious innovation and almost full employment. The failure of regulation occurred in the past decade, where the stupidity and avarice of politicians equalled if not exceeded that of financial sector operatives. The private sector operatives at least have the excuse that they were merely doing what competition dictated (I believe this is the case---see Richard Posner's new book on the topic for a cogent defense), whereas the politicians should have known better, and their economic advisors should be relegated to teaching in Jr. High School on the basis of their shockingly poor perspective on the situation. I would love to see Larry Summers and Alan Greenspan teaching twelve year olds for a few years (Wittgenstein did it, and it made him a lot more reasonable and creative). For a careful assessment of the history of financial regulation in the US, see Moss, David A. (2004). When All Else Fails: Government as the Ultimate Risk Manager. Harvard University Press. ISBN 0-674-01609-2. http://www.amazon.com/dp/0674016092/. Moss notes that from 1792 to the Great Depression in 1933, financial crises occurred about every 15 to 20 years. Between 1933 and the mid-1980s there were no financial crises at all. This period of financial calm was largely the product of strong financial regulation, starting with the Glass-Steagall Act of 1933 and the Banking Act of 1935. The framers of these measures realized important economic regularities. For instance, federal deposit insurance would stop the threat of bank runs, but would lead banks to take excess rist, as they would be undisciplined by their depositors. Hence, these Acts included safeguards against excessive risk-taking. When these safeguards were largely dismantled in the 1980s and in the current era, the reappearance of financial fragility was assured, starting with the Savingsand Loan debacle of the mid-1980s. I am not arguing that we need iron-fist financial regulation. Far from it. I am arguing that the ideologues who believe that no regulation is the best regulation are just as much our enemies as those who would nationalize the financial system and replace financial experts with Citizens Councils.

Ontology and Economics: Tony Lawson and His Critics (Routledge Advances in Heterodox Economics)

The Only Effective Critique is an Alternative — Rating: 2/5

This book, which consists of brief critiques of Tony Lawson, a professor of economics at Cambridge University, by eleven economists, along with replies to each by Lawson, is part of the Routledge Press series \\"Advances in Heterodox Economics.\\" Heterodox economists generally agree that mainstream economics enjoys an unwarranted degree of legitimacy, power, resources, and political influence. Indeed, the top economic journals are all more or less \\"mainstream.\\" Moreover, although the journals are not ideologically rigid, they generally agree on what constitutes publishable economic research, and this covers an extremely narrow range compared to some other disciplines, including sociology and political science. Finally, this narrowness is not deserved in terms of the explanatory power of the theory they espouse. Many articles in the journals run by heterodox economists are superior to many articles in the most prestigious of the mainstream journals.

I think it is fair to say that not only Lawson, but all of his critics in this volume are more or less firmly attached to the heterodoxy camp. This does not lessen the value of their critiques, several of which are extremely insightful in pointing out and analyzing key weaknesses in Lawson's opus. The only substantive distortion arising from this within-group parry-and-thrust is the strong tendency of participants, and especially the editor, vastly to overstate Lawson's presence in the economics profession. \\"Tony Lawson has become a major figure of intellectual controversy...Lawson's arguments are so powerful that few economists now feel that his case can be ignored.\\" (overleaf). The truth is exactly the contrary: in my experience, most economists neither know of Lawson's critique nor are the impressed with this critique when it is presented to them (e.g., by students). Having suggested as much in a critique of Lawson several years ago, I am accused in this book of being a \\"defender of the status quo\\" who resorts to \\"hurling personal abuse at [Lawson].\\" (p.7). A more monster misrepresentation of my position in the economics profession would be difficult to imagine; I have been considered an enemy of the received wisdom in economics throughout my career.

It is true that I have been critical of the general tendency of the \\"heterodox economists\\" to set up an alternative set of journals and to ignore the mainstream by simply talking to one another and complaining about being frozen out of the big time. My personal attitude is that there is only one truth, and we must do the research necessary to convince \\"mainstream\\" economists that we deserve to be published. In this sense, I am \\"homodox\\" rather than heterodox. The heterodox position tends to be that the mainstream is ideologically biased and closed to new ideas, but this is true only of a fraction of mainstream economists. I am convinced that if my ideas are rejected by major economics journals, the error is mine, not the editors and reviewers of the journals. My evidence is the breathtaking rate at which such fields as experimental economics and neuroeconomics have been represented in the top journals, and the extent to which relatively innovatory journals, such as the Journal of Economic Behavior and Organization, the Quarterly Journal of Economics, and the Journal of Economic Perspectives, have increased in readership and citation popularity in recent years.

This does not mean that there is no substance to the ideas that the reigning orthodoxy is too narrow, and that there are likely to be great gains from recognizing the limitations and biases of this orthodoxy. However, as I argue in my book The Bounds of Reason (Princeton, 2009), overcoming these weaknesses is likely to require more formal modeling, analytical, agent-based, and other, rather than the less formal modeling preferred by Lawson.

Lawson's economics is all philosophical critique and hence fails to present a viable alternative.Scientists---not just in economics but in all areas of natural and behavioral science---do not care about methodology. Rather, they uniformly adhere to the notion that the only effective critique is a superior alternative. Every smart, young, economist who goes the way of reading Wittgenstein and Popper, and whining about the shortcomings of traditional methodology, rather than rolling up his or her sleeves and tackling the weaknesses of mainstream theory with superior alternatives is, to my mind, another creative possibility lost. This is not, of course, an argument against being well-read in philosophy; rather it is an argument against thinking a philosophical critique is an alternative to the status quo.nomics but in all areas of natural and behavioral science---do not care about methodology. Rather, they uniformly adhere to the notion that the only effective critique is a superior alternative. Every smart, young, economist who goes the way of reading Wittgenstein and Popper, and whining about the shortcomings of traditional methodology, rather than rolling up his or her sleeves and tackling the weaknesses of mainstream theory with superior alternatives is, to my mind, another creative possibility lost. This is not, of course, an argument against being well-read in philosophy; rather it is an argument against thinking a philosophical critique is an alternative to the status quo.

Against the Terror of Neoliberalism: Politics Beyond the Age of Greed (Cultural Politics and the Promise of Democracy)

A Thoughtful Contribution to Political Theory--Not — Rating: 1/5

I have trouble reading this book in large chunks because virtually every paragraph leaves me mystified and asking unanswered questions. Thus, I propose to make comments periodically, and hopefully a full review will emerge at the end of the process.

First off, I find the very idea of \\"neoliberalism\\" to be conservative and backward looking. That is not necessarily bad, but in this case, what Giroux looks back to is the post-WWII era in the US and Europe when unions were very strong and the left offered a vision of state-controlled economic relations that was attractive to a large fraction of the electorates in many countries. We might call that the \\"social democratic\\" opposition to classical liberalism, which upheld a strong market economy in which the role of the state was mainly protecting property rights, defending the country, and determining the supply of money.

The lament of Giroux is that we have abandoned the social-democratic opposition, and classical liberalism has returned to its former hegemonic power, to the detriment of (a) the poor; (b) workers; (c) minorities; (d) women; and (e) third world countries. Indeed, the opening quotation in chapter one is by Susan George (1999) who says \\"In 1945 or 1950, if you had seriously proposed any of the ideas and

policies in today's standard neo-liberal toolkit, you would have been laughed off the stage or sent off to the insane asylum\\". \\"Gone,\\" comments Giroux, \\"is capitalism's promise of a better future for all. All that is left is the savagery of a war against all, and a future of hopelessness and cynicism.\\" (p. 4)

I have two problems with this analysis. The main problem is that the social democratic vision has not been turned back, but rather has been largely realized in the form of (a) the end of legalized discrimination against African-Americans; (b) the huge increase in the rights of women against the claims of patriarchy; (c) the rise of a culture that asserts racial tolerance and affirms gender equality; (d) a wide-spread system of social safety nets in the form of Social Security, Medicare, Medicaid, and unemployment insurance; and (e) a vigorous system of laws and social institutions protecting the rights of children against sexual and physical violence. I would argue that there are several new social priorities that have arisen given the basic resolution of the aforementioned social problems, but that social democracy has not shown itself popular among voters in solving these problems. Moreover, some of the old social democratic institutions, such a support for labor unions, were merely a means of forging a political united front of a labor aristocracy and the political social democrats that worked to the detriment of the majority of voters, including most workers.

My second problem flows from the first. There must be good reasons why voters have turned away from the social democratic vision, yet Giroux never states what these may be. Like many modern social democrats, he attributes the change in voter sentiments to a form of \\"false consciousness\\" in which the average citizen has come to believe the evil and insidious stories spun by the rich and powerful. This is not a very auspicious beginning for a political philosophy. It is better to assume that if the voters reject you, you did something wrong, you should find out what is is, and you should correct it. I can envisage situations in which this assumption is wrong, but I think it applies well to today's political scene.and affirms gender equality; (d) a wide-spread system of social safety nets in the form of Social Security, Medicare, Medicaid, and unemployment insurance; and (e) a vigorous system of laws and social institutions protecting the rights of children against sexual and physical violence. I would argue that there are several new social priorities that have arisen given the basic resolution of the aforementioned social problems, but that social democracy has not shown itself popular among voters in solving these problems. Moreover, some of the old social democratic institutions, such a support for labor unions, were merely a means of forging a political united front of a labor aristocracy and the political social democrats that worked to the detriment of the majority of voters, including most workers.

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Social Justice and Political Change: Public Opinion in Capitalist and Post-communist States (Social Institutions and Social Change)

Provocative, but Wrong — Rating: 2/5

The data collected in the volume is at least fifteen years old, covering the years immediately after the fall of the Soviet Union and the reunification of Germany. The underlying sociological theory is quite familiar and common-sense, so there is little gained from reading most of the essays, except for specialists.

The introductory essay, written Adam Swift, Gordon Marshall, Carole Burgoyne, and David Routh, four British behavioral scientists (in politics, sociology, and psychology) states extremely clearly an approach to moral philosophy that is very common and tacitly accepted by most moral philosophers, but is rarely

explicitly articulated. I will take this opportunity to describe their line of thinking and suggest why it is incorrect.

\\"On the face of it there would seem to be no clear reason for political philosophers to pay attention to the finding of empirical research... the justification of moral principles simply occupies a different logical space from the description and explanation of the moral principles to which people actually subscribe. Empirical research cannot contribute to political-theoretical debate since the philosophical task of justification remains immune from whatever one might discover about the justice beliefs current in any particular society.\\" (p. 17) The reason for this opinion, the authors opine, is that few ordinary citizens have the training to make complex moral judgments, and they tend to spend much less time pondering moral issues that the professional moral philosopher. \\"It would be surprising if ordinary people,\\" they say, \\"not necessarily less intelligent but in all probability having devoted less time to the exercise of that intelligence, arrived at similarly measured conclusions... people are simply wrong in advocating distributive principles that more careful thought, or perhaps even superior moral sense, would lead them to disavow.\\" (p.17)

Many readers will react against this sort of reasoning because it is elitist, arrogant, and self-serving. This would be a mistake. If we were speaking of the average citizen's knowledge of, say physics or chemistry, it would not be out of order for the professional natural scientist to be uninterested in the folk science of the masses. This is because science produces truths that trump popular prejudice, and it is the duty of the natural scientist to promote scientific truth to the masses by replacing folk principles by more analytically grounded, empirically justified, scientific principles. Many moral philosophers similarly believe that they have privileged access to moral truth, and they often similarly express hope that their finding will be widely disseminated and lead to change in the moral evaluations of ordinary citizens.

However, moral philosophers, by contrast with physicists, cannot validate their claims against any empirical reality. Rather, they generally ground their claims in intuition or reason, and neither is at all plausible. Intuition is just another word for personal, class, cultural, or professional preference, and what passes for reason is invariably predicated on parochial word usage and indefensible axioms.

Consider, for instance, the statement that people do not deserve benefits on the basis of personal attributes for which they are not responsible (p. 24), and the principles of justice dictate that basing social distinctions on such personal attributes is unjust. The authors recognize that most ordinary citizens will agree to this principle, even though they also affirm that income and wealth differences that correlate highly with individual abilities and talents are justified. On the basis of the philosopher's criterion, people have no control over the family their born into, so they don't deserve privileges or penalties based accident of birth. But equally, people have no control over many physical and mental ailments, some of which condemn individuals to a short and painful life. Such individuals then do not deserve their fate, and hence their situation must be unjust. Similarly, winning a lottery should not privilege an individual to the proceeds of that lottery.

Clearly, it is thus the philosophers who are confused, not the ordinary citizen. They are confused by insisting on having an impoverished vocabulary. Let us say that while people do not deserve outcomes on the basis of personal attributes for which they are not responsible, they may have \\"warranted enjoyment\\" or \\"warranted deprivation\\" based on these attributes. If I win the lottery, I have warranted enjoyment of the lottery's proceeds, although I do not \\"deserve\\" to have won the lottery. If I am born into a low-IQ or a low-income family, I may have \\"warranted deprivation\\" based on my position. That is, I do not deserve to be in my position, but the social process that led to this condition need not be unjust (although when not unjust, it may nevertheless be lamentable and efforts should be made to change it). If I have few skills and talents, my income may be warranted, although not deserved. I am sure there is a complex set of principles that can sort out the distinction of \\"warranted\\" and \\"deserved,\\" but the moral philosophers involved generally prefer to uphold their super-egalitarian principles rather than see the truth.

But, it might be asked, if moral philosophy must do without intuition or reason for its justificatory grounding, what might take its place? My tentative suggestion is that moral philosophy should be like linguistics. Linguists study the empirical regularities of the real, actual speech of people, and derive from these regularities deep principles of syntax, semantics and pragmatics. Similarly, we might expect real moral philosophers to use the actual moral judgments of fluent moral individuals to deduce an

underlying structure of moral discourse. A move in this direction has be undertaken by Marc Hauser, The Grammar of Morality. But, there is much more work to be done.o not deserve their fate, and hence their situation must be unjust. Similarly, winning a lottery should not privilege an individual to the proceeds of that lottery. Clearly, it is thus the philosophers who are confused, not the ordinary citizen. They are confused by insisting on having an impoverished vocabulary. Let us say that while people do not deserve outcomes on the basis of personal attributes for which they are not responsible, they may have \\"warranted enjoyment\\" or \\"warranted deprivation\\" based on these attributes. If I win the lottery, I have warranted enjoyment of the lottery's proceeds, although I do not \\"deserve\\" to have won the lottery. If I am born into a low-IQ or a low-income family, I may have \\"warranted deprivation\\" based on my position. That is, I do not deserve to be in my position, but the social process that led to this condition need not be unjust (although when not unjust, it may nevertheless be lamentable and efforts should be made to change it). If I have few skills and talents, my income may be warranted, although not deserved. I am sure there is a complex set of principles that can sort out the distinction of \\"warranted\\" and \\"deserved,\\" but the moral philosophers involved generally prefer to uphold their super-egalitarian principles rather than see the truth. But, it might be asked, if moral philosophy must do without intuition or reason for its justificatory grounding, what might take its place? My tentative suggestion is that moral philosophy should be like linguistics. Linguists study the empirical regularities of the real, actual speech of people, and derive from these regularities deep principles of syntax, semantics and pragmatics. Similarly, we might expect real moral philosophers to use the actual moral judgments of fluent moral individuals to deduce an underlying structure of moral discourse. A move in this direction has be undertaken by Marc Hauser, The Grammar of Morality. But, there is much more work to be done.

Discovery - A Memoir

The Subjects Had it Right — Rating: 5/5

Vernon L. Smith, Discovery: A Memoire (Bloomington, IN: Authorhouse 2008).

The Subjects Had it Right

Vernon Smith, 2002 Nobel Prize winner in Economics, is one of those people who is larger than life. Indeed, he is larger than life than most larger than life people, at least in academia. I remember vividly, as a young Associate Professor of Economics at the University of Massachusetts, meeting with Vernon at the American Economic Association meetings in New Orleans to try to convince him not to leave UMass for UArizona. Vernon was dressed in a beautiful white Southern-style suit with a string tie and a stunning gold-embroidered vest. He was slim and gorgeous, with a big handlebar mustache. I had never met anyone like him in my life, and the experience was amplified by the fact that I and my Marxist friends, veterans of civil rights and anti-Vietnam War struggles, dress uniformly in jeans and torn polo shirts with pictures of Ché on the back and the peace sign on the front. Vernon was pleasant, but he decline to return, and the rest is history (we reunited in conferences and research groups starting some twenty years later, and he wrote a nice blurb for my new book, The Bounds of Reason).

The first six chapters of this book stand practically alone as a gripping and detailed history of Vernon's family. The saga of the travails of this family through depression, war, industrial accidents, and relative financial security has historical value independent from Vernon Smith's later accomplishments, and indeed does not feature Vernon very much through the account. I cannot begin to comprehend how he came up with all the dates and places lend to this account its historical value.

I can imagine that the rest of Vernon Smith's memoire might be interesting to non-economists, but I suspect that most of the interest will come from economists. I attended Harvard Graduate School in Economics some fifteen years after Vernon, but I reveled in his description of the (quite famous) faculty, especially since two-thirds of them were still there when I went through the graduate program.

Vernon's discussion of the power of university administration to foster either excellence or mediocrity also strikes home, as my experience has been quite similar. Most deans prefer mediocrity, because it involves lower job pressure, you don't make enemies, and you can rise up the academic hierarchy by

moving from university to university. Sticking your neck out with creative ideas may benefit the larger academic community, but it makes enemies and makes you persona non grata in the university administrative community. Examples of creative leadership are Dean Alfange, who brought a bunch of crazy radicals to the University of Massachusetts, Larry Summers, who tried to bring Harvard University in the Twenty-First Century and was fired for it, and Yehuda Elkana, my rector at Central European University, who has pioneered the development of an American style university in the heart of bureaucratic Europe with its ossified university systems (yes, European university are even worse that American, because there is virtually no inter-university competition, and the faculty is complicit with the administration in the repression of excellence).

Vernon Smith is a creative experimenter. But perhaps more important, he is one of the few experimenters who refuses to call subjects ignorant and/or irrational if they do not behave as the theory says they should. Rather, he single-mindedly focuses on the weaknesses of theory, and insistently demands that theory be revised in the light of empirical data (see the discussion on page 284ff). This is the sense in which \\"The Subjects Had It Right.\\"

This is a memoire that every young, creative economist should read, and the deadwood in academia should shun at all costs.e famous) faculty, especially since two-thirds of them were still there when I went through the graduate program. Vernon's discussion of the power of university administration to foster either excellence or mediocrity also strikes home, as my experience has been quite similar. Most deans prefer mediocrity, because it involves lower job pressure, you don't make enemies, and you can rise up the academic hierarchy by moving from university to university. Sticking your neck out with creative ideas may benefit the larger academic community, but it makes enemies and makes you persona non grata in the university administrative community. Examples of creative leadership are Dean Alfange, who brought a bunch of crazy radicals to the University of Massachusetts, Larry Summers, who tried to bring Harvard University in the Twenty-First Century and was fired for it, and Yehuda Elkana, my rector at Central European University, who has pioneered the development of an American style university in the heart of bureaucratic Europe with its ossified university systems (yes, European university are even worse that American, because there is virtually no inter-university competition, and the faculty is complicit with the administration in the repression of excellence). Vernon Smith is a creative experimenter. But perhaps more important, he is one of the few experimenters who refuses to call subjects ignorant and/or irrational if they do not behave as the theory says they should. Rather, he single-mindedly focuses on the weaknesses of theory, and insistently demands that theory be revised in the light of empirical data (see the discussion on page 284ff). This is the sense in which \\"The Subjects Had It Right.\\" This is a memoire that every young, creative economist should read, and the deadwood in academia should shun at all costs.

Be the Solution: How Entrepreneurs and Conscious Capitalists Can Solve All the WorldÂs Problems

Helping Others Self-Help — Rating: 4/5

If you want to contribute to making a better world and you have an indomitable entrepreurial spirit, this is the book for you. Our is the age of doing good by doing well. The notion that market competition is all about greed is just a monumental error that you can help a new generation to avoid.

Experiments in Economics: Playing fair with money

Great Introduction to Experimental Games — Rating: 5/5

This is a well-written, no-nonsense, accessible introduction to experimental economics, with a strong bias towards experiments that illustrate the roots of human cooperation. The book does not presume that the reader has a background in game theory or economics, and provides a nice, short introduction to all the game theory that will be needed to understand experimentl games. The very first words in the

Preface are \\"social norms and norm-driven behavior---such as notions of fairness, willingness to be generous towards strangers or cooperate with them---play a crucial role in a variety of economic transactions and have implications of economic theories.\\"

Chaudhuri exhibits an enthusiasm for the material that is bound to be contagious to the student, but he is careful to be critical of results and he gives space for the critics of common interpretations of subject behavior in these games.

Chaudhuri thoroughly covers the ulitmatum game, various styles of the trust game, the public goods and common pool resources games, and gives an overview of coordination games. While discussing the dictator game, he wisely does not give it excessive play.

Finally, the book devotes considerable space to the application of the results of experimental games to social policy, and he illustrates some of the behaviors in real life that have been documented in the experimental laboratory.

Liberty and Tyranny: A Conservative Manifesto

An Uncompelling Manifesto Cloaked in a Paranoiac World View — Rating: 1/5

Mark R. Levin is a nationally syndicated radio host and a popular conservative writer. Levin's version of conservatism has two fundamental bases: strict construction of the US Constitution, and an affirmation of the importance of supporting religious faith in public life. These principles are not a very auspicious beginning because the US Constitution has provisions for its own revision, indicating that the founding fathers did not consider the product of their labor to be eternally inviolable. So why should we? Moreover, the founding fathers may include some admirable human beings and we should try to understand their intentions and the reasons they believed what they believed, because the US Constitution and its first ten Amendments represent a fundamental contribution to the culture of political freedom. However, the framers of the Constitution share all our foibles as flesh and blood, they had limited historical perspective, and we do no share all of their moral values. Hence, we are not obligated to respect their intentions.

The upshot of this argument is that Levin's manifesto is fatally flawed as a set of principles from which a defensible set of recommendations for public life can be inferred.

Nevertheless, Levin offers many attractive concrete proposals. One is a strong critique of \\"egalitarianism\\" as a set of moral values that can be legitimately deployed to limit individual freedom and undermine individual responsibility by de-linking merit and reward (p. 20). A second is a critique of the notion that natural rights extend to the right to any particular material conditions, such as the right to a well-paying job, to a comfortable home, or to comprehensive medical care; rather, Levin argues, these material conditions lie in the realm of individual responsibility and must be earned. Third Levin is a strong proponent of Federalism, according to which the individual states have the power institute their own social regulations and institutions, rather than having an all-powerful centralized state producing a one-size-fits-all set of principles for the country as a whole. Fourth, Levin is a strong supporter of the institutions of private property and market exchange, which many contemporary liberals consider, quite incorrectly, as nothing but sources of privilege for the wealthy. I especially commend his treatment of business cycles and downturns as periods of \\"creative destruction,\\" that unleash future growth possibilities by clearing away the \\"dead wood\\" of past economic periods. For many liberals, by contrast, anything that creates economic insecurity is singularly and unique bad, and should be avoided at all costs. Fifth, Levin champions free trade, which most economists will tell you (correctly) is the only way to promote both domestic and world economic growth. Sixth, Levin strongly supports the private delivery of health services over government delivery. Seventh, Levin is a strong critique of the state monopoly of the educational system below the college level, and supports the private delivery of education services. Commendably, he does not criticize the government's role in financing the education system. Indeed, the classical liberal notion of freedom of opportunity could not be implemented in the absence of equal access to educational resources and high quality educational

services to all youth. Finally, he opposes unions for state employees, which are simply forms of collusion in restraint of a free labor markets that benefit a segment of the citizenry at the cost of the rest.

Despite these attractive features of Levin's manifesto, this book is deeply flawed in three ways. First, like many talk-show hosts and popular political figures, Levin's mind-set is infected by a paranoiac Manichaeism: the political world is divided into the Good Guys (Levin and his friends, the Crusaders for Truth and Freedom), and the Bad Guys (evil-minded and insidious liberal Statists and their neo-Statist ilk who are out to destroy Freedom on behalf of Tyranny). It is hard not to laugh at this puerile preaching to the choir, which pervades the first four chapters of the book. The fact is that most citizens are quite pragmatic about their politics, and are not True Believers of any particular political philosophy. This accounts for the fact that American politics can undergo quite dramatic short-run changes in prevailing opinion, as in the conservative victory of Ronald Regan and the liberal victory of Barack Obama, each accompanied by a shift in the political views of many citizens in a very short period of time.

A second problem with Levin's manifesto is that he considers to be \\"tyrannical\\" many social programs that are widely popular, such as social security, and he argues that many social problems are figments of the imagination of the Evil Statists, such as a concern for global warming and environmental degradation.

The third flaw in Levin's manifesto is its assumption of universal validity. There is a deep lack of humility in this book. Levin simply thinks he has all the answers, and when he does not have an answer, he denies that there is a problem. There is no problem with the environment, there is no problem with poverty, there is no problem with unregulated laissez-faire market exchange, and hence there is no need for a solution. I am deeply disappointed in this form of hubris. It is a style of fundamentalist thought that I simply cannot understand, and that I think is dangerous to political freedom. I believe that I am not always right, and my \\"enemies\\" are not always wrong. I have much to learn from experience and from science, and from those with whom I disagree as much as (or more than) from those with whom I agree. In Levin's paranoiac world view, since I am not 100% with him, I must be one of the Evil Statists, who uses even-handed rhetoric to insideously advance their malevonent goal of eliminating freedom. In my world view, Levin's style of thought itself is the enemy of freedom.tatist ilk who are out to destroy Freedom on behalf of Tyranny). It is hard not to laugh at this puerile preaching to the choir, which pervades the first four chapters of the book. The fact is that most citizens are quite pragmatic about their politics, and are not True Believers of any particular political philosophy. This accounts for the fact that American politics can undergo quite dramatic short-run changes in prevailing opinion, as in the conservative victory of Ronald Regan and the liberal victory of Barack Obama, each accompanied by a shift in the political views of many citizens in a very short period of time.

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Capitalism and Freedom: Fortieth Anniversary Edition

An Important Political Philosophy in Need of Updating — Rating: 5/5

Milton Friedman, Capitalism and Freedom (University of Chicago Press, 1962 [2002]).

Capitalism and Freedom is the product of a lecture series given by Milton Friedman in 1956 and published in book form in 1962. It is Friedman's greatest work in political philosophy, and it may take its place in history beside side the works of Hobbes, Hume, Locke, and Mill. The past half-century has produced nothing else of its caliber in the realm of political economy. Friedman's intellectual mentor, Friedrich von Hayek, wrote important works in this area in an earlier period, but his writings are today mostly of historical interest except to the expert. Capitalism and Freedom vibrates with life and relevance, and may do so for a very long time.

Friedman has some difficulty in applying a name to his brand of political philosophy. He does not like `conservative' because he advocates change, not a return to the past. He balks at `liberal,' because he might be confused with his greatest enemy, American big-government social democracy, which calls itself `liberal.' In the end, he opts to call his position `liberal' because of its affinity to and inspiration by the classical English liberals, Locke, Smith, and Mill. I think a better term might be `classical liberal.' I am told that in his later years, Friedman identified with the libertarian movement, and indeed several of his policy suggestions have a distinctly libertarian flavor. But he is no libertarian.

In this review, I will sketch the most sophisticated social democratic (i.e., modern liberal) position that Friedman so cogently criticizes in this book, ably represented by the classic statement of Robert Dahl and Charles Lindblom', Politics, Economics and Welfare, 1953. I will then outline and assess Friedman's position, and finally present what I believe to be the correct position, which we have the privilege to formulate on the basis of the above brilliant contributions and some sixty years of historical experience.

According to contemporary economic theory, under the appropriate conditions, a decentralized market economy is the \\"best of all possible worlds\\" in the sense that every market equilibrium is economically efficient and any feasible distribution of income and wealth can be attained by a suitable initial distribution of the ownership of resources, followed by market competition. This is called the Fundamental Theorem of Welfare Economics. There are two practical problems with this theorem. First, in practice in a private property society, we cannot simply redistribute ownership by arbitrary fiat to achieve egalitarian goals, however democratically constituted. Thus, a private property market economy may inexorably generate social inequalities, and there may be legitimate successful mechanisms for achieving egalitarian ends through means other than the wholesale redistribution of private wealth (e.g., progressive income taxation and estate taxation). Second, real economies have certain \\"market failures,\\" causing the Fundamental Theorem to fail. Among these are externalities, such as pollution and atmospheric warming, caused by the fact that unregulated firms do not pay for the damages they cause to the environment. Other sources of market failures include natural monopolies based on increasing returns to plant size or the public good nature of the product, such as national defense and power generation, that undermine the competitive process, because unregulated markets lead either to no production at all, or to a single firm driving out all others in the industry. The modern liberal position, supported by contemporary economic theory, is that the state should step in to correct these market failures, and thereby maximize social welfare.

Because there are in fact many varied forms of market failure, the modern liberal political philosophy offers no protection against the emergence of a huge state sector with its power reaching deep into the system of private production, consumption, and exchange. Moreover, correcting market failures is much more difficult that it appears at first light, and there are often \\"state failures\\" prevent effective intervention. Thus, it is often is better to endure the market failures we have than to apply state interventions that aggravate rather the mitigate the market failures (e.g., state regulatory commissions are often captured by the industry itself and used to private advantage). It is this possibility of pervasive state failure that motivates Milton Friedman's critique and alternative.

Friedman's major thesis is that there is an \\"inescapable connection between capitalism and democracy\\" in the sense that not only do the two forms of decentralized popular control have an elective affinity as forms of democratic empowerment, but also unconstrained governmental power to supplant the market undermines political democracy and ultimately leads to dictatorship. Capitalism, then, is a prerequisite for freedom.

Friedman's minor thesis is that the role of government in a free society is properly limited to maintaining law and order, preventing coercion of one individual by another, enforcing private property and contracts, and providing for the common defense and a common monetary system. Friedman is not an unwavering ideologue on these points, and freely admits that when a society has social goals that cannot reasonably be satisfied through decentralized market activity but can be accomplished through government intervention, then it is legitimate to attempt a solution through political channels. He counsels, however, that when the unintended consequences of market interference are taken into account, there will be few cases in which such intervention will be indicated. Moreover, when it is indicated, the most effective intervention is likely to be one that maximally depends upon the market and decentralized decision-making for its implementation.

Friedman gives several arguments in favor of his major thesis. The first is that economic freedom, the ability of consumers to buy and sell whatever they think best meets their needs and furthers their goals, is a \\"component of freedom properly understood,\\" (p. 8) and hence its abrogation is a curb on freedom. For instance, if the government imposes a quota on a good that I would like to purchase but cannot because its price has become prohibitive, my personal freedom is curtailed. Similarly, if the government forces people to use the government-provided postal service, then my freedom to set up a competitive business in competition with the government service is curtailed.

This argument has been criticized on the grounds that an interventionist government that increases the purchasing power of the less-well-off increases the economic freedom of the overwhelming majority of citizens, so the only individuals hurt by such an intervention are the relatively well-off, who are least damaged by restrictions on their economic freedom. This is a be a manifestly reasonable counter-argument, so Friedman's position is plausible only if government interventions are unlikely to improve the purchasing power of the less well-off, which is a clearly empirical matter. While there is some dispute over the matter, it appears that that, at least for some period of time after WWII, European social democracies effectively redistributed income away from the rich. Thus Friedman's \\"economic freedom\\" argument is tenuous. Nevertheless, some state interventions, such as prohibiting private mail delivery services, do fall clearly under Friedman's critique of illegitimate state interference.

Friedman's second argument is that the ability of government to intervene at will in the market economy directly threatens political democracy by limiting the ability of citizens to assess government behavior and to dissent from the practices of the current regime. For instance, if the government controls who can and cannot be hired, this power can be used to impose penalties on its political enemies. For instance, the US government after WWII forced the movie industry to blackball writers and actors who were considered political enemies, thus curtailing the political freedom of American Communists and their \\"sympathizers.\\" This may seem reasonable given the threat Communism posed to liberal democracy (I actually do not agree with this position), but the same methods were used to criticize and smear opponents to the Vietnam War and many other legitimate political groupings. A sufficiently powerful government can also refuse to allow citizens access to the communications media by closing down oppositional newspapers, radio, and TV stations, thus effectively threatening those who disseminate information to conform to the current regime's preferences.

Friedman also argues that a strong market economy creates a powerful basis for the decentralization of power, as the wealthy on the one hand, and masses of citizens on the other, have the means in a market economy to mount an effective opposition to arbitrary state power.

I believe Friedman's argument here is very strong. Some would argue that the tendency for state economic power to undermine political democracy can be adequately curbed by an effective system of civil liberties and a secure separation of powers between executive, judicial, and legislative branches of government. This is a speculative argument with little in the form of supporting empirical evidence. I would argue that the threat that the government monopoly of economic power has to erode civil liberties and the separation of powers is too great to entertain any economic-political system that includes massive undermining of the private market economy.

Friedman has rendered plausible that the diversification of economic power away from the state is an integral element of political and civil freedom. This is Friedman's most important contribution to political theory, and it rivals the pronouncements of the great political philosophers of the past. Of

course, one can find echoes of Friedman's position in the classical literature (e.g., Locke's critique of Hobbes' defense of monarchy), but I have found nothing as persuasive as Friedman's argument.

Of course, capitalism is not the only economic system that places economic power outside the all-powerful state. A system of worker controlled firms, each the owner of its own capital stock, is an obvious alternative, as is a system in which local communities own the capital stock and control local industries is another. However, after having spent several years attempting to implement such alternatives, I have come to the conclusion that these are not viable alternatives to capitalism (Samuel Bowles and Herbert Gintis, Recasting Egalitarianism: New Rules for Communities, States, and Markets, 1999). It is worth continuing to explore alternative effective mechanisms for the separation of economic and political power. However, until such an alternative is found, capitalism, accompanied by strong constitutional limitations on the government to intervene in the economy, and accompanied by a separation of powers and a healthy federalism that confers upon local regions fundamental and inalienable powers, all qualities of the US system of government, is the most conducive to human freedom among the forms of government that we know.

Friedman support his minor thesis by arguing that the consumer sovereignty promoted by the market economy allows all individuals to achieve their preferred outcomes at the same time, without the need for all to submit to the same allocations through political fiat. In other words, the market \\"permits unanimity without conformity.\\" (p. 23) Friedman's argument, based on the efficacy of the market system rather than a notion of the \\"inalienable rights\\" of citizens to unrestricted voluntary exchange, is both flexible and defensible. It allows the government to intervene, for instance, when market failures render market allocations socially costly, and it allows the government to outlaw markets in, say, body parts, recreational drugs, sexually exploitative literature and videos, and the like.

The most important fact about Friedman's minor thesis is that the general notion that the free enterprise system, as opposed to economies where the economy is basically run by the state (e.g., state socialism) has proven to be absolutely, incontrovertably correct. For an extended empirical argument to this effect, see Andre Schleifer, \\"The Age of Milton Friedman,\\" Journal of Economic Literature 47,1 (2009), pp. 123-135.

The free-market era really began on a world scale in about 1980, coinciding with the election of Margaret Thatcher in England, Ronald Regan in the US, and the Deng Xiao Ping market reforms in China. World per capita economic growth, which had been very slow in the post-WWII period, began to rise at a 2% rate in 1985, continuing through to receont years. Moreover, this growth was confined to countries with free market ecconomies, which excluded most of Africa and the Middle East. Russian economic growth accelerated about a decade later, coincident with its era of market reform. Ireland's spectacular economic growth, for instance, can be completely attributed to its free-market reforms.

However, Friedman is not content to criticize state socialism and traditional non-market economies. He uses his political philosophy, in particular his minor thesis, to make quite specific policy recommendations within a fundamentally market-oriented economy (pp. 35--36). The remainder of the book is an elaboration upon these recommendations. The most serious indictment of Friedman's political philosophy is that many, if not most, of these recommendation, have been systematically violated in the USA in recent decades, and the results have be overwhelmingly positive and supported by the vast majority of Americans. This indicates that Friedman's minor thesis is in need of serious recasting if we are to accept it at all.

The first four of Friedman's fourteen explicit recommendations are largely valid and supported by our experience in the past sixty years. These express opposition to (a) price supports; (b) quotas in international trade; (c) government control of output; and (d) rent control. Similarly, his thirteenth proposal, which would allow competition in the delivery of the mail, seems eminently reasonable, as does the eleventh, which advises against conscription into the military in peacetime. However, the remaining eight recommendations are prohibitions on measures that in fact have proven to be strong contributors to the well-being of citizens, and enjoy widespread popularity.

Some of Friedman's recommendations seem doctrinaire to the point of being frivolous. These include his opposition (point seven) to regulation of radio and television speech by the FCC, his critique of state licensing of professionals (point 9), and of state control of National Parks (point 12) and toll roads

(point 14). Of course, these state practices can be misused and overused, but they surely have a legitimate place in the good society.

Perhaps the most dramatic of Friedman's recommendation in the current environment, which in 2009 characterized by severe economic instability set off by a massive financial failure in the housing sector, is Friedman's sixth point: prohibition against the \\"detailed regulation of banking.\\" There has been a large general increase in the amount of financial regulation since Friedman wrote in the 1950's, and most students of the subject believe that this body of regulation has contributed critically to the stability and efficiency of the financial sector. Virtually all experts today, fairly independent of location in the political spectrum, hold that to avoid a reoccurrence of our current crisis, there must be increased financial regulation, and many believe the current financial failure was caused by loosening of financial regulation in the preceding period., Of course, another part of Friedman's sixth point is the inadvisability of detailed regulation of industry, especially by the Interstate Commerce Commission. Here Friedman appears to be correct: the loosening of Federal restriction on trucking, aviation, and communication has been salutary.

Friedman's eighth point is that the social security system should be eliminated. This has not happened either in the USA or in any other industrial democracy. Social security programs, in which individuals are obligated to save for their retirement years, are popular among electorates, and modern behavioral game theoretic empirical results explain clearly that excessively short time horizons (excessive in the sense that individuals later would prefer to have saved more earlier) lead most individuals to undersave for the future, thus justifying public social security systems (justify in the sense that individuals will vote to have this system, even though it restricts their own personal saving decisions).

Another of Friedman's proposal in the same vein is number ten which says that the government should not promote home ownership. Most students of the subject believe that the high frequency of home ownership achieved through mortgage availability and preferential tax provisions have contributed positively to the health of communities and a high level of local community political and social activity. Home ownership is a positive externality for local communities because individuals are more active in community affairs when they are home owners, if only because the value of their property is strongly affected by the quality of community life.

Surprisingly missing from Friedman's list is the prohibition of laws creating artificial monopolies in general. I assume this is an oversight, because Friedman devotes the whole of Chapter 8 to this issue. I believe the classical liberal opposition to collusion in the restraint of trade is one of its most powerful principles. Concerning business, it was Adam Smith who said \\"People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices...\\" Friedman's position on labor unions (pp. 121ff) is that they are a similarly undesirable monopoly, but they have limited power in a competitive economy.

It is clear, then, that Friedman's minor premise is wrong. It is not systematically wrong, but rather, somewhat like the proverbial broken clock that is correct exactly two times a day, it is randomly right and randomly wrong.

What, then, is the proper framework for assessing the proper role of government in liberal capitalist society? I believe that the following issues are central. First, the comparative advantage of the state is its monopoly of the means of law-making and coercion, so the state should fix and regulate the rules of the game according to which the private economy operates. This implies that the government should not enjoy a monopoly in the production of anything that could not be produced through the competitive market process. This means, for instance, that the government can legitimately provide universal health insurance, but it cannot monopolize the delivery of health care. Similarly, the government can guaranteed the funding of the educational system, but it should not run schools unless these schools are forced to compete on an equal footing with privately run, for-profit or non-profit schools. This implies that voucher school systems should be the rule.

Second, the state should not interfere in the competitive market system unless there are clear and recognized market failures, of the sort that are fully analyzed in standard economic theory. In particular, the state should not create natural monopolies that favor particular groups at the cost of the general public. This means, for instance, that laws favoring labor unions' ability to collude in the restraint of trade should not be countenanced. This does not imply the abolition of labor unions, but rather

prohibits them from colluding across individual firms. The general protection of the rights of workers can be adequately addressed through general laws, including minimum wage and occupational safety and health laws, that apply across the board to all workers. Most important, public sector unions with bargaining rights should be prohibited.

Third, when there are market failures, such as externalities, creating problems of urban zoning, environmental pollution, and the like, and natural monopolies, such as national defense and power generation, there is a prima facie case for active government intervention. However, what has been called \\"state failure,\\" meaning the tendency for the state to act on behalf of special interest groups rather than the public as a whole, can render such interventions undesirable in many cases.

Finally, the state has the right and the duty to intervene in the private economy to protect and enhance the rights of those who are incapable of protecting themselves. This includes the young, the elderly, and individuals with physical or mental incapacities, although only when laws enhancing the power of private charitable interventions prove insufficient. In particular, the state should have great power to eliminate poverty, which I define roughly as a situation in which a fraction of the population are born into situations in which they lack the means for full self-development and healthy participation in social life.

I suspect that I am missing some central principles for a defensible alternative to Friedman's irreparably flawed minor premise, and I invite other readers to offer additions and corrections.market failures render market allocations socially costly, and it allows the government to outlaw markets in, say, body parts, recreational drugs, sexually exploitative literature and videos, and the like. The most important fact about Friedman's minor thesis is that the general notion that the free enterprise system, as opposed to economies where the economy is basically run by the state (e.g., state socialism) has proven to be absolutely, incontrovertably correct. For an extended empirical argument to this effect, see Andre Schleifer, \\"The Age of Milton Friedman,\\" Journal of Economic Literature 47,1 (2009), pp. 123-135. The free-market era really began on a world scale in about 1980, coinciding with the election of Margaret Thatcher in England, Ronald Regan in the US, and the Deng Xiao Ping market reforms in China. World per capita economic growth, which had been very slow in the post-WWII period, began to rise at a 2% rate in 1985, continuing through to receont years. Moreover, this growth was confined to countries with free market ecconomies, which excluded most of Africa and the Middle East. Russian economic growth accelerated about a decade later, coincident with its era of market reform. Ireland's spectacular economic growth, for instance, can be completely attributed to its free-market reforms. However, Friedman is not content to criticize state socialism and traditional non-market economies. He uses his political philosophy, in particular his minor thesis, to make quite specific policy recommendations within a fundamentally market-oriented economy (pp. 35--36). The remainder of the book is an elaboration upon these recommendations. The most serious indictment of Friedman's political philosophy is that many, if not most, of these recommendation, have been systematically violated in the USA in recent decades, and the results have be overwhelmingly positive and supported by the vast majority of Americans. This indicates that Friedman's minor thesis is in need of serious recasting if we are to accept it at all. The first four of Friedman's fourteen explicit recommendations are largely valid and supported by our experience in the past sixty years. These express opposition to (a) price supports; (b) quotas in international trade; (c) government control of output; and (d) rent control. Similarly, his thirteenth proposal, which would allow competition in the delivery of the mail, seems eminently reasonable, as does the eleventh, which advises against conscription into the military in peacetime. However, the remaining eight recommendations are prohibitions on measures that in fact have proven to be strong contributors to the well-being of citizens, and enjoy widespread popularity. Some of Friedman's recommendations seem doctrinaire to the point of being frivolous. These include his opposition (point seven) to regulation of radio and television speech by the FCC, his critique of state licensing of professionals (point 9), and of state control of National Parks (point 12) and toll roads (point 14). Of course, these state practices can be misused and overused, but they surely have a legitimate place in the good society. Perhaps the most dramatic of Friedman's recommendation in the current environment, which in 2009 characterized by severe economic instability set off by a massive financial failure in the housing sector, is Friedman's sixth point: prohibition against the \\"detailed regulation of banking.\\" There has been a large general increase in the amount of financial regulation since Friedman wrote in the 1950's, and most students of the subject believe that this body of regulation

has contributed critically to the stability and efficiency of the financial sector. Virtually all experts today, fairly independent of location in the political spectrum, hold that to avoid a reoccurrence of our current crisis, there must be increased financial regulation, and many believe the current financial failure was caused by loosening of financial regulation in the preceding period., Of course, another part of Friedman's sixth point is the inadvisability of detailed regulation of industry, especially by the Interstate Commerce Commission. Here Friedman appears to be correct: the loosening of Federal restriction on trucking, aviation, and communication has been salutary. Friedman's eighth point is that the social security system should be eliminated. This has not happened either in the USA or in any other industrial democracy. Social security programs, in which individuals are obligated to save for their retirement years, are popular among electorates, and modern behavioral game theoretic empirical results explain clearly that excessively short time horizons (excessive in the sense that individuals later would prefer to have saved more earlier) lead most individuals to undersave for the future, thus justifying public social security systems (justify in the sense that individuals will vote to have this system, even though it restricts their own personal saving decisions). Another of Friedman's proposal in the same vein is number ten which says that the government should not promote home ownership. Most students of the subject believe that the high frequency of home ownership achieved through mortgage availability and preferential tax provisions have contributed positively to the health of communities and a high level of local community political and social activity. Home ownership is a positive externality for local communities because individuals are more active in community affairs when they are home owners, if only because the value of their property is strongly affected by the quality of community life. Surprisingly missing from Friedman's list is the prohibition of laws creating artificial monopolies in general. I assume this is an oversight, because Friedman devotes the whole of Chapter 8 to this issue. I believe the classical liberal opposition to collusion in the restraint of trade is one of its most powerful principles. Concerning business, it was Adam Smith who said \\"People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices...\\" Friedman's position on labor unions (pp. 121ff) is that they are a similarly undesirable monopoly, but they have limited power in a competitive economy. It is clear, then, that Friedman's minor premise is wrong. It is not systematically wrong, but rather, somewhat like the proverbial broken clock that is correct exactly two times a day, it is randomly right and randomly wrong. What, then, is the proper framework for assessing the proper role of government in liberal capitalist society? I believe that the following issues are central. First, the comparative advantage of the state is its monopoly of the means of law-making and coercion, so the state should fix and regulate the rules of the game according to which the private economy operates. This implies that the government should not enjoy a monopoly in the production of anything that could not be produced through the competitive market process. This means, for instance, that the government can legitimately provide universal health insurance, but it cannot monopolize the delivery of health care. Similarly, the government can guaranteed the funding of the educational system, but it should not run schools unless these schools are forced to compete on an equal footing with privately run, for-profit or non-profit schools. This implies that voucher school systems should be the rule. Second, the state should not interfere in the competitive market system unless there are clear and recognized market failures, of the sort that are fully analyzed in standard economic theory. In particular, the state should not create natural monopolies that favor particular groups at the cost of the general public. This means, for instance, that laws favoring labor unions' ability to collude in the restraint of trade should not be countenanced. This does not imply the abolition of labor unions, but rather prohibits them from colluding across individual firms. The general protection of the rights of workers can be adequately addressed through general laws, including minimum wage and occupational safety and health laws, that apply across the board to all workers. Most important, public sector unions with bargaining rights should be prohibited. Third, when there are market failures, such as externalities, creating problems of urban zoning, environmental pollution, and the like, and natural monopolies, such as national defense and power generation, there is a prima facie case for active government intervention. However, what has been called \\"state failure,\\" meaning the tendency for the state to act on behalf of special interest groups rather than the public as a whole, can render such interventions undesirable in many cases. Finally, the state has the right and the duty to intervene in the private economy to protect and enhance the rights of those who are incapable of protecting themselves. This includes the young, the elderly, and individuals with physical or mental incapacities, although only when laws enhancing the

power of private charitable interventions prove insufficient. In particular, the state should have great power to eliminate poverty, which I define roughly as a situation in which a fraction of the population are born into situations in which they lack the means for full self-development and healthy participation in social life. I suspect that I am missing some central principles for a defensible alternative to Friedman's irreparably flawed minor premise, and I invite other readers to offer additions and corrections.

Free to Choose: A Personal Statement

This out of date defense of free markets will not do — Rating: 3/5

Milton Friedman's basic argument is that it is better to let people spend their own money (\\"Free to Choose\\") rather than giving it to the government to spend for them. His implicit assumption, voiced in many different ways throughout the book, is that the relative size of private and state sectors depends on the political philosophy of voters: liberals prefer big government and conservatives prefer small. Political philosophy, in turn, is a reflection of basic moral values, which distort people's assessment of the material effects of the policies they espouse. Liberals prefer \\"social responsibility and a centralized and powerful government,\\" while conservatives prefer \\"individual responsibility, laissez-faire, and a decentralized and limited government.\\" (p. 92).

I do not believe that Friedman's stress on political ideology and moral values is correct. Political philosophies, be they left, right, or whatever, that give easy answer to all questions of social policy are generally bankrupt. This does not mean that middle-of-the-road policies that counsel the Aristotelian virtuous mean are more accurate. Rather, one-size-fits-all approaches to political, economic, and social issues are simply untenable. Not surprisingly, the average voter appears to have a rather more pragmatic approach to social policy, rewarding successful policies and their political proponents, and replacing ineffective political leaders, whatever their ideology.

The alternative to a one-size-fits-all approach to social policy is to recognize that for any given social problem, there will be a range, perhaps narrow, of effective solutions, and these are not likely to include unrestricted market competition or suffocating total control by a bureaucratic state. Indeed, in general, the question is what is the proper mix of decentrialized competition and centralized construction of the rules and regulations governing competition. This is not a moral issue and it does not depend on one's political ideology.

Friedman believes that big government creates economic inefficiencies, although he presents no statistics supporting his case. My own reading of the situation is that big government is an ineluctable part of economic growth (there is no advanced economy with a small state sector), but there is indeed a tendency for the size of government to exceed its most efficient and growth-promoting size. However, Friedman's distaste for government is clearly not its inefficiency, but rather its immorality, since it undermines the entrepreneurial, meritocratic, ethic of which Friedman approves. Indeed, I approve of this ethic as well, and I have a significant aversion to the \\"cradle to grave protection\\" ethic of most progressives (e.g., the French Socialists). However, I believe that the ability to compete successfully in modern society is an ideal that many people, for one reason or another, are incapable of attaining. These reasons include mental and physical incapacity, poor upbringing, inadequate social stimulation, and failure of will. Such people are as deserving of a decent life as anyone else, and Friedman's idea that such types would disappear were their social supports to be withdrawn is not in the least persuasive.

Friedman's free market pleading is not very persuasive in this book, in considerable part because it was written so long ago, and the issues have changed. He believes social security should be dismantled and individuals should set up their private savings plans. Of course, social security is a stunning success, and not even conservatives today want to dismantle it completely. Conservatives point to the financial problems with social security in the United States, but this is pretty lame critique of social value of the system.

The scientific arguments for social security are strong, especially given what we know about hyperbolic discounting (people tend to magnify the value of immediate gratificationand underestimate the

importance of the long-run) and the tendency of a fair fraction of the public to believe crazy theories of probability and finance (for instance, in the present situation, people saw others taking chances and making money, so reasonably enough, they followed along, leading to a stock market bubble).

Libertarians argue that the state has no business countermanding individual preferences (the heart of \\"free to choose\\"), but in fact, very often people recognize their own individual weaknesses and prefer that their choices be affected by social policy. For instance, even smokers prefer laws that reduce the incidence of smoking in society, and even savers prefer social security regulation to pure individual responsibility.

Friedman also argues against consumer protection laws and socially provided health insurance. These arguments are just silly and are not supported by most conservatives today. He says, for instance, \\"There will always be shoddy products, quacks, con artists. But on the whole, market competition, when it is permitted to work, protects the consumer better than do the alternative government mechanisms that have been increasingly superimposed on the market.\\" (p. 222) I wonder how an intelligent student of the issues could hold such a totally misguided position.

Economists can point to models that show that reputation effects alone are sufficient to ensure the delivery of high-quality goods, but these models depend on highly specialized assumptions that hold only part of the time. The notion that airlines would provide an equal level of safety without FAA regulations and inspections is not plausible, and the same is true of most consumer goods, where at times heavily discounting the future is the firm's profit-maximizing choice.

In fact, every advanced economic system has very strong consumer protection laws, and the need for such laws follows from economic theory. Consumers have incomplete information concerning the quality of goods, and it is less costly for the government to provide oversight than having each individual do it for himself. Some claim that reputational effects are sufficient to have the market work well. However, experience shows that firm decision-makers will cut quality to make profits in the present because if profits are low, they will get the boot anyway. For instance, air safety has improved dramatically since the FAA increased safety requirements, and there have been plenty of violators who have be caught by the FAA.

Similarly, control of pharmaceuticals is sensible because individuals without the proper training do not know how to medicate themselves, and it is not economically feasible to subject every consumer to the educational requirements for the correct prescription of medications. Friedman is on firmer ground in advocating the legalization of recreational drugs. Most economists probably now accept something close to full legaization for adult consumers as socially optimal.

The free market case against universal health insurance, and in favor of private health insurance, is more solid. There is certainly no justification for the government delivering health services, and lots of competition in health care delivery is highly desirable. However, there appears to be a social ethic in favor of such a system being accesible to all (as, for instance, voting or education). Given that, it makes sense to have government-financed health care, although I think a state- rather than federally-based would operate better, because it allows competition among the states for the best system of financing health care.

The only policy positions Friedman offers that I think basically accurate are to replace the public school system with a voucher system, and to replace some public support for higher education with a system in which graduates pay for their education according to their future incomes.

The public school system is a real anomaly in our society, because it is a government-supplied service where there is effectively no competition at all. The group that benefits are school teachers and their unions (workers never want competition in their industry) and politicians who make a living on school boards. Voucher systems give parents a fixed amount of money and allow them to choose their children's schools, while the schools must be duly accredited by the government (as is the case in health care). Charter schools are wholly inferior as an operational concept, because it allows the government to place too many restrictions on what schools are permitted to do, almost predetermining their failure). Teachers' unions know this, so they \\"compromise\\" by allowing a few to exist.

I also agree with his hostility to promoting unions as a policy tool, although a case can be made that strong minimum wage laws are warranted and the government should promote mechanisms to enhance

worker productivity (e.g., life-time apprenticeship programs). The problem with unions is that they are successful only in sectors that have monopoly power. In the current era, that means the state sector. The only exception is the automobile industry, where unions have crippled the ability of American firms to compete, to the point where both the firms and their unions are likely to go under in the next few years.

One of Friedman's most creative ideas was the negative income tax, which would allow the dismantling of the whole welfare bureaucracy (a great middle-class boondoggle), replacing social services by pure income support. The Clinton administration did implement the negative income tax, and it has been successful. However, it could only serve as an alternative to the welfare bureaucracy if the poor are \\"just like everyone else, except they have no money.\\" This is not the fact. Long-term poverty is almost invariably associated with some form of personal disfunctionality, such as mental or physical disease, drug abuse, lack of parenting skills, etc., that require social service administration and control.

Friedman describes himself as a libertarian, not a conservative, I am told. I do not think there could be a person more able than Friedman to defend this position, and he does so ineffectively. The notion of free enterprise, virtually unfettered from government regulation, is simply not tenable.the government to provide oversight than having each individual do it for himself. Some claim that reputational effects are sufficient to have the market work well. However, experience shows that firm decision-makers will cut quality to make profits in the present because if profits are low, they will get the boot anyway. For instance, air safety has improved dramatically since the FAA increased safety requirements, and there have been plenty of violators who have be caught by the FAA. Similarly, control of pharmaceuticals is sensible because individuals without the proper training do not know how to medicate themselves, and it is not economically feasible to subject every consumer to the educational requirements for the correct prescription of medications. Friedman is on firmer ground in advocating the legalization of recreational drugs. Most economists probably now accept something close to full legaization for adult consumers as socially optimal. The free market case against universal health insurance, and in favor of private health insurance, is more solid. There is certainly no justification for the government delivering health services, and lots of competition in health care delivery is highly desirable. However, there appears to be a social ethic in favor of such a system being accesible to all (as, for instance, voting or education). Given that, it makes sense to have government-financed health care, although I think a state- rather than federally-based would operate better, because it allows competition among the states for the best system of financing health care. The only policy positions Friedman offers that I think basically accurate are to replace the public school system with a voucher system, and to replace some public support for higher education with a system in which graduates pay for their education according to their future incomes. The public school system is a real anomaly in our society, because it is a government-supplied service where there is effectively no competition at all. The group that benefits are school teachers and their unions (workers never want competition in their industry) and politicians who make a living on school boards. Voucher systems give parents a fixed amount of money and allow them to choose their children's schools, while the schools must be duly accredited by the government (as is the case in health care). Charter schools are wholly inferior as an operational concept, because it allows the government to place too many restrictions on what schools are permitted to do, almost predetermining their failure). Teachers' unions know this, so they \\"compromise\\" by allowing a few to exist. I also agree with his hostility to promoting unions as a policy tool, although a case can be made that strong minimum wage laws are warranted and the government should promote mechanisms to enhance worker productivity (e.g., life-time apprenticeship programs). The problem with unions is that they are successful only in sectors that have monopoly power. In the current era, that means the state sector. The only exception is the automobile industry, where unions have crippled the ability of American firms to compete, to the point where both the firms and their unions are likely to go under in the next few years.
One of Friedman's most creative ideas was the negative income tax, which would allow the dismantling of the whole welfare bureaucracy (a great middle-class boondoggle), replacing social services by pure income support. The Clinton administration did implement the negative income tax, and it has been successful. However, it could only serve as an alternative to the welfare bureaucracy if the poor are \\"just like everyone else, except they have no money.\\" This is not the fact. Long-term poverty is almost invariably associated with some form of personal disfunctionality, such as mental or physical disease, drug abuse, lack of parenting skills, etc., that require social service administration and control. Friedman describes himself as a libertarian, not a conservative, I am told. I do not think there could be a

person more able than Friedman to defend this position, and he does so ineffectively. The notion of free enterprise, virtually unfettered from government regulation, is simply not tenable.

Gödel's Theorem: An Incomplete Guide to Its Use and Abuse

The Master Would Be Pleased — Rating: 4/5

A lot of new-age drivel has been written about Gödel's theorem. Franzén's goal is to explain its true meaning, which is a marvel unto itself, with no post-Modern overtones. Of course, if you have mush for brains, as is the case for most post-Moderns, you will not be able to sit still long enough to get through this slim book. For those with inquiring minds, however, Franzén offers an exhilarating read.

However important Gödel's theorem in its own right, I found the book interesting as a review of the basics of the foundations of mathematics. Without introducing any equations, Franzén manages to do a very serious job of explaining the issues. The math is needed to verify the validity of some key assertions made in the book, but there is nothing very enlightening about the math itself, so one gets a good feel for the subject just through a mostly-verbal overview.

Franzén deals with \\"formal systems,\\" which have enough logic and arithmetic to state and prove theorems. Franzén's basic formal systems are the \\"basic arithmetic\\" embodied in the Peano Axioms for the natural numbers, including enough propositional and first-order predicate logic to permit proving propositions about numbers (PA), and the Zermelo-Fraenkel axioms of set theory, including the Axiom of Choice (ZFC).

We say a proposition p about the natural number is true precisely if p. For instance, \\"every even natural number is the sum of two primes\\" is true if every even natural number is the sum of two primes (Goldbach's conjecture---still unproven). Note that the notion of \\"truth\\" is not formulated within PA or ZFC. What formal systems do is to turn axioms and inference rules into theorems. A theorem in a formal system is a sequence of symbols that can be proved within the system. A proof of a theorem is a sequence of statements, each of which is either an axiom or the result of applying the rules of inference to previous statements in the sequence. The theorem proved is simply the last statement of the proof. Thus, a proof can proceed without any concern with the \\"meanings\\" of the axioms and inference rules, whereas the concept of \\"truth\\" is inherently semantic: a true proposition means something, and what it means is in fact the case.

The foundations of mathematics revolve around assessing the plausibility and value of alternative axiomatic systems, and characterizing the relationship between theorems (strings of symbols legally derived from the axioms and other legally-derived strings of symbols) and the truth of what these theorems assert. We say a formal system S is \\"valid\\" if all of its theorems are true, and \\"complete\\" if all true statements that can be expressed in the system are theorems (i.e., can be proved). The best of all possible worlds for a formal system is that (a) has interesting theorems, and (b) is valid and complete. A minimum necessity for an acceptable formal system is that it be \\"consistent,\\" meaning if p is a theorem, then not p is not a theorem. An inconsistent system that contains the propositional calculus (the logical symbols \\"and\\", \\"or\\", \\"not\\", and \\"implies,\\" and the inference principle modus ponens, which says that \\"if you prove p, and if you prove p implies q, then you have proved q\\") can prove anything, so is useless. Consistency, however, is a very weak condition, because a consistent system need not be valid or complete; i.e., a consistent system can prove things that are false and can fail to prove things that are true. Note that a proposition p is provable in a system S if and only if the system S + not-p, gotten by adding non-p as an axiom, is inconsistent.

We say a proposition p is \\"decidable\\" in formal system S if it can be either proved or disproved in S. A proposition that can be neither proved nor disproved in S is called \\"undecidable.\\" Note that p is undecidable in formal system S if and only if both S + p (adding p as an axiomto S) and S + not p (adding not p as an axiom) are consistent.

A Turing machine is basically a computer with a memory that can be expanded to be as large as we want. An \\"algorithm\\" is a program for a Turing machine that, given any number or finite sequence

of numbers, terminates with an answer in a finite number of steps. Of course, a useful algorithm actually computes something useful. For instance, given two positive integers, there is a well-known algorithm for calculating their least common divisor. Similarly, given a polynomial function f(x,y,z) and a set of numerical inputs a, b, c, there is always an algorithm for calculating f(a,b,c).

We say a property P of numbers is \\"computable\\" if it can be checked by applying an algorithm. Consider, for instance, Goldbach's conjecture that every even natural number is the sum of two primes is computable, because given any even natural number k, we can simply run through the primes less than k until we find a pair that sums to k, or we run out of primes less than k. Franzén calls propositions that can be refuted by a computable process \\"Goldbach-like.\\" A Goldbach-like proposition, if false, can always be proved false by a formal system that includes basic arithmetic, simply by running through all possibilities until a counter-example is found. If a Goldbach-like proposition is true, however, an algorithm for finding a counter-example will simply run forever. If a system is complete, then all its theorems are computable, because we can simultaneously check a statement and its negation, and by completeness, we will find one or the other true eventually, in finite amount of time.

An example of a non-Goldbach like proposition is \\"there are infinitely many primes p such that p+2 is also prime (we call these \\"prime pairs\\"). If this is false, a counterexample is a number k such that there are no prime pairs greater than k. Such a number may exist, but we cannot prove than any number k has this property by a finite algorithmic process.

This totally elementary analysis leads to one important conclusion. In a formal system that can do basic arithmetic, all propositions whose negation is Goldbach-like can be proved, and if the system is consistent, all propositions whose negation is Goldbach-like and can be proved, are true (the latter holds because if a Goldbach-like proposition is false, its negation can be proved, so a consistent system cannot also prove the proposition itself).

The connection between provability and truth is difficult only with respect to non-Goldbach propositions. The great mathematician David Hilbert, at the turn of the Twentieth Century, had the grand ambition to reduce all of mathematics to a finite algorithmic process, thus proving basic mathematical formal systems valid and complete. Kurt Gödel (with important additions provided later by Barkley Rosser, Sr.), in 1931 proved that in any consistent formal system with a certain amount of elementary arithmetic (e.g., PA), there statements of elementary arithmetic that can be neither proved nor disproved. Thus, if S is consistent, there are propositions about the natural numbers that are undecidable in S.

To understand why Gödel's theorem is true, as Franzén makes clear, we must understand the broad outlines of its proof. I confess that I found Franzén's explanation of Gödel numbering, fixpoint constructions, and self-reference statements inscrutable, so I will provide a really simple alternative (see Charlesworth, Mathematics Magazine 54,3 May 1981 for details).

Let us assume that our formal system S has a finite number of symbols, legal combinations of which we may call \\"formal statements,\\" each of which is may be true or false. We think of a formal statement as containing no \\"free variables,\\" whose value can affect the truth or falsity of the statement. We assume that given any sentence, there is a mechanical (algorithmic) process for determining whether or not it is a formal statement (i.e., it checks that the sentence is meaningful and does not have any \\"free variables.\\")

The system has axioms and rules of inference, so it produces theorems, which are the final lines of proofs, which in turn are sequences of axioms and the result of applying rules of inference to the axioms and other such products. Theorems are thus formal statements. Again, we can check mechanically to determine whether a sequence of sentences is or is not the proof of a theorem. We assume the system can perform negation (i.e. if f is a formal statement, then not-f is also a formal statement). Thus, we can say that the system is consistent if and only if does not prove both f and not-f for any formal statement f.

We assume that the system has a unique representation of each natural number k, and if one such representation is replaced by the representation of any other number in a formal statement, the result is another formal statement. We need a way of expressing functions f(x), where x is a \\"variable,\\" in the system. We say that a sentence f is a \\"number predicate\\" if it is not a formal statement, but it has a recognizable segment that, when replaced by the systems representation for the number 1, becomes a

formal statement (there is nothing special about 1, because above we have assumed any number can replace any other number in a formal expression). We write this expression as f(1), thereby defining f(n) for any natural number n.

Our final condition for the formal system is really the key assumption. It is not obviously true for such formal systems as PA and ZFC, but it is in fact true for these and many other systems, as Gödel showed. The assumption is that any computer program P that takes as input a single number and eventually stops, printing either \\"Yes\\" or \\"No\\" as its output, there is a number predicate fP in the system such that P prints \\"Yes\\" when given input n if and only if fP(n) is a theorem.

The rest is easy. With these assumptions, it is clear that a consistent system has a mechanical process (an algorithm) for generating all theorems. It does this by sifting through a list of all strings of the system, looking for proofs of theorems. For any formal statement, either it or its negation is a theorem, and since the system is consistent, eventually a mechanical process with find a proof of one or the other, and then stop. We say that the theorems of S are \\"computably enumerable.\\" Similarly, there is an algorithm for generating a list of all number predicates f1, f2, f3, and so on. It follows that if the system is complete, there is an algorithm that determines whether any formal statement is a theorem.

We can now prove Gödel's theorem, which states that if our system has the above properties and is consistent, then it is incomplete; i.e., there is a formal statement that cannot be either proved or disproved. In other words, the set of non-theorems, while computable enumerable, is not computably decidable: given a sentence f that is not true but whose negation cannot be proved, we will search forever for a proof of f or not-f. To that when S is complete, there are meaningful sentences in S that are neither provable nor disprovable, assume the system is complete, so the algorithms described above actually exist. Consider a computer program P that, for input n, computes the number predicate fn, then computes whether or not fn(n) is a theorem using the above algorithms, and outputs \\"No\\" if fn(n) is a theorem, and \\"Yes\\" if fn(n) is not a theorem. By assumption, this program is has a corresponding number predicate. Say fm is the number predicate of P. Thus, by construction, P with input n prints \\"Yes\\" if and only if fm(n) is a theorem. It follows that P with input m prints \\"Yes\\" if and only if fm(m) is a theorem. But, we originally constructed P to say \\"No\\" when it sees input m if and only ifits number predicate fm(m) is a theorem. Therefore, our original assumption that the system is complete is incorrect.

This proof makes it clear why the second Gödel theorem is true. This theorem, which Gödel proved informally shortly after his first proof, but was fully proved by Hilbert and Bernays some years after, is that in any consistent system with the above properties, the systems consistency cannot be proved within the system. Thus, if such a system proves its own consistency, then it must be inconsistent (and hence can prove anything). To see, the note that if there is a proof of consistency, this can be used to prove the existence of the algorithms described above, and hence the existence of the computer program P, which we have seen does not exist if the system is consistent.

The above argument seems to me extremely plausible, provided we are capable of showing that every computer program P that outputs \\"Yes\\" or \\"No\\" for all numerical inputs can be represented by a numerical predicate f(n) that is a theorem precisely when P prints \\"Yes.\\" This seems quite provable.

Franzén's approach is closer to Gödel's, and less intuitive. First we give to each well-forms string of symbols in the formal system S a unique number, which we call the \\"Gödel number\\" of the string. We write the Gödel number of A as <A> (Franzén does not do this---he tries to avoid all mathematical notation). Suppose f is a numerical predicate, which is therefore either true or false when applied to any particular Gödel number. By a \\"fixpoint\\" numerical predicate for f we mean a sentence A such that \\"A if and only if f(<A>)\\" is a theorem of S. It is certainly not obvious that this construction is possible, but we'll take it on faith. Then, if f(n) asserts \\"n is not the Gödel number of a theorem of S,\\" the fixpoint for f is denoted G, and is called a \\"Gödel sentence\\" for S. Thus, \\"G if and only if <G> is not the Gödel number of a theorem of S.\\" However, if this sentence is a theorem, then it is provable that it is a theorem if S is consistent, since in this case we can go through all sentences looking for the proof of either G or not-G. This search necessarily halts, and if G is a theorem, it halts by proving this fact. Now, if G is a theorem, the <G> is not the Gödel number of a theorem of S, which is a contradiction.

Both Franzén's proof and the one I sketched use self-referencing sentences in a fundamental way. There is nothing wrong with this (unlike the supposed antinomies like Richard's Paradox, which involve inadmissible self-referencing), but Franzén show that there are computational proof that do not involve self-referencing at all.

Gödel's theorem proves that no consistent system that supports simple arithmetic can either prove its own consistency, or be a self-contained system of all mathematical truths. Some have claimed that this supports having a skeptical attitude towards mathematics, or even science. This is a mistake. One can have a skeptical attitude if one desires, but Gödel's theorem in no way supplies arguments in favor of skepticism. The fact that a formals system can prove its consistency is not a mark in favor of such a system, because an inconsistent system can always prove its consistency. Moreover, our confidence in the axioms of mathematical systems must ultimate come from an irreducible faith in them, based on evidence or reason. This remains true with or without Gödel's theorem.variables.\\") The system has axioms and rules of inference, so it produces theorems, which are the final lines of proofs, which in turn are sequences of axioms and the result of applying rules of inference to the axioms and other such products. Theorems are thus formal statements. Again, we can check mechanically to determine whether a sequence of sentences is or is not the proof of a theorem. We assume the system can perform negation (i.e. if f is a formal statement, then not-f is also a formal statement). Thus, we can say that the system is consistent if and only if does not prove both f and not-f for any formal statement f. We assume that the system has a unique representation of each natural number k, and if one such representation is replaced by the representation of any other number in a formal statement, the result is another formal statement. We need a way of expressing functions f(x), where x is a \\"variable,\\" in the system. We say that a sentence f is a \\"number predicate\\" if it is not a formal statement, but it has a recognizable segment that, when replaced by the systems representation for the number 1, becomes a formal statement (there is nothing special about 1, because above we have assumed any number can replace any other number in a formal expression). We write this expression as f(1), thereby defining f(n) for any natural number n. Our final condition for the formal system is really the key assumption. It is not obviously true for such formal systems as PA and ZFC, but it is in fact true for these and many other systems, as Gödel showed. The assumption is that any computer program P that takes as input a single number and eventually stops, printing either \\"Yes\\" or \\"No\\" as its output, there is a number predicate fP in the system such that P prints \\"Yes\\" when given input n if and only if fP(n) is a theorem. The rest is easy. With these assumptions, it is clear that a consistent system has a mechanical process (an algorithm) for generating all theorems. It does this by sifting through a list of all strings of the system, looking for proofs of theorems. For any formal statement, either it or its negation is a theorem, and since the system is consistent, eventually a mechanical process with find a proof of one or the other, and then stop. We say that the theorems of S are \\"computably enumerable.\\" Similarly, there is an algorithm for generating a list of all number predicates f1, f2, f3, and so on. It follows that if the system is complete, there is an algorithm that determines whether any formal statement is a theorem. We can now prove Gödel's theorem, which states that if our system has the above properties and is consistent, then it is incomplete; i.e., there is a formal statement that cannot be either proved or disproved. In other words, the set of non-theorems, while computable enumerable, is not computably decidable: given a sentence f that is not true but whose negation cannot be proved, we will search forever for a proof of f or not-f. To that when S is complete, there are meaningful sentences in S that are neither provable nor disprovable, assume the system is complete, so the algorithms described above actually exist. Consider a computer program P that, for input n, computes the number predicate fn, then computes whether or not fn(n) is a theorem using the above algorithms, and outputs \\"No\\" if fn(n) is a theorem, and \\"Yes\\" if fn(n) is not a theorem. By assumption, this program is has a corresponding number predicate. Say fm is the number predicate of P. Thus, by construction, P with input n prints \\"Yes\\" if and only if fm(n) is a theorem. It follows that P with input m prints \\"Yes\\" if and only if fm(m) is a theorem. But, we originally constructed P to say \\"No\\" when it sees input m if and only if its number predicate fm(m) is a theorem. Therefore, our original assumption that the system is complete is incorrect. This proof makes it clear why the second Gödel theorem is true. This theorem,which Gödel proved informally shortly after his first proof, but was fully proved by Hilbert and Bernays some years after, is that in any consistent system with the above properties, the systems consistency cannot be proved within the system. Thus, if such a system proves its own consistency, then it must be inconsistent (and hence can prove anything). To see, the note that if there is a proof of

consistency, this can be used to prove the existence of the algorithms described above, and hence the existence of the computer program P, which we have seen does not exist if the system is consistent. The above argument seems to me extremely plausible, provided we are capable of showing that every computer program P that outputs \\"Yes\\" or \\"No\\" for all numerical inputs can be represented by a numerical predicate f(n) that is a theorem precisely when P prints \\"Yes.\\" This seems quite provable. Franzén's approach is closer to Gödel's, and less intuitive. First we give to each well-forms string of symbols in the formal system S a unique number, which we call the \\"Gödel number\\" of the string. We write the Gödel number of A as (Franzén does not do this---he tries to avoid all mathematical notation). Suppose f is a numerical predicate, which is therefore either true or false when applied to any particular Gödel number. By a \\"fixpoint\\" numerical predicate for f we mean a sentence A such that \\"A if and only if f()\\" is a theorem of S. It is certainly not obvious that this construction is possible, but we'll take it on faith. Then, if f(n) asserts \\"n is not the Gödel number of a theorem of S,\\" the fixpoint for f is denoted G, and is called a \\"Gödel sentence\\" for S. Thus, \\"G if and only if is not the Gödel number of a theorem of S.\\" However, if this sentence is a theorem, then it is provable that it is a theorem if S is consistent, since in this case we can go through all sentences looking for the proof of either G or not-G. This search necessarily halts, andif G is a theorem, it halts by proving this fact. Now, if G is a theorem, the is not the Gödel number of a theorem of S, which is a contradiction. Both Franzén's proof and the one I sketched use self-referencing sentences in a fundamental way. There is nothing wrong with this (unlike the supposed antinomies like Richard's Paradox, which involve inadmissible self-referencing), but Franzén show that there are computational proof that do not involve self-referencing at all. Gödel's theorem proves that no consistent system that supports simple arithmetic can either prove its own consistency, or be a self-contained system of all mathematical truths. Some have claimed that this supports having a skeptical attitude towards mathematics, or even science. This is a mistake. One can have a skeptical attitude if one desires, but Gödel's theorem in no way supplies arguments in favor of skepticism. The fact that a formals system can prove its consistency is not a mark in favor of such a system, because an inconsistent system can always prove its consistency. Moreover, our confidence in the axioms of mathematical systems must ultimate come from an irreducible faith in them, based on evidence or reason. This remains true with or without Gödel's theorem.

The Foundations of Positive and Normative Economics: A Handbook A Handbook (Handbooks of Economic Methodology)

Great Drama, Good Ideas — Rating: 4/5

This beautifully produced book has enough analytical detail to interest the most demanding microeconomist, but by skipping the heavy math (there's not much), the interested researcher outside economics (including philosophy) will find this a rich and tumultuous glimpse into the current state of microeconomic theory, facing a barrage of criticism from a new breed of \\"neuroeconomists.\\" Caplin and Schotter have done a fine job of pulling together key contributions to our understanding the main issues in the current confrontation between neuroeconomics and standard microeconomic theory, and pointing a constructive way forward.

The book is fascinating from two quite different standpoints: economic theory and the sociology of knowledge. The latter is particularly showcased, if inadvertently, in this book. My personal experience is that when a new research area is born, many of the smartest and scientifically committed people fail to understand simple issues, and make assertions that are completely indefensible. In the short-run, in the face of a group of hopeful innovators, there is a \\"circling of the wagons,\\" in which groups of researchers with opposing viewpoints utter statements that are both incorrect and exhibit a high degree of hostility, contempt, and anger. These negative emotions are stirred up by the fact that the content of the criticism of the other side is often contemptuous and incorrect. Eventually, this all gets sorted out, but this can take a decade or more.

I know this from being in the line of fire, not just an observing bystander. I'll tell the story for readers who are interested. Otherwise, skip to the paragraph \\"Of course, underneath...\\"

In about 1994, the John D. and Catherine T. MacArthur Foundation decided to lay big bucks on a research project into \\"The Structure and Evolution of Norms and Preferences.\\" There was much competition for leadership of the project. I decided right away that the goal of such a project should be to be deeply respectful of standard theory, and depend completely upon the quality of the data generated and analytical models dedicated to interpreting this data to convince the economics profession of the value of our work. The alternative, of course, is to try to do an \\"end run\\" around the profession by bad-mouthing it and dismissing its supporters as idiots and cretins.

On this basis of this approach, the MacArthur Foundation asked me and Paul Romer to run such a group. After a few years, it came time to renew this grant, the proposal for which I duly wrote (with advice from my new co-chair, anthropologist Robert Boyd), keeping carefully in mind not to ruffle the feathers of traditional economists. We were awarded the renewal, but some of the comments of the reviewers completely shocked me. I had no idea we were such anathema to the economics profession. Here are some excerpts (my copy is dated January 22, 2002).

1. the first three pages [of the proposal]... made my skin crawl. All of this garbage about \\"hard-nosed\\" economists makes me very angry, because non-economists might really believe it, and it's just not true.... [The Norms and Preferences] network has done so much good work that it's a shame to \\"front\\" it with this kind of tripe.

2. A few days ago a wire service ran a story quoting one member of this network to the effect that the network had showed, in contrast to orthodox economics, that people actually care about one another. I will spare the [MacArthur] Foundation the details of the reaction this article elicited from my colleagues; suffice it to say they were angry and contemptuous...

3. I cannot think of any more effective way to undermine the goal of increasing the usefulness of the discipline of economics than having a foundation as prestigious as MacArthur appear to be funding a group of people who have such a limited understanding of economics.

My point here is that despite my best intentions, Ihad not succeeded in avoiding stirring up the emotional dross that comes along with innovations that are not securely within the established paradigm. In fact, I probably needed a little \\"in your face\\" verbiage to make up for the absence of the theory and evidence that would eventually make my intended case in a more mature way. Neuroeconomics is a new intruder into economic orthodoxy, and still has its share of bravado, smoke and mirrors. For me, it is comforting indeed to be a bystander rather than a participant in the ensuing melee.

Of course, underneath the Sturm und Drang, there are real scientific issues that must be resolved before calm is restored, and this is rarely a matter of one or two experiments, but rather an onslaught of findings that make the alternative explanations increasingly tendentious and strained, and which have found a way to preserve the truths of the past along with the new ideas. We are in the midst of such a period in dealing with the effect on microeconomic theory of the increasing volume of data concerning the brain activity underlying individual choice and strategic interaction, data uncovered by a new breed of self-styled \\"neuroeconomists\\" (several of the prominent among whom were part of my MacArthur research group, which wrapped up its work last year).

Here is the most fundamental claim of the neuroeconomists (a quote from Colin Camerer, p. 6-7, written in 2005): \\"advances in genetics and brain imaging [tell us]... that we will eventually be able to replace the simple mathematical ideas that have been used in economics with more neurally detailed descriptions.\\" Statements like this (and the neuroeconomists are not stingy with their pronouncements) are bound to shed heat rather than light. The merit of the book is that it cuts through the verbiage to allow the reader to come to a (provisionally) informed opinion of what is really going on.

For the record, there is virtually no chance that neurological data will replace standard economic reasoning, for reasons well expressed by Faruk Gul and Wolfgang Pesendorfer. I like the following analogy. Suppose far into the future people use computers all the time, but how they work---what is on the inside of the shiny, impenetrable boxes---has long been forgotten. Nevertheless, there is a field called \\"Computer Science\\" in which people learn to program computers, develop computer algorithms, manage databases and communication facilities, and even give computers specifications for constructing more powerful computers (which they do inside impenetrable shiny boxes). One day, some

New Electronics people invent a tool for seeing what is going on inside the computer, and find that there are oodles of silicon chips chugging away there. They also discover that programming the computer in different ways leads to different parts of the computer's innards to light up in different ways. Indeed, they find that by looking inside a defective computer, they find strong regularities between different silicon areas and the particular computer defect involved. Now, all of this is very exciting, and the New Electronics people publish a manifesto asserting that soon there will be no need for computer science, because the direct inspection of the operation of electrons in silicon pathways will \\"replace the simple mathematical ideas that have been used in computer science.\\" Of course, the New Electronics people may be making very important discoveries that may indeed be of use to computer scientists, but it is a category error to say that the new knowledge will \\"replace\\" the old.

The response of Gul and Pesendorfer to such maddening pronouncements is to abandon all reserve, and to exclaim that neurological data have absolutely nothing to do with economics. \\"Neuroscience evidence cannot refute economics models because the latter make no assumptions and draw no conclusions about the physiology of the brain.\\" (p. 4) This is hardly convincing. What if a homeopathic physician claimed that nothing about human physiology could refute homeopathy because homeopathy makes no assertions about human physiology? Not very convincing. Indeed, Gul and Pesendorfer make many telling points in their introductory essay, which is the foundation for the remaining articles in the book, but they embrace a restrictive economic methodology known as \\"revealed preference theory\\" which is not very persuasive. Revealed preference methodology was first developed by Paul Samuelson at a time when Skinnerian behavioral psychologist was still all the rage. According to this approach, economist don't care at all about what goes on inside people's heads---all they care about is how they behave.

This view sounds attractive at first blush, but it has two fatal flaws (as carefully and creatively discussed by several authors in later chapters of the book). The first is that people expect economics to be useful for policy purposes, which means saying something about what economic policies will improve the welfare of individuals in society. Revealed preference theory says nothing about \\"individual welfare\\" except that we must assume that people do best by getting what they choose. For this reason, Gul and Pesendorfer are dismissive of microeconomic policy, equating it with therapeutic psychotherapy. \\"Standard economics,\\" they assert, \\"has no therapeutic ambition.\\" (p. 5) This idea, of course, not only wrong, but silly. Of course economics is connected to social policies, if not for all economists, at least for many. Moreover, we know from everyday observation and behavioral experiments that people do not always choose what is good for them, and they often know this. For this reason, many behavioral economists today espouse a form of \\"light paternalism\\" in which social policies recognize human foibles and correct them in a way that is compatible with the respect for individual liberty.

As good traditional economists, Gul and Pesendorfer have nothing but contempt for any form of paternalism. I experienced similar hostility from Paul Samuelson himself in his Nobel Prize acceptance speech of 1970, responding to a paper I wrote in the late 1960's, in which I observed that \\"some preferences are better than others,\\" .a position advocated before me by John Stuart Mill in his opposition to Jeremy Bentham's utilitarianism. Throughout most of its history, economic theory has followed Bentham, who opined \\"Prejudice apart, the game of push-pin is of equal value with the arts and sciences of music and poetry. If the game of push-pin furnish more pleasure, it is more valuable than either. Everybody can play at push-pin: poetry and music are relished only by a few.\\" Bentham's egalitarianism is laudable, but the alternative is that Pushkin is better than pushpin, and the uneducated are cut off from fruitful paths of self-realization by not being capable of appreciating Pushkin. Happiness, I argued in support of Mill, is as much the development of preferences as their satisfaction. \\"Just recently,\\" writes Samuelson in his 1970 speech, \\"I was reading an article...The writer was scathing on the notion of Pareto-optimality. Yet...it seemed to me that precisely in a society grown affluent...there arises an especial importance to the notion of giving people what they want.\\"As evidence of progress in economic theory, and pace Gul and Pesendorfer, there are probably few economists alive today that do not believe that an important contribution of the economy to well-being is the improvement of moral character and personal capacities to enjoy what life has to offer.

Kudos to Caplin and Schotter for this fine book, which allows us to cut through much of the excessive verbiage towards a better understanding both of the deep wisdom embodied in standard economic theory, and the momentous changes that theory is undergoing at the hands of experimental economists,

behavioral game theorists, and neuroeconomists.could refute homeopathy because homeopathy makes no assertions about human physiology? Not very convincing. Indeed, Gul and Pesendorfer make many telling points in their introductory essay, which is the foundation for the remaining articles in the book, but they embrace a restrictive economic methodology known as \\"revealed preference theory\\" which is not very persuasive. Revealed preference methodology was first developed by Paul Samuelson at a time when Skinnerian behavioral psychologist was still all the rage. According to this approach, economist don't care at all about what goes on inside people's heads---all they care about is how they behave. This view sounds attractive at first blush, but it has two fatal flaws (as carefully and creatively discussed by several authors in later chapters of the book). The first is that people expect economics to be useful for policy purposes, which means saying something about what economic policies will improve the welfare of individuals in society. Revealed preference theory says nothing about \\"individual welfare\\" except that we must assume that people do best by getting what they choose. For this reason, Gul and Pesendorfer are dismissive of microeconomic policy, equating it with therapeutic psychotherapy. \\"Standard economics,\\" they assert, \\"has no therapeutic ambition.\\" (p. 5) This idea, of course, not only wrong, but silly. Of course economics is connected to social policies, if not for all economists, at least for many. Moreover, we know from everyday observation and behavioral experiments that people do not always choose what is good for them, and they often know this. For this reason, many behavioral economists today espouse a form of \\"light paternalism\\" in which social policies recognize human foibles and correct them in a way that is compatible with the respect for individual liberty. As good traditional economists, Gul and Pesendorfer have nothing but contempt for any form of paternalism. I experienced similarhostility from Paul Samuelson himself in his Nobel Prize acceptance speech of 1970, responding to a paper I wrote in the late 1960's, in which I observed that \\"some preferences are better than others,\\" .a position advocated before me by John Stuart Mill in his opposition to Jeremy Bentham's utilitarianism. Throughout most of its history, economic theory has followed Bentham, who opined \\"Prejudice apart, the game of push-pin is of equal value with the arts and sciences of music and poetry. If the game of push-pin furnish more pleasure, it is more valuable than either. Everybody can play at push-pin: poetry and music are relished only by a few.\\" Bentham's egalitarianism is laudable, but the alternative is that Pushkin is better than pushpin, and the uneducated are cut off from fruitful paths of self-realization by not being capable of appreciating Pushkin. Happiness, I argued in support of Mill, is as much the development of preferences as their satisfaction. \\"Just recently,\\" writes Samuelson in his 1970 speech, \\"I was reading an article...The writer was scathing on the notion of Pareto-optimality. Yet...it seemed to me that precisely in a society grown affluent...there arises an especial importance to the notion of giving people what they want.\\"As evidence of progress in economic theory, and pace Gul and Pesendorfer, there are probably few economists alive today that do not believe that an important contribution of the economy to well-being is the improvement of moral character and personal capacities to enjoy what life has to offer. Kudos to Caplin and Schotter for this fine book, which allows us to cut through much of the excessive verbiage towards a better understanding both of the deep wisdom embodied in standard economic theory, and the momentous changes that theory is undergoing at the hands of experimental economists, behavioral game theorists, and neuroeconomists.

Rationality in Economics: Constructivist and Ecological Forms

Vernon Tells All — Rating: 5/5

My colleague Samuel Bowles used to say that there are two types of economist: the Priest and the Engineer. The Priests live in their own little world and spin theories without any reference to the facts. The Engineers live in the real world, collect data, analyze time series, make predictions, give policy advice, and generally ignore all but the most basic economic theory. Certainly, the Engineers never give a thought to what the Priests are doing (they're usually separating hyperplanes, playing with Fredholm operators, or lost in Banach space). Not surprisingly, the microeconomics textbook used in all the best graduate departments around the world has more than a thousand pages stocked with axioms and theorems, but there is not one economic fact in the whole book.

You may ask what this has to do with Vernon Smith's new book, Rationality in Economics. Well, more than a half-century ago, Smith set out to actually test economic theory! He put together a working laboratory, got amazing results having people play games that represent economic exchange, and thus started a movement that has begun to radically change the relationship between fact and theory in economics. Not only has experimental economics (that's what is done in his laboratory) expanded a thousandfold over the years, but leading journals now present models that attempt to account for the observed behavior of human subjects in the laboratory. Vernon Smith received the Nobel prize in economics 2002 for his efforts, but he really deserves half a dozen such awards for his energy, insight, and just play chutzpah.

Vernon Smith changed my life in 1992, when I read an article he wrote in Scientific American surveying his work. To that point I had thought that experimental economics was just a bunch of right-wing know-nothings trying to show Adam Smith's invisible hand really worked, both with humans and pigeons. I was wrong. I can honestly say that everything I assert with confidence about economics comes from either the result of experiments or observing the comparative performance of different real-life economic institutions.

Vernon Smith, in his discussion of the scientific method (Chapter 13) asserts that the idea that we can derive good theory just by carefully looking at the facts is not correct, despite the fact that virtually every great scientist believes he or she does just that. This is a curious position for a man who has spent his life assembling the facts. It is clear that the correct theory does not leap out at us as an ordered kaleidoscope of facts, but the normal everyday application of genius to the facts does quite regularly give rise to better theory. This is why experimental economics is so important.

Intellectually, Vernon Smith is heir to the Scottish Enlightenment, plus Friedrich von Hayek. Hayek plays a front and center role in this book in three or four different ways. The most important really has nothing to do with experimental economics, although Vernon Smith does an excellent job of applying Hayekian insights to experimental methodology. Some historical background is in order. Hayek was a conservative Austrian school aristocrat whose major occupation in life was opposing and discrediting socialism, in an era where many intelligent people believed the triumph of socialism was virtually inevitable. In the mid-1930's, Hayek, Ludwig von Mises, and others entered into a debate with the market socialists Oskar Lange and Abba Lerner as to the feasibility of state socialism. Neoclassical economic theory was accepted by all, and the socialists won a decisive victory. This is not surprising, since neoclassical economic theory accepted the Walrasian general equilibrium model, in which a centralized actor, the auctioneer, orchestrated the whole economy, the only role of markets being to carry out s set of plans architected from the central planner (the auctioneer himself). What different did it make if there isprivate property and an auctioneer or state ownership of the means of production and a state planning board? According to neoclassical economics, none whatever.

Indeed, as a result of this debate, the great Austrian-American economist Josef Schumpeter wrote a whole book explaining why socialism was inevitable, despite how much he despised it (Capitalism, Socialism, and Democracy, 1942). This defeat led Hayek in quite a different direction. He deeply rethought his commitment to neoclassical economics. In the late 1930's Hayek developed the argument that the economy is an organic entity that cannot be properly modeled analytically, and information is so decentralized and distributed among economic actors that no sort of centralized planning was possible. He was prevented from publishing his ideas until the conclusion of WWII, his article appearing as \\"The Use of Knowledge in Society\\", American Economic Review 35,4 (1945):519-530. Read it and weep, socialists.

It would be hard to overstress the importance of Hayek's ideas, and their essential correctness. Now, Hayek himself used his theory as an instrument for denying an important place for the state in regulating the business cycle, providing social insurance, and dealing with market failures in a productive economy. In this, like Milton Friedman after him, he was very incorrect. There is no advanced market economy without an equally advanced, interventionist state. But, his critique of the idea that planning could replace market competition is absolutely correct, and is the idea underlying the subtitle of Vernon Smith's book: \\"Constructivist and Ecological Forms.\\" Smith offers a dialectical view in which social planners, scientists, and entrepreneurs develop analytical theories (constructs), but

only their subjection to the ecology of market competition and the competition of ideas dedicated to the experimental method gives rise to social institutions, products, and ideas that are dynamically robust.

The description and analysis of experimental economics in this book is first rate, as one might expect. The discussion of the spectrum auctions is an especially wonderful exposition of fundamental theory without all the equations. Smith's overall model of human behavior is insightful, and draws creatively on the fact that we are the product of gene-culture coevolution, so our ecological rationality make look weak to the constructivist models of the experimenters, but it is the most advanced form of information processing on this planet by far.

Like most experimental economists, Vernon Smith is unmoved by the contributions of sociological theory. He certainly betrays no interest in the theory of social roles and social actors, or the concept of the internalization of norms. These are, however, among the most important tools in the behavioral scientist's arsenal for understanding exactly how and why humans are not simply selfish sociopaths. A good reading of Emile Durkheim, Talcott Parsons, and a few other major sociological figures would add materially to the insights of the Scottish school.

Morality is a biologically evolved aspect of human genetic constitution, itself a product of the gene-culture coevolutionary process that underlies Vernon Smith's understanding of human nature. People sacrifice material benefits to achieve moral ends, including such character virtues as honesty, trustworthiness, and fairness. I used to doubt the centrality of this biological aspect of our nature, but experimental economics and neuroeconomics have disabused me of any notion that we could ever understand human behavior in terms self-interest, enlightened or otherwise.

Vernon Smith embraces Hayek's model of human psychology in The Sensory Order (1952), which is indeed a brilliant work adumbrating modern connectionism. What is often overlooked is that Hayek's aim was to develop a completely decentralized model of human psychology forthe same reasons he preferred a completely decentralized model of the ecological economy. In this, Hayek was really closer to the old associationists of the classical liberal period. although utilizing a relatively sophisticated understand of brain architecture. Like the model of well-known psychologist Donald Hebb, he treated learning as a process of increased communication ease between axons of cells that, based on external stimuli, tended to fire together (Hebb's law is often expressed in simplified form as \\"Neurons that fire together wire together.\\"

The problem with this view of human psychology is that it is so brain-based that it cannot deal with the emergent properties of human dyadic or multi-adic communication and strategic interaction. There is no difference, for instance, in the brain of a monkey and a human from the Hayekian/Hebbian point of view, except quantitative.

In fact, as I show in my book The Bounds of Reason (Princeton, 2009), it is impossible to understand human strategic interaction without overarching social norms of the type first studied by Emile Durkheim, and now a standard part of the sociological literature. Moreover, modern neuroscience show that there are indeed specialized structures to deal with human interaction and personal morality. This does not contradict Hayek, of course, it is an important addition to the argument in The Sensory Order.ics in this book is first rate, as one might expect. The discussion of the spectrum auctions is an especially wonderful exposition of fundamental theory without all the equations. Smith's overall model of human behavior is insightful, and draws creatively on the fact that we are the product of gene-culture coevolution, so our ecological rationality make look weak to the constructivist models of the experimenters, but it is the most advanced form of information processing on this planet by far. Like most experimental economists, Vernon Smith is unmoved by the contributions of sociological theory. He certainly betrays no interest in the theory of social roles and social actors, or the concept of the internalization of norms. These are, however, among the most important tools in the behavioral scientist's arsenal for understanding exactly how and why humans are not simply selfish sociopaths. A good reading of Emile Durkheim, Talcott Parsons, and a few other major sociological figures would add materially to the insights of the Scottish school. Morality is a biologically evolved aspect of human genetic constitution, itself a product of the gene-culture coevolutionary process that underlies Vernon Smith's understanding of human nature. People sacrifice material benefits to achieve moral ends, including such character virtues as honesty, trustworthiness, and fairness. I used to doubt the centrality of this biological aspect of our nature, but experimental economics and neuroeconomics have disabused

me of any notion that we could ever understand human behavior in terms self-interest, enlightened or otherwise. Vernon Smith embraces Hayek's model of human psychology in The Sensory Order (1952), which is indeed a brilliant work adumbrating modern connectionism. What is often overlooked is that Hayek's aim was to develop a completely decentralized model of human psychology for the same reasons he preferred a completely decentralized model of the ecological economy. In this, Hayek was really closer to the old associationists of the classical liberal period. although utilizing a relatively sophisticated understand of brain architecture. Like the model of well-known psychologist Donald Hebb, he treated learning as a process of increased communication ease between axons of cells that, based on external stimuli, tended to fire together (Hebb's law is often expressed in simplified form as \\"Neurons that fire together wire together.\\" The problem with this view of human psychology is that it is so brain-based that it cannot deal with the emergent properties of human dyadic or multi-adic communication and strategic interaction. There is no difference, for instance, in the brain of a monkey and a human from the Hayekian/Hebbian point of view, except quantitative. In fact, as I show in my book The Bounds of Reason (Princeton, 2009), it is impossible to understand human strategic interaction without overarching social norms of the type first studied by Emile Durkheim, and now a standard part of the sociological literature. Moreover, modern neuroscience show that there are indeed specialized structures to deal with human interaction and personal morality. This does not contradict Hayek, of course, it is an important addition to the argument in The Sensory Order.

The Case for Big Government (The Public Square)

Backward Rather than Forward Looking Policies for Liberals — Rating: 2/5

Well, conservatism is in retreat in the United States and `liberal' is no longer a term of abuse. So, what are liberals going to do about long term social policy? I don't mean how should we deal with the current crisis, but rather how should we set and meet social goals to make a better society in the long run? I say \\"we\\" advisedly because I am neither a liberal nor a conservative. Rather I am more of a social planner-type who just wants to get the job done. This tends to make me critical of, and exasperated by, traditional political ideologies, which often substitute political correctness for solid ideas. This is why I read Madrick's book. Madrick is a true liberal of Michael Dukakis vintage, so his ideas will be in the running for such a vision in the next several years, provided we emerge healthy from the current financial meltdown.

If you want a well documented exposition of the thesis that the size of the government sector is not a problem, this is your book. I know that this finding will come as a shock to many, especially younger, readers who have been lectured to all their lives about the sins of drug abuse and big government, but Madrick is quite correct. It is not the size of government that affects social welfare, but rather the content of its taxation, expenditure¸ and regulatory policies. The simple fact is that there is no advanced economy without a large state sector, and traditional economic theory tells us exactly why: market failures and unintended outcome must be corrected by social intervention, in the absence of which a high level of wealth cannot be sustained.

If you want innovative ideas about new ways that government can serve the people, Madrick is not your man. His recipe list for social policy is basically, \\"let's go back to where Michael Dukakis left off, and finish the job.\\" What this approach forgets is that there is a reason why conservatism took over, and if liberals make the same mistakes that they did in incurring voter wrath, the same thing will happen all over again. The idea, for instance, that trade unionism should be a considerable part of a progressive coalition is simply the kiss of death. In a global economy, unions cannot thrive in a competitive sector, because there is no monopoly surplus generated by firms that can be shared with the workers---profits fall to their competitive levels. This is why unions only do well in the state sector. This, by the way, is true the world over, not just the United States (e.g., the level of unionization in France is only 8%). Of course, one can also oppose globalization, but Madrick is not obtuse enough to suggest an anti-globalization policy (indeed, he tends to say that globalization is not a serious problem---p. 76).

Madrick also does not understand that the public's rejection of liberal social policy was not on grounds of economic efficiency and growth, but rather moral legitimacy. People believed the government wasted

money, funneled perks to cronies, and administered a welfare state that rewarded sloth and anti-social behavior. The brilliance of Clinton as president was his clear recognition of this fact, and his support for policies that restored the appearance of legitimacy to the welfare system. Nowhere does Madrick recognize or affirm this point. All he says, over and over, is \\"big government does not lead to a low rate of economic growth.\\"

Central to Madrick's vision of social policy in a redistribution of wealth to the lower middle class (non-college working class) through severe taxation of the rich and some vague transfer to wage earners (e.g., through unions, lower payroll taxes, and the like). I believe this is just a non-starter. The whole idea that the income distribution is \\"too unequal\\" and that voters are dissatisfied with the distribution of income is almost certainly incorrect. Only the liberal-left fringe care about the income distribution. Most voters care about the legitimacy ofthe private economy and the capacity of government to improve this legitimacy. For instance, the public is now pissed at the financial elite because they are feathering their nests while everyone else suffers, and their misdeeds are the cause of the crisis. This is a legitimacy issue, not one of abstract notions of inequality.

A progressive social policy must be based on the notion that attractive social programs are both efficiency enhancing and can be legitimated on general moral grounds. The so called \\"Employee Free Choice Act,\\" which in fact severely reduces workers' democratic participation in union affairs, is a case in point. There is zero chance the public will not see right through the hypocrisy of abolishing the secret ballot in union elections. Similarly, liberal hostility to voucher and charter schools will be clearly seen as a payoff to the venal teachers' unions, the major enemies of better schooling, especially for the poor.

Rather than taxing and subsidizing, or strengthening unions, expanding day care for working parents and voucher/charter educational systems that transfer power to parents and communities will be heartily supported by voters, as will a heightened American leadership in the development of alternative energies sources and creating sustainable environments. We need more policies of this sort in the liberal reform dossier.

I hope that my alternative vision comes about, but I would not be surprised if the Democrats are no less pigs than the Republicans they have replaced, and avidly feed at the public trough just as Republicans did when their turn at the helm came to pass. What happens depends not on the politicians, but rather the progressive culture that develops on the local level around pressing social problems that we face.acity of government to improve this legitimacy. For instance, the public is now pissed at the financial elite because they are feathering their nests while everyone else suffers, and their misdeeds are the cause of the crisis. This is a legitimacy issue, not one of abstract notions of inequality. A progressive social policy must be based on the notion that attractive social programs are both efficiency enhancing and can be legitimated on general moral grounds. The so called \\"Employee Free Choice Act,\\" which in fact severely reduces workers' democratic participation in union affairs, is a case in point. There is zero chance the public will not see right through the hypocrisy of abolishing the secret ballot in union elections. Similarly, liberal hostility to voucher and charter schools will be clearly seen as a payoff to the venal teachers' unions, the major enemies of better schooling, especially for the poor. Rather than taxing and subsidizing, or strengthening unions, expanding day care for working parents and voucher/charter educational systems that transfer power to parents and communities will be heartily supported by voters, as will a heightened American leadership in the development of alternative energies sources and creating sustainable environments. We need more policies of this sort in the liberal reform dossier. I hope that my alternative vision comes about, but I would not be surprised if the Democrats are no less pigs than the Republicans they have replaced, and avidly feed at the public trough just as Republicans did when their turn at the helm came to pass. What happens depends not on the politicians, but rather the progressive culture that develops on the local level around pressing social problems that we face.

Rational Decisions (The Gorman Lectures in Economics)

An Inimitable and Exhilarating Tour of Decision Theory — Rating: 4/5

Modern decision theory was founded by Frank Ramsey and Bruno di Finetti in the 1930's, but the definitive exposition is due to Leonard (Jimmie) Savage in the late 1950's. Bayesian decision theory has both ardent supporters and petulant detractors, but like Binmore, I believe it is about the best thing going, despite its limitations. Binmore sets himself the task of both expounding and defending theory, while stressing the limited domain over which it applies. His assessment is insightful and balanced, basically embracing Savage's own assessment of the theory.

Ken Binmore has always been a brilliant thinker, but he used to be an awful writer, combining the worst of repetitiveness and opaqueness. He has, however, become an excellent writer, as this slim volume attests. Binmore refuses to \\"stick to the facts,\\" but rather offers his personal opinions at every turn. This can be extremely refreshing. Daniel Ellsberg, he tells us, \\"made a number of important contributions to decision theory before he heroically blew the whistle on Richard Nixon's cynical attitude to the loss of American lives in the Vietnam War by leaking what became known as the Pentagon Papers\\" (p. 89). Concerning the excesses of Bayesianism, he writes that \\"the ghost of the Reverend Thomas Bayes must be in a constant state of astonishment that our culture has embraced a philosophical doctrine called Bayesianism that treats the trivial manipulation of conditional probabilities that he discovered sometime before 1764 as the solution to the problem of scientific induction.\\" (p. 126) Commenting on the Harsanyi Doctrine, Binmore writes: \\"John Harsanyi...advocated using a mind experiment to determine the one-and-only rational prior. If Pandora imagines that a veil of ignorance conceals all the information she has ever received, she will supposedly select the same prior as all other ideally rational folk in the same sate of sublime ignorance. But when I try this trick, no ideas about a suitable prior come to me at all.\\" (p. 128) There are more expansive critiques of the Harsanyi Doctrine, but none so disarmingly accurate.

Binmore follows Savage in defending the \\"small world\\" application of the rational actor model. In \\"small world\\" decision theory, decision-makers know the payoffs and probabilities, and decisions come down to a simple choice among an array of clear alternatives. In the \\"large world\\" in which we live, Binmore asserts that Bayesian decision-making is virtually useless, or at least highly compromised. Indeed, human decision-makers share the capacity for rational choice with many other species, but only humans can make creative, insightful, and personally enhancing decisions under conditions of extreme uncertainty and partial ignorance. Similarly, new information in the small world context entails Bayesian updating using conditional probabilities, but in the large world, new information can lead to wholesale rejection of a mental framework in favor of an alternative. Binmore spends several short chapters developing a \\"muddling through\\" alternative that he believes might apply to the large world context. His exposition is creative and enlightening, although purely mathematical. There is a whole school of cognitive psychology currently working on this issue, including Alison Gopnik at UC Berkeley and Joshua Tenenbaum at MIT, who believe Bayesian insights apply to understanding the human brain, who might learn from Binmore's exposition (and conversely, Binmore might gain from the study of such cognitive research).

Instead of heaping more praise on this book, some alternative insights might serve the reader better. I can supply several. For one, Binmore follows the crowd in holding that the Nash equilibrium concept is the centerpiece of game theory. He writes: \\"There are two reasons why game theorists care about Nash equilibria. The first reason is that a game theory book can't authoritatively point to a pair of strategies (a,b)as the rational solution of a game unless it is a Nash equilibrium.\\" (p. 26) In fact, in many games, we can authoritatively point to a range of non-Nash strategies that are routinely played by rational players, and have higher payoff that Nash strategies. For instance, in the finitely repeated Prisoner's Dilemma, the only Nash equilibrium is mutual defection on every round. However, real-life individuals often cooperate for many plays of the game, until the final period of play looms large on the horizon. Moreover, rational individuals rarely have an incentive to play a mixed strategy because all the underlying pure strategies have equal payoff.

Binmore gives as the second reason for stressing Nash equilibrium that all stable equilibria of evolutionary games are Nash equilibria of the underlying stage game. This is true, but only if errors take particular forms. Low levels of random mutation in such systems can maintain the evolutionary system far, far from a Nash equilibrium.

Binmore moreover strenuously supports the position that the only rational move in the Prisoner's Dilemma is to defect. Now, his argument is mainly directed against implausible philosophical arguments that are highly deserving of criticism. But in the real world, subjects often prefer to cooperate, provided their partner's cooperate, and there is certainly nothing irrational about such other-regarding or morally-influenced behavior. Binmore makes his point by arguing that if Alice and Bob prefer to cooperate in the Prisoner's Dilemma, then it really isn't a Prisoner's Dilemma at all, but rather a new \\"Reciprocator Game. This is just false. The Prisoner's Dilemma is defined by a set of available actions and a payoff matrix, independent of whether the players are self-regarding or other-regarding. I think is counterproductive to defend the principle that rationality implies defection in the Prisoner's Dilemma by redefining the game when rational players prefer not to defect.

One of the more controversial of Binmore's choices is to develop a measure-theoretic approach to probability theory. I am sure this is useful in some cases (e.g., when dealing with diffusion processes), but most of game theory and decision theory gets by very well by assuming finite probability measures. Moreover, the Axiom of Choice is a key assumption in justifying the Lebesgue measure/Kolmogorov probability approach, and the Axiom of Choice forces the analysis to be non-constructive. This feeds the economist's tendency to shy away from constructive approaches to model-building. My prejudice is to use non-constructive approaches only where absolutely necessary, and then to apologize that we cannont do better.

Binmore's treatment of epistemic game theory is very exciting and insightful, but probably too breezy for all but the most knowledgeable readers. Gödel's contributions are taken for granted, as well as Turing's and Church's. Binmore makes an argument inspired by the Turing halting problem that \\"seeks to discredit the use of Bayesian epistemology in worlds in which...self -reference cannot be avoided.\\" (p. 146) The argument is quite sophisticated, but it is not complete (it assumes a certain Turing machine L \\"sometimes answers NO when asked suitable coded questions\\" without suggesting why, or when, this might be the case). In fact, as Binmore notes, there is an argument due to Kaplan and Montague (Mind 1960) that makes such an argument based on Gödel's constructions. The whole self-referencing literature is important and critical for game theory. It is wonderful to see even a brief treatment in this book.

I have found in several of Binmore's writings what seems to me to be a confusion of rationality and common knowledge of rationality (CKR). This occurs clearly in Rational Decisions. Referring to Robert Aumann's famous proof that CKR implies backward induction in extensive form games, Binmore says \\"But rational players stay on the equilibrium path because of what would happen if they were to deviate. In the counterfactual world that would be created by such a deviation, the players would have to live with the fact that their knowledge that nobody will play irrational has proved fallible.\\" (p. 149) In fact, it is not rational players, but players who accept CKR, who stay on the equilibrium path, and counterfactuals have nothing whatever to do with it. Moreover, it is not a violation of rationality to move off the equilibrium path, but rather a violation of CKR. Indeed, as both Aumann and Binmore understand, and as I explain at length in my book, The Bounds of Reason (Princeton, 2009), CKR is precisely the sort of self-referencing condition that should be avoided. Indeed, I argue that CKR is not a \\"higher form\\" of rationality, but rather a technical condition that has no epistemic justification.

Just to check my memory, I went back to an article Binmore wrote in 1996, \\"A Note on Backward Induction,\\" Games and Economic Behavior 17, 135-137. In this paper, Binmore objects to Aumann's proof (1995) that CKR necessarily implies backward induction. Here are three examples of Binmore equating rationality with CKR.

First, Binmore writes \\"According to Aumann (1995), common knowledge of rationality in the Centipede makes it irrational for player I to choose across at his opening move.\\" In fact, of course, it does not make choosing across irrational; rather choosing across violates CKR. Second, Binmore writes \\"If down is the only Bayesian-rational action at the opening, then $p < ½$.\\" In fact, down is not the only Bayesian-rational action; rather it is the only action compatible with CKR. Finally, a rather long but important argument: \\"if nothing can be said about what would happen off the backward-induction path, then it seems obvious that nothing can be said about the rationality of remaining on the backward-induction path. How else do we assess the cleverness of taking an action than by considering what would have happened if one of the alternative actions had been taken? But this is precisely what

Aumann's (1995) definition of rationality fails to do.\\" In fact, Aumann's proof says nothing about what happens off the backward induction path, and certainly does not deny that agents are rational off the backward induction path. He denies that there are nodes off the backward induction path at which CKR holds. This is, of course, correct.

This book will energize those working in the field (as it did me), and it can serve as an introduction to some deep issues for the average reader. I would pay close attention to the bibliographical references, which are excellent and extensive.Binmore's choices is to develop a measure-theoretic approach to probability theory. I am sure this is useful in some cases (e.g., when dealing with diffusion processes), but most of game theory and decision theory gets by very well by assuming finite probability measures. Moreover, the Axiom of Choice is a key assumption in justifying the Lebesgue measure/Kolmogorov probability approach, and the Axiom of Choice forces the analysis to be non-constructive. This feeds the economist's tendency to shy away from constructive approaches to model-building. My prejudice is to use non-constructive approaches only where absolutely necessary, and then to apologize that we cannont do better. Binmore's treatment of epistemic game theory is very exciting and insightful, but probably too breezy for all but the most knowledgeable readers. Gödel's contributions are taken for granted, as well as Turing's and Church's. Binmore makes an argument inspired by the Turing halting problem that \\"seeks to discredit the use of Bayesian epistemology in worlds in which...self -reference cannot be avoided.\\" (p. 146) The argument is quite sophisticated, but it is not complete (it assumes a certain Turing machine L \\"sometimes answers NO when asked suitable coded questions\\" without suggesting why, or when, this might be the case). In fact, as Binmore notes, there is an argument due to Kaplan and Montague (Mind 1960) that makes such an argument based on Gödel's constructions. The whole self-referencing literature is important and critical for game theory. It is wonderful to see even a brief treatment in this book. I have found in several of Binmore's writings what seems to me to be a confusion of rationality and common knowledge of rationality (CKR). This occurs clearly in Rational Decisions. Referring to Robert Aumann's famous proof that CKR implies backward induction in extensive form games, Binmore says \\"But rational players stay on the equilibrium path because of what would happen if theywere to deviate. In the counterfactual world that would be created by such a deviation, the players would have to live with the fact that their knowledge that nobody will play irrational has proved fallible.\\" (p. 149) In fact, it is not rational players, but players who accept CKR, who stay on the equilibrium path, and counterfactuals have nothing whatever to do with it. Moreover, it is not a violation of rationality to move off the equilibrium path, but rather a violation of CKR. Indeed, as both Aumann and Binmore understand, and as I explain at length in my book, The Bounds of Reason (Princeton, 2009), CKR is precisely the sort of self-referencing condition that should be avoided. Indeed, I argue that CKR is not a \\"higher form\\" of rationality, but rather a technical condition that has no epistemic justification. Just to check my memory, I went back to an article Binmore wrote in 1996, \\"A Note on Backward Induction,\\" Games and Economic Behavior 17, 135-137. In this paper, Binmore objects to Aumann's proof (1995) that CKR necessarily implies backward induction. Here are three examples of Binmore equating rationality with CKR. First, Binmore writes \\"According to Aumann (1995), common knowledge of rationality in the Centipede makes it irrational for player I to choose across at his opening move.\\" In fact, of course, it does not make choosing across irrational; rather choosing across violates CKR. Second, Binmore writes \\"If down is the only Bayesian-rational action at the opening, then p < ½.\\" In fact, down is not the only Bayesian-rational action; rather it is the only action compatible with CKR. Finally, a rather long but important argument: \\"if nothing can be said about what would happen off the backward-induction path, then it seems obvious that nothing can be said about the rationality of remaining on the backward-induction path. How else do we assess the cleverness of taking an action than by considering what would have happened if one of the alternativeactions had been taken? But this is precisely what Aumann's (1995) definition of rationality fails to do.\\" In fact, Aumann's proof says nothing about what happens off the backward induction path, and certainly does not deny that agents are rational off the backward induction path. He denies that there are nodes off the backward induction path at which CKR holds. This is, of course, correct.

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Animal Spirits: How Human Psychology Drives the Economy, and Why It Matters for Global Capitalism

Told you So: The Vindication of J M Keynes — Rating: 4/5

In his epoch-making General Theory of Employment, Interest, and Money (1936), John Maynard Keynes noted that concerning investment decisions, \\"most, probably, of our decisions to do something positive, the full consequences of which will be drawn out over many days to come, can only be taken as the result of animal spirits--a spontaneous urge to action rather than inaction, and not as the outcome of a weighted average of quantitative benefits multiplied by quantitative probabilities.\\" Because of this propensity of investors to base decisions on variables other than \\"market fundamentals,\\" the aggregate investment function of an economy will tend to be highly variable and erratic. Indeed, even today, it is virtually impossible to predict aggregate investment successfully, although the other sources of aggregate demand and supply are relatively well understood. Keynesian economic policy suggested that government use anti-cyclical spending and taxation to counter the vicissitudes of aggregate investment. While countercyclical monetary policy might also have the same effect via the interest rate, Keynes' theory of the \\"liquidity trap\\" suggested that investment is highly insensitive to the interest rate. Experience bears out Keynes on this point, at least for large shortfalls in aggregate demand. In an economic downturn, it is critical that the monetary authority ensure a high level of liquidity to avoid artificial curbs on the willingness of businesses to invest.

It is not hard to see that Keynesian analysis, if correct, applies to all sorts of shocks to the economy, not just fluctuations in investment. Indeed, such automatic stabilizers as progressive income taxation, unemployment compensation, and accelerated depreciation schedules can act as shock absorbers, smoothing out economic stochasticity. At least for normal-size fluctuations, active government intervention is generally ineffective because it takes the government too long to get into action, and by the time it passes the appropriate legislation, the economy has already come out the other end of the business cycle.

Keynesianism was compromised by the long stagflationary period of the 1970's: according to Keynesian theory, there is a trade-off between inflation and unemployment, whereas during this period there was both high unemployment and rampant inflation in the United States. A whole new school of \\"rational expectations\\" emerged that held that markets always are in equilibrium, unemployment was always voluntary (because all workers had to do is accept lower wages), and active government intervention is part of the problem, not the solution. While this brand of macroeconomic theorizing became dominant in the profession, it is important to understand that there is nothing in standard economic theory that proves that markets are always in equilibrium, or that they are necessarily efficient, or that regulation is unnecessary. It is true that a cabal of Chicago economists, thrust into the limelight by the electoral success of Ronald Regan, offered an absurd free-market ideology that could not be backed by solid economic theory, and was rejected by most economists.

The subprime mortgage meltdown that began in 2007 and dominates the macroeconomy today shows to the general public that the Chicago crowd was wrong, but most economists knew that all along. The really stunning fact about the current macroeconomy is that disequilibrium in the home mortgage market could so seriously compromise the American financial system. Even those who foresaw the housing crisis did not predict so massive and credit collapse, leading to levels of government intervention that would have been inconceivable in the past.

The good part of Akerlof and Shiller's book is that they show the importance not only of Keynesian animal spirits, but also other ways in which human decision-making affects the macroeconomy that violate the canons of neoclassical economictheory. I think Animal Spirits is true to the spirit of John Maynard Keynes, if not the letter, in stressing that we cannot understand the macroeconomy without having a theory of how humans make decisions.

The reader who is only interested in the current crisis and has read the New York Times or Wall Street Journal regularly will not learning anything in this book, since the current crisis is discussed in depth only in an Appendix to Chapter 7 and also in Chapter 12. However, all readers can gain from Akerlof and Shiller's defense of behavioral macroeconomics, despite the fact that most of the chapters are minor revisions of work done in the late 1980's and 1990's. The school of behavioral macroeconomics to which

Akerlof and Shiller belong was waiting in the wings for a chance to tell their (compelling) story, and the current crisis is just what they were waiting for.

However, because they did not rethink their presentation in light of the current crisis, they stress some behavioral traits that are of questionable relevance, such as worker sense of fairness impeding wage reductions, and completely miss others that are absolutely key. For instance, they do not deal with public outrage at the misdeeds of the financial elite. This elite not only bribed, cheated, and covered up (in part by corrupting the accounting services and in part by creating impenetrable financial securities and peddling them as high quality), but it is making out like gangsters in the recovery. Many citizens would prefer to hurt the perpetrators (vindication is a behavioral trait the authors spend little time on) than recover from the mess we are in. Yet, rewarding the perpetrators is probably the correct course of action, as Obama seems to assume. We should remember that the Robber Barons were not despised because they were rich, but rather because they were robbers. There is some chance this new crew of robbers will get what is coming to them, and if they do, we will all suffer extra years of weak economic performance.

Even on its own terms, however, I believe that the major thesis of the book is just wrong, and certainly not proven. The authors say in conclusion that \\"if we thought that people were totally rational, and that they acted almost entirely out of economic motives, we too would believe that government should play little role in the regulation of financial markets, and perhaps even in determining the level of aggregate demand.\\" (p. 173). I find this a shockingly incorrect and bizarre statement. There is nothing in economic theory that says that rational individuals interacting on markets will produce stable, efficient outcomes. The Walrasian general equilibrium model says that if there are no market externalities, there are market-clearing equilibria that are Pareto-efficient, but this model has absolutely NO attractive dynamical properties. When I subjected this model to an agent based simulation (Herbert Gintis, \\"The Dynamics of General Equilibrium\\", Economic Journal 117 2007:1289-1309), I found that there is a robust tendency towards market clearing equilibrium, but this is always offset by highly volatile stochastic movements in prices, wages, capital demand, and other macroeconomic variables. This stochasticity is due to the fact that the macroeconomy is a complex, nonlinear, dynamical system, not because of \\"animal spirits.\\"

Nor do Akerlof and Shiller have enough evidence to assert confidently that people are driven by irrational animal spirits to produce market volatility. People imitate the successful. This is true, and it is generally quite rational. If someone is doing well and you are not, copying the successful is the rational thing you can do. The fact that this leads to a high degree of economic volatility implies that we must have market regulation that compensate for the tendency of people to imitate the successful rather than believing some \\"received wisdom\\" derived from so-called \\"rational expectations theory.\\" Indeed, what the Chicago school called \\"rational\\" could only be defended by assuming that the whole economy could be captured by a single \\"representative agent.\\" In fact, as Keynes said, the investment process is a sort of beauty contest, and this is not because people are irrational, but rather because the success of my investment plans depends on others' investment decisions, and there is no objective measure of the interpenetrating beliefs of investors.

Moreover, there is persuasive experimental evidence that even experienced subjects will produce price bubbles: see Reshmaan N. Hussam, David Porter, and Vernon L. Smith, \\"Thar She Blows: Can Bubbles Be Rekindled with Experienced Subjects?\\" American Economic Review (2008)98:3, pp. 924-937.

Akerlof and Shiller have given us a fine book, but it would be a tragedy if the debate over the renovation of the American economy revolved around the quirkiness of human decision-making, as opposed to the inherent incapacity of an improperly regulated economy to produce socially desirable outcomes.Even on its own terms, however, I believe that the major thesis of the book is just wrong, and certainly not proven. The authors say in conclusion that \\"if we thought that people were totally rational, and that they acted almost entirely out of economic motives, we too would believe that government should play little role in the regulation of financial markets, and perhaps even in determining the level of aggregate demand.\\" (p. 173). I find this a shockingly incorrect and bizarre statement. There is nothing in economic theory that says that rational individuals interacting on markets will produce stable, efficient outcomes. The Walrasian general equilibrium model says that if there are no market externalities, there

are market-clearing equilibria that are Pareto-efficient, but this model has absolutely NO attractive dynamical properties. When I subjected this model to an agent based simulation (Herbert Gintis, \\"The Dynamics of General Equilibrium\\", Economic Journal 117 2007:1289-1309), I found that there is a robust tendency towards market clearing equilibrium, but this is always offset by highly volatile stochastic movements in prices, wages, capital demand, and other macroeconomic variables. This stochasticity is due to the fact that the macroeconomy is a complex, nonlinear, dynamical system, not because of \\"animal spirits.\\" Nor do Akerlof and Shiller have enough evidence to assert confidently that people are driven by irrational animal spirits to produce market volatility. People imitate the successful. This is true, and it is generally quite rational. If someone is doing well and you are not, copying the successful is the rational thing you can do. The fact that this leads to a high degree of economic volatility implies that we must have market regulation that compensate for the tendency of people to imitate the successful rather than believing some \\"received wisdom\\" derived from so-called \\"rational expectations theory.\\" Indeed, what the Chicago school called \\"rational\\" could only be defended by assuming that the whole economy could be captured by a single \\"representative agent.\\" In fact, as Keynes said, the investment process is a sort of beauty contest, and this is not because people are irrational, but rather because the success of my investment plans depends on others' investment decisions, and there is no objective measure of the interpenetrating beliefs of investors. Moreover, there is persuasive experimental evidence that even experienced subjects will produce price bubbles: see Reshmaan N. Hussam, David Porter, and Vernon L. Smith, \\"Thar She Blows: Can Bubbles Be Rekindled with Experienced Subjects?\\" American Economic Review (2008)98:3, pp. 924-937. Akerlof and Shiller have given us a fine book, but it would be a tragedy if the debate over the renovation of the American economy revolved around the quirkiness of human decision-making, as opposed to the inherent incapacity of an improperly regulated economy to produce socially desirable outcomes.

Identity and Control: How Social Formations Emerge, Second Edition

Persons and Preferences Redux — Rating: 3/5

Harrison White is among the most renowned of living sociological theorists, and Identity and Control may be considered the theoretical culmination of a thirty-five year research agenda. White's general research area is social network theory, but his empirical work, has led him to view all of social life, including the nature of institutions and the development of personhood, as significant effects of social networks. White's deep engagement with sociological data has served him well, and he has influenced many of his Ph.D. students to work on filling out a compelling theory of social networks. Despite the deeply theoretical nature of this work, White refers repeatedly to the findings of himself and his students (many of which are themselves now distinguished sociologists) in explicating and defending his views.

Social network theory is of course all the rage nowadays, but generally under the rubric of complexity theory, and research in this area is treated as an application of graph theory. For White, by contrast, social networks are deeply embedded in the social fabric and significantly account for the quality of social relations and the pattern of personal development. Despite the fact that White does not rely on complexity theory, it is probably true that the value of his work lies in the fact that human society is a complex dynamical system that cannot be completely comprehended in terms of analytical mathematical models, even in principle (White was an MIT-trained physicist before he turned to sociology, and he is a first-rate mathematician who has the attractive quality of not trying to force mathematical modeling into areas where it is less than enlightening).

My early acquaintance with Harrison White's work was a terrific paper on the organization of firms in a market that he published in the American Journal of Sociology in 1981. White noted a number of facts about industry organization that conflict with the standard economic model, and proposed that firms in an industry react to one another, not simply to the price structure. This \\"network\\" conception of competition, White showed, could account for some of the anomalous behavior. In fact, I have found

that the firm imitation process has a huge impact on the stability of equilibrium in general market interaction (see, for instance, Herbert Gintis, \\"The Dynamics of General Equilibrium\\", Economic Journal 117 2007:1289-1309), a fact that is still not recognized in most of economic theory.

But, why did White not publish this extremely important paper in an economics journal? He may well have tried and been rejected. Or, perhaps he knew his idea was too radical to possibly be accepted by economists. At any rate, the result is lamentable. Since few sociologists are interested in market structure, the idea appears to have petered out. Indeed, as White's ideas about networks matured, he came more and more to see that the \\"persons\\" that occupy positions in economic theory cannot be placed at the center of social networks analysis, but must be replaced by \\"identities\\" of a more abstract, non-decision-making nature who devolved into personhood through practice, but whose constitution is very much the product of their network locations.

One of the deep disappointments in White's treatment of social networks is precisely his decided self-distancing from economic theory. One of the great advantages of economic theory is its ability to simplify to the extent of achieving the capacity to model analytical, and hence to make predictions as to the effects of parameter changes on aggregate social behavior. This ability accounts for the power of economic analysis in informing social policy alternatives. White's treatments are descriptively rich and insightful (although he develops a private description language that is awkward and bizarre---a language shared only with his epigone), but they are utterly incapable of informing social policy, andthey are not in any interesting sense amenable to empirical refutation, except on the most superficial level.

White presents his critique of economic theory in chapter 4 (\\"Styles\\"). He asserts that \\"persons come into existence and are formed as the result of overlaps among identities from distinct network-populations...Persons build in terms of styles across distinct population. Conversation prefigures personal identity...'Person' should be a construct from the middle of the analysis, not a given boundary condition from the start.\\" (p. 129) This, I can see, is a deep truth, but it remains a fact that in a large number of situations, persons remain relatively constant through time, although a Whitean insight might help us understand how they got to be the stable selves that they are. At any rate, the idea that we should abandon all economic insights into social interaction because economists assume that individual preferences are given is extreme and intemperate.

White's analysis remains on a purely descriptive level because he refuses to place individual strivings at the center of his analysis. \\"Identities,\\" for White, want \\"control,\\" and \\"footing.\\" Naturally, then, there is no need for the pesky utility functions that populate economic models, much less beliefs concerning means-ends relationships and the probability of alternative outcomes. Indeed, White asserts that \\"means-ends chains...are secondary to the engendering of ends. A main goal or end of action is control, and control need not have explicit intermediate goals.\\" (p. 136). This argument is just wrong. Control is a generalized capacity to achieve temporally contingent and often highly variable goals, but the value of control is a function of its expected usefulness in attaining ends. Control is wholly dependent upon the uses of control.

Of course, then, like most sociologists, rationality is of little value in understanding human behavior. \\"An actor's existence comes to pass,\\" says White, \\"only through embeddings that specify ends as well as support identity, embeddings that are matters of friction and mismatch rather than of induction into roles. Rationality should be seen primarily as a by-product from reading larger-scale patterns.\\" (p. 136). I rather think not. Systems are agglomerations of individual agents, and the most prominent fact about human actors is that they rather relentlessly pursue goals as best they can. Of course, few social networks are governed by simple, one-dimensional payoffs. People want many things at once from work, friendship, marriage, prayer, and food shopping.

I rather think that rational choice and game-theoretically constituted strategic interaction are the tools that put the first layer of flesh on human society, and the abject incapacity of White's analysis to predict and advise policy is based on his abandoning these tools. Of course, this first layer of flesh is a horror to behold, and adding the structural and dynamic elements for a fully fleshed out picture of human social behavior is a highly valuable enterprise. Admiring the bird of paradise's exquisite plumage is satisfying, but we must not forget that this is, after all, a bird whose basic characteristics are the product of evolution according to adaptive radiation.

Developing and consistently using one's own vocabulary appears to be a contemporary prerequisite to being considered highly as a sociological theorist. Harrison White is certainly no exception. The following is typical: \\"Failure invokes the dramatic demise of an identity. In this sense, failure couples control to identity, whereas forgetting and referral are less dramatic erosions of identities. Failure is a basic social invention, which turns boundary condition into source of action.\\" (p. 74). Having diligently read the book up to this point, I still cannot imagine what this might mean, or how \\"failure\\" could ever be seen as a social invention, except in the obvious sense that what constitutes proper performance in a social role is socially and even network specific.

The historical tradition of Marx, Weber, Durkheim, and Parsons addressed themselves to the creation of a general social theory that could be applied towards answering a wide variety of social questions. In biology, physics, and economics, for instance, there is a \\"core theory\\" that everyone learns, and all other subjects are applications of core principles to new domains of study. When sociologists rejected Parsons' attempt at a general theory, sociology splintered into a mosaic of incommensurate lexicons, each having the indelible imprimatur of a single individual (Habermas, Coleman, Bourdieu, Garfinkel, Goffman, White, and so on), like the trademark brushstroke of the artist. Thus, studying sociology today is more akin to studying literature or philosophy, which takes the form of the Parade of the Greats, rather than studying science, which is cumulative and basically anti-historical and hostile to explanatory diversity. I think the complex dynamical nature of human society bids us valorize the doctrinal diversity of contemporary sociological theories, but without a common core, these theories will forever remain the idiosyncratic property of their creators.ends as well as support identity, embeddings that are matters of friction and mismatch rather than of induction into roles. Rationality should be seen primarily as a by-product from reading larger-scale patterns.\\" (p. 136). I rather think not. Systems are agglomerations of individual agents, and the most prominent fact about human actors is that they rather relentlessly pursue goals as best they can. Of course, few social networks are governed by simple, one-dimensional payoffs. People want many things at once from work, friendship, marriage, prayer, and food shopping. I rather think that rational choice and game-theoretically constituted strategic interaction are the tools that put the first layer of flesh on human society, and the abject incapacity of White's analysis to predict and advise policy is based on his abandoning these tools. Of course, this first layer of flesh is a horror to behold, and adding the structural and dynamic elements for a fully fleshed out picture of human social behavior is a highly valuable enterprise. Admiring the bird of paradise's exquisite plumage is satisfying, but we must not forget that this is, after all, a bird whose basic characteristics are the product of evolution according to adaptive radiation. Developing and consistently using one's own vocabulary appears to be a contemporary prerequisite to being considered highly as a sociological theorist. Harrison White is certainly no exception. The following is typical: \\"Failure invokes the dramatic demise of an identity. In this sense, failure couples control to identity, whereas forgetting and referral are less dramatic erosions of identities. Failure is a basic social invention, which turns boundary condition into source of action.\\" (p. 74). Having diligently read the book up to this point, I still cannot imagine what this might mean, or how \\"failure\\" could ever be seen as a social invention, except in the obvious sense that what constitutes proper performance in a socialrole is socially and even network specific. The historical tradition of Marx, Weber, Durkheim, and Parsons addressed themselves to the creation of a general social theory that could be applied towards answering a wide variety of social questions. In biology, physics, and economics, for instance, there is a \\"core theory\\" that everyone learns, and all other subjects are applications of core principles to new domains of study. When sociologists rejected Parsons' attempt at a general theory, sociology splintered into a mosaic of incommensurate lexicons, each having the indelible imprimatur of a single individual (Habermas, Coleman, Bourdieu, Garfinkel, Goffman, White, and so on), like the trademark brushstroke of the artist. Thus, studying sociology today is more akin to studying literature or philosophy, which takes the form of the Parade of the Greats, rather than studying science, which is cumulative and basically anti-historical and hostile to explanatory diversity. I think the complex dynamical nature of human society bids us valorize the doctrinal diversity of contemporary sociological theories, but without a common core, these theories will forever remain the idiosyncratic property of their creators.

The Purchase of Intimacy

A Gem, and this is Just the Beginning... — Rating: 4/5

\\"The Purchase of Intimacy,\\" says Zelizer, \\"deals with how people and the law manage the mingling of what sometimes seem to be incompatible activities: the maintenance of intimate personal relations and the conduct of economic activity.\\" (p. 1) \\"You will find the coexistence of economy and intimacy hard to understand,\\" she continues, \\"if you think that economic self-interest determines all social relations, if you imagine that the world splits sharply into separate spheres of rationality and sentiment.\\" (pp. 1-2). Using almost exclusively legal cases, almost exclusively from United States courts, Zelizer hammers home her point. The evidence she presents is anecdotal rather than statistical, but it is overwhelmingly convincing. Moreover, I doubt that the reader will not have encountered situations similar to those described in the book in their daily lives or by reading the newspaper. Zelizer has a minimal goal, that of illustrating the ineluctable commingling of money and intimacy, and she accomplishes this convincingly.

Since there are several approaches to social theory that categorically deny Zelizer's minimal assertion, she goes to some length to address other theories and illustrate their shortcomings. This is very useful, because most of us harbor in our souls, implicitly and tacitly, elements of such alternative theories, which include some of the most prominent in modern social theory. One of these is the Dual Spheres paradigm common in socialist theory, according to which money corrupts and markets are evil unconditionally. Another is the Economic Reductionist theory that intimacy is a set of services that can be analyzed in the same manner as the provisioning of traditional marketable goods and services.

Zelizer provides a critique of her own book, implicitly, by virtue of her success in proving her minimal thesis. If Dual Spheres and Economic Reductionist theories are wrong, what is the right theory? Zelizer does not even attempt an answer. Moreover, is there not evidence for a theory of intimacy beyond United States law? What about intimacy in other societies, such as would be studied by anthropologists? I could imagine a hundred studies of intimacy and economics in hunter-gatherer, small-scale agricultural, fishing, and herding societies. Indeed, what about intimacy and exchange of goods in non-human societies? Would such phenomena not shed light on the purchase of intimacy in human society?

Almost as important for a general socio-economics of intimacy is an exploration of related themes in the arts, especially literature. There are truly masterful renderings of the structure of moral issues surrounding the purchase of intimacy in the English novel. Jane Austin and Emily Bronte surely come to mind, though my favorite exploration of this theme is Henry James' novel Washington Square, in which the intelligent and affluent Dr. Austin Sloper has a life-long relationship with his daughter Catherine, whom he resents for being the cause of his wife's death in childbirth. The doctor goes to great lengths to prevent his daughter's happiness, and she is too weak-willed to defend her interests. Nevertheless, Catherine remains loyal to her father, caring for him slavishly in his dotage, and making a decent life for herself out of the scraps afforded to her by her imperious father.

Of course, stories like this abound, even in our own families, however far from Washington Square. It is most pressing to link intimacy with social theory in a way that brings the phenomenon into concordance with fundamental principles. In principle, it is not that hard to see how that might be done. First, we note that \\"intimate relationships\\" may be considered long-term interactions between pairs of individuals. This excludes many forms of prostitution as well as many forms of medical care. This is reasonable, since the equation of intimacy with caring for bodily functions is not plausible. There is, then, a standard economic/biological analysis of such long-term dyadic interactions, often summarized by \\"reciprocal altruism,\\" as developed by biologists Robert Trivers and William Hamilton, and many economists, including Robert Axelrod. The basic idea is that there is some sort of tit-for-tat relationship that benefits both parties over time. The long-term, repeated, nature of the interaction is thus central to its constitution. In the case of some forms of human intimacy, the \\"pro quo\\" may come long after the execution of many \\"quids\\" (e.g., I care for my wife for many years, and she rewards me in her will upon death), thus complicating the relationship. But the basic nature of the interaction is well captured by reciprocal altruism.

Economists used to argue, implicitly or explicitly, that all economic transactions could be codified in explicit contractual form, but we have long known that this is not the case. Moreover, there is

contemporary evidence from behavioral game theory (e.g., Martin Brown, Armin Falk and Ernst Fehr, \\"Relational Contracts and the Nature of Market Interactions,\\" Econometrica 72,3 [may] (2004):747-780) that when the reciprocal obligations are complex and difficult to measure, informal relationships based on trust and moral obligation work more equitably and efficiently than explicit, court-enforceable contracts. The sorts of complex reciprocal relationships documented by Zelizer involving both material exchange and intimacy can be seen as instances of such informal contracts.

The next stage, theoretically speaking, is to recognize that long-term interactions, especially when they involve intimacy, often pass from individual motives of rational self-interest to affective identification with one's exchange partner, so the well-being of the other becomes incorporated into each agent's objective function is some, often complex and even contradictory, way. Thus, relationships that begin in fairly utilitarian ways (this can even include marriage) are transformed over time into deeply affective relationships (love/esteem/hate). These affective, other-regarding, aspects of a relationship are present in most strategic interactions, as we know from contemporary experimental economics, but they can become greatly heighted with the increase of intimacy and the passage of time.

The gain from embedding long-term intimacy relationships in a traditional economic model with other-regarding preferences is that this allows for large-scale aggregate analysis of relationships and their dependence on such economic variables as the interest rate, the supply of certain kinds of services, the impact of various sorts of insurance, pensions, and the like. It would be hard to conceive of social planning for the economics of care-giving, for instance, without the benefit of such analytical models.l analysis of such long-term dyadic interactions, often summarized by \\"reciprocal altruism,\\" as developed by biologists Robert Trivers and William Hamilton, and many economists, including Robert Axelrod. The basic idea is that there is some sort of tit-for-tat relationship that benefits both parties over time. The long-term, repeated, nature of the interaction is thus central to its constitution. In the case of some forms of human intimacy, the \\"pro quo\\" may come long after the execution of many \\"quids\\" (e.g., I care for my wife for many years, and she rewards me in her will upon death), thus complicating the relationship. But the basic nature of the interaction is well captured by reciprocal altruism. Economists used to argue, implicitly or explicitly, that all economic transactions could be codified in explicit contractual form, but we have long known that this is not the case. Moreover, there is contemporary evidence from behavioral game theory (e.g., Martin Brown, Armin Falk and Ernst Fehr, \\"Relational Contracts and the Nature of Market Interactions,\\" Econometrica 72,3 [may] (2004):747-780) that when the reciprocal obligations are complex and difficult to measure, informal relationships based on trust and moral obligation work more equitably and efficiently than explicit, court-enforceable contracts. The sorts of complex reciprocal relationships documented by Zelizer involving both material exchange and intimacy can be seen as instances of such informal contracts.
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How We Decide

Behavioral Psychology Made Exciting — Rating: 4/5

\\"The science of decision-making,\\" says Jonah Lehrer \\"remains a young science. Researchers are just beginning to understand how the brain makes up its mind.\\" (p. 243) Unlike some of the dimmer acolytes of contemporary (as opposed to old-fashioned Skinnerian) behavioral psychology, Lehrer stresses the importance of reason in the human capacity to make successful decisions. \\"Simple problems require reason,\\" he notes, and \\"novel problems also require reason.\\" (p. 244-245) However, he correctly notes that hard problems draw on human capacities, especially the emotions and forms of knowledge that lie below the level of the conscious, that account for the stunning capacity of humans to make good decisions under stressful conditions.

Lehrer is a first-rate writer who takes great care in presenting his evidence. This is a really exciting book to read because of his manner of developing examples of human decision-making under stress and uncertainty. Because this is meant to be a popular book, not a research treatise, Lehrer uses examples rather than statistics, and he takes many creative but sometimes questionable leaps in interpreting the evidence. In the remainder of my review, I will stress the mistakes Lehrer makes because they are instructive. I do not want to dissuade the reader from buying this book---it is a great and insightful read, and the mistakes do not distort the message.

Almost all of Lehrer's questionable assertions are based on the \\"people are irrational\\" school of contemporary behavioral psychology. Thus, he calls loss aversion and the framing effects associated with prospect theory (the idea that we are risk-loving over losses and risk-averse over gains) \\"irrational,\\" and he argues that it is \\"irrational\\" not to maximize expected value for lotteries with small stakes. Similarly, he asserts the equity premium in the stock market is due to investor irrationality, as though there is something wrong with being highly risk-averse, and that economists agree that there is a stock market risk premium (they do not).

Like the \\"people are irrational\\" behavioral psychologists, Lehrer is happy to make assertions that clearly do not contradict rationality, yet claim that they do. For instance, he relates an experiment by Dan Ariely in which a motley group of goods (French wine, computer keyboards, etc.) are to be auctioned off to a group of MIT business school students, with the restriction that no subject could bid more in dollars than the last two digits of their social security number. The experimenters found that students with high last two digits bid three times as much as those with low, and proclaimed this \\"irrational.\\" Of course, there is nothing whatever irrational about this. Suppose, for instance that all the goods are worth $100 and this were common knowledge. Then each subject would bid exactly the maximum he is allowed. Similarly, Lehrer relates an experiment of Paul Andreassen in which students were given various amounts of information and asked to choose a stock portfolio. Those that had more information made more profitable choices than those who had less! Lehrer interprets this as \\"irrational,\\" because more information is always better than less. In fact, the \\"less information\\" consisted of price history of the stocks, and \\"more information\\" added opinions of stock experts from TV and newspapers. People did better by ignoring the extra information of the \\"experts.\\" Now, I agree that we live in a strange world in which some (not all, by any means) people listen to \\"experts\\" who in fact haven't a clue about what will transpire and whose track records are shoddy at best, but is this \\"irrational\\"? Of course it is not. You have to be an expert to know to disregard the advice of such \\"experts,\\" and in general the \\"experts\\" are very useful, although not so in the case of the stock market (the correct \\"experts\\" in financial affairs give investors good advice about portfolio diversification, cost of managing a portfolio, and how to choose types of financial instruments, but they do not tell people how to \\"pick winners\\").

In an engaging and eloquent chapter, Lehrer documents the fact that people tend to be overly certain of their opinions, and tend to ignore or devalue evidence that goes against their opinions (so-called cognitive dissonance). Now, this is true of some people, but hardly of all people, and it is indeed a mental failing, provided the issue is important and it is costly to make a mistake. But, how costly is it to have political opinions that are inconsistent with the evidence? One vote can't change an election, so what incentive to people have to change their ideas given the evidence? Of course, those who care about the truth for its own sake (Lehrer is one of these, and so am I), will pay close attention to the evidence. But those whose political positions give them pleasure for other reasons (religious, ideological, historical, etc.) have no interest in placing a lot of weight on the \\"evidence.\\" Calling such people \\"irrational\\" is just wrong. Moreover, even most people in the cognitive dissonance camp eventually change their mind when there is enough evidence. If that were not true, democracy could not work.

Lehrer should abandon the dim-witted behavioral psychologists who incorrectly denigrate the capacity of ordinary people to make important decisions.

One final point is worth thinking about. Virtually all of the convincing evidence in this book (and in the larger world of research findings) is based on experiments dealing with individual behavior rather than neuroscientific reports of brain dynamics. I can think of one or two cases where what happens in the brain can really help us understand human behavior. For instance, we have mirror neurons that allow us to empathize with the mental states of others, so empathy and the \\"theory of mind\\" are not purely rational phenomena (i.e., a highly intelligent organism without the equivalent of mirror neurons would likely be a sociopath). Similarly, brain scans show that altruistic punishment (for instance, rejection of positive offers in the ultimatum game) and contributions to charity make people happy, so cannot be justified on reputational or deontological grounds. But, there is too much of simple description of what lights up under various choice conditions. Who cares? Of course, something is going to light up in the brain, but this is of no more interest to me than what transistors go off in my computer's CPU when I order underwear from Calvin Klein.rtfolio, and how to choose types of financial instruments, but they do not tell people how to \\"pick winners\\"). In an engaging and eloquent chapter, Lehrer documents the fact that people tend to be overly certain of their opinions, and tend to ignore or devalue evidence that goes against their opinions (so-called cognitive dissonance). Now, this is true of some people, but hardly of all people, and it is indeed a mental failing, provided the issue is important and it is costly to make a mistake. But, how costly is it to have political opinions that are inconsistent with the evidence? One vote can't change an election, so what incentive to people have to change their ideas given the evidence? Of course, those who care about the truth for its own sake (Lehrer is one of these, and so am I), will pay close attention to the evidence. But those whose political positions give them pleasure for other reasons (religious, ideological, historical, etc.) have no interest in placing a lot of weight on the \\"evidence.\\" Calling such people \\"irrational\\" is just wrong. Moreover, even most people in the cognitive dissonance camp eventually change their mind when there is enough evidence. If that were not true, democracy could not work. Lehrer should abandon the dim-witted behavioral psychologists who incorrectly denigrate the capacity of ordinary people to make important decisions. One final point is worth thinking about. Virtually all of the convincing evidence in this book (and in the larger world of research findings) is based on experiments dealing with individual behavior rather than neuroscientific reports of brain dynamics. I can think of one or two cases where what happens in the brain can really help us understand human behavior. For instance, we have mirror neurons that allow us to empathize with the mental states of others, so empathy and the \\"theory of mind\\" are not purely rational phenomena (i.e., a highly intelligent organism without the equivalent of mirror neurons would likely be a sociopath). Similarly, brain scans show that altruistic punishment (for instance, rejection of positive offers in the ultimatum game) and contributions to charity make people happy, so cannot be justified on reputational or deontological grounds. But, there is too much of simple description of what lights up under various choice conditions. Who cares? Of course, something is going to light up in the brain, but this is of no more interest to me than what transistors go off in my computer's CPU when I order underwear from Calvin Klein.

Exit Ghost (Vintage International)

A Testosterone-Age Writer's Narcisistic Fantasies — Rating: 1/5

In this short novel, Philip Roth exposes his narcissistic preoccupation with his own declining virility and the declining image of the Great Testosterone Writer in modern society. Roth's character is, of course, Roth himself, with the usual name change. His virility has nothing to do with love, intimacy, tenderness, or procreation. It has to do with conquering---in this book a beautiful, intelligent, capable, highly educated and talented woman who could be his granddaughter. How insufferably boring.

Roth pretends to care about Social Issues, giving us tedious liberal clichés about the current national political scene, but he admits that he really doesn't care about anything but the state of his copulatory capacity.

Roth's preoccupation with the Great Artist takes the form of the book's protagonist attempting to stop a young literary critic from revealing the sordid past of a deceased Great Writer. We know the Great Writer is a Great Man whose writings are simply an externalization of his Great Soul and his Unquenchable Artistic Spirit, because the young woman who lived with him when he died spent the next forty years Cherishing His Memory, rather than living a life of her own. From the afterlife, this Great Writer offers us a manifesto holding that the lowly hoi polloi that comprise the reading public should uncritically revere the Great Writer, and abandon the quest to interpret, criticize, analyze, or personalize this Nietzschian superman.

Perhaps my problem with this book is that I read a novel to learn what the author has discovered about life and the Universe, and I really don't care about his or her personal life, unless this has been in some sense an exceptional life. The only thing exceptional about Roth is his literary success.

America Beyond Capitalism: Reclaiming Our Wealth, Our Liberty, and Our Democracy

Four Stars for Creative Thinking, Minus One for Not Succeeding — Rating: 3/5

Gar Alperovitz is a rare individual who combines a razor-sharp mind with a solid academic training, a public service background in the U.S. Senate and House of Representatives, a political activist working with Rev. Martin Luther King and other inspiring progressives, and a life-long commitment to thinking creatively about fundamental social change.

Alperovitz summarizes his vision of a Pluralist Commonwealth alternative to American capitalism in four points (p. 233). First, \\"there is no way to achieve movement toward greater equality without developing new institutions that hold wealth on behalf of small and large publics.\\" Second, \\"there is no way to rebuild Democracy with a big D in the system as a whole without nurturing the conditions of democracy...in everyday life---including the economic institutions that allow and sustain greater stability of local community life.\\" Third, \\"there is no way to achieve democracy...without radical decentralization\\". Finally, \\"there is no way to achieve meaningful individual liberty in the modern era without individual economic security and greater amounts of free time---and that neither of these, in turn, is possible without a change in the ownership of wealth\\".

Alperovitz' Pluralist Commonwealth is thus a radical vision of an extremely democratic, participatory, economically and politically egalitarian alternative to our present system. It is perhaps not unfair to say that this vision is a mature and elaborated development of the famous Students for a Democratic Society's Port Huron Statement of 1962---a document that inspired a generation of phenomenally successful youth movements that overturned the staid conservatism of mid-Twentieth century America and gave us racial emancipation, gender equality, and the termination of the Vietnam War. The beauty of the Port Huron vision was that it is a thoroughly democratic and populist alternative both to capitalism and the sort of socialism preached in Europe or practiced in the Soviet Union and China of the period. Alperovitz speaks for real progressives today, providing a proactive vision rather than a list of defensive gripes (anti-globalization, anti-global warming, anti-World Trade Organization, anti-child labor, etc.).

In a larger sense, Alperovitz presents a Jeffersonian vision of a possible future in which the little guy reigns supreme, and the Hamiltonian financiers and their ilk are cut down to size. Samuel Bowles and I affirmed this tradition in our book \\"Capitalism and Democracy\\" (Basic Books, 1985), and elaborated upon the theme using the key concept of \\"productivity-enhancing asset-based redistribution,\\" which is a redistribution of assets that both increases wealth equality and improves the efficiency and productivity of the economy (Alperovitz cites our work in developing the theme of wealth equality). A central example is land reform, in which peasants move from being share-croppers and wage workers to being small farmers. Such a move is egalitarian because it shifts ownership from large landlords to landless peasants, and is efficiency-enhancing because peasants work more efficiently when they are residual claimants on their activities than when the landlord is the residual claimant.

Many potential readers will reject Alperovitz' argument out of hand because, however plausible his claim that a Pluralist Commonwealth could work, we can never get there because people are too short-sighted, conventional, and timorous. This would be a mistake. As Alperovitz stresses, social change is often in fact very rapid. Indeed, no one would have believed in 1970 that we live in a world without a Soviet Union, where socialism is dead, where China and India are rising capitalist powers, and where gender and racial inequality have been dealt death blows in the advanced capitalist world. Alperovitz is correct is claiming that anyone with a really good idea for a social alternative has a fighting chanceto see it adopted.

Are Alperovitz' ideas sufficiently cogent that his Pluralist Commonwealth is a viable alternative? Let me say first that I think this issue deserves much more consideration by serious economists and policy makers; indeed, it would be great if about half of those whose social vision is limited to minor alteration in the status quo shifted their efforts towards assessing and validating or rejecting Alperovitz' suggestions, and where he falls short, of supplying workable alternatives. That said, I am not convinced that a Pluralist Commonwealth is either feasible or desirable.

Alperovitz' starting point is that our current system is falling apart, with increasing inequality, political cronyism, and the concomitant alienation of the citizenry. For this reason, we desperately need an alternative or our society will fall apart in coming years. I do not believe that this is at all the case. First, while there is more inequality that in previous periods (e.g., the 1970's), inequality is an abstraction that has virtually no political meaning. People simply don't care about inequality. They care about justice, legitimacy, opportunity for advancement, and helping those who suffer. The fact that there are monstrously wealthy people around is no more disturbing to the average voter than the fact that there are fabulously successful entertainment and sports figures. The idea that being very rich is in itself a social pathology is simply not entertained by most citizens. Of course, if wealth is achieved through illegitimate means, then there will be a public backlash, as in the case of obscene CEO salaries in periods where most people are forced to cut back. However, it is not the case, and it is not perceived to be the case, that the distribution of wealth is substantially the product of illegitimate behavior.

Similarly, citizens in the United States have deeply ambivalent feelings about politicians and are wary of corruption and special interest group power. However, these failing can be substantially mitigated by electoral finance and lobbying reform, and voters are likely to make themselves heard in achieving such reforms if they really care enough. The idea that we must move to a radically decentralized political system to achieve democratic accountability is simply not plausible. Moreover, there is an important fact to which progressives appear to be congenitally blind: there is much more room for corruption and favoritism in local politics than in national politics. The notion that the average citizen has more political power in a decentralized participatory democracy than in our standard representative democracy is just wrong. Local politics is generally monopolized by as small minority of individuals with the skill and inclination of spending long hours in meetings and making deals.

Alperovitz' support for worker-owned firms as a building block of a Pluralist Commonwealth is, unfortunately, misguided and unsupported by the facts. Alperovitz gives many examples of successful worker- and community-owned enterprises, but these are just isolated examples, incapable of being generalized to the whole economy. The problem with worker-owned firms that such firms cannot benefit from portfolio diversification in the way capitalist firms can. Except in a few cases, workers have no interest in sinking all their assets in the firm in which they work, because this doubles their risk exposure: if the business does poorly, they not only lose income, but their wealth base as well. Indeed, industrial capitalism took off precisely when limited liability was instituted, so firms could benefit from the separation of ownership and management of the enterprise.

One of Alperovitz' points, make long ago by proponents of wealth redistribution with the context of a private enterprise market system, is that the modern corporation separates ownership and control, so there is no efficiencyloss in redistributing ownership broadly to citizens, rather than a wealthy elite. This argument, however, is incorrect. When ownership is really separated from control, the managers of the firm will exploit the owners ruthlessly, as we see in the current rash of corporate managerial scandals. Large stockholders---the very rich---play a key role in disciplining the firm's managers. A broad redistribution of ownership would have to be accompanied by some social mechanism for disciplining those who control the firm, be they workers or managers.

My remarks may seem like I am trying to rain on Alperovitz' picnic, and indeed, I certainly do not want to dissuade potential readers from diving into the exciting issues he raises in this engaging book. Rather, I believe there are more mundane tasks that we might address and solve successfully before we take on the system as a whole. These include poverty, world-leve inequality, political authoritarianism, patriarchal cultures, global warming, and environment sustainability. I fervently hope these issues can be addressed without total system change, because total system change is not feasible in the foreseeable future, even if one remains well aware of the rapid pace of historical social change.an be substantially mitigated by electoral finance and lobbying reform, and voters are likely to make themselves heard in achieving such reforms if they really care enough. The idea that we must move to a radically decentralized political system to achieve democratic accountability is simply not plausible. Moreover, there is an important fact to which progressives appear to be congenitally blind: there is much more room for corruption and favoritism in local politics than in national politics. The notion that the average citizen has more political power in a decentralized participatory democracy than in our standard representative democracy is just wrong. Local politics is generally monopolized by as small minority of individuals with the skill and inclination of spending long hours in meetings and making deals. Alperovitz' support for worker-owned firms as a building block of a Pluralist Commonwealth is, unfortunately, misguided and unsupported by the facts. Alperovitz gives many examples of successful worker- and community-owned enterprises, but these are just isolated examples, incapable of being generalized to the whole economy. The problem with worker-owned firms that such firms cannot benefit from portfolio diversification in the way capitalist firms can. Except in a few cases, workers have no interest in sinking all their assets in the firm in which they work, because this doubles their risk exposure: if the business does poorly, they not only lose income, but their wealth base as well. Indeed, industrial capitalism took off precisely when limited liability was instituted, so firms could benefit from the separation of ownership and management of the enterprise. One of Alperovitz' points, make long ago by proponents of wealth redistribution with the context of a private enterprise market system, is that the modern corporation separates ownership and control, so there is no efficiency loss in redistributing ownership broadly to citizens, rather than a wealthy elite. This argument, however, is incorrect. When ownership is really separated from control, the managers of the firm will exploit the owners ruthlessly, as we see in the current rash of corporate managerial scandals. Large stockholders---the very rich---play a key role in disciplining the firm's managers. A broad redistribution of ownership would have to be accompanied by some social mechanism for disciplining those who control the firm, be they workers or managers. My remarks may seem like I am trying to rain on Alperovitz' picnic, and indeed, I certainly do not want to dissuade potential readers from diving into the exciting issues he raises in this engaging book. Rather, I believe there are more mundane tasks that we might address and solve successfully before we take on the system as a whole. These include poverty, world-leve inequality, political authoritarianism, patriarchal cultures, global warming, and environment sustainability. I fervently hope these issues can be addressed without total system change, because total system change is not feasible in the foreseeable future, even if one remains well aware of the rapid pace of historical social change.

Neo-liberal Genetics: The Myths and Moral Tales of Evolutionary Psychology

McKinnon gives us part of the story, but only part — Rating: 4/5

Susan McKinnon is a cultural anthropologist and \\"neo-liberal genetics\\" is her disparaging term for Evolutionary Psychology, a doctrine made famous by Steven Pinker, David Buss, Margo Wilson, Martin Daly, John Tooby, Leda Cosmides, and Robert Wright, among other academics in psychology, biology, and anthropology. McKinnon also offers random shots at the broader field of sociobiology, although her objections are unelaborated epithets. If you don't know what Evolutionary Psychology says, this is not the book for you, so I will assume you do.

McKinnon is a fine writer, and her book is concise, accurate, fast-moving, and incisive. McKinnon says exactly what she thinks, without much hedging or qualifying, and supports her views with limpid logic

and carefully though-out evidence. This book is perhaps the best brief critique of Evolutionary Psychology that I have seen. The reader interesting in exploring a particular theme more thoroughly than provided by McKinnon's necessarily brief treatment can refer to the literature she cites.

McKinnon makes four basic points. Her first and most central point is that \\"Evolutionary psychologists build their theories...upon...a conception of human social life that reduces social relations and human behavior to the product of self-interested competition between individuals.\\" (p. 43) How true! Indeed, Evolutionary Psychology arose precisely in a period (1970-1995) in which biological models of social cooperation were first rigorously formulated, based on genetics, population biology, and evolutionary game theory. In this formulation, individuals sacrificed only for kin, the only other form of cooperation considered feasible being \\"reciprocal altruism,\\" which is the tit-for-tat reciprocal behavior of self-interested agents. McKinnon is thus correct in seeing a deep affinity between the general outlook of Evolutionary Psychology and laissez-faire style economic philosophy, which she, again disparagingly, denotes \\"neo-liberalism.\\"

By identifying Evolutionary Psychology with neo-liberalism, McKinnon gives the impression that Evolutionary Psychology provides a deep affirmation of right-wing economic and political theory, of the sort \\"human nature being what it is, free enterprise and minimal state intervention into the economy is the most desirable economic order.\\" She never actually asserts this affinity, and it is in fact quite false. As far as I can tell, there are no socio-political differences between the population of Evolutionary Psychologists and a cross-section of academics in the behavioral sciences. This is an important point, because it implies that the Evolutionary Psychology commitment to a competitive self-regarding model of human social evolution does not harbor some deep socio-political bias, be it of the left or of the right.

In particular, I have never heard an Evolutionary Psychologist defend the traditional gender division of labor. Rather, most Evolutionary Psychologists would say that we may have inherited some psychological predispositions towards a traditional sexual division of labor, but these are by no means strong enough to prevent a truly sexually egalitarian society, if we go about the process intelligently, being aware of our genetic heritage. This sounds about right to me, and is not dependent upon \\"genetic individualism.\\"

McKinnon is particularly naïve is identifying genetic individualism with modern capitalism. Modern capitalist societies have gone the farthest in contesting racism and sexism, and in promoting democracy and freedom. By contrast, pre-capitalist agricultural societies have fostered uncompromising systems of authoritarian patriarchy. Of course, modern capitalism is not neo-liberal (all modern societies have strongly interventionist states), but my own research indicates that market exchange itself promotes a mentality of toleration and fairness, thus helping to dissolve the ascriptive, authoritarianbonds of traditional precapitalist agrarian orders.

Evolutionary Psychology does have one very important political tenet---a deep antipathy to Utopianism. The theory they espouse is especially antithetical to the notion that the Good Society can be produced by a process of \\"social engineering\\" in which Bad Culture is replaced by Good Culture, where the Bad/Good criterion is set by an enlightened elite of social reformers. Biologists in formative period of Evolutionary Psychology considered their models of cooperation arising out of mutual self-interest as the triumph of scientific over the wooly wishful thinking of social reformers who prefer to see potentially limitless altruism and unbounded compassion among the qualities that can be successfully instilled in most members of our species. The Evolutionary Psychologists saw otherwise. Richard Dawkins, author of the famous manifesto \\"The Selfish Gene,\\" for instance, claimed that \\"we are survival machines--robot vehicles blindly programmed to preserve the selfish molecules known as genes. This gene selfishness will usually give rise to selfishness in individual behavior.\\" Similarly, Evolutionary Psychologist Michael Ghiselin a few years later asserted, \\"What passes for cooperation [in nature] turns out to be a mixture of opportunism and exploitation. . . Scratch an altruist, and watch a hypocrite bleed.\\"

It is actually an irony of intellectual history that Evolutionary Psychology accepted this doctrine of what McKinnon calls \\"genetic individualism\\" and \\"neo-liberal genetics\\" (the title of the book). The key concept of sociobiology, a broader doctrine than Evolutionary Psychology, is in fact much broader, and not at all wedded to the doctrine of genetic individualism. Rather, sociobiology is predicated on the insight that there are many social species and they should be studied using genetics, population biology,

and evolutionary theory. Sociobiology was treated with fear and loathing by establishment anthropologists, sociologists and psychologists, not because if its \\"neo-liberal genetics,\\" but rather because it denied what Leda Cosmides and John Tooby called the Standard Social Science Model (SSSM), which posited that humans are \\"tabula rasa,\\" implying that human nature does not exist, and humans can be culturally programmed in any way at all.

Social reformers are enamored of the SSSM because it promises that all social ills can cured by installing the appropriate cultural forms and socialization processes. Socialists can teach people to give according to ability and take according to need, feminists can teach people that there are no differences between men and women other than the obvious physiological ones, supporters of capitalism can teach the sanctity of property as well as the propriety of a competitive meritocracy, and liberals can teach pure tolerance. For a chronology of the scorn and hostility heaped upon sociobiology for undermining the SSSM, see the excellent book by Ullica Segerstrale, \\"Defenders of the Truth: The Sociobiology Debate,\\" (Oxford University Press, 2001).

Evolutionary psychologists thus inherited a peculiar view of human nature from the dominant biological models of the 1970's, and have stuck to it with cultish fervor, even as it is being abandoned today in the light of a considerable body of empirical evidence incompatible with genetic individualism.

McKinnon's second criticism is that Evolutionary Psychologists identify self-interest with reproductive interest, and hence view all social arrangements as tools utilized by selfish individuals in maximizing their reproductive success. This Evolutionary Psychology position is of course patently absurd in modern society, where the ubiquity of the demographic transition implies that when a certain level of per capital income is a achieved in a society, families begin sharply curtailing their reproductive output. McKinnon shows, by use of fine examplesfrom cultural anthropology that many pre-modern societies also have sophisticated cultural practices that materially weaken the genetic linkages among people in favor of more flexible social linkages. The same could be said, of course, of modern societies such as ours.

McKinnon's third criticism is that Evolutionary Psychology embraces a modular theory of mental processes, and humans possess no \\"general intelligence,\\" that might be deployed to help us to adjust mentally to modern technological society. The modular theory of the human mind was never very plausible, but every year that goes by gives us additional evidence against this bizarre theory. McKinnon supplies many of the key arguments, although I would also read David C. Geary, \\"The Origin of Mind: Evolution of Brain, Cognition, and General Intelligence\\" (American Psychological Association, 2005).

McKinnon's final criticism is that Evolutionary Psychologists embrace a highly simplistic theory of human culture, according to which culture is an epiphenomenal overlay masking and reflecting the true determinant of human behavior, which is the genetically programmed quest for reproductive success. Evolutionary Psychologists tend to deny this, but their protests are belied by the structure of their theory. For instance, David Buss argues that there are stereotypical behaviors of men and women which are virtually the same in all societies (women want materially successful men and men want young, fertile women). A proponent of the importance of culture would interpret this tendency by asserting that (a) it is not universal, and (b) it is a common-sense behavior in societies where males are dominant possessors. I find Buss's data impressive, but I believe that the genetic predispositions underlying these stereotypes are limited to the obvious physiological differences between the sexes (ability to gestate and deliver young, relative upper body strength), and these differences, which are of great historical importance, become of marginal importance in advanced technological societies.

I often wonder why Evolutionary Psychologists embrace this particular quartet of implausible theories. I think that this is explained in part by a certain mental set adopted from the many cultist movements of the highly politicized years 1970-1985 in the United States. Evolutionary Psychology is indeed a cult, in the sense that its practitioners believe that if they abandon any one of its core doctrines, it will fall apart completely. This is not the case.

The weakness of McKinnon's book is that, by demolishing the bizarre doctrines of Evolutionary Psychology, she appears to believe that she has reestablished the SSSM! The Cosmides-Tooby critique remains devastating, and the notion that \\"culture\\" is not constrained by \\"human nature\\" is just bald-facedly wrong. McKinnon stresses cross-cultural variability, but she never mentions the fact that there are a huge number of human universals exhibited in almost all societies (see the excellent 1991

book by Donald E. Brown, \\"Human Universals,\\" for an overview). McKinnon appears never to have heard of gene-culture coevolution, although she mentions Clifford Geertz' prescient speculations about the effects of culture on genes. This is a shame, because gene-culture coevolution is the key to understanding just how important human culture has been in creating human nature. For instance, I cannot imagine how one would explain the physiology of speech, the hormonal characteristics of the secondary emotions (especially guilt, shame, and empathy) without a careful analysis of the interrelationship between culture and genes in our evolution as a species.

There is a world of modern sociobiology out there that McKinnon either does not know, or that she knows and chooses to hide from the reader. If she has some problem with this literature, it would be nice if we found out what this problem is. To my mind, cultural anthropology without gene-culture coevolution is like biology without evolution. Nothing in human life makes sense except in the light of gene-culture coevolution.icated cultural practices that materially weaken the genetic linkages among people in favor of more flexible social linkages. The same could be said, of course, of modern societies such as ours. McKinnon's third criticism is that Evolutionary Psychology embraces a modular theory of mental processes, and humans possess no \\"general intelligence,\\" that might be deployed to help us to adjust mentally to modern technological society. The modular theory of the human mind was never very plausible, but every year that goes by gives us additional evidence against this bizarre theory. McKinnon supplies many of the key arguments, although I would also read David C. Geary, \\"The Origin of Mind: Evolution of Brain, Cognition, and General Intelligence\\" (American Psychological Association, 2005). McKinnon's final criticism is that Evolutionary Psychologists embrace a highly simplistic theory of human culture, according to which culture is an epiphenomenal overlay masking and reflecting the true determinant of human behavior, which is the genetically programmed quest for reproductive success. Evolutionary Psychologists tend to deny this, but their protests are belied by the structure of their theory. For instance, David Buss argues that there are stereotypical behaviors of men and women which are virtually the same in all societies (women want materially successful men and men want young, fertile women). A proponent of the importance of culture would interpret this tendency by asserting that (a) it is not universal, and (b) it is a common-sense behavior in societies where males are dominant possessors. I find Buss's data impressive, but I believe that the genetic predispositions underlying these stereotypes are limited to the obvious physiological differences between the sexes (ability to gestate and deliver young, relative upper body strength), and these differences, which are of great historical importance, become of marginal importance in advanced technological societies.I often wonder why Evolutionary Psychologists embrace this particular quartet of implausible theories. I think that this is explained in part by a certain mental set adopted from the many cultist movements of the highly politicized years 1970-1985 in the United States. Evolutionary Psychology is indeed a cult, in the sense that its practitioners believe that if they abandon any one of its core doctrines, it will fall apart completely. This is not the case. The weakness of McKinnon's book is that, by demolishing the bizarre doctrines of Evolutionary Psychology, she appears to believe that she has reestablished the SSSM! The Cosmides-Tooby critique remains devastating, and the notion that \\"culture\\" is not constrained by \\"human nature\\" is just bald-facedly wrong. McKinnon stresses cross-cultural variability, but she never mentions the fact that there are a huge number of human universals exhibited in almost all societies (see the excellent 1991 book by Donald E. Brown, \\"Human Universals,\\" for an overview). McKinnon appears never to have heard of gene-culture coevolution, although she mentions Clifford Geertz' prescient speculations about the effects of culture on genes. This is a shame, because gene-culture coevolution is the key to understanding just how important human culture has been in creating human nature. For instance, I cannot imagine how one would explain the physiology of speech, the hormonal characteristics of the secondary emotions (especially guilt, shame, and empathy) without a careful analysis of the interrelationship between culture and genes in our evolution as a species. There is a world of modern sociobiology out there that McKinnon either does not know, or that she knows and chooses to hide from the reader. If she has some problem with this literature, it would be nice if we found out what this problem is. To my mind, cultural anthropology without gene-culture coevolution is like biology without evolution. Nothing in human life makes sense except in the light of gene-culture coevolution.

The Subprime Solution: How Today's Global Financial Crisis Happened, and What to Do about It

The Tragicomedy of Finance — Rating: 4/5

Karl Marx, who burned many a late-night candle in the study of historical dynamics, once said \\"'Hegel remarks somewhere that all great world-historic facts and personages appear twice. He forgot to add: The first time as tragedy, the second time as farce.\\" That may have been true a couple of centuries ago, but a more current assessment might be \\"No matter how much you have learned from history, and however well you have corrected your historical faults, there are plenty more new, and equally treacherous, mistakes to be made in the future.\\" The current financial crisis seems to bear this out.

Keynesian aggregate demand management appeared to have died in the stagflation of the 1980's, not because its \\"rational expectations\\" critics had a better theory (I think rational expectations theory is just a sick joke), but because of the basic correctness of Milton Friedman's insight that legislative counter-cyclical policy is just too slow to deal with the business cycle. Now, it appears we are all Keynesians (indeed, Republicans have been especially Keynesian in the years since Reagan's historic climb to power), and government is moving at virtually lightning speed to prevent the normal operation of the business cycle. Richard Nixon was wrong when he said, \\"We are all Keynesians now,\\" but now, almost forty years later, it appears to be true. Who would ever have expected this turn of events?

Where are the infamous \\"rational expectations\\" theorists now? Doubtless they are holed up somewhere with the Nobel prizes and endowed chairs, laughing all the way to the bank.

I think we can confidently say is that if people learn from history, it is only the past ten years or so of history. I was personally blown away when I read Alan Greenspan, who had presided over the Federal Reserve for some nineteen years, admitted to Congress last October that \\"Those of us who have looked to the self-interest of lending institutions to protect shareholder's equity -- myself especially---are in a state of shocked disbelief.\\" I hope Greenspan is simply lying, but I have a deep fear that he is telling the truth.

Some people did foresee the subprime mortgage crisis and predicted an ensuing financial meltdown, among them Edward Gramlich (Subprime Mortgages: America's Latest Boom and Bust, Urban Institute Press, 2007) and Robert Shiller, who coined the phrase \\"irrational exuberance\\"---adopted by Greenspan to dampen a recent stock market run-up. This book is a bit of \\"I told you so,\\" as Shiller makes it clear at every turn that he predicted this a long time ago, so he must be listened to now in attempting to find a solution. The logic isn't there, but Shiller's suggestions are useful and interesting.

Shiller believes the subprime crisis is a case of a financial panic, or \\"bubble,\\" of a sort that has recurred periodically since the dawn to international financial markets (Charles Kindleberger, \\"Manias, Panics and Crashes,\\" 2000). In the current case, housing prices began a steady increase in about 1999, and by 2004 or so, supposedly intelligent people began to think that housing prices had an inexorable tendency to increase at what we would not consider to be a virtually astronomical rate.

Therefore, lending institutions dropped their lending requirements for new mortgages, on the grounds that in a couple of years or so increasing property values would ensure the integrity of the financial asset whether or not the current mortgagee was delinquent. From this point on, in a world-wide financial sector most of whose members, like Greenspan, could not conceive of basic market failures, the melt-down was quite inevitable.

There are many things I do not understand about the current crisis, the most critical being why so few financial analysts sounded the warning, and why it was not heeded by level-headed guys in policy positions. I certainly saw it coming, and sold two primary residences in 2006 (on behalf of family members whose finances I managed) at the top of the market. I would have sold them two years earlier if I could have convinced their owners of the madness of holding on to these bubble assets.

Shiller's recommendations are well-meaning and worthy of support. His concept of \\"democratization of finance,\\" so that financial institutions work for all of us, not just the very rich, is brilliant and fecund. If Shiller had his way, people would be as knowledgeable in financial affairs as they are in politics, health care, and other areas in which informed voters and consumers can really make a difference. Each and every one of Shiller's suggestions is worthy of support. First, he says, the financial

information infrastructure should be extended to all citizens, much as health care information is (at least ideally) today. Second, financial instruments should be created to deal with the major risk factors faced by the non-wealthy (e.g., variations in house value, price and wage levels). Third, there should be a \\"default\\" set of basic financial contracts that non-knowledgeable consumers can use to deal with their most important investments, including home ownership and retirement.

In fact, we still do not really understand the causes of the current financial crisis, and we may not for many years. Economists are still debating the causes of the Great Depression, some seventy-five years later (although there is more agreement now than in previous decades). Certainly, more regulation of financial innovation is needed, but in fact, whatever SEC regulations are created, in the next great upsurge of economic activity there will be more financial innovation that slips under the regulatory radar, smart people will make a lot of money and get out while the getting is good, and industry leaders will act as though the new bubble will last forever, or at least for another year (every year). Some new Greenspan-clone will be frankly \\"shocked\\" that markets don't work perfectly, and history will repeat itself, not in Hegel's or Marx's sense, but in a perennial tragicomedy that characterizes financial dynamics.

Shiller is very supportive of \\"behavioral finance\\" in this book, recognizing that people do not have completely objective theories of how financial markets operate, or even of probability theory basics. He is wrong, however, if he thinks that a strong \\"financial information infrastructure\\" will change this. People with crazy theories of probability and risk cannot be taught otherwise---I know because I have tried. I have tried to tell day-traders that they are enriching only their brokers, and they will be out of business in nine months (the median life of a day trader, I am told). I have tried to convince testosterone-endowed relatives that, whatever happens in James Bond movies, luck is not with the sly, the muscular, or the devout. All to no avail.

Some will say that we should suppress the whole dynamic that gives rise to financial innovation and bubbles. We should always lend a critical and attentive ear to such proposals, but we must always recognize that the vitality of our economic system depends on financial innovation, and we should always appreciate those people who ignore history and stick their necks out to make new history. They go where angels (and \\"progressive\\" political critics) fear to tread, and we are the better for it.d) at the top of the market. I would have sold them two years earlier if I could have convinced their owners of the madness of holding on to these bubble assets. Shiller's recommendations are well-meaning and worthy of support. His concept of \\"democratization of finance,\\" so that financial institutions work for all of us, not just the very rich, is brilliant and fecund. If Shiller had his way, people would be as knowledgeable in financial affairs as they are in politics, health care, and other areas in which informed voters and consumers can really make a difference. Each and every one of Shiller's suggestions is worthy of support. First, he says, the financial information infrastructure should be extended to all citizens, much as health care information is (at least ideally) today. Second, financial instruments should be created to deal with the major risk factors faced by the non-wealthy (e.g., variations in house value, price and wage levels). Third, there should be a \\"default\\" set of basic financial contracts that non-knowledgeable consumers can use to deal with their most important investments, including home ownership and retirement. In fact, we still do not really understand the causes of the current financial crisis, and we may not for many years. Economists are still debating the causes of the Great Depression, some seventy-five years later (although there is more agreement now than in previous decades). Certainly, more regulation of financial innovation is needed, but in fact, whatever SEC regulations are created, in the next great upsurge of economic activity there will be more financial innovation that slips under the regulatory radar, smart people will make a lot of money and get out while the getting is good, and industry leaders will act as though the new bubble will last forever, or at least for another year (every year). Some new Greenspan-clone will be frankly \\"shocked\\" that markets don't work perfectly, and history will repeat itself, not in Hegel's or Marx's sense, but in a perennial tragicomedy that characterizes financial dynamics. Shiller is very supportive of \\"behavioral finance\\" in this book, recognizing that people do not have completely objective theories of how financial markets operate, or even of probability theory basics. He is wrong, however, if he thinks that a strong \\"financial information infrastructure\\" will change this. People with crazy theories of probability and risk cannot be taught otherwise---I know because I have tried. I have tried to tell day-traders that they are enriching only their brokers, and they will be out of business in nine months (the median life of a

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The Superorganism: The Beauty, Elegance, and Strangeness of Insect Societies

Rates Another Pulitzer Prize — Rating: 5/5

This beautiful volume shows the amazing amount that naturalists have learned about eusocial insect species since the publication of the authors' Pulitzer Prize winning volume, The Ants, in 1990. The book is accessible to the lay reader, except for some introductory chapters that require some knowledge of genetics and population biology. These chapters can simply be skipped without compromising the understanding of other chapters. Both because of its breadth and the huge number of references to the professional literature, this book will likely become a reference for many researchers in sociobiology, including those whose specialty is eusocial insects.

From a theoretical standpoint, this book champions two ideas that E. O. Wilson has vigorously supported despite considerable criticism by biologists and social theorists. The first is that all social species share many traits in common, so that there is room for a special field, which Wilson calls \\"sociobiology,\\" that charts the commonalities and differences among social species. This notion, laid out in Wilson's brilliant 1975 volume by that name, was greeted with scorn and contumely by social theorists who vehemently objected to including human sociality as a mere variant of biological sociality. The ensuing debate is brilliantly documented in Ullica Segerstrale, Defenders of the Truth: The Sociobiology Debate (Oxford University Press, 2001). Of course, sociobiology has withstood the criticism of the ignorant and the intolerant, and is now a fully flourishing field.

More recently, E. O. Wilson has become an ardent supporter of group selection, which holds that Darwinian selection occurs on multiple levels, including the gene, the individual, and in species with a high level of sociality, on the level of the group itself. The central theme of this volume is that the eusocial insects are the product of biological selection on the level of the insect society (bee hive, termite mound, ant hill). Until recently biologists have considered this concept anathema, and many still choke on the idea of selection above the level of the gene, as forcefully expounded by Richard Dawkins in The Selfish Gene (Oxford: 1976). Lately he has teamed up with a long-time proponent of group selection, David Sloan Wilson, to produce a coherent defense of the notion, in the context of insect sociality. The chapter devoted to this issue in the book is a masterpiece that explains clearly the compatibility of gene-level and societal-level selection, and avoids all of the errors commonly committed by group selectionists of a previous generation.

This volume is a true tour-de-force, ably fulfilling two often incompatible goals, that of elegance, excitement and instruction for the general reader on the one hand, and a contribution on the level of basic research on the other.il recently biologists have considered this concept anathema, and many still choke on the idea of selection above the level of the gene, as forcefully expounded by Richard Dawkins in The Selfish Gene (Oxford: 1976). Lately he has teamed up with a long-time proponent of group selection, David Sloan Wilson, to produce a coherent defense of the notion, in the context of insect sociality. The chapter devoted to this issue in the book is a masterpiece that explains clearly the compatibility of gene-level and societal-level selection, and avoids all of the errors commonly committed by group selectionists of a previous generation.

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Internalization of Norms: A Sociological Theory of Moral Commitment

How to Miss the Boat Big Time: Ignore the Rational Actor Model — Rating: 2/5

John Finley Scott, an emeritus professor of sociology at the University of California, Davis, is doubtless best known as the inventor of the mountain bike. As this little book attests, he is also a well-socialized and intelligent sociologist, with a deep love for Skinnerian behavioral psychology.

Like all \\"good\\" sociological theory, this book is mostly philosophical and methodological. Theories with which Scott disagrees (e.g., Parsons' theory of action) are criticized not on empirical or explanatory grounds, but rather on philosophical grounds (e.g., a certain theory is \\"idealistic\\" or \\"introspective\\"). Needless to say, only a well-socialized sociologist could consider this anything but a complete waste of time. There is only one valid critique of a logically coherent theory: it doesn't fit the facts as well as some competing theory.

Scott's originality in this book is to interpret the internalization of norms as compatible with Skinnerian operant conditioning. This is a genuine feat, because behavioral psychology was already virtually dead when this volume was written. Scott distances himself from the more bizarre of Skinnerian claims, retaining only the principle of reinforcement.

Scott claims that (a) norms are internalized through a Skinnerian process of \\"learning,\\" in which normative behavior is reinforced by social \\"conditioners\\" and hence is \\"learned,\\" which Scott takes as equivalent to \\"internalized\\"; (b) internalized norms must be reinforced periodically/continually by sanction or the threat of sanction, or else they will become \\"extinguished,\\" as are other forms of operant conditioning. The latter claim distinguishes Scott's theory clearly from the more traditional Durkheimian/Parsonian theory of internalization as involving the reconstitution of individual goals and self-concept.

This reinterpretation of internalization was invited by an onslaught of criticism of Parsonian sociology in the fifteen years prior to its publication in 1971. The two major criticisms of Parsonian internalization were (a) societies based on oppression and exploitation, such as caste, class, and slave societies, do not develop a unified system of culture (Ralph Dahrendorf, 1958); and (b) individuals are not completely malleable in internalizing norms, because when the costs of compliance are too high, they reject the norms (Dennis Wrong, 1961). Clearly, Scott's reinterpretation is not subject to these criticisms.

It would be uninteresting to fault Scott for his reliance on Skinnerian psychology, which has become widely rejected. I think we capture the essence of Scott's approach by treating the individual as a rational, self-regarding actor with incomplete knowledge concerning the instrumental means towards maximizing his expected utility. The process of socialization then takes the form of supplying the individual with instrumental means towards achieving personal ends. Scott's \\"conditioners\\" are the self-regarding rewards and penalties for norm compliance and what is \\"internalized\\" is the proposition that conforming to the norm will bring about the appropriate rewards, and deviating will trigger the equally appropriate penalties.

With this emendation, we can also broaden Scott's model of the internalization process. One can of course \\"learn\\" a norm by being subjected to its conditioners; but one can also internalize simply by acquiring a \\"belief\\" concerning the rewards and penalties involved. For instance, an individual may undergo an epiphany in which a new moral principle is affirmed and old principles are rejected. Moreover, we can allow for genetically-influenced costs and benefits of particular norms, so a \\"tabula rasa\\" conception of socialization is avoided.

Adopting this self-regarding rational actor interpretation, Scott's major thesis is that, insofar as norms accurately reflect \\"conditioners,\\" an individual's pattern of internalized norms will not change; however, if the pattern of conditioners changes, the norm will be more or less rapidly abandoned, and the corresponding behavior extinguished. In fact, we certainly do observe a tendency for individuals to abandon a normative behavior when social conditions lead to changed \\"conditioners,\\" or when they believe that conditioners have changed, or even when they see other individuals abandoning the

behavior, ostensibly because this provides the individual with the novel information that norm compliance may no longer be in one's interest.

Scott recognizes that his model of internalization does not conform to our subjective experience of moral behavior. We generally think that we are sacrificing on behalf of society, other individuals, or simply on behalf of the norm itself, when we behave ethically. We certainly do not generally think of moral rules as simply \\"generalized common sense\\" for maximizing personal gain in the long run. He argues, however, that these subjective experiences do not have any scientific standing, and more than our feeling of free will in choosing requires that free will actually exist.

The difference between Parsons' theory of action and Scott's \\"behavioral\\" alternative comes down to a single, but critical issue: are moral rules intrinsically valued, personally costly, objectives (Parsons) or rational, self-regarding behavior in the context of \\"conditioners,\\" the byproduct of which is benefit to others and society as a whole (Scott)? Scott here makes camp with such illustrious thinkers as Mandeville (Fable of the Bees) and Smith (Invisible Hand), whereas Parsons comes down on the side of the moral philosophers, including Aristotle, Kant, and Mill.

The crucial point is that a simple enrichment of the rational actor model explains all that Scott's model can explain, plus many behaviors that Scott cannot explain at all. The enrichment is to replace the self-regarding postulate by the assumption that humans are \\"strong reciprocators,\\" who prefer to help those who have helped them or have benefitted society in some wider sense, and who prefer to hurt those who have been unkind to them or who have acted in an anti-social manner in the larger society. A rational, other-regarding, strong reciprocator will internalize norms as valued arguments in his objective function, but will abandon morally valued behavior when either the cost of compliance is too high, or when others are observed to be in widespread violation of the norm, in this case because non-compliance is a form of retaliation against others who have behaved selfishly.

On the other hand, this enriched rational actor model can explain many facts that are embarrassing to the self-regarding, norms as constraints, model offered by Scott. For instance, many experiments show that individuals exhibit moral behavior even in one-shot, non-repeatable situations in which there is no change for the \\"conditioners\\" to come into play (see, for instance, Herbert Gintis, Samuel Bowles, Robert Boyd and Ernst Fehr, \\"Moral Sentiments and Material Interest\\" (MIT Press, 2005), and Herbert Gintis, \\"The Bounds of Reason: Game Theory and the Unification of the Behavioral Sciences\\" (Princeton, NJ: Princeton University Press, 2009).

A second problem with Scott's model is that it assumes the existence of the appropriate \\"conditioners\\" without investigating where they come from. Of course, we can take an evolutionary perspective and argue that the \\"conditioners\\" are culturally specified, and culture evolves in a way promoting more powerful social communities, meaning specifically communities with a more highly developed division of labor and highly articulated set of material incentives for rational, self-regarding individuals. However, the most sophisticated attempts to construct analytical models of large-scale cooperation among self-regarding agents have been carried out by economists, and their models only work when extremely implausible informational assumptions hold, and even then these models do not supply a dynamical analysis, but rather are limited to existence proofs.

Scott defends the importance of analytical formulations of social theory in this book, but claims that analytical social theory is not yet far enough advanced to provide insights. I think this attitude is responsible in part for the book's failure. Indeed, I think a good dose of rational choice theory and behavioral game theory would be a better place to start in trying to model moral systems and, more generally, normative social orders.tted society in some wider sense, and who prefer to hurt those who have been unkind to them or who have acted in an anti-social manner in the larger society. A rational, other-regarding, strong reciprocator will internalize norms as valued arguments in his objective function, but will abandon morally valued behavior when either the cost of compliance is too high, or when others are observed to be in widespread violation of the norm, in this case because non-compliance is a form of retaliation against others who have behaved selfishly. On the other hand, this enriched rational actor model can explain many facts that are embarrassing to the self-regarding, norms as constraints, model offered by Scott. For instance, many experiments show that individuals exhibit moral behavior even in one-shot, non-repeatable situations in which there is no change for the \\"conditioners\\" to come into play (see, for instance, Herbert Gintis, Samuel Bowles, Robert Boyd and

Ernst Fehr, \\"Moral Sentiments and Material Interest\\" (MIT Press, 2005), and Herbert Gintis, \\"The Bounds of Reason: Game Theory and the Unification of the Behavioral Sciences\\" (Princeton, NJ: Princeton University Press, 2009). A second problem with Scott's model is that it assumes the existence of the appropriate \\"conditioners\\" without investigating where they come from. Of course, we can take an evolutionary perspective and argue that the \\"conditioners\\" are culturally specified, and culture evolves in a way promoting more powerful social communities, meaning specifically communities with a more highly developed division of labor and highly articulated set of material incentives for rational, self-regarding individuals. However, the most sophisticated attempts to construct analytical models of large-scale cooperation among self-regarding agents have been carried out by economists, and their models only work when extremely implausible informational assumptions hold, and even then these models do not supply a dynamical analysis, but rather are limited to existence proofs. Scott defends the importance of analytical formulations of social theory in this book, but claims that analytical social theory is not yet far enough advanced to provide insights. I think this attitude is responsible in part for the book's failure. Indeed, I think a good dose of rational choice theory and behavioral game theory would be a better place to start in trying to model moral systems and, more generally, normative social orders.

Reciprocity: An Economics of Social Relations (Federico Caffè Lectures)

Unrewarding treatment of an important topic — Rating: 1/5

Serge-Christophe Kolm is Professor and Director at the Institute for Advanced Studies in the Social Sciences, Paris, and a prolific author of books and articles that span economics, sociology, and philosophy. Most of his publications are in French, but Justice and Equity was translated into English and published by MIT Press in 1997. He is also coeditor, with Jean Mercier Ythier and Louis-André Gérard-Varet of a highly regarded two-volume compendium, \\"The Handbook of the Economics of Giving, Altruism, and Reciprocity\\" (Amsterdam: Elsevier, 2002).

Kolm has been writing about reciprocity for many years. I remember vividly a talk he gave on the subject at a Paris conference in 1975, long before economists became interested in the topic. Kolm has a strong background in Anglo-American mathematical economics, and early in his career he published two seminal articles on inequality indices: \\"Unequal inequalities, Journal of Economic Theory 12 (1976) pp. 416-442; and \\"Unequal inequalities II,\\" Journal of Economic Theory 13 (1976), pp. 82-111. At some point, Kolm became interested in philosophical psychology, publishing \\"Le Bonheur , Liberté, Bouddhisme profond et Modernité\\" (Happiness-Freedom (Deep Buddhism and Modernity)) in 1982.

The occasion for this book was an invitation by the University La Sapienza, in Rome, to deliver the Federico Caffè lectures of 2003, and consists of a compilation of three decades of work on reciprocity by the author. The book is extremely repetitive, and virtually the complete analysis is presented in the first twenty pages. \\"Reciprocity,\\" says Kolm (p. 1), \\"is treating other people as other people treat you.\\" This is, of course, a descriptive rather than a normative criterion, and contrasts sharply with the Kantian categorical imperative, which holds that one ought to treat others as one would have them treat oneself. However, it is often quite accurate as to how pople in fact treat one another.

Kolm claims that there are two major types of reciprocity, which he terms \\"balancing,\\" or \\"matching\\" reciprocity, on the one hand, and \\"liking reciprocity\\" on the other. In matching reciprocity, one feels obligated to return as good as one has received from others, and in liking reciprocity, one has warm feelings for (or against) others based on what one has received of them, and one returns the favor in an emotionally satisfying manner. Note that both of these forms of reciprocity are essentially other-regarding, because the reciprocator does not consider the net personal material gain derived from the act of reciprocating, but rather reciprocates for either deontological (duty) or utilitarian (pleasure) reasons. Kolm recognizes self-regarding forms of reciprocity as well, especially what he calls \\"sequential reciprocity,\\" according to which one reciprocates with the expectation that this will foster long-term mutually beneficial interactions. Finally, Kolm recognizes \\"generalized

reciprocity,\\" in which A is kind to B, who reciprocates not by being kind to A, but rather by being kind to a third party C. Although Kolm does not do so, it can be shown that under the appropriate informational and payoff conditions, such generalized reciprocity (usually called \\"indirect reciprocity\\") can be sustained by self-regarding agents, although these conditions are quite stringent (Karthik Panchanathan and Robert Boyd, \\"A Tale of Two Defectors: The Importance of Standing for Evolution of Indirect Reciprocity\\", Journal of Theoretical Biology 224 (2003):115-126; and \\"Indirect Reciprocity can Stabilize Cooperation Without the Second-order Free Rider Problem\\", Nature 432 (2004):499-502).

Despite the La Sapienza venue, this book is aimed toward the lay reader, leaving mathematical formalism for a few short and undemanding chapters towards the end of the book. These chapters contribute little to his argument because they are extremely elementary applications of choice theory and deal with one-shot interactions in a situation where repeated game theory, and in particular issues surrounding the Folk Theorem, deserve salience. Kolm refers to a number of recent contributions of behavioral game theory, but never describes experimental results with enough detail to gain insight into phenomena involved. Nor does he explain why he treats this vibrant and rapidly growing field with such superficiality. Even more surprisingly, for a lay audience, he does not present the arguments of those researchers or schools of thought that disagree with his interpretation.

For example, he asserts that \\"The existence of any peaceful and free society...rests essentially on reciprocity.\\" (p. 15). For this he provides not a slender reed of prove, and does not deal with either standard economic or biological theory, both of which stoutly deny the importance of either balanced or liking reciprocity, and rely heavily on sequential reciprocity alone. This is because both traditional biological and economic theory assume that individuals are self-regarding, either because natural selection requires this, or because economics is the study of rational self-interested behavior. I fully agree with Kolm's stress on other-regarding reciprocity, but I cannot accept the atmosphere of obiter dicta that pervades his treatment of reciprocity.

I am aware that Kolm is well regarded by some of the most perceptive social scientists of our age, including Jon Elster, who calls Kolm \\"one of our most creative and profound economists of our day\\" in his book-jacket blurb. By contrast, I find Kolm superficial and supercilious, expected the reader to subscribe to his views not through the presentation of evidence and analytical argument, but merely because Kolm says that it is so. The distain for the behavioral science literature on the subject is astounding. There is no sustained discussion of the public goods game, of the free rider problem, of in-group vs. out-group reciprocal behavior, or of the relationship between reciprocity in humans and in other species. While Kolm does mention in passing some behavioral economists who have worked on the issue of reciprocity, such greats as the political scientist Elinor Ostrom and the social psychologist Toshio Yamagishi are barely touched upon if at all.

In a book for the lay reader, avoiding complex mathematical expressions is a clear plus, and Kolm does achieve this. However, one can explain the structure of analytical models of reciprocity without the mathematical apparatus, and one can explain clearly the meaning of experimental results without sophisticated game-theoretical concepts, and this Kolm does not even bother to do.situation where repeated game theory, and in particular issues surrounding the Folk Theorem, deserve salience. Kolm refers to a number of recent contributions of behavioral game theory, but never describes experimental results with enough detail to gain insight into phenomena involved. Nor does he explain why he treats this vibrant and rapidly growing field with such superficiality. Even more surprisingly, for a lay audience, he does not present the arguments of those researchers or schools of thought that disagree with his interpretation. For example, he asserts that \\"The existence of any peaceful and free society...rests essentially on reciprocity.\\" (p. 15). For this he provides not a slender reed of prove, and does not deal with either standard economic or biological theory, both of which stoutly deny the importance of either balanced or liking reciprocity, and rely heavily on sequential reciprocity alone. This is because both traditional biological and economic theory assume that individuals are self-regarding, either because natural selection requires this, or because economics is the study of rational self-interested behavior. I fully agree with Kolm's stress on other-regarding reciprocity, but I cannot accept the atmosphere of obiter dicta that pervades his treatment of reciprocity. I am aware that Kolm is well regarded by some of the most perceptive social scientists of our age, including Jon Elster, who calls Kolm \\"one of our most creative and profound economists of our day\\" in his book-jacket blurb. By

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The Limits of Rationality

Some prescient insights in a rapidly advancing field — Rating: 3/5

This volume was written over twenty years ago in a rapidly-changing field, so its value is mostly historical, although there are a few classical papers, reprints, of enduring value by Mark Machina, Daniel Kahneman and Amos Tversky, and George Stigler and Gary Becker. I read this book as part of an endeavor to chart the development in our understanding of the rational actor model. While there is much that is out of date, trivial, and/or incorrect, there are some important insights worth recording.

The Introduction, by the editors and others, is extremely clear-headed. They identify the task of the book as that of determining \\"what is it that rational actor models can and cannot do.\\" They further note that the rational actor model is \\"deeply interdisciplinary,\\" and they argue that the future of rational choice theory \\"lies in analyses of norms and institutions.\\" This position is extremely forward-looking, because until recently, rational choice and the theory of norms were considered antithetical approaches---a position leading to the impoverishment of both research areas.

Jon Elster provides a subtle and insightful analysis of instrumental rationality, by which he means that the agent chooses means that are most appropriate towards the achievement of desired ends. This notion is quite distinct from the \\"rational actor model\\" treatment of rationality as simply the transitive and consistency of preferences. Elster notes that some failures of the expected utility principle are really failures of instrumental rationality. For instance, \\"folk probability theory\\" differs systematically from mathematical probability theory, and this leads agents to make inferior choices, even given their preferences over outcomes. Nevertheless, preference transitivity may still hold. Elster's most original contribution here is a defense of the principle of rationality as the \\"default assumption,\\" despite the fact that the principle fails in many important circumstances. On the other hand, Elster explicitly states that \\"normative behavior\\" is an alternative to \\"rational behavior,\\" a view that contradicts that of the editors (and my own). He takes this position because he considers normative behavior as not a case of instrumental rationality (e.g., the norm of voting in a democracy is not instrumentally rational).

Michael Hechter, in a short commentary, notes several weakness of the Folk Theorem approach to cooperation among self-regarding agents. His incisive and prescient remarks lead him, correctly I believe, to stress that we must seek an \\"external\\" rather than an \\"internal\\" model of social cooperation---one that depends on social norms in some extrinsic way.hand, Elster explicitly states that \\"normative behavior\\" is an alternative to \\"rational behavior,\\" a view that contradicts that of the editors (and my own). He takes this position because he considers normative behavior as not a case of instrumental rationality (e.g., the norm of voting in a democracy is not instrumentally rational).
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The Road

Dust thou art, and unto dust shalt thou return — Rating: 5/5

Unto Adam God said, \\"Because thou hast eaten of the tree, in sorrow shalt thou eat of it all the days of thy life; By the sweat of thy brow shalt thou eat bread, till thou return unto the ground; for dust thou art, and unto dust shalt thou return.\\"

The Road is the path a man takes from birth to dusty death. The road is populated by the dust of the past, in the form of the ashes of men, their achievements, their coroporeal remains, and our memories of them. The end of the road is our own dusty death.

The Road is a daily struggle for existence, avoiding the Evil that can engulf us, searching wistfully for the Good, which is the fire that we carry with us in our bellies, and experiencing the incredible depths of starvation and murder, as well as the delerious highs of a full stomach and a secure place to sleep out the night.

The fire in our bellies, for McCarthy, is compassion and love. The man experiences this fire for his son, but his will to survive does not permit him to extend this love beyond this lone individual to others in need. The fire in the boy's belly is pure love, for his father, for a desolate dog who will surely be eaten if left to its own devices, and for the poor souls whose Road to dusty death appears to be a bit shorter than his own. Only the wisdom of the man prevents the boy from sacrificing his life on the alter of compassion.

The Evil in this books are the people who lack this fire, and treat others as pure instruments towards meeting their own pitfully selfish needs. The Evil in this book are cannibals, but the literary allusion is much less concrete.

The final scene of this fine novel sees Good triumphing over Evil, as the boy is taken in by others, strangers, who have the means of behaving compassionately, as his father could not. This is a deep message of hope for us all.

The unrelenting intensity with which the above message is worked into the words, sentences, paragraphs, and pages of this book is reinforced by spareness and repetition of themes. Spareness: there are no colors in this book, there is no emotion except love and fear, there is no satisfaction except full stomach and security from external threat, there is no joy except in the mutual love of the man and the boy, there is no nature except ash and dust, there is no wisdom except the value of the love and the danger of Evil. Repetition: the theme is set up in the first ten pages and repeated with little variation until the final paragraphs of the book. This reminds me of Robbe-Grillet, with his mesmerizing repetition of themes, or perhaps Ravel's Bolero without the increasing volume and tempo. Perhaps it is trite to recall Shakespeare, but it is nevertheless apt, because it doubtless informed McCarthy's vision of The Road: \\"Tomorrow, and tomorrow, and tomorrow, Creeps in this petty pace from day to day, To the last syllable of recorded time; And all our yesterdays have lighted fools The way to dusty death.\\"

My advice to Cormack McCarthy is: hey, fella, cheer up a bit. There's lots more to life than your philosophy ever dreamed of, including music, and flowers, and philosophy. And even Nintendo.and repetition of themes. Spareness: there are no colors in this book, there is no emotion except love and fear, there is no satisfaction except full stomach and security from external threat, there is no joy except in the mutual love of the man and the boy, there is no nature except ash and dust, there is no wisdom except the value of the love and the danger of Evil. Repetition: the theme is set up in the first ten pages and repeated with little variation until the final paragraphs of the book. This reminds me of Robbe-Grillet, with his mesmerizing repetition of themes, or perhaps Ravel's Bolero without the increasing volume and tempo. Perhaps it is trite to recall Shakespeare, but it is nevertheless apt, because it doubtless informed McCarthy's vision of The Road: \\"Tomorrow, and tomorrow, and tomorrow, Creeps in this petty pace from day to day, To the last syllable of recorded time; And all our yesterdays have lighted fools The way to dusty death.\\" My advice to Cormack McCarthy is: hey, fella, cheer up a bit. There's lots more to life than your philosophy ever dreamed of, including music, and flowers, and philosophy. And even Nintendo.

The Happiness Hypothesis: Finding Modern Truth in Ancient Wisdom

This might become a classic---so much wisdom in so little space — Rating: 5/5

The blurb on the front cover of this book is \\"For the reader who seeks to understand happiness, my advice is: begin with Haidt.\\" I believe this assertion is exactly right. I have never read a single volume that summarized and wove into a coherent whole the variety of insights concerning human happiness that have been discovered by philosophers and religious gurus of the past and modern social psychologists. Moreover, this book is beautifully written, the exposition of various theories always taking a fresh viewpoint, however venerable the source. Finally, I think this book is a vigorous endorsement of modern social psychology, which beautifully complements and supplements the insights of the grand masters. I am generally critical of social psychology because it does not use the rational actor model and hence consists of a grab-bag of nano-insights with no structural core. But, this body of empirical findings contributes richly to our understanding of human happiness (the reference section of this book is truly a masterpiece, by the way).

Haidt claims there are ten great principles for understanding happiness, and he devotes a chapter to each. The first is the \\"divided self,\\" we may be summarized as \\"Our minds are loose confederations of parts, but we identify with and pay too much attention to one part: conscious verbal thinking.\\" (p. 22) Haidt analogizes our mind as a conscious rider on an unconscious elephant. The elephant mostly goes where it wants to go, although our conscious mind never gives up the illusion that it should not only be in the driver's seat, but have a powerful steering wheel. The references here are many, but typical are Freud's Ego vs. Superego/Id, emotional brain vs. rational brain, left vs. right brain and split-brain studies, and the like. This fact about mind is key to understanding happiness because an excessive preoccupation with conscious, volitional action tends to lead people to slight the actions they can take that have little immediate effect, but in the long run lead the elephant to move in ways more conducive to our emotional well-being. The rest of the book explains how this might be done.

Like many chapters of this book, Chapter 2, \\"Changing your Mind,\\" is deeply paradoxical, or perhaps dialectical. The basic message is well stated in the quotes at the head of the chapter: \\"life itself is but what you deem it,\\" (Marcus Aurelius) and \\"our life is the creation of our mind.\\" (Buddha). Whereas it is very natural to think of our perceptions of our lives as real and external as the coffee cup on my table, in fact our perception and interpretation of our personal psychic and interpersonal lives is, in a deep way, personally constructed by our minds. This fact implies that different minds might very well perceive the same situation in very different ways, and this disjunction in perceptions can lead to conflicts that reduce the happiness of all parties and defy resolution because of the disputing parties' lack of insight into the subjective nature of their perceptions.

The dialectical nature of the principle of the \\"personal construction of reality\\" is that this construction is normally not conscious, but rather a deep mechanism controlled by the \\"elephant\\" over which the rider has virtually no control. It a deeply unsatisfying fact that we are basically incapable of seeing the world in any way other than the way we do, although we may achieve some liberation by recognizing this fact, and \\"going with the flow\\" (e.g., by accepting that family members and friends do not see the world as you do, they are not guilty of misperception, and you will not get them to perceive otherwise with sufficient effort on your part).

Haidt brings in a major finding from social psychology here: \\"happiness is one of the most highly heritable aspects of personality.\\" (p. 33) This does not mean that our happiness cannot be affected by our actions, but the battle to do so is extremely difficult and likely to be only partially successful. This is perhaps why the book is about understanding happiness, not achieving happiness. Nowhere in the book does Haidt claim to offer you the key that will unlock the door to happiness. Rather, Haidt suggests three methods of actually improving our happiness: meditation, cognitive therapy, and Prozac. \\"All three are effective,\\" he claims \\"because they work on the elephant.\\" I concur with Haidt in this regard, and especially recommend psychopharmacology for those who remain unhappy after all the objective reasons for being unhappy have been addressed (e.g., a bad marriage, commuting two hour to

work in traffic, or having your hand caught in a car door), as long as the side effects are not themselves debilitating.

Haidt's third principle is reciprocity, which he interprets as acting according to Kant's categorical imperative. He takes issue here mainly with those who believe that human intelligence developed in a Machiavellian manner to give big-brained individuals a personal advantage over others. Rather, he suggests, humans evolved to be predisposed to reciprocal behavior, both rewarding those who are nice and being vengeful towards those who are nasty. I am totally in agreement with Haidt that this is among the top insights needed to understand not just happiness, but human behavior in general.

Many thinkers trained in biology and economics believe that we are reciprocal not by nature, but from fear of retaliation for letting others down. Indeed, Haidt appears to believe that people will renege on their obligations unless social pressure can be brought against them, in the form of gossip (p. 55). \\"Gossip paired with reciprocity,\\" he states, \\"allow karma to work here on earth.\\"

Haidt's position here is a deep and unfortunate error. Gossip cannot explain reciprocity because unless gossipers have a moral preference for truth-telling, there is no reason for gossip to be accurate. Gossip is important because humans have a predisposition to reciprocal behavior, but does not explain reciprocal behavior. Strangely, for a book published in 2006, Haidt makes no reference to the results in behavioral game theory exhibiting altruistic cooperation and punishment even when there is no chance for being repaid in the future (I have called this \\"strong reciprocity,\\" a phenomenon exhibited in the experiments of Ernst Fehr, Simon Gaechter, and others). Moreover, Haidt's treatment here is in contradiction to the main insight of Chapter 8, The Felicity of Virtue, which I discuss below.

The fourth principle is that we are more likely to see fault in others than in ourselves. This is of course a corollary to the principle that we construct our own reality, adding merely that we tend to do so in a way favorable to ourselves. This tendency terribly destructive of personal relations because it councils against compromising and lead to excessive levels of conflict and disputation, in which the other side is the personification of Evil, with which compromise is morally prohibited.

The fifth principle is that happiness does not lie in achieving outward goals, but rather inner psychic peace. According to Haidt's \\"progress principle,\\" we only get pleasure by moving towards our external goals through having a succession of little successes, but attaining the goal is not a source of pleasure, as we quickly become used to our new state and bored with it. Haidt provides some excellent evidence for this principle, including the fact that lottery winners seem not to become happy with their new-found wealth, but rather within a short time revert to their pre-winning level of happiness. In addition, the average level of happiness in a country tends to stay the same even when the average income in the country triples over a period of time.

I have read all this evidence and plenty more, but I am not convinced. I know from personal experiencethat I never cease to get pleasure from attainments that I achieved long in the past, such as the ability to read a foreign language, the appreciation for the house that my wife and I built ourselves and live in every day, the level of skill I have achieved in various sports (all quite moderate, but plenty good enough for me), and so on. Moreover, I perceive that most of my friends and neighbors are the same. There is a sense of well-being of having attained a position that need never go away, and indeed, can become heighted continually over time.

I think Haidt here has relied too much on the social psychologists, when the truth was long ago asserted by the young Karl Marx, according to which humans have \\"slumbering capacities\\" (Gattungswesen), including physical, psychomotor, cognitive, affective, aesthetic, and spiritual power. Flourishing as a human being consists in developing these slumbering powers. The enemy here is material goods, which seem like the source of happiness, but are merely instruments we use in exercising our slumbering powers. This was the theme of my Ph.D. dissertation many years ago. Indeed, one of my head quotes was from the jazz musician Mose Allison, who said \\"Things are getting better and better; it's people I'm worried about.\\"

This is a very dissatisfying chapter, to my mind, and completely wrong-headed. It should say that gratifications follow from the capacities we have developed to act in the world, and that material goods are valuable almost exclusively when they contribute to our exercise of personal powers. The lottery winner does not become happy because he has not developed any new personal capacities to which his

new-found wealth might contribute. People who have developed their capacities do not \\"get used to\\" and hence devalue their material possessions.

The sixth chapter is an absolutely brilliant interweaving of ancient philosophy and modern social psychology on the importance of love in our lives. The seventh is a sensitive but rather inconclusive chapter arguing that we should see adversity as a challenge rather than an unmitigated evil. I am not convinced. The major adversities in my life have been unmitigated evils from which I gained nothing but grief. I suspect I am not alone.

The eighth chapter (and eighth principle), the Felicity of Virtue, is very important and well done. I would have placed it before the actual Chapter 4 because of its importance. Social scientists tend to think of sacrificing on behalf of others and on behalf of society as a personal cost that people undertake either because they are irrational or because they have moral values that lead them to devalue their own happiness in favor of other-regarding goals. By contrast, the ancient philosophers and theologians have generally taken it for granted that \\"virtue is its own reward;\\" that is, altruistic acts and virtuous behavior in general benefit not only those helped thereby, but the virtuous subject himself. According to this view, it is difficult to be virtuous because we are tempted by all sorts of short-term pleasures to forego such natural virtues as loyalty, honesty, courage, humility, and considerateness.

The felicity of virtue is particularly important because it gives us a much deeper understanding of the basic prosociality of human nature than the standard theories of philosophical ethics---the \\"duty\\" theories such as Kant's and the \\"utilitarian\\" theories such as Bentham's and Mill's. These theories try to determine what sorts of actions are ethically desirable, but give no reason why individuals should be moral at all. Virtue theories, by contrast, tend to argue that we know in hearts what is right and what is wrong, and we are happiest when we are capable of having our \\"elephant\\" carry out the right and the good as opposed to the wrong and the evil.

The ninth chapter (and principle) is a very nice exposition of the idea that we do notneed to be believers in God to lead a meaningful and ethically fulfilled life. This seems more obvious to me than many other points in the book, but it may be useful for young non-believers who worry if the loss of belief implies the loss of meaning. The final chapter is a synthesis of the preceding that Haidt feels has been most useful in guiding his personal life.

The existential philosophy of life was once well expressed by Andre Gide: \\"Jette mon livre; dis-toi bien que ce n'est là qu'une des mille postures possibles en face de la vie. Cherche la tienne. Ce qu'un autre aurait aussi bien fait que toi, ne le fais pas. Ce qu'un autre aurait aussi bien dit que toi, ne le dis pas, --aussi bien écrit que toi, ne l'écris pas. Ne t'attache en toi qu'à ce que tu sens qui n'est nulle part ailleurs qu'en toi-même, et crée de toi, impatiemment ou patiemment, ah! le plus irremplaçable des êtres.\\" Thank God we have moved from the existential nonsense of my youth to the heartening wisdom displayed in this book. (The French means \\"Throw away my book. Understand that it is only one of a thousand ways to deal with life. Find your own. Whatever another could do as well as you, do not do. Whatever another could have said as well as you, do not say--have written as well as you, do not write. Only care about that within you that is nowhere other than within you, and create in you, patiently or impatiently, ah! the most irreplaceable of beings.\\")e past, such as the ability to read a foreign language, the appreciation for the house that my wife and I built ourselves and live in every day, the level of skill I have achieved in various sports (all quite moderate, but plenty good enough for me), and so on. Moreover, I perceive that most of my friends and neighbors are the same. There is a sense of well-being of having attained a position that need never go away, and indeed, can become heighted continually over time. I think Haidt here has relied too much on the social psychologists, when the truth was long ago asserted by the young Karl Marx, according to which humans have \\"slumbering capacities\\" (Gattungswesen), including physical, psychomotor, cognitive, affective, aesthetic, and spiritual power. Flourishing as a human being consists in developing these slumbering powers. The enemy here is material goods, which seem like the source of happiness, but are merely instruments we use in exercising our slumbering powers. This was the theme of my Ph.D. dissertation many years ago. Indeed, one of my head quotes was from the jazz musician Mose Allison, who said \\"Things are getting better and better; it's people I'm worried about.\\" This is a very dissatisfying chapter, to my mind, and completely wrong-headed. It should say that gratifications follow from the capacities we have developed to act in the world, and that material goods are valuable almost exclusively when they

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The Civil Sphere

A Triumph of Interpretive Sociology — Rating: 5/5

The strength of an individual's social loyalties diminishes progressively as the target of loyalty moves from family, to community, to nation, and beyond. The social distances involved are also lessened by cultural, ethnic, and religious similarities. Family and community ties have existed since H. sapiens emerged as a hunter-gather species, but other loyalties are of more recent vintage. The rise of states in the early-modern period, for instance, did little to instill in citizens a sense of national moral identity. Such a sense arose only after the more recent nation-building period in modern Europe. Historian Eric Hobsbawm's The Invention of Tradition (1992) provides a thoroughly researched analysis of the historical process of the creation of social loyalties in the service of a variety of social groups and movements. Once created, and consolidated by the extension of mass democratic participation, of course, national loyalties have become keys to personal identification and motivation in the 21st century.

But, what exactly is it that people have in common when they identify with others in protecting and defending home and hearth? Who is the \\"we\\" when we say \\"we and they?\\" We certainly do not mean the state or the economy, which we treat as instrumental toward meeting our needs and of which we are generally otherwise wary. Nor is it simply the citizenry. Indeed, through long periods of American history, blacks, Jews, Catholics, and even women were \\"them\\" and not \\"us\\" when the basic political identifications of powerful \\"insiders\\" were involved.

It is critical to understand that movements for racial and gender equality as well as religious and ethnic tolerance, have not been simply materialistic ploys for gaining a larger share of the pie for participants, but rather intimately involve transforming the social landscape by admitting new, full-fledged members of the mutually-supporting \\"insiders\\" who define our basic social identifications.

Of course, in the heat of struggle for a new social identity, \\"outsiders\\" rarely admit that they simply want in. Rather they tend to make extravagant claims concerning the need to reorganize social life as a whole to accommodate their presence, and they tend to view pitched social battle, not a placid civil sphere, as the natural state of affairs. However, in virtually all cases, once admitted into the realm of the \\"insiders,\\" these claims diminish in intensity and eventually are reduced to a low murmur, at best. In the long run, the natural state of a relatively harmonious sphere of the \\"we,\\" surrounded by a stable boundary separating the \\"we\\" from the \\"they.\\"

What, then, is the \\"we?\\" In The Civil Sphere, Jeffery Alexander, among the most respected of contemporary sociologists, takes on the ambitious task of analyzing this hitherto unrecognized object of loyalty and commitment available to members of democratic societies. The civil sphere, for Alexander, is narrower than the \\"civil society\\" of classical political thought, as the latter included all institutions and social practices outside the state, whereas the civil sphere for Alexander excludes not only the state, but the economy and other organized institutional forms as well. The civil sphere is an intentional community of individuals whose mutual relations are of solidarity and empathy, and whose \\"civil power\\" is codified in communicative cultural institutions such as the news and public opinion media and such regulative institutions as political parties and voluntary associations, and common rituals that signify the commitment to the social group, including charity, contributions to political candidates, and participation in community-building. Of course, the civil sphere, like family and community, is by no means devoid of internal strife; however, the tensions and discords of the civil sphere have the capacity to be constitutive and transforming, rather than simply mutually destructivezero-sum games.

The civil sphere is precisely the \\"we,\\" and Alexander's primary task is to determine its structure and defend its existence against those whose political understandings do not include the presence or importance of such a sphere. For Alexander, the civil sphere is a complex of social relations that exists, is socially constructed, and is worthy of our support. The most formidable intellectual enemies of the civil sphere are forms of positivism and material realism for which all subjective social identifications are merely instrumental to gaining power and wealth. Alexander consolidates these enemies in a single personification, that of Thrasymachus who, in Plato's Republic, defended a \\"might makes right\\" and purely material, distributional view of morality. Alexander considers state and economy as sources of disunity, fragmenting civil solidarity to the extent that material differences in power and wealth are not legitimized according to the dominant social norms that govern social strategic interaction. Thus, Thrasymachus rearing his ugly head is a symptom of social dislocation and illegitimacy, rather than being the ontologically primary condition of social life.

Alexander's exegesis is a thick description of historicalj social dynamics, from the holocaust to the civil rights and women's movements in the United States. While his hostility to the reduction of social exchange to disputes of the distribution of power and wealth, it remains true that a healthy civil sphere cannot thrive where inequality of opportunity is widespread, because in such circumstances, the relatively dispossessed are perforce \\"outsiders,\\" who can but gain by breaking the lines of social solidarity in the civil sphere. In my estimation, the poor in the world, and even the relatively poor in the United States, would do better to have a better instrument of contestation, even if it did threaten the civil sphere. The normative value of the civil sphere depends on a considerable degree of social equality in economic and political life-chances, and disturbing the cozy \\"we are all one\\" of the civil sphere is a moral duty, I believe, in the face of injustice. Alexander of course agrees. In the good society, master

and servant relate in the solidarity of the civil sphere, and to an amazing extent we have achieved this condition in the United States, but certainly not completely. There remains room for social movements for inclusion in the civil sphere. In the developing countries, the emergence of a healthy civil sphere remains a task for future generations.

Alexander's style of thought is similar to that of such great sociological thinkers as Durkheim, Parsons, and Habermas (especially the latter), but this style of thought is somewhat foreign to the other behavioral disciplines (economics, psychology, anthropology, biology), although it has parallel presence in political science (e.g., de Tocqueville). Alexander's analysis is akin to policy recommendation in economics--not the sort that deals with day-to-day macroeconomic regulation or trade policy, but rather the sort that urges economies to adopt certain basic institutions and to have a vision of the harmonious working of a particular articulation of state and market, under the aegis of a complementary social philosophy to which all parties attest.

The weakness of Alexander's argument lies in his inability to offer strong support for his \\"anti-Thrasymachus\\" position. One could argue that he is preaching to the choir, because he offers no concrete proof that people are really motivated by moral ideals and altruistic solidarity, as opposed to this being a façade masquerading brutal self-interest. For economists, of course, self-interest was identified with rationality until recent years, and biologists still have great difficulty in dealing with human altruism. Other-regarding preferences were virtually ignored until recently in both economics andbiology, although they are standard fare in anthropology, sociology, and social psychology. In economics, the notion that enlightened self-interest allows individuals to cooperate in large groups goes back to Bernard Mandeville's \\"private vices, public virtues\\" (1705) and Adam Smith's \\"invisible hand\\" (1759). The great economist Francis Ysidro Edgeworth considered self-interest \\"the first principle of pure economics\\" (1925). In biology, the selfishness principle has been touted as a central implication of rigorous evolutionary modeling. In The Selfish Gene (1976), for instance, Richard Dawkins asserts \\"We are survival machines---robot vehicles blindly programmed to preserve the selfish molecules known as genes... Let us try to teach generosity and altruism, because we are born selfish.\\" Similarly, in The Biology of Moral Systems (1987), R. D. Alexander asserts that \\"ethics, morality, human conduct, and the human psyche are to be understood only if societies are seen as collections of individuals seeking their own self-interest.\\" More poetically, Michael Ghiselin (1974) writes: \\"No hint of genuine charity ameliorates our vision of society, once sentimentalism has been laid aside. What passes for cooperation turns out to be a mixture of opportunism and exploitation. ...Scratch an altruist, and watch a hypocrite bleed.\\"

Of course, most sociologists rather dramatically disagree with this depiction of human nature, but until recently, we lacked evidence supporting the sociological view. Two major theoretical developments, however, have virtually destroyed the scientific arguments in favor of the model of human behavior as fundamentally selfish. These developments are compatible with views other than Alexander's, but they effectively undercut the major \\"received wisdom\\" critiques of his analysis.

The first of these developments is the characterization of human nature as the product of a long-term dynamic of gene-culture coevolution. The centrality of culture and complex social organization to the evolutionary success of H. sapiens implies that individual fitness in humans depends on the structure of social life. Since culture is limited and facilitated by human genetic, it follows that human cognitive, affective, and moral capacities are the product of an evolutionary dynamic involving the interaction of genes and culture. This is gene-culture coevolution (Cvalli-sforza and Feldman 1982; Boyd and Richerson 1985; Dunbar 1993; Rricherson and Boyd 2004). This coevolutionary process has endowed us with preferences that go beyond the self-regarding concerns emphasized in traditional economic and biological theory and embrace a social epistemology facilitating the sharing of intentionality across minds, as well as such non-self-regarding values as a taste for cooperation, fairness, and retribution, the capacity to empathize, and the ability to value honesty, hard work, piety, toleration of diversity, and loyalty to one's reference group.

Gene-culture coevolution is the application of sociobiology, the general theory of the social organization of biological species, to species that transmit culture without informational loss across generations. An intermediate category is niche construction, which applies to species that transform their natural

environment to facilitate social interaction and collective behavior (Odling-smee, Laland, and Feldman 2003).

To understand gene-culture coevolution, we begin by noting that the genome encodes information that is used both to construct a new organism and to endow it with instructions for transforming sensory inputs into decision outputs. Because learning is costly and error-prone, efficient information transmission ensures that the genome encodes all aspects of the organism's environment that are constant or that change only slowly through time and space. By contrast, environmental conditions that vary rapidly can be dealt with by providing the organism with the capacity to learn.

There is an intermediate case, however, that is efficiently handled neither by genetic encoding nor by learning. When environmental conditions are positively but imperfectly correlated across generations, each generation acquires valuable information through learning that it cannot transmit genetically to the succeeding generation because such information is not encoded in the germ line. In the context of such environments, there is a fitness benefit to the transmission of epigenetic information concerning the current state of the environment.Such epigenetic information is quite common (Jablonka and Lamb 1995) but achieves its highest and most flexible form in cultural transmission in humans and to a considerably lesser extent in other primates (Bonner 1983; Richerson and Boyd 1998). Cultural transmission takes the form of vertical (parents to children), horizontal (peer to peer), and oblique (elder to younger), as explained in (Cavalli-sforza and Feldman 1981), and prestige (higher status influencing lower status), as described in Henrich and Gil-White (2001).

The parallel between cultural and biological evolution goes back to Huxley (1955), -whiten-laland06} for details. The idea of treating culture as a form of epigenetic transmission was pioneered by Richard Dawkins, who coined the term \\"meme\\" in The Selfish Gene (1976) to represent an integral unit of information that could be transmitted phenotypically. There quickly followed several major contributions to a biological approach to culture, all based on the notion that culture, like genes, could evolve through replication (intergenerational transmission), mutation, and selection.

Gene-culture coevolution allows us to explain why humans have other-regarding preferences, why we care intrinsically about such character virtues as honesty, loyalty, honor, and courage, why we sacrifice to help others, and why we have such prosocial emotions as empathy, shame, guilt, and self-esteem. It is important to note that these are not just luxuries indulged in by the relatively well-off. Rather, they are embraced in virtually all communities, rich and poor alike (Banerjee and Duflot 2008).

The second theoretical development is behavioral game theory, in which game-theoretic categories are used as methodological underpinnings of empirical studies of human behavior (Gintis, Bowles, Boyd, and Fehr 2003). These studies have shown incontrovertibly both that people generally have a variety of prosocial other-regarding preferences and moral standards that they try to satisfy even when it is otherwise costly to do so, and that these preferences satisfy the economist's traditional criteria for rational choice. These results show that moral, prosocial, and other-regarding preferences are built into the structure of preferences, so the ancient dichotomy between \\"material\\" and \\"moral\\" payoffs cannot be maintained. There is a unity to human choice, in which people ineluctably trade off among altruistic and self-regarding goals.

The rationality of altruism and morality discovered using behavioral game theory, by the way, solves a central problem of Parsonian sociology: the so-called \\"oversocialized\\" actor in Parsons' model. Because Parsons separated action into material and moral, the former governed by economic theory and the latter by sociology, he had no analytical instrument for expression the limitations of moral training. Thus, if one is socialized to behave honestly, according to Parsons, one will do so no matter what the \\"material\\" cost. However, we now know that people value honesty along with material reward and will trade off between them: the more costly it is to be honest, the more likely it is that individuals will behave dishonestly.

I hope the reader will excuse this long detour into social theory. I defend myself by noting that these two recent theoretical innovations, with widespread empirical support, will allow for a more methodical development of Alexander's notion of the civil sphere, and might also give us some insight into the social conditions under which we might expect a civil sphere to emerge in a given society.sapiens implies that individual fitness in humans depends on the structure of social life. Since culture is limited and facilitated by human genetic, it follows that human cognitive, affective, and moral capacities are the

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Social Mechanisms: An Analytical Approach to Social Theory (Studies in Rationality and Social Change)

A Call to Arms — Rating: 3/5

Peter Hedström and Richard Swedberg are prominent sociologists who have put together an edited volume including several other prominent sociologists. The papers derive from a symposium held in Stockholm in 1996, and is dedicated to James Coleman and Robert Merton. The former is a representative of \\"grand theorizing\\" and the latter \\"middle-level theorizing,\\" thus revealing a central ambiguity in the volume.

Hedström and Swedberg's introductory essay fall squarely in the middle-level theorizing camp, and describes a \\"social mechanism\\" as a process of beginning with a macro phenomenon with micro implications, followed by a causal process on the micro level that leads to a new micro level, followed finally by a macrosocial change that reflects the microsocial situation. The \\"enemy\\" in this endeavor are sociological models that simply work out statistical associations, such as the famous path analysis of O. D. Duncan that inspired generations of labor market and social stratification researchers.

Following Hedström and Swedberg, Thomas Schelling and Jon Elster make eloquent cases for using social mechanisms. This is not difficult for them, as they have been major contributors, including Schelling's model of neighborhood racial segregation and Elster's model of \\"sour grapes.\\" Timur Kuran, another major contributor to the social mechanisms approach, also supplies a nice chapter.

But, is this really \\"an analytical approach to social theory?\\" These researchers have given us some great models with deep and surprising insights, but is there no general sociological theory?

My own take on this is that Talcott Parsons made an immensely insightful but flawed attempt at providing a general model for sociological theory, but this was rejected by the profession, and nothing was substituted for it. This is a tragedy that I struggle to understand. Why did Parsons not do a better job (he was very smart and accurately appraised the intellectual situation at the time), and why did other sociologists (such as his eight coauthors in Towards and General Theory of Action) not take up the baton rather than being either sycophants or enemies of the whole project?

For whatever reason, sociologists have not come forth with an alternative. Middle-level social theory is great as far as it goes, but middle-level is inherently ambiguous and shakey unless grounded in higher-level social theory. The less than exalted position of Sociology among the behavioral sciences, and especially its weakness when compared to economic or biological theory, is due precisely to its lack of a powerful general framework within which \\"middle-level\\" models operation synergistically to build up a general picture of society.

One quite marvelous essay in this volume directly addresses what passes for Grand Theory in contemporary sociology. Axel van den Berg analyzes Habermas, Bourdieu, Giddens, and Alexander, whom he considers the leading grand theorists of our age. Habermas, like many Continental philosophers/social theorists, seeks an interpretive model of society rather than an explanatory/predictive model. This is completely unacceptable from a scientific standpoint. I love Habermas, but he is about as much a scientist as a good cook is a chemist; i.e., not at all. That sociologists take Habermas as a social theorist is symptomatic of the weakness of sociological theory as a scientific discipline.

Van den Berg's treatment of Bourdieu is iconoclastic and devastating. Bourdieu figured out early in his career that the French public likes smoke and mirrors rather than real science, but also respected the power of science. So Bourdieu combined massive statistical data analysis with smoke and mirrors social theory. Everything Bourdieu says is either common sense, impenetrable nonsense, or common sense

framed as impenetrable nonsense. Many intellectuals believe that if a theorist is comprehensible, he cannot be very insightful, and this sentiment is prevalent in France and Germany to a degree that theoretical hopefuls in other countries could only dream about. Academic success in these countries often takes the form of wrapping triviality in obtuse verbosity---Lacan and Latour are only the most egregious examples of this. Why American sociology could possibly place credence in Bourdieu vaporware is beyond me.

Van de Berg's treatment of Giddens is also quite cogent. Giddens is a lucid writer with fine sociological insights. But, despite his promotion of \\"structuration,\\" he has nothing to offer as a Grand Theorist.

I think the most constructive and insightful paper in this book is Raymond Boudon's \\"Social Mechanisms without Black Boxes.\\" Boudon is handicapped, as are virtually all sociologists, by the notion that the rational actor model implies that actors have self-regarding preferences. For instance, Boudon claims that the rational actor model implies that voting is irrational, since a single vote affects the outcome of an election with near-zero probability. Similarly, he claims that rejecting a positive offer in the ultimatum game is \\"irrational.\\" This is simply not the case. If people like to vote, because they believe it is the proper behavior of a good citizen, then voting appears in the agent's preference function, and the individual will trade off between voting and accomplishing other personal goals can be made on irrational grounds. If people care about being treated fairly, then there is nothing \\"irrational\\" about rejecting unfair offers in the ultimatum game.

It is about time sociologists stopped perpetrating the myth that rational behavior precludes costly prosocial behavior. Much of what Boudon says in critiquing the rational actor model is just wrong. Valuing the welfare of others, or valuing the human character virtues (honesty, loyalty, etc.) for their own sake, is perfectly compatible with the rational actor model. However, Boudon proposes a new model, which he call the \\"cognitivist model,\\" that is eminently reasonable, but is either the rational actor model, or a strengthening of the model in particular areas (e.g., imposition of conditions on beliefs so that rationality is stronger than Bayes' rule).

Admitting the centrality of the rational actor model in a theory of action would have monumental and salutary implications for sociological theory, and would reward skills (especially mathematical skills) that are currently in short supply among sociologists. This is the task of the current generation of sociologists.in France and Germany to a degree that theoretical hopefuls in other countries could only dream about. Academic success in these countries often takes the form of wrapping triviality in obtuse verbosity---Lacan and Latour are only the most egregious examples of this. Why American sociology could possibly place credence in Bourdieu vaporware is beyond me. Van de Berg's treatment of Giddens is also quite cogent. Giddens is a lucid writer with fine sociological insights. But, despite his promotion of \\"structuration,\\" he has nothing to offer as a Grand Theorist. I think the most constructive and insightful paper in this book is Raymond Boudon's \\"Social Mechanisms without Black Boxes.\\" Boudon is handicapped, as are virtually all sociologists, by the notion that the rational actor model implies that actors have self-regarding preferences. For instance, Boudon claims that the rational actor model implies that voting is irrational, since a single vote affects the outcome of an election with near-zero probability. Similarly, he claims that rejecting a positive offer in the ultimatum game is \\"irrational.\\" This is simply not the case. If people like to vote, because they believe it is the proper behavior of a good citizen, then voting appears in the agent's preference function, and the individual will trade off between voting and accomplishing other personal goals can be made on irrational grounds. If people care about being treated fairly, then there is nothing \\"irrational\\" about rejecting unfair offers in the ultimatum game. It is about time sociologists stopped perpetrating the myth that rational behavior precludes costly prosocial behavior. Much of what Boudon says in critiquing the rational actor model is just wrong. Valuing the welfare of others, or valuing the human character virtues (honesty, loyalty, etc.) for their own sake, is perfectly compatible with the rational actor model. However, Boudon proposes a new model, which he call the \\"cognitivist model,\\" that is eminently reasonable, but is either the rational actor model, or a strengthening of the model in particular areas (e.g., imposition of conditions on beliefs so that rationality is stronger than Bayes' rule). Admitting the centrality of the rational actor model in a theory of action would have monumental and salutary implications for sociological theory, and would reward skills (especially mathematical skills) that are currently in short supply among sociologists. This is the task of the current generation of sociologists.

Chaos of Disciplines

Old Wine in Chaotic Bottles — Rating: 2/5

The title is great and the art work on the cover is stunning. The author takes commonplace ideas, the most important of which is that there are perennial dichotomies in some social science disciplines, and we can arrive at a virtually continuous distribution of viewpoints by successive division of a subdivision, and hitches them to the sexy notion of chaos and self-similarity.

The problem is that the analogy with chaotic dynamics is just too tendentious and far-fetched to bear any theoretical weight. Abbot never shows that there are more than two levels of dichotomization or self-similarity. This is not chaos, but rather a grid with a few cells.

Abbott's remarks on the structure of social science disciplines is descriptively accurate, has nothing to do with chaos, but is not at all enlightening. His analysis of interdisciplinarity is trivial. He appears to know sociology, but not the other disciplines.

The most interesting chapter is a review of the history of social constructivism in sociology. The American roots of this congeries of doctrines goes back to the pragmatism of George Herbert Mead and John Dewey, elaborated brilliantly by W. I. Thomas and Robert Park, all of the Chicago school. In Europe, the roots lie in the amazingly insightful work of Alfred Schutz, combining Husserlian phenomenology and Weberian sociology. In the USA, Berger and Luckmann brilliantly combined the American and European contributions, giving us one of the most important contributions of sociology to general social theory. Schutz also influenced Harold Garfinkel's ethnomethodology and Erving Goffman's symbolic interactionism. Abbott's main point is that social constructivism reappears regularly in sociology at about 20 year intervals, but is then quashed by some form of realistic reaction, only to reappear again. This of course has nothing to do with chaos--the old pendulum analogy works perfectly well here.

This is an aside, but I cannot refrain from remarking how truly tragic this history of social constructivism is, and how nicely it reflects the theoretical vapidity of sociological theory. A correct theory of the interaction of individual agency and social structure (e.g., as adumbrated in the life-work of Talcott Parsons and develop in game-theoretic terms in my book, The Bounds of Reason) exhibits a natural harmony of realism (the division of labor, the production of daily life, the specification of our species characteristics through gene-culture coevolution) and social construction (the communality of beliefs, knowledges, and ideational representations through cultural systems). I argue that we share certain beliefs because they are mutually accessible natural occurrences, but other shared beliefs are purely socially constructed, although their temporal permanence and their capacity to displace competing beliefs are governed by an analytically accessible dynamic akin to the replicator dynamic in evolutionary theory.

Sociology will forever be doomed to cycles of realism and constructivism until theorists reestablish the Parsonian quest for a unified basis for sociology. Parsons himself was far from completely successful, but I think his pattern variables are very useful for defining the boundaries between economics (adaptation) and sociology (integration). This conceptual scheme is a great step beyond his attempts in The Structure of Social Action, which relied on a questionable set of epistemological categories inherited with modification from Pareto.

Abbott's attempts at extrapolating to the future, and at dealing with ethical issues, are perfunctory and desultory.

This book is better than post-modernism, but not much. It is post-modernism without the burning anti-science agenda.ragic this history of social constructivism is, and how nicely it reflects the theoretical vapidity of sociological theory. A correct theory of the interaction of individual agency and social structure (e.g., as adumbrated in the life-work of Talcott Parsons and develop in game-theoretic terms in my book, The Bounds of Reason) exhibits a natural harmony of realism (the division of labor, the production of daily life, the specification of our species characteristics through gene-culture coevolution) and social construction (the communality of beliefs, knowledges, and ideational

representations through cultural systems). I argue that we share certain beliefs because they are mutually accessible natural occurrences, but other shared beliefs are purely socially constructed, although their temporal permanence and their capacity to displace competing beliefs are governed by an analytically accessible dynamic akin to the replicator dynamic in evolutionary theory. Sociology will forever be doomed to cycles of realism and constructivism until theorists reestablish the Parsonian quest for a unified basis for sociology. Parsons himself was far from completely successful, but I think his pattern variables are very useful for defining the boundaries between economics (adaptation) and sociology (integration). This conceptual scheme is a great step beyond his attempts in The Structure of Social Action, which relied on a questionable set of epistemological categories inherited with modification from Pareto. Abbott's attempts at extrapolating to the future, and at dealing with ethical issues, are perfunctory and desultory. This book is better than post-modernism, but not much. It is post-modernism without the burning anti-science agenda.

Inside the Investor's Brain: The Power of Mind Over Money

An Awesome Synthesis — Rating: 4/5

Richard L. Peterson, Inside the Investor's Brain: The Power of Mind over Money (Wiley 2007).

Richard Peterson is a medical doctor with a residency in psychiatry, and with postgraduate training in neuroeconomics from Stanford University. He is a former stock trader, Associate Editor of The Journal of Behavioral Finance, a high-level professional economics journal. He also runs a hedge fund based on the principles laid down in this book. It would be hard to find someone better credentialed to give investment advice.

This a self-help book for people who are scientifically minded, care about managing their finances better, and are beyond the obvious, but most important, issues, such as paying the rent or mortgage on time, avoiding credit card debt, and treating Las Vegas or the state lottery as the wise man's preferred risk management strategy. The book is completely chocked with good ideas based on solid fact, and is nevertheless pleasant and enjoyable reading.

Peterson tells you right from the start the basics of investing: (a) if it sounds too good to be true, it probably is; (b) aggressive investing (churning your portfolio) is good for your broker and bad for you---pick a portfolio and then let it do its job without daily monitoring and stock switching; (c) if you think you can beat the market because you are lucky, smart, high-testosterone, physically attractive, blessed by God, or what have you, you are really just a sucker; (d) unless you have some special information (and that does mean a stock tip from your nephew in the pharmaceutical industry), stick with low overhead mutual funds and government/corporate bonds---read the prospectus to make sure there are no up front or back-loaded charges, and the yearly service charge is very, very small (expense ratio below 0.2%); (e) money that you might need in the next ten years should be put in bonds, the rest in stocks---older investors should have their retirement needs met by fixed return instruments, such as pensions, social security, and interest from bonds.

If you think anything I said in the previous paragraph is incorrect, you are a sucker and you will most likely lose money. If you follow all of the above principles, you are a wise investor, and you will make money. It is just that simple.

If you believe me, and you can actually follow this advice, you really don't need to read Peterson's book, although you may find it interesting on purely intellectual grounds. If you are a sucker, as defined above, you won't benefit from this book, but then again, you won't have gotten this far in this review, either.

Who, then, is this book for? First and foremost, it is for someone who has an open mind, does not accept uncritically my investment advice above, but is willing to be persuaded by the facts. Peterson presents all the fact you will ever need. Second, you may believe I am basically correct, but the existence of so many multi-millionaire \\"smart traders\\" suggests that there may be a \\"sixth sense\\" or a set of behavioral characteristics that allows their owners consistently to beat the market. Peterson believes there is, and he tries to show you how to develop them in this book. The three most important principles

he offers are (a) if you know that lots of traders are emotionally biased in one direction, you can make money by betting on the other direction; (b) the market tends to overreact to short-term movements, and you can gain by overreacting in the other direction; and (c) if you can come to understand and correct you own emotional and behavioral weaknesses, you at least stand a chance of beating the market. As to how you come to pick future winners, I do not know, and Peterson does not explain. He talks of \\"intuition,\\" \\"hunches\\", and the like. I am not convinced there is really anything there.

The behavioral economics explained in this book is very interesting in its own right, and Peterson isa wonderful teacher, always getting to the heart of the issue, and neither over- nor under-selling a particular point. As for the neuroscience in the book, it is flashy and impressive, but I think it is just window dressing.issue, and neither over- nor under-selling a particular point. As for the neuroscience in the book, it is flashy and impressive, but I think it is just window dressing.

Beyond the Market: The Social Foundations of Economic Efficiency

Preaching to the Sociological Choir — Rating: 2/5

Jens Beckert writes intelligently and lucidly, never hiding weakness of conception behind a flurry of big, vague words. Beckert is also respectful of the reader, never leaving in doubt exactly where is stands in the course of his argument. Beckert's task, reformulating and respecifying economic sociology, is high theory, however, and contemporary sociology is devoid of high theory. This leaves Beckert with little to work with, filling the bulk of this book with rehashes of the work of Durkheim, Parsons, and Giddens, and relegating his alternative framework to the final ten pages of the book.

Beckert's alternative is a version of the embedded markets position so ably developed by Granovetter (1985), as well as Beckert's mentors in the Princeton sociology department. This approach has led to excellent analyses of real-live markets that should be read by all economic theorists and policy-makers. However, this approach does not pretend to be general sociological theory, and it is an important supplement to, not alterative to, traditional economic analysis.

The embedded markets approach is has interesting lessons for the interrelations among the behavioral disciplines. Sociological theorists have been perennially preoccupied with the question of the appropriate boundary-line between economics and sociology. Virtually every sociological theorist (except James Coleman and friends) include the rejection of the \\"utilitarian\\" model of economic theory. Granovetter calls the economist's rational actor \\"undersocialized,\\" and sees sociology as providing a better-socialized actor. On the other hand, Granovetter joins the herd in considering the traditional sociological model, that of Talcott Parsons' theory of action, as \\"oversocialized.\\" (Wrong 1961) Granovetter defines the proper actor for economic sociology as striking the balance between over- and -undersocialization. In fact, Granovetter's actor engages in repeated games with other, monitoring their activities, and using the threat of non-renewal to ensure contract compliance in situations where the complete contracts of Walrasian economic cannot be written or enforced.

The interesting thing about the actor of embedded markets theory is that he is simply a rational actor involved in repeated games. Thus, Granovetter (1985) is proposing a shift from Walrasian economics to game theory, which is exactly what economists were carrying out in this period (e.g., the famous Fudenberg, Levine, Maskin paper of 1994). Embedded markets theory is, in fact, perfectly compatible with modern economic theory, and certainly not an alternative to it. The ability of sociologists in this tradition to deepen our understanding of such markets through historiographic and highly descriptive studies is an important complement to economic theory, but certainly not an alternative. This causes deep problems for Beckert, who consistently criticizes the rational actor model, while in fact never deviating from it in any significant way, except for avoided any mathematical formulation of it.

It follows that the notion that embedded markets theory is an alternative to the general equilibrium model is untenable, because it is completely non-quantitative, and deals with a single market at a time. By contrast, general equilibrium theory can be used to model real economic activity, and supplies insights as to why market economies tend to aggregate individual activities into a relatively efficient overall system. This is not to say that there are not severe problems with Walrasian theory---there are.

Most important (not mentioned by Beckert), the theory has no serious dynamics, and provides not a clue how prices move to their equilibrium levels. Beckert trots out several of the usual critiques of general equilibrium theory, but he seems never to have heard of the vast body of economic theory developed in the post-WW II era, to deal with market externalities and volatility, nor hasheard of the theory of the second best. The notion that embedded markets theory can provide a policy alternative to this body of research is patently absurd.

Beckert is in fact preaching to the choir---the choir of sociologists who do not do theory, who do not like theory, who are deeply scared of mathematical models, and therefore who welcome a critique of economic theory, however ineffective. Also pleasing to these folks is the fact that Beckert is incessantly critical of economic theory, but is never critical of sociological theory (he does treat individual sociologists critically).

There is not an equation in the book, there is barely a reference to a formal analytical model, and Beckert's alternative, which rejects the rational actor model, explicitly rejects formal modeling: \\"deserting the action model of homo economicus also leads to the far-reaching abandonment of the possibilities of formalization that result from the equilibrium view of economic theory." (p. 295) Talk about bizarre! Does Beckert really imagine that we should give up quantitative modeling of economic activity because markets are embedded?

Beckert has a short but fairly informative critique of the repeated game theory of cooperation. He concludes that it fails to explain cooperation because it assumes perfect signaling. He does not mention that imperfect public signaling was handled by Fudenberg, Maskin, and Levine in 1994. The case of private signals is much more difficult, and the proper critique of the Folk Theorem is in terms of private signals, I believe. But Beckert never heard of private signaling, apparently.

Like most sociologists, Beckert does not like the rational actor model and, as illustrated in the previous paragraph, counsels its abandonment. This is also bizarre, because the rational actor models is quite compatible with embedded markets theory. Beckert's arguments, like that of most critics of the rational actor model, are shoddy and ignorant. He does not really understand Bayesian choice theory, which leads him to reject rational choice when \\"probabilities are unknown.\\" Of course, Bayesian priors do not depend on objective priors, so there is no problem. Beckert argues that individual attitudes toward risk and assessment of probability are not individual, but rather are social. This is very true, and it is an important insight that could possibly be turned into a powerful model of social risk-taking, but surely not by rejecting the rational actor model!

Beckert's intermediate chapters are expositions of the sociology of Durkheim, Parsons, Luhmann, and Giddens. He does a very good job, and provides excellent bibliographies. His critiques are however, standard and not very insightful. For instance, after a fine exposition of Parsons' later work (Economy and Society and later), his criticism is a repeat of the \\"oversocialized conception of the actor\\" (Wrong, 1961; Garfinkel, 1967; etc.) This criticism is accurate but does not invalidate Parsons' insights; rather, it suggests that there are principles at work other than socialization that determine individual beliefs and preferences. This is not a sufficient ground for rejecting Parsons' theory of action.

This book was published in 2002, and written between 1994 and 1995, which perhaps explains the complete absence of reference to experimental economics and behavioral game theory. This fact, however, renders his critique of the rational actor model completely obsolete. What is now known as \\"other regarding behavior\\" or \\"virtuous behavior\\", Becker calls \\"irrational behavior.\\" Of course, economists have traditionally be guilty of confusing these notions, but even by the year 2000, every economist had learned the difference between irrationality and non-self-regarding preferences. Curiously, Beckert rejects other-regarding behavior as any more than a curiosum, and fully embraces a self-regarding action framework (perhaps because this is compatible with the embedded markets position). Similarly, he denies that the internalization of norms is important for economic sociology, and his critique of this concept is just philosophical drivel. The fact is, internalization is not needed for embedded markets theory, so why bother including it in the sociologist's repertoire?

Sociologists have got to get real. Rejecting game theory and the rational actor model is precisely why sociological theory does not exist. The only real reason sociologists do not accept these tools is that they are hard to learn and they involve a lot of math. The economist's rational actor model is surely too simple in many ways to deal with complex interpersonal interactions. Most important, people are not

always selfish, beliefs are not purely subjective, but rather are shared among individuals, and even preferences are not individually given, but rather are a function of social situation (framing). All of these three facts are critical to understanding human strategic interaction in cooperation and conflict. These facts complicate the model of individual human behavior, and will require even deeper and more powerful mathematical tools, not their abandonment.

Similarly, there are deep problems with traditional game theory, and sociological theory, especially the theory of norms is likely to be a critical theoretical tool in repairing the weakness of game theory, but the knee-jerk instinct of sociologists to reject game theory is a major reason for the impotence of sociological theory today. Game theory is not everything, but it surely part of a total theory.e theory, which leads him to reject rational choice when \\"probabilities are unknown.\\" Of course, Bayesian priors do not depend on objective priors, so there is no problem. Beckert argues that individual attitudes toward risk and assessment of probability are not individual, but rather are social. This is very true, and it is an important insight that could possibly be turned into a powerful model of social risk-taking, but surely not by rejecting the rational actor model! Beckert's intermediate chapters are expositions of the sociology of Durkheim, Parsons, Luhmann, and Giddens. He does a very good job, and provides excellent bibliographies. His critiques are however, standard and not very insightful. For instance, after a fine exposition of Parsons' later work (Economy and Society and later), his criticism is a repeat of the \\"oversocialized conception of the actor\\" (Wrong, 1961; Garfinkel, 1967; etc.) This criticism is accurate but does not invalidate Parsons' insights; rather, it suggests that there are principles at work other than socialization that determine individual beliefs and preferences. This is not a sufficient ground for rejecting Parsons' theory of action. This book was published in 2002, and written between 1994 and 1995, which perhaps explains the complete absence of reference to experimental economics and behavioral game theory. This fact, however, renders his critique of the rational actor model completely obsolete. What is now known as \\"other regarding behavior\\" or \\"virtuous behavior\\", Becker calls \\"irrational behavior.\\" Of course, economists have traditionally be guilty of confusing these notions, but even by the year 2000, every economist had learned the difference between irrationality and non-self-regarding preferences. Curiously, Beckert rejects other-regarding behavior as any more than a curiosum, and fully embraces a self-regarding action framework (perhaps because this is compatible with the embedded markets position). Similarly, hedenies that the internalization of norms is important for economic sociology, and his critique of this concept is just philosophical drivel. The fact is, internalization is not needed for embedded markets theory, so why bother including it in the sociologist's repertoire? Sociologists have got to get real. Rejecting game theory and the rational actor model is precisely why sociological theory does not exist. The only real reason sociologists do not accept these tools is that they are hard to learn and they involve a lot of math. The economist's rational actor model is surely too simple in many ways to deal with complex interpersonal interactions. Most important, people are not always selfish, beliefs are not purely subjective, but rather are shared among individuals, and even preferences are not individually given, but rather are a function of social situation (framing). All of these three facts are critical to understanding human strategic interaction in cooperation and conflict. These facts complicate the model of individual human behavior, and will require even deeper and more powerful mathematical tools, not their abandonment. Similarly, there are deep problems with traditional game theory, and sociological theory, especially the theory of norms is likely to be a critical theoretical tool in repairing the weakness of game theory, but the knee-jerk instinct of sociologists to reject game theory is a major reason for the impotence of sociological theory today. Game theory is not everything, but it surely part of a total theory.

Mathematical Models of Social Evolution: A Guide for the Perplexed

A Pedagogical Tour de Force — Rating: 5/5

Robert Boyd is a professor of anthropology at UCLA, and McElreath is his former student, now professor of Anthropology at UC Davis. Boyd, together with Peter Richerson, were early contributors to

a dynamic (and correct, I believe) version of sociobiology known as gene-culture coevolution. The theory developed in this book is relevant for anyone interested in social behavior, whether they are biologists, anthropologists, or have their training in another behavioral discipline.

I have written an extended review for the journal Evolutionary Psychology, which should appear in the year 2008.

Natural Goodness

A Welcome Respite from Traditional Ethical Theory — Rating: 4/5

Traditionally, economic theory has taken rational individuals to be self-regarding and consequentialist. That is, economic actors have been treated as caring only about the private gain afforded by a transaction. We now know from experiment that this characterization is incorrect. Individuals have other-regarding concerns (e.g., empathy, altruistic cooperation, altruistic punishment), and care about ethical aspects of strategic interaction (e.g., honesty, trustworthiness, considerateness). There remain many researchers (especially economists, biologists, and mathematicians) who cannot conceive of this behavior as either the product of error or enlightened long-term self-regard, but this view is, in my opinion, clearly incorrect.

With what do we with the traditional economic model of the rational individual? Ultimately, we would like to replace the current set of equations that characterize rational choice with another set of equations that do a better job at predicting behavior. This alternative is, however, only a distant dream. For the present, we need a general, qualitative notion of the human subject that guides research activity. Because philosophers have thought about this issue for a long time, it is worthwhile inspecting their general conclusions.

Of course, there are problems with taking the view of philosophers concerning human behavior seriously, for rather than collecting and analyzing a body of data using the scientific method, they invariable depend upon carefully chosen anecdotes. But, the plural of anecdote, as the saying goes, is not data. Moreover, philosophers carry on interminable conversations with one another, rarely taking into account scientific research, some of which could be of great interest in advancing philosophical ideas.

Most of 20th century moral philosophy was deeply influenced by G. E. Moore's analysis of the \\"naturalistic fallacy\\" (Principia Ethica, 1903), according to which claims about ethics cannot be cannot draw upon \\"natural\\" evidence, including the social or individual effects of alternative forms of behavior. This anti-naturalism led to subjectivist, non-cognitive, moral theories, including emotivism, prescriptivism, and expressivism, that have little value for the scientific study of human behavior.

Philippa Foot's naturalistic ethics is a welcome relief from moral subjectivism. Homo sapiens is a species, she says, and every species has a characteristic set of qualities that are required for its flourishing as a species, and exhibiting these qualities define the good for members of this species. For instance, a good oak tree has firm roots, a good deer is fleet of foot, a good mother sacrifices for her offspring, a good wolf participates in the hunt, and a good honey bee waggle-dances to indicate the location of a food source, and stings to defend the hive against intruders.

For humans, this naturalistic view translates into the notion that moral behavior is part of \\"practical reason,\\" on par with self-regarding motives and other non-moral objectives. According to this view, unless they are morally defective, individuals pursue the good, the right, and the just for the same reason that they pursue pleasure, security, and other self-regarding objectives---it is part of the practical rationality of the species to do so, and not doing so is the mark of a defective member of the species. Moreover, such a defect is a natural defect, on par with physical or mental defect.

Foot supplies no reasons why we are so constituted, or even why animals and plants are so constituted that only a minority of \\"defective\\" members fail to display the characteristics that are \\"good\\" for that species. Most deer are in fact fleet of foot, most rabbits are prolific breeders, most wolves participate in the hunt, most honey bees do the waggle dance, and most humans display at least a modicum of honesty, trustworthiness, consideration for others,courage, and parental care. The reason,

in the case of each species, is that this behavior is the product of biological evolution, and individuals who behaved otherwise were less fit and disappeared from the species. In the case of humans, gene-culture coevolution has ensured that most of us display the appropriate degree of practical reason, and we include ethical and other-regarding considerations in our calculations of what we most prefer to do in a given situation.

A key problem of moral theory is, having identified virtue, to explain why a rational individual should be virtuous. For most of the 20th century, economists considered virtue for virtue's sake to be \\"irrational.\\" One might be prudent in refraining from robbing, pillaging, raping, and murdering for personal pleasure, but in the absence of penalties, it would be irrational not to satisfy one's whims, whatever the implications for others. This view in philosophical circles is known as \\"immoralism.\\" In Books I and II of Plato's Republic, the immoralist Glaucon argues that most people consider injustice to be intrinsically superior to justice, and that the just are so only through expedience; were they sufficiently powerful, the just would abandon justice in favor of satisfying their personal whims and exercising their idiosyncratic prejudices. According to Glaucon, the life of the strong unjust man is the best life of all.

Socrates' answer to Glaucon is direct and simple: happiness resides in the \\"harmony of the soul,\\" not in the possession of wealth and power. In other words, it is part of our constitution as members of the species Homo sapiens that our self-worth and self-dignity is tied up with our moral character. Foot completely agrees with this view, and I think this should be the working hypothesis for the behavioral scientist working on the nature of human strategic interaction. The preference function of the rational actor includes other-regarding preferences and character virtues as well as the traditional self-regarding preferences of economic theory. Moreover, individuals are generally willing to trade off among these valued ends: when it becomes too costly to be honest, or courageous, individuals will be underhanded and cowardly. But, casual observation and empirical evidence indicates that most people are honest most of the time, and there enough courage to go around in most societies.

Foot laments the fact that there are defective individuals who in fact lead perfectly happy lives by exercising their beastly and anti-social proclivities, and applauds the fact that most evil-doers are justly punished. She does not mention, but it must be mentioned, that there are also beastly and defective societies, such as Hitler's Germany, Stalin's Russia, Mao's China, South Africa in the era of apartheid, and beastly individuals who prey on their society, such as Mugabe in Zimbabwe, and so on. But, this fact does not contradict the notion that individuals, unless defective, do good because this is the right thing to do.

It is uncanny how close Foot's account of morality is to a famous poem by Alice Cary, with my notes in brackets ([HG: ...]).

True worth is in being, not seeming, --

In doing, each day that goes by,

Some little good -- not in dreaming

Of great things to do by and by.

For whatever men say in their blindness,

And spite of the fancies of youth,

There's nothing so kingly as kindness,

And nothing so royal as truth.

[HG: The last two lines give the Socrates/Foot answer as to why immoralism is incorrect. We are kind and truthful because it is \\"kingly\\" and \\"royal\\" (i.e., intrinsically valued by humans) to do so.]

We get back our mete as we measure --

We cannot do wrong and feel right,

Nor can we give pain and gain pleasure,

For justice avenges each slight.

The air for the wing of the sparrow,

The bush for the robin and wren,

But always the path that is narrow

And straight, for the children of men.

[HG: The first four lines affirm that morality is part of practical reason, and the second four that character virtues for humans are akin to what is \\"naturally good\\" for other species.]

'Tis not in the pages of story

The heart of its ills to beguile,

Though he who makes courtship to glory

Gives all that he hath for her smile.

For when from her heights he has won her,

Alas! it is only to prove

That nothing's so sacred as honor,

And nothing so loyal as love!

[HG: The last two lines again give the Socrates/Foot answer as to why immoralism is incorrect]

We cannot make bargains for blisses,

Nor catch them like fishes in nets;

And sometimes the thing our life misses

Helps more than the thing which it gets.

For good lieth not in pursuing,

Nor gaining of great nor of small,

But just in the doing, and doing

As we would be done by, is all.

[HG: A life is successful if it is virtuous, however the vicissitudes of life confer material and social benefits on the individual.]

Through envy, through malice, through hating,

Against the world, early and late,

No jot of our courage abating --

Our part is to work and to wait.

And slight is the sting of his trouble

Whose winnings are less than his worth;

For he who is honest is noble,

Whatever his fortunes or birth.er virtues as well as the traditional self-regarding preferences of economic theory. Moreover, individuals are generally willing to trade off among these valued ends: when it becomes too costly to be honest, or courageous, individuals will be underhanded and cowardly. But, casual observation and empirical evidence indicates that most people are honest most of the time, and there enough courage to go around in most societies.

Foot laments the fact that there are defective individuals who in fact lead perfectly happy lives by exercising their beastly and anti-social proclivities, and applauds the fact that most evil-doers are justly punished. She does not mention, but it must be mentioned, that there are also beastly and defective societies, such as Hitler's Germany, Stalin's Russia, Mao's China, South Africa in the era of apartheid, and beastly individuals who prey on their society, such as Mugabe in Zimbabwe, and so on. But, this fact does not contradict the notion that individuals, unless defective, do good because this is the right thing to do.

It is uncanny how close Foot's account of morality is to a famous poem by Alice Cary, with my notes in brackets ([HG: ...]).

True worth is in being, not seeming, --
In doing, each day that goes by,
Some little good -- not in dreaming
Of great things to do by and by.
For whatever men say in their blindness,
And spite of the fancies of youth,
There's nothing so kingly as kindness,
And nothing so royal as truth.
[HG: The last two lines give the Socrates/Foot answer as to why immoralism is incorrect. We are kind and truthful because it is \\"kingly\\" and \\"royal\\" (i.e., intrinsically valued by humans) to do so.]
We get back our mete as we measure --
We cannot do wrong and feel right,
Nor can we give pain and gain pleasure,
For justice avenges each slight.
The air for the wing of the sparrow,
The bush for the robin and wren,
But always the path that is narrow
And straight, for the children of men.
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Whatever his fortunes or birth.

Nudge

Novel and Welcome, Scientifically Based Social Policy — Rating: 4/5

Richard Thaler, an economist at the University of Chicago School of Business, is one of the founders of modern behavioral economics, along with economists Amos Tversky and Daniel Kahneman. Cass Sunstein is a legal scholar at Harvard University, and has been at the forefront of applying the results of experimental economics to social problems, especially in the field of law.

This book has one Big Idea, and it is a very important one. The idea is called \\"status quo bias,\\" meaning that in many choice situations, people value the status quo (what they currently have), and will forgo the opportunity to switch to an alternative unless the alternative is significantly more attractive than the status quo. In situations where it is difficult to evaluate the exact benefits and costs of what one has over what one could only obtain with some conscious effort, people will tend to stick with what they have.

For example, in the United States, the default condition with respect to organ donation is \\"no donation,\\" so if people want to donate their organs upon death, they must explicitly state this preference. In France, the default condition is \\"donation,\\" and an individual who does not like this default condition must expressly indicate a desire not to donate. Consequently, the rate of organ donation is France is several times higher than it is in the United states.

While policies that exploit status quo bias may be called \\"paternalistic,\\" they cannot be said to violate individual rights, and in a democracy, many may be termed \\"self-disciplining\\" for most individuals. For instance, by law there is a little bell that rings incessantly in my car when someone has failed to attach a seat belt. I can easily disable this bell, but I welcome it as an aid to overcoming my inertia in enforcing automobile safety procedures.

The idea behind Nudge is that the choice of a default condition can both allow individuals to choose as they please in a democratic, market society, while at the same time improving social outcomes by providing default conditions that lead to socially useful choices. Thaler and Sunstein call this \\"libertarian paternalism.\\" While one might think that this minimal sort of market intervention can have only a limited impact on social outcomes, the organ donation example suggests otherwise. Perhaps the most important policy of this type would be a mandate that employers make contributions to retirement savings, in the form of 401(k) and other plans be the default, so that individuals who do not wish to save would have to register the desire to opt out of the plans. A related ideas developed in the book is that employees commit to saving a certain fraction of future raises they are awarded by employers, the idea being that it people do not want to reduce their \\"status quo\\" income in order to save, but they may be willing to accept a lower new \\"status quo\\" when the status quo changes. This is a very sensible idea.

The justification of the assumption that one default condition is preferable to another is generally the assertion that individuals are systematically prone to overstate the value of immediate gratification and understate the value of future payoffs. This is often called \\"hyperbolic discounting\\" in the literature, but the real issue is excessive present-orientation, which can occur just as easily with exponential, time consistent, preferences, as with hyperbolic, time-inconsistent preferences. For instance, making retirement saving the default can serve as a counter to the tendency to undersave, which is itself a response to the overvaluation of current as compared to retirement consumption. A second justification is the tendency for individuals to ignore low probability events, such as having an automobile accident. I consider the irritating bell sounding in my car a present pain that offsets the present pain of fastening

my seat belt, given that I cannot really experience the pain of great bodily injury with infinitesimal probability 0.00001.

A second sort of libertarian paternalism takes the form of having the government require firms reveal with clarity and salience the full terms of contractual agreement with consumers. For instance, the nutritional content of restaurant food might be required on the menu, or the precise interest rate on a mortgage might be required to be posted, or all the charges of a broker might be required to be itemized on a monthly statement. These measures are \\"paternalistic,\\" because if consumers were fully aware of the situation, they might demand this information from firms, and market competition would then lead to compliance. The role of the government in this situation would then be the more traditional one of enforcing \\"truth in advertizing\\"---firms are not allowed to misrepresent their offerings.

This form of social policy may also not be really paternalistic. If there are sufficiently high transactions costs, I may tolerate the restaurant's practice of not revealing nutritional content even though I would be willing to pay to have this information revealed, but I would not be willing to pay enough to offset the restaurant's revenue loss due to my eating smaller portions of healthier food. If my unwillingness to pay is due to my excessive present-orientation, and if I recognize this, I prefer the government regulation for myself.

Thaler and Sunstein, like other behavioral economics policy analysts, are widely criticized for their paternalism, which flies in the face of free market ideology. While some suspicion is warranted, the idea of a market economy with no governmental correctives is just a libertarian fantasy they people neither want, nor with which they could comfortably live. Policies of the sort discussed in this volume are a welcome addition to the policy-maker's toolbox.

Libertarian paternalism, of course, is not a panacea, and will not replace the price system as the central mechanism for allocating goods and services, and will not obviate the need for legislation that corrects market failures, such as the tendency for excessive energy use to undermine the natural environment, and perhaps even partially offsets such \\"human frailties\\" as the tendency towards undersaving and abusing illegal substances. However, libertarian paternalism is attractive as a first line of attack on even these problems, and should be part of the policy-maker's toolkit.probability 0.00001. A second sort of libertarian paternalism takes the form of having the government require firms reveal with clarity and salience the full terms of contractual agreement with consumers. For instance, the nutritional content of restaurant food might be required on the menu, or the precise interest rate on a mortgage might be required to be posted, or all the charges of a broker might be required to be itemized on a monthly statement. These measures are \\"paternalistic,\\" because if consumers were fully aware of the situation, they might demand this information from firms, and market competition would then lead to compliance. The role of the government in this situation would then be the more traditional one of enforcing \\"truth in advertizing\\"---firms are not allowed to misrepresent their offerings. This form of social policy may also not be really paternalistic. If there are sufficiently high transactions costs, I may tolerate the restaurant's practice of not revealing nutritional content even though I would be willing to pay to have this information revealed, but I would not be willing to pay enough to offset the restaurant's revenue loss due to my eating smaller portions of healthier food. If my unwillingness to pay is due to my excessive present-orientation, and if I recognize this, I prefer the government regulation for myself. Thaler and Sunstein, like other behavioral economics policy analysts, are widely criticized for their paternalism, which flies in the face of free market ideology. While some suspicion is warranted, the idea of a market economy with no governmental correctives is just a libertarian fantasy they people neither want, nor with which they could comfortably live. Policies of the sort discussed in this volume are a welcome addition to the policy-maker's toolbox. Libertarian paternalism, of course, is not a panacea, and will not replace the price system as the central mechanism for allocating goods and services, and will notobviate the need for legislation that corrects market failures, such as the tendency for excessive energy use to undermine the natural environment, and perhaps even partially offsets such \\"human frailties\\" as the tendency towards undersaving and abusing illegal substances. However, libertarian paternalism is attractive as a first line of attack on even these problems, and should be part of the policy-maker's toolkit.

The Shock Doctrine: The Rise of Disaster Capitalism

The Triumph of Desire over Reason — Rating: 2/5

In 1981, after the ruthless dictator Pinochet overthrew the democratically elected government of socialist Salvador Allende, free-market ideologue Friedrich von Hayek was interviewed by the Chilean newspaper El Mercurio. Hayek approved of Pinochet's brutal rule, saying \\"Personally I prefer a liberal dictator to democratic government lacking liberalism.\\" It is this (my example, not hers) and related opinions of free-marketers that draw the ire of Naomi Klein in this history of market liberalization attempts around the world in the past several decades. The Chilean case is among the more egregious attempts to thwart popular will, as the University of Chicago economics department, inspired by the anti-government diatribes of Milton Friedman, intentionally set up a situation in Chile where free market principles could be imposed rapidly and completely (this is the Shock Doctrine in title of Klein's book) upon the subdued masses.

Another horrible example of the Shock Doctrine is the International Monetary Fund's (IMF) catechism that a country in the throes of crisis must slash social welfare spending before it can be given financial aid. Just this week, a report in the New Scientist (26 July 2008) showed that the result of IMF policies, there is a strong positive association between IMF aid and the incidence of childhood tuberculosis, a sensitive bellwether of general public health and well-being.

Of course, these human rights violations of free-marketers pale before the gulags and mass starvations that mark the ministrations of the communist central planners, but Klein is certainly not of that ilk. She reveals her own sympathies towards the end of the book, when she remarks that \\"Democratic socialism, meaning not only socialist parties brought to power through elections but also democratically run workplaces and land holdings, has worked in many regions, from Scandinavia to the thriving and historic cooperative economy in Italy's Emilia Romagna region. It was a version of this combination of democracy and socialism that Allende was attempting to bring to Chile between 1970 and 1973.\\" (p.569)

Klein maintains that this form of democratic socialism is vastly generalizable, which accounts for the deep fear the free-marketers have of popular social initiatives. \\"Shock resistance,\\" she writes, \\"has spread to many other former shock victims---Chile, Bolivia, China, Lebanon. And as people shed the collective fear that was first instilled with tanks and cattle prods, with sudden flights of capital and brutal cutbacks, many are demanding more democracy and more control over markets. These demands represent the greatest threat of all to Friedman's legacy, because they challenge his most central: that capitalism and freedom are part of the same individual project.\\" (p. 565)

It would be nice if this were the case, but it most certainly is not. First, right wing free-marketers are a small group of ideologues that are treated with bemused contempt by serious students of economic policy. Milton Friedman was a brilliant economist, but he free-market rantings in his later years were simply embarrassing. There is absolutely no future in free-market economics, and it is not taught in any respectable economics department, including the University of Chicago. The modern economy is inevitably, and deeply, government regulated, and the welfare state, which redistributes huge sums from the more to the less well off, is not threatened anywhere. The IMF is indeed practically Neanderthal in its ideology and behavior, but most economists, and indeed whole governments, are hostile to its ambitions.

On the other hand, it would be nice if Klein's alternative were generally viable. Thomas Jefferson's vision of forty acres and a mule would be vindicated, albeit in a more socially organized manner. But it is not. Worker's control is a great dream (I dreamed it myself for many years), but it founders on the reality of capital diversification, which the worker-owned firm cannot handle. Cooperative land holding is just a myth, pure and simple, and always has been, throughout human history.

Like many progressives, Klein's instincts are anti-market (although even her precious cooperatives are marketing cooperatives, after all). It is a plain-faced fact that poor countries that have attempted to compete in the world market place rather than shelter themselves from it have done quite well, China and India being the most prominent. The idea that socialist cooperatives might outcompete capitalist firms has little going for it. Perhaps a country with mountainous oil revenues can play at sounding anti-capitalist (e.g., contemporary Venezuela), but the future of prosperity in virtually all poor countries

depends on developing markets and state institutions that support markets in a synergistic and democratic manner. It is up to us to dirty our hands (and hearts?) to help them attain this, rather than remaining pure but ineffectual, fighting for a socialist world that, far from struggling to be born, simply cannot exist.eality of capital diversification, which the worker-owned firm cannot handle. Cooperative land holding is just a myth, pure and simple, and always has been, throughout human history.

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In Pursuit of the Gene: From Darwin to DNA

A Triumph of Reason over Ideology — Rating: 5/5

I liked this book a lot the first time I read it. After finishing the book, there were many details, and not a few key points, that I had not consigned to memory, so I read it again. It was so good the second time that I read it a third time. This is a great book---Schwartz writes science history as though it were a fast-paced detective story with a plethora of personal details and exciting subplots. I am reminded of Elof Axel Carlson's fine history, Mendel's Legacy: The Origins of Classical Genetics, which the reader might also find complementary to Schwartz' account.

The subtitle is slightly inaccurate. The book is really about genetics from Thomas Hunt Morgan, Hugo de Vries, and William Bateson to Hermann Muller, although there are very interesting chapters on Galton, Weldon, and Mendel. Hermann Muller is clearly the standout figure in this whole saga, and the book could have been entitled \\"The Age of Hermann Muller: Precursors and Contemporaries.\\"

Despite the skill of the author, this book cannot be read by everybody. This is because the scientific concepts involved, although carefully explained by Schwartz, are complex and subtle, and most people simply do not get enough pleasure from thinking hard to render learning them worthwhile. This pains me deeply. Why can we all appreciate music, art, literature, sports, sex, humor, and cuisine, while only a minority get equal pleasure from science? It is probably this imbalance that accounts for the presence of post-modernism in academia, creationism in popular ideology, and the indomitable tendency for truth to be sacrificed on the altar of political correctness. The most heart-rending story in this book is Schwartz' account of how the anti-genetics quack Lysenko won the heart of Stalin, leading to the destruction of Soviet agriculture and the persecution of the most talented and dedicated scientific agronomists, including Muller's host in Russia, Vavilov, who died of torture and starvation in a Soviet prison (his lesser-known colleagues were simply shot). A similar anti-science/anti-technology ideology condemned many millions to starvation in Mao Tse Tung's infamous \\"politics in command,\\" period in Chinese history.

The standard story is that the monk Gregor Mendel discovered the laws of genetic segregation, publishing a monograph on the subject in 1865. This monograph was widely ignored, and Mendel's laws were rediscovered in the early years of the next century. Schwartz argues that Mendel's writings were rediscovered, although more than one scientist claimed independent discovery of the laws of genetic segregation. Moreover, Mendel was not just a simple monk whose work slipped under the radar. Mendel actively promoted his work, but it was opposed by many who considered it to be at variance with the facts. Even as late as 1925, there were many prominent anti-Mendelians, and the opposition to his genetic principles was based solidly on empirical evidence. For instance, de Vries, one of the rediscoverers of Mendel's laws, later came to believe that most genetic inheritance was not Mendelian. De Vries followed the lead of the French hybridist Millardet, who found that in many plants that bred

true for several generations, crosses with related species led to two highly stable hybrids, a phenomenon ostensibly incompatible with Mendelian laws. De Vries' Oenothera Lamarckiana, which he cultivated and studied over many generations, was one of these plants, and de Vries developed a complex theory of discontinuous mutation based on hybridization.

It was characteristic of virtually all biologists of the period to hold strongly to particular models of genetic inheritance, despite the fact that the evidence was deeply ambiguous and appeared incompatible with all models. Muller held an unshakable belief in the universality of Mendel's laws. Indeed, his phenomenal success stemmed from his unwavering faith, together with great observational and experimental skills. Eventually he worked out the correct model of Oenothera Lamarckiana and other \\"false hybrids,\\" finding that these plants were obligate heterozygotes because both homozygotes at the relevant locus were lethal.

Muller's explanation of \\"false hybrids\\" also undermined de Vries' elaborate theory of discontinuous mutation, and left the field for Muller and others (especially Altenberg) to develop the correct theory of heritable point mutations. But, I don't want to reveal too much of the plot, which would take away some of the fun for the reader.he worked out the correct model of Oenothera Lamarckiana and other \\"false hybrids,\\" finding that these plants were obligate heterozygotes because both homozygotes at the relevant locus were lethal. Muller's explanation of \\"false hybrids\\" also undermined de Vries' elaborate theory of discontinuous mutation, and left the field for Muller and others (especially Altenberg) to develop the correct theory of heritable point mutations. But, I don't want to reveal too much of the plot, which would take away some of the fun for the reader.

No Logo: No Space, No Choice, No Jobs

Confessions of a No Logo Survivor — Rating: 3/5

In mid-nineteenth century England, poet William Blake indignantly portrayed poor children sneaking a peek from the windows of the factories where they slaved fifteen hours a day, to watch the rich and beautiful cavort in the meadows with their hounds and horses. In the United States of the 1920's, Socialists reveled in contrasting the plight of the downtrodden workers with the opulence of the Robber Barons who lived off their labor. Today, to someone sensitive to the plight of the world's poor, little could be more repugnant than the contrast between the vulgar consumerism of the masses in the advanced capitalist economies and the lowly condition of the destitute third world workers who sew their clothes and craft their sports gear.

Naomi Klein is a prominent spokesperson for those disgusted with this contrast between rich masses in the developed countries and poor masses in the backward countries, the former benefitting obscenely from the low wages and poor working conditions of the latter who work sweatshops on their behalf. Klein wrote in a period when Nike, Wal-Mart, and other mega-corporations were under severe attack for oppressing their domestic and foreign workers. She and fellow activists had hoped this anti-corporate upsurge might turn into a full-fledged revolt that would dramatically improve the lot of low wage workers around the world.

In the second edition of No Logo, which appeared in 2002, she notes that \\"These struggles may seem slight in retrospect, but you can hardly blame us media merchants for believing that we were engaged in a crucial battle on behalf of oppressed people everywhere: every step we took sparked a new wave of apocalyptic panic from our conservative foes.\\" (p. 110) This movement has now subsided, and much of No Logo is an analysis of what went wrong.

Klein's main argument is that modern advertising is so powerful that it is capable of co-opting the anti-corporate movement and turning the aspirations of its supporters to it own advantage.

\\"Our sworn enemies in the `mainstream'---to us a giant monolithic blob outside of our known university-affiliated enclaves--didn't fear and loathe us, but actual thought we were sort of interesting. Once we'd embarked on a search for new wells of cutting-edge imagery, our insistence on extreme sexual and racial identities make for great brand-content and niche- marketing strategies. (p. 111) Culture jamming, the attack on corporate logos in massive demonstrations of disaffected youth, enjoyed

a vigorous presence in this period, Klein notes (p. 287), but its major themes were quickly adopted by the advertisers to sell more stuff. (p. 297). Nothing, it would seem, can dent the sophisticated façade of the taste-makers.

Naomi Klein is a fine writer with a real social conscience. While she wears this conscience on her sleeve, she never lapses into a strident or sanctimonious style. She hasn't a clue to the real nature of the phenomena with which she is dealing, however. Her major thesis lacks even prima facie plausibility.

This thesis starts with the important insight that the success of the modern consumer goods corporation depends on its brand name reputation and sales, and hence can leave the actual production of consumer goods to a myriad of out-sourced factories and workshops. \\"Successful corporations,\\" Klein writes, \\"must primarily produce brands, as opposed to products.\\" (p. 3) The reason such firms as Nike and Wal-Mart locate production in low-wage third-world sites is, to quote: \\"When the actual manufacturing process is so devalued, it stands to reason that the people doing the work of production are likely to be treated like detritus---the stuff left behind.\\" (p. 197)

There is little plausibility to this argument. Is it not reasonable that in earlier times firms produced goods in the home country because they had great regard for their workers. They did so because home-country workers provided lower unit labor costs. Contemporary firms locate internationally when they think they can make higher profits that way, not when they lose respect and regard for their domestic work force. Moreover, aside from a fringe of activists, consumers are generally not willing to pay significantly higher prices for goods in order to benefit third world factory workers. This is not because people are selfish, but rather because the low-wage workers who produce their clothes and shoes have little impact on the daily lives of consumers, and only the most concentrated political agitation can raise this impact, and then only for a short period of time.

It is also doubtlessly true that even a sustained effort to raise the wages of sweatshop workers would have little effect on the rate of poverty in third-world countries. More effective by far would be by the World Trade Organization succeeding in lowering tariff barriers against the import of third-world agricultural products, and by socially progressive groups and governments subsidizing third-world movements for democracy, representative government, civil liberties, the right to unionize. Klein correctly notes in regard to her study of the struggle of Philippine workers: \\"Because the Workers' Assistance Center's chief mission is to empower workers to stand up for their rights, WAC organizers don't much like the idea of Westerners sweeping into the zone brandishing codes of conduct, with teams of well-meaning monitors trailing behind.\\" (p. 439).

Like many progressive supporters of the third world poor, Klein's instincts are anti-globalization and even anti-market. Commenting on a picture of economist Milton Friedman being assaulted by pie-wielding demonstrators, Klein identifies Friedman as \\"architect of the global corporate takeover,\\" and asserts that he is getting \\"his just deserts.\\" (260) Friedman's strident free-market rhetoric is of course quite over the top, but in fact, third world countries that have attempted to compete in the world market place rather than shelter themselves from it have done quite well, and the recipes of Klein et al. are, conversely, doomed to impotence and failure. The idea of offering sweatshop workers decent wages is a wonderful one, but suggesting that this might be a way to improve the lot of the poor in the world economy is ludicrous. Perhaps a country with mountainous oil revenues can play at sounding anti-capitalist (e.g., contemporary Venezuela), but the future of prosperity in virtually all poor countries depends on developing markets and state institutions that support markets in a synergistic and democratic manner. It is up to us to help them attain this, rather than feeling good about ourselves because we pay an extra few cents for \\"fair trade certified\\" coffee beans.temporary firms locate internationally when they think they can make higher profits that way, not when they lose respect and regard for their domestic work force. Moreover, aside from a fringe of activists, consumers are generally not willing to pay significantly higher prices for goods in order to benefit third world factory workers. This is not because people are selfish, but rather because the low-wage workers who produce their clothes and shoes have little impact on the daily lives of consumers, and only the most concentrated political agitation can raise this impact, and then only for a short period of time. It is also doubtlessly true that even a sustained effort to raise the wages of sweatshop workers would have little effect on the rate of poverty in third-world countries. More effective by far would be by the World Trade Organization succeeding in lowering tariff barriers against the import of third-world agricultural products, and by

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Ark of the Liberties: America and the World

Superficial fluff — Rating: 1/5

It is hard to write a serious review of this book, because the book doesn't say anything. It is US history, but the topic suggests that international affairs would be a more appropriate focus. The important period for understand current affairs are from WW II to the present. The framing of the constitution is important, as are the ideas of the Founding Fathers. But, we should learn how these ideas reverberated in democratic movements and constitutions in the rest of the world. There is none of that---just a lot of historical fluff of the sort one finds when Googling a topic and randomly writing a narrative on what one found.

The development of democracy in Latin America never gets focus. Allende is mentioned on one page, Cuba gets passing mention, as does Guatemalan death squads. El Salvador is not in the index, and the Trilateral Commission is never mentioned. This is a truly pathetic treatment of the region. Africa is treated even more casually. There are a few pages on the Philippines, but the role of the Reagan administration in promoting democracy in the Philippines is not mentioned. The relationship between democracy in the US and the promotion of democracy in the European Community is mentioned in passing on one page.

Someone should write this book. Widmer should stick to writing Presidential speeches and issuing little sound bites.

Influence: The Psychology of Persuasion, Revised Edition

A Classic Worth Reading Today — Rating: 5/5

One of the great myths about modern society is that we can divide it into two non-overlapping parts---the private and the public. The private sphere is the purported locus of all affective, emotional commitments, while the public sphere is a realm of impersonal, purely instrumental, social interaction. In the private sphere, the story goes, we live, love, grieve, and sacrifice, while in the public sphere of markets and politics, we act to gather the material prerequisites to a fulfilled private life.

This myth was buoyed up in the mid-twentieth century by the vision of vast tracts of middle-class housing where neighbors were strangers (\\"and they were all made out of ticky-tacky and they all

looked the same\\"), by the cult of public conformity (\\"the organization man\\"), and by such urban myths as women being raped and beaten in public while spectators did nothing.

We now know that this bizarre viewpoint is miles from the truth, and that public life is imbued with a rich nexus of emotion-laden, poignantly human, social relations. Even strangers meeting for the first time engage in characteristically human emotional interactions, and the quality of social life depends critically on the tacit culture of conformity to particular norms of social interaction among people in public capacities.

Chaldini's book is a classic contribution towards analyzing these tacit social relations among strangers. His take on the issue is that we are all vulnerable to being manipulated by our mental weaknesses, and we should learn to be on guard against this manipulation. This is a very good point, but it hides the deeper point that manipulation is just the pathological side of basically healthy approaches to interaction with others in society. Humans are intensely reciprocal, and will sacrifice to repay good with good, and bad with bad, at personal cost, even when dealing with strangers they will never see again (we call this \\"strong reciprocity\\"). We have a strong tendency to social conformity, thus respecting others by our willingness to follow their lead. We want to be liked, and we are more willing to sacrifice on behalf of people we like, even if they are strangers. These and other behaviors are what make us human. Cialdini's point is that these predisposition can be used against us, and we must be careful to protect ourselves from this.

The various elements of the psychology of persuasion are so well-known today, partly due to Cialdini's influence (the first edition was 1984), that I'm not sure I learned anything new from reading this book. But, he is a fine writer and tells a good story, making the reading worth its while.l conformity, thus respecting others by our willingness to follow their lead. We want to be liked, and we are more willing to sacrifice on behalf of people we like, even if they are strangers. These and other behaviors are what make us human. Cialdini's point is that these predisposition can be used against us, and we must be careful to protect ourselves from this. The various elements of the psychology of persuasion are so well-known today, partly due to Cialdini's influence (the first edition was 1984), that I'm not sure I learned anything new from reading this book. But, he is a fine writer and tells a good story, making the reading worth its while.

Straight Choices: The Psychology of Decision Making

Straight Talk about Traditional Decision Theory and its Critics — Rating: 5/5

Decision theory, based on the rational actor model, represents one of the great scientific achievements of all time, beginning with Bernoulli and Pascal in the seventeenth and eighteenth centuries, and culminating in the work of Ramsey, de Finetti, Savage, and von Neumann and Morgenstern in the early and middle years of the twentieth century. Its preeminence in the behavioral disciplines that deal with human choice, especially its position as the foundation stone of modern economic theory, however, has led to an extreme level of empirical scrutiny of decision theory.

Most salient has been the brilliant series of experiments of Daniel Kahneman and Amos Tversky. These researchers have documented several key and systematic divergences between the normative principle of decision theory and the actual choices of intelligent, educated, individuals. Newell, Lagnado, and Shanks outline the traditional theory, and present a fine overview of the findings of Kahneman, Tversky, and their colleagues. Such phenomena as loss aversion, the base rate fallacy, framing effects, and the conjunction fallacy must be added to the traditional \\"paradoxes\\" of Allais and Ellsberg as representing fundamental aspects of human decision-making that fall outside the purview of traditional decision theory. These and other phenomena are dealt with insightfully by Newell, Lagnado, and Shanks.

These exceptional findings, however, have led many researchers to reject traditional decision theory and seek alternatives lying quite outside the rational actor tradition, in such areas as computer modeling of neural nets and neuroscientific studies of brain functioning. This dismissal of traditional decision theory may be emotionally satisfying, but it is immature, short-sighted, and scientifically destructive. There is

no alternative to the traditional decision-theoretic model on the horizon, and there is not likely to be one, for one simple reason: the theory is mostly correct, and where it fails, the principles accounting for failure are complementary to, rather than destructive of, the standard theory. For instance, the documented divergence of preferences from the rational actor model can be handled very effectively by assuming that the preference function has the current state of the individual as an argument, so all assessments are of deviations from the status quo ante. Prospect theory, for which Kahneman was awarded the Nobel prize, is precisely of this form. In other cases, by assuming that individuals have other-regarding preferences (which laboratory evidence strongly supports), we rupture the traditional prejudice that rationality implies selfishness.

The unique contribution of this fine volume is to present an extensive body of evidence asserting that modern experimental results in no way impugn the importance of traditional decision theory, and in no way suggest that humans are basically irrational decision-makers. Newell, Lagnado, and Shanks assert \\"we view judgment and decision making as often exquisitely subtle and well-tuned to the world, especially in situations where we have the opportunity to respond repeatedly under similar conditions where we can learn from feedback.\\" (p. 2) In other words, much of what appears as irrational in the laboratory is \\"performance error\\" that can be minimized or eliminated through experience. Of course, this does not at all conflict with Kahneman and Tversky's explanation, the so-called \\"heuristics and biases\\" analysis of decision-making, according to which people have cost-saving heuristics that are generally effective, but can break down dramatically in certain situations---often critically important situations.

The basic analytical model of Newell, Lagnado, and Shanks is Rescorla and Wagner's (1972) modification of Bush and Mosteller's (1955) learning model. The newer version, they suggest, suffers less from probability matching, and they argue that this model is supported not only by statistical estimation of subject behavior, but also by what is known concerning the neuroanatomy of the error-correction and reward systems of the human brain. The authors argue that every choice anomaly presented in the literature can be strongly attenuated or eliminated through appropriately structured learning environments. This even appears to apply to probability matching (probability matching means, for instance, that if two buttons give rewards with probabilities p and 1-p, subjects choose the two buttons in proportion p and 1-p, whereas maximizing payoff dictates choosing the single button with the higher payoff with probability 1), which is a very strong tendency of, not only humans, but foraging animals in general.

I believe that the notion that neural nets, neuroscientific models, and other novel approaches to modeling human decision-making are of great interest and importance. I also believe they are mostly likely to fail as alternatives to the rational actor model. The challenge of modern choice theorists is to build models of effective decision-making that explain why the traditional decision-theoretic model works when it does (which is most of the time) and why it fails when it fails. The heuristics and biases approach, and other theories developed in this volume, represent good starting points, but there is much work to be done. This work will not be done be researchers who believe human decision-making is basically irrational or illogical.mation of subject behavior, but also by what is known concerning the neuroanatomy of the error-correction and reward systems of the human brain. The authors argue that every choice anomaly presented in the literature can be strongly attenuated or eliminated through appropriately structured learning environments. This even appears to apply to probability matching (probability matching means, for instance, that if two buttons give rewards with probabilities p and 1-p, subjects choose the two buttons in proportion p and 1-p, whereas maximizing payoff dictates choosing the single button with the higher payoff with probability 1), which is a very strong tendency of, not only humans, but foraging animals in general. I believe that the notion that neural nets, neuroscientific models, and other novel approaches to modeling human decision-making are of great interest and importance. I also believe they are mostly likely to fail as alternatives to the rational actor model. The challenge of modern choice theorists is to build models of effective decision-making that explain why the traditional decision-theoretic model works when it does (which is most of the time) and why it fails when it fails. The heuristics and biases approach, and other theories developed in this volume, represent good starting points, but there is much work to be done. This work will not be done be researchers who believe human decision-making is basically irrational or illogical.

Evolutionary Psychology as Maladapted Psychology (Life and Mind: Philosophical Issues in Biology and Psychology)

A black gown treatment of adaptation — Rating: 2/5

William Blake once registered his opposition to religious orthodoxy as follows: \\"I went to the Garden of Love, And saw what I never had seen; A Chapel was built in the midst, Where I used to play on the green. And the gates of this Chapel were shut And \\"Thou shalt not,\\" writ over the door; So I turned to the Garden of Love That so many sweet flowers bore. And I saw it was filled with graves, And tombstones where flowers should be; And priests in black gowns were walking their rounds, And binding with briars my joys and desires.\\"

I often think of this poem, which laments the predilection of priests to legislate sensuality from our lives, when I come upon a philosopher who criticizes a school of scientific thought. The critique is almost always of the form \\"Here are the rules of science. You are violating some of these rules. Bad, bad, bad!\\" Such critiques are usually not worth much, because either what the school of thought asserts is correct or it is not. Every scientist knows the rules of scientific protocol and rarely makes an error. I don't need a philosopher to tell me about violating rules.

Richardson is such a philosopher. One strike against him. He gets strike two for a really stupid title to his book. Evolutionary psychology is not maladapted, in fact, so the title is just a snide slur.

Richardson wears the black gown of \\"adaptationism,\\" which is a set of doctrines specifying what is an what is not a biological adaptation, and what is and what is not an adequate proof that a human characteristic is an adaptation. For instance, Richardson claims that we cannot call either language or cognition adaptations, because \\"a discussion of what we actual know about the evolution of either human language or cognition would be very brief.\\" (p. 89) Really? I am not a expert in either language or cognition, but I know lots about their evolution, having read game theoretic treatments, comparative brain studies, paleontological studies, behavioral ecological studies of brain size and social group dynamics, etc. Very brief? What Richardson means is that we have little direct evidence, because the fossil record does not include much about soft tissues.

Only a wearer of the black gown could get away with this flamboyant degree of skepticism: \\"I do not doubt that human language and human rationality are evolved capacities, or even that they provided substantive advantages to our forbears. Perhaps they are adaptations; I do not claim to know. Indeed, I claim not to know.\\" (p. 95). So, what then must something be to count as an adaptation, if not that it is an evolved capacity that provides substantive advantages? Richardson's answer is that an adaptation must be an adaptation FOR something. \\"The problem is, after all," he notes on p. 125, \\"not merely to show that language is an adaptation, but to explain it as an adaptation. Without a suitable explanation, we will not know what specifically it ia an adaptation FOR.\\" The problem with language and cognition is that they provide so many benefits that we cannot single out what they were adaptations FOR. Richardson in fact vacillates in the book, sometimes denying they are adaptations at all, other times admitting that they are adaptations, but only bargain-store basement adaptations until we know what they are FOR.

Adaptations do not have to be adaptations FOR anything. It is true that Cosmides and Tooby think of adaptations as solutions to recurrent problems, but it is reasonable to call anything an adaptation if (a) it enhances the fitness of its bearers; (b) it is costly to maintain; and (c) it is an evolved trait. It is true that evolutionary psychologists tend to treat human characteristics as adaptations even if they appear not to satisfy (a), on grounds that they may have at one time in our evolutionary past, or appearances are misleading. For instance, since a significant fraction of males rape, this is likely an adaptation; since there are many sociopaths, sociopathy is likely an adaptation; since humans are subject to depression, depression is likely an adaptation. I do not share with evolutionary psychologists this predilection for seeing adaptations everywhere, but there are enough human adaptations to make Richardson's argument incorrect.

This book is really not about evolutionary psychology at all, but rather about the philosophy of adaptation. Evolutionary psychology is just a convenient hook onto which Richardson's treatment of adaption can hang. Moreover, I do not find much merit in this treatment.athy is likely an adaptation; since humans are subject to depression, depression is likely an adaptation. I do not share with evolutionary psychologists this predilection for seeing adaptations everywhere, but there are enough human adaptations to make Richardson's argument incorrect. This book is really not about evolutionary psychology at all, but rather about the philosophy of adaptation. Evolutionary psychology is just a convenient hook onto which Richardson's treatment of adaption can hang. Moreover, I do not find much merit in this treatment.

The First Word: The Search for the Origins of Language

The Search is the Thing — Rating: 3/5

The key word in the title of this book is \\"search.\\" No one knows much about the evolution of the capacity for language in humans, and even the current state of the capacity is the subject of fundamental debate. Kenneally is best at describing the history and sociology of the conflicting parties to the debate. In the process, the reader will learn a good deal about the structure of the human brain, the nature of adaptation in evolutionary theory, the physiology of sound production, the relationship between communication in animals and humans, and several other basic facets of human biology and behavior. This is a great book for someone who has not studied these issues in the past decade or two.

The reader will also learn that we don't know much about the issue, and the intense parti pris attitudes of the researchers in this area are an inverse reflection of their level of firm knowledge.

Kenneally has a knack for making really hard issues (such as generative grammar) seem really easy to understand, and for making clear the basic contrasting positions in the evolutionary theory of language. The book is a pleasure to read. On the other hand, these issues are in fact quite difficult, and some of the beauty in the study of language comes from intrinsically difficult theoretical issues in linguistic theory and game theory. Indeed, game theory, which supplies the basics of signaling theory, supplies basic insights that are missing from this book. Also missing are accounts from behavioral ecology and bio-anthropology on the relationship between social organization and brain size, a subject which I consider a basic background for the study of the evolution of language. Finally, humans are special in that we cooperate in large groups of unrelated individuals, a subject with a voluminous literature that Kenneally ignores. Yet, language is first and foremost a prerequisite and central element in the capacity of humans to cooperate. The notion that one could model the evolution of language while abstracting from these issues in not plausible. However, the book is a great read, and would have to be four times as long to fulfill my wish list, so I recommend it as a nice place to start.d model the evolution of language while abstracting from these issues in not plausible. However, the book is a great read, and would have to be four times as long to fulfill my wish list, so I recommend it as a nice place to start.

Thinking and Deciding, 4th Edition

An Actively Open-Minded Exposition — Rating: 5/5

This is the fourth edition of Jonathan Baron's very popular textbook on decision-making and thinking. The text is inspired by, and develops carefully and in an entertaining manner, the basic theories and experimental results of Daniel Kahneman, Amos Tversky, George Loewenstein, Paul Slovic, and others in the \\"heuristics and biases\\" tradition. This school of thought is only 35 years old, but it has radically transformed our knowledge of human decision-making. The material is inherently engaging, and students love to study it. This is an excellent book, and fully covers the subject material, except for graduate students who plan to work in this area, who should read the primary material on which this book is based. It is also great for self-study by the curious lay reader.

Let me say at the outset that the negative reviews of this book are totally unwarranted. One is just the ranting of a persons who cannot give reasons, but only throw out unsupported, idiosyncratic, judgments. Another is by a reader with an ax to grind concerning philosophical issues in probability theory that are completely tangential to the purposes of this book I think these commentators would do well to withdraw their useless and diverting comments.

Baron is a talented experimenter in his own right, although in the book he limits his material almost exclusively to the works of the Old Masters, Kahneman et al. His own contribution is on an interpretive level. First, his basic model of human behavior is what he calls the \\"search-inference\\" model, which turns out to be the economist's \\"rational actor\\" model, in which decision-makers have preferences (\\"goals\\" in the search-inference terminology), beliefs, and constraints, and act to maximize utility (goal-attainment) subject ot constraints. Baron defines \\"rational thinking\\" as \\"whatever kind of thinking best helps people achieve their goals.\\" (p. 61) This, of course, is precisely the definition of rationality in the rational actor tradition in decision-theory. Of course, \\"preferences\\" are more specific than \\"goals,\\" and it is not clear to me whether \\"rational\\" in Baron's sense includes achieving goals that are welfare-reducing (e.g., substance abuse), whereas in the rational actor tradition, rationality has to do with the attainment of goals with no evaluation of the relationship between goals and personal welfare.

Baron introduces two normative notions which instructors will find useful. The first is the idea of \\"actively open-minded thinking,\\" and the second is \\"multi-attribute utility theory.\\" Together, they urge that decision-maker cast a wide net in evaluating alternatives before honing in on a particular choice. The examples illustrating the value of this approach are illuminating and helpful.

This book does not make clear that there has been a second wave of behavioral experiments, starting in the mid-1980's that focus less on isolated decisions, and more on decisions in a setting of strategic interaction, using game theory as a tool of experimental design. This new body of theory and evidence deals with fairness and justice, altruism, cooperation, insider-outsider interactions, and related themes, in a manner barely intimated in this book. The chapters on altruism, fairness, and moral reasoning, are at least fifteen years out of date, and should not be used in a classroom today. There is, of course, plenty of material in the book without using these chapters, for a whole course on decision-making and thinking, but for strategic interaction, cooperation, and conflict, a completely different set of readings are required---and perhaps a completely new course devoted exclusively to this material.

A major focus of this book is on biases in decision-making---human errors that are not simply random, but rather are consistently biased in a particular direction. For instance, in the Draw A Man diagnostic, clinicians systematically interpret big eyes on a patient's drawing as indicative of paranoia, despite the fact that no such statistical relationship has ever been found. Moreover, untrained students also make the same mistake, indicating that this judgment is a systematic error committed by many people. The tragedy is that the clinicians do not abandon their biases when faced with objective data.

While systematic bias is a very important phenomenon, Baron does not claim that the rational actor models used by economists, in which biases do not exist, are contradicted by the experimental evidence---a criticism that the heuristic and bias researchers are usually fond of leveling against economic theory. Rather, he says that effective decision-making is the rule, especially when the parameters of the decision problem are clear, and that we should approach the biases that arise in complex decision contexts as challenges that we can overcome if we have the proper decision-making protocols.

Why do economists ignore biases in decision making, while psychologists take them so seriously? The answer is that economists only care about individual decision-making because they need a model of individual behavior that they can aggregate to model the macro-economy. Moreover, they consider their most fruitful professional interventions not in helping people make better decisions, but rather in advising governments and firms how to manipulate such macroeconomic variables as tax, profit margins, and interest rates. Psychologists, by contrast, consider the individual, not society, as the focus of their ministrations. Hence they tend to ignore the enormous success of the rational actor paradigm in modeling social behavior, and rather focus on areas of vulnerability in individual decision-making, where professional interventions on the level of the individual can improve decision-making accuracy., despite the fact that no such statistical relationship has ever been found. Moreover, untrained students also make the same mistake, indicating that this judgment is a systematic error committed by many

people. The tragedy is that the clinicians do not abandon their biases when faced with objective data. While systematic bias is a very important phenomenon, Baron does not claim that the rational actor models used by economists, in which biases do not exist, are contradicted by the experimental evidence--a criticism that the heuristic and bias researchers are usually fond of leveling against economic theory. Rather, he says that effective decision-making is the rule, especially when the parameters of the decision problem are clear, and that we should approach the biases that arise in complex decision contexts as challenges that we can overcome if we have the proper decision-making protocols. Why do economists ignore biases in decision making, while psychologists take them so seriously? The answer is that economists only care about individual decision-making because they need a model of individual behavior that they can aggregate to model the macro-economy. Moreover, they consider their most fruitful professional interventions not in helping people make better decisions, but rather in advising governments and firms how to manipulate such macroeconomic variables as tax, profit margins, and interest rates. Psychologists, by contrast, consider the individual, not society, as the focus of their ministrations. Hence they tend to ignore the enormous success of the rational actor paradigm in modeling social behavior, and rather focus on areas of vulnerability in individual decision-making, where professional interventions on the level of the individual can improve decision-making accuracy.

Why Choose This Book?: How We Make Decisions

Where's the neuroscience? — Rating: 3/5

This book may be fine for someone who does not know much about information theory or standard cognitive psychology, but it was disappointing for me, because Montague is a talented neuroscientist with some great discoveries under his belt, and I wanted a description of the neuroscience \\"value added.\\" Instead, it is a very general book for the novice, and very rarely addresses what is really new--the neuroscientific evidence on how brains synthesize diverse pieces of information to come to a single decision.

There is a way to be both popular, highly informative, and accurate. Montague has not found the way. He has no qualms about saying things that are either obviously false. Obvious: \\"So choice is about relative value, and relative valuation arose because life runs on batteries, energy is limited, and there's no free lunch.\\" (p. 225) Obviously false: \\"Efficiency = the best long-term returns from the least immediate investment.\\" (p. 18). Indeed, so much of what he says in this book is obvious that I often found myself bored and distracted.

On page 103, Montague describes the neural mechanism that effects the integration of disparate signals concerning the value of various actions. However, there is absolutely no attempt to describe the neural processes involved. I understand that the biochemistry of the brain is complex, but it would still be nice to have a chapter on basic brain structure, a second on signaling, etc. The material in this section should be heavily diagramed, and perhaps even a simple equation or two illustrating the real neural processes involved in choice. Montague is obviously afraid that if he goes to deeply in the material, he will lose the reader, or the reader's attention. But, this is not necessarily the case. It is possible to be accurate, deep, and challenging without losing the lay reader.

Instead of doing what he knows best, Montague touches lightly on a half a dozen subjects far from his expertise, and he sometimes makes serious mistakes. Thus, his treatment of fairness in the ultimatum game (chapter 6) explains that humans value fairness because our hunter-gatherer forbears lived in societies characterized by tit-for-tat, so all cooperation was \\"iterated exchange.\\" Now, there is a large literature on the moral structure of early human societies, and while this is one view of the situation, is contradicted by many papers and books written in the past fifteen years. Personally, I think it is dead wrong.mistakes. Thus, his treatment of fairness in the ultimatum game (chapter 6) explains that humans value fairness because our hunter-gatherer forbears lived in societies characterized by tit-for-tat, so all cooperation was \\"iterated exchange.\\" Now, there is a large literature on the moral structure of early human societies, and while this is one view of the situation, is contradicted by many papers and books written in the past fifteen years. Personally, I think it is dead wrong.

Primates and Philosophers: How Morality Evolved (Princeton Science Library)

Frans the Wise — Rating: 4/5

If you have never read anything by Frans de Waal, this is probably not the best book to start with. I would try Good Natured or Chimpanzee Politics, or even Our Inner Ape. This short book is really an overview of de Waal's views on primate morality, without the rich description of primate life offered in his earlier books, followed by commentaries by four well-known philosophers. The philosopher's comments are mildly interesting but forgettable, except for Peter Singer's defense of Kantian ethics, which is interesting and revealing of Singer's own take on morality.

De Waal is the star of this show, and he delves more deeply than ever before on the relationship between the quasi-moral behavior of non-human primates and the moral behavior of humans. De Waal has some very interesting things to say about human morality, and generally comes off as being wise and self-confident in his treatment of the sociobiology of morality.

\\"The moral domain of action,\\" says de Waal, \\"is Helping or (not) Hurting others...Anything unrelated to the two H's fall outside of morality. Those who invoke morality in reference to, say, same sex marriage or the visibility of a naked [...] on prime time television are merely trying to couch social conventions in moral language.\\" (p. 162) This statement is wildly incorrect, but incorrect in an interesting way. We know that social conventions take on moral weight with great regularity in all societies. How you pray, how you copulate, what you eat and wear, all become grist for the moralist's mill. Why is that? De Waal does not say. At any rate, this aspect of human morality appears to have little echo in the lives of non-human primates.

Because de Waal believes that Helping and (not) Hurting is the true subject of morality, he locates the pre-human roots of morality in empathy and sympathy, thus siding with David Hume and Adam Smith, and against Kant, who finds the roots of morality in Reason. There is little doubt but that apes have some significant endowment of capacity for sympathy, and that sympathy is an ineluctable part of human morality. This fact alone is strong support for de Waal's argument.

I venture, however, that there are other roots of human morality in the animal world. One of these is the respect for private property, which is exhibited in many animals as territoriality and in the great apes as respect for a \\"personal sphere of control\\" over valuable resources. The interested reader can refer to Herbert Gintis, \\"The Evolution of Private Property\\", Journal of Economic Behavior and Organization 64,1 [sep] (2007):1-16, where the biological basis for such respect takes the form of loss aversion. Needless to say, by \\"private property\\" I do not mean private property in the legal sense, but rather the personal sense that individuals have a private sphere in which their will is law, and this sphere is intimately related to having \\"personal possessions\\" that are respected by others as a matter of course.

De Waal does not say what forms of human morality are not legacies of, or continuations of, the characteristics of the great apes. I suggest the following, which are therefore virtually exclusively human.

First is the notion of a \\"character virtue,\\" such as honesty, bravery, piety, considerateness, trustworthiness, cleanliness, and the like. These are supremely moral virtues and although they generally promote prosocial ends, they are not Helping or Hurting, and do not depend on empathy or sympathy. I am honest because it is the right way to be, not because I care about other people.

Second is the notion that there are social norms, and it is right and good that individuals follow these norms, and it is right and good that we punish people who violate these norms, even when it is costly to do so. The notion that we \\"obey the rules\\" of society even when it is costly to do so, and even if we can profit by violating these norms, is a distinctly human form of morality. It also accounts for why humans treat social conventions (e.g., what forms of food and clothing are permissible, who is allowed to marry whom) as within the realm of the moral, although they may be arbitrary from the point of view of Helping and Hurting.unts for why humans treat social conventions (e.g., what forms of food and

clothing are permissible, who is allowed to marry whom) as within the realm of the moral, although they may be arbitrary from the point of view of Helping and Hurting.

Kluge: The Haphazard Construction of the Human Mind

Marcus' Argument is Basically Wrong — Rating: 3/5

When I was learning the basics of journalism, I found out that (a) every article must have a \\"hook,\\" that gets the reader interested in the article; and (b) the best hook is to maintain that something that is obviously false, or is widely disbelieved, is in fact true. Marcus has apparently learned these lessons. He has many interesting things to tell us about the human mind, but his argument that the human mind is a \\"clumsy or inelegant solution to a problem\\" (the definition of a kluge) is just not the case.

Of course, it has been fashionable since Stephen J. Gould's brilliant critique of creationism to maintain that evolution produces acceptable but not optimal solutions. Gould's examples, though, are extremely plausible and based on the existence of better solutions to problems in one organism as opposed to another (e.g., the octopus eye does not have a blind spot). Marcus argues that the human brain is a kluge, but his argument that the computer is a better brain is just too silly to contemplate, even if we limit mental activity to memory.

One of the truly infuriating things about this book is Marcus' willingness to quote facts without regard to their validity or plausibility, and to render judgments without considering alternative hypotheses. For instance, on p. 19 he reports \\"A recent Newsweek article claims that people typically spend 55 minutes a day `looking for things they know they own but can't find.'\\" I don't believe this for a second. Show me the study from which this statistic derives. It may exist, but I heartily doubt it. I don't spend 55 minutes a year looking for things I have lost, and I am just a normal guy.

Marcus' argument that computer memory is better than human memory is not convincing, and the reason he gives for this is just wrong. He says that computer memory is based on a \\"postal address\\" system in which each piece of information occupies a fixed location in memory. This is just not true. Computer memory is mapped and remapped frequently, with address changes each time. Moreover, it is likely that human memory has exactly the same property. Indeed, it is a major challenge to find information in computer memory, just as it is in human memory. Google became a household word because it provides mechanisms for accessing computer memory.

Marcus would have done better to ask what human memory is supposed to do, and then discussed how efficient the actual solution is. For instance, it is costly to store information, so the brain ignores many signals altogether, and moves only a fraction of short term memory into long-term memory. It would be extremely inefficient if this worked perfectly, because in fact optimality requires a balance between the costs of storage, the costs of discrimination, and the costs of lacking specific pieces of information. The fact that we lose our car keys once in a while is not an indication of a kluge.

This is not to say that human memory is optimal. For instance, we tend to be overconfident concerning our memory of past events. This may serve some psychodynamic purpose, but it may just be a mental defect the correction of which does not have much fitness value, and hence has not occurred.

In dealing with \\"belief,\\" Marcus takes it as obvious that the ideal type of belief is scientific, based on logic and the laws of evidence. Human believe all sorts of stuff that violate the canons of science, and why they do is an interesting evolutionary question. However, it is not a kluge---it is inconceivable that this aspect of the human mind is not an adaptation. Even scientists believe in things that they have not proved, and it is likely that the capacity to believe is a major creative force in science.

Marcus' treatment of human choice is a recap of the work of Kahneman, Tversky, et al. If you have not seen this material, Marcus is a good place to start. He does a fine job of summarizing this important body of work. However, I do not believe this evidence supports his position that human choice is basically irrational. For an extended critique of the irrationality of human decision-making, see my paper, Herbert Gintis, \\"A Framework for the Unification of the Behavioral Sciences\\", Behavioral and Brain Sciences 30,1 (2007):1-61.

Marcus' contribution is one of many recent popular contributions to cognitive psychology that basically take the form \\"Humans are irrational, but if we know the common pitfalls of the mind, we can vastly improve our capacity to make good decisions.\\" As such Marcus' book is really a self-help manual, and indeed, in the final chapter \\"True Wisdom,\\" he gives us such wise blandishments as \\"Try to Be Rational\\" and \\"Always Weigh the Benefits Against the Costs.\\" Thanks, Gary. I'll think I'll try these on for size.his position that human choice is basically irrational. For an extended critique of the irrationality of human decision-making, see my paper, Herbert Gintis, \\"A Framework for the Unification of the Behavioral Sciences\\", Behavioral and Brain Sciences 30,1 (2007):1-61. Marcus' contribution is one of many recent popular contributions to cognitive psychology that basically take the form \\"Humans are irrational, but if we know the common pitfalls of the mind, we can vastly improve our capacity to make good decisions.\\" As such Marcus' book is really a self-help manual, and indeed, in the final chapter \\"True Wisdom,\\" he gives us such wise blandishments as \\"Try to Be Rational\\" and \\"Always Weigh the Benefits Against the Costs.\\" Thanks, Gary. I'll think I'll try these on for size.

Nudge: Improving Decisions About Health, Wealth, and Happiness

A Triumph for Behavioral Economics — Rating: 5/5

Richard Thaler, an economist at the University of Chicago School of Business, is one of the founders of modern behavioral economics, along with economists Amos Tversky and Daniel Kahneman. Cass Sunstein is a legal scholar and political science professor at the University of Chicago, and has been at the forefront of applying the results of experimental economics to social problems, especially in the field of law.

This book has one Big Idea, and it is a very important one. The idea is called \\"status quo bias,\\" meaning that in many choice situations, people value the status quo (what they currently have), and will forgo the opportunity to switch to an alternative unless the alternative is significantly more attractive than the status quo. In situations where it is difficult to evaluate the exact benefits and costs of what one has over what one could only obtain with some conscious effort, people will tend to stick with what they have.

For example, in the United States, the default condition with respect to organ donation is \\"no donation,\\" so if people want to donate their organs upon death, they must explicitly state this preference. In France, the default condition is \\"donation,\\" and an individual who does not like this default condition must expressly indicate a desire not to donate. Consequently, the rate of organ donation is France is several times higher than it is in the United states.

The idea behind Nudge is that the choice of a default condition can both allow individuals to choose as they please in a democratic, market society, while at the same time improving social outcomes by providing default conditions that lead to socially useful choices. Thaler and Sunstein call this \\"libertarian paternalism.\\" While one might think that this minimal sort of market intervention can have only a limited impact on social outcomes, the organ donation example suggests otherwise. Perhaps the most important policy of this type would be a mandate that employers make contributions to retirement savings, in the form of 401(k) and other plans be the default, so that individuals who do not wish to save would have to register the desire to opt out of the plans. A related ideas developed in the book is that employees commit to saving a certain fraction of future raises they are awarded by employers, the idea being that it people do not want to reduce their \\"status quo\\" income in order to save, but they may be willing to accept a lower new \\"status quo\\" when the status quo changes. This is a very sensible idea.

A second sort of libertarian paternalism takes the form of having the government require firms reveal with clarity and salience the full terms of contractual agreement with consumers. For instance, the nutritional content of restaurant food might be required on the menu, or the precise interest rate on a mortgage might be required to be posted, or all the charges of a broker might be required to be itemized on a monthly statement. These measures are \\"paternalistic,\\" because if consumers were fully aware of the situation, they might demand this information from firms, and market competition would then

lead to compliance. The role of the government in this situation would then be the more traditional one of enforcing \\"truth in advertizing\\"---firms are not allowed to misrepresent their offerings.

Libertarian paternalism, of course, is not a panacea, and will not replace the price system as the central mechanism for allocating goods and services, and will not obviate the need for legislation that corrects market failures, such as the tendency for excessive energy use to undermine the natural environment, and perhaps even partially offsets such \\"human frailties\\" as the tendency towards undersaving and abusing illegal substances. However, libertarian paternalism is attractive as a first line of attack on even these problems, and should be part of the policy-maker's toolkit.ontributions to retirement savings, in the form of 401(k) and other plans be the default, so that individuals who do not wish to save would have to register the desire to opt out of the plans. A related ideas developed in the book is that employees commit to saving a certain fraction of future raises they are awarded by employers, the idea being that it people do not want to reduce their \\"status quo\\" income in order to save, but they may be willing to accept a lower new \\"status quo\\" when the status quo changes. This is a very sensible idea. A second sort of libertarian paternalism takes the form of having the government require firms reveal with clarity and salience the full terms of contractual agreement with consumers. For instance, the nutritional content of restaurant food might be required on the menu, or the precise interest rate on a mortgage might be required to be posted, or all the charges of a broker might be required to be itemized on a monthly statement. These measures are \\"paternalistic,\\" because if consumers were fully aware of the situation, they might demand this information from firms, and market competition would then lead to compliance. The role of the government in this situation would then be the more traditional one of enforcing \\"truth in advertizing\\"---firms are not allowed to misrepresent their offerings. Libertarian paternalism, of course, is not a panacea, and will not replace the price system as the central mechanism for allocating goods and services, and will not obviate the need for legislation that corrects market failures, such as the tendency for excessive energy use to undermine the natural environment, and perhaps even partially offsets such \\"human frailties\\" as the tendency towards undersaving and abusing illegal substances. However, libertarian paternalism is attractive as a first line of attack on even these problems, and should be part of the policy-maker's toolkit.

The Emotional Construction of Morals

Excellent Philosophy of Morality, Questionable Sociobiology — Rating: 4/5

The first thing to understand about moral rules is that they are made by people, in the same sense that art, music, and theatre are made by people. People also are responsible for mathematics and science, but here there is a crucial difference: we discover mathematical truths and the laws of the Universe, we do not make them. This distinction is blurred by the fact that we attach truth value to moral rules, but not to art or music, thus giving the impression that a moral rule has something in common with a mathematical or scientific truth. The reason for attaching truth-values to moral rules is that there is a kind of moral modus ponens: if p implies q and p is morally valid/obligatory/permissible, then q is morally valid/obligatory/permissible. Despite the pragmatic value of this sort of modal reasoning, it does have the drawback of appearing to place moral rules in an ethereal sphere with the axioms of arithmetic and the theory of relativity---truths that are independent of our will. The greatest offender in this regard was probably Kant, for whom moral behavior was obligatory and impersonal, and for whom deriving pleasure from doing good was a detraction from the pure morality of the act.

Jesse Prinz is a latterday defender of the sort of naturalist approach to morality expressed in the previous paragraph, taking up where Hume and the English empiricists left off. \\"morality derives from us.\\" Prinz asserts (p. 1) \\"The good is that which we regard as good. The obligatory is that which we regard as obligatory....Thus, normative ethics can be approached as social science.\\" Much of this volume is a defense of this position in face of the voluminous criticism of philosophers with other views. I am very grateful for this defense, although I found it more than a little wearying to go through Prinz's critique one incorrect argument after another. I am just glad he is on my side, so I can forget about the philosophical details. But, if you love philosophical details, you will certainly not be disappointed in this book.

How does morality derive from us? Prinz's answer is that we are emotionally predisposed to assert certain rules as moral and others as immoral. This predisposition is not intellectual or deeply cognitive; rather, to assert a moral rule is akin to asserting a taste for a particular color or food---it is our personal emotional, sentimental, inclination, although we may share it with many others, and we may delight in sharing moral rules in a way that we do not delight in sharing musical or artistic tastes.

This position makes Prinz a thorough-going relativist, and indeed, he does not shy away from this position. Prinz recognizes that there are moral rules that are virtually universal, but this is because we have biological predispositions towards some rules, and cultures that promote prosocial norms tend to drive out other cultural forms. Prinz correctly notes that the fact that a certain practice is virtually universal among humans does not mean that it is absolute, that it is genetically determined, or that it is immutable. Moreover, Prinz stresses that in fact almost any imaginable principle has be elevated to the position of a moral obligation in one society or another.

Prinz's moral relativism brings him into opposition with some versions of evolutionary psychology that denigrate culture and privilege genetically determined brain modularity as the mechanism accounting for human morality. For Prinz, culture is the original fount of morality, and moral relativism is an aspect of cultural diversity. Like many philosophers, Prinz objects to a form of evolutionary psychology, biological determinism, that is not supported by any serious sociobiologist. \\"I will concede that we are biologically prone to have certain kinds of values, but I will deny that there is an innate morality.\\" (p. 245) But, who ever spoke of an \\"innate morality?\\" The very idea is contradicted by gene-culture coevolutionary theory or even gene-culture developmental biology. Prinz says he is happy with a scientific approach to ethics, but the principle that we have an evolved genetic predisposition to embraces some moral principles and to reject others is about as scientific a principle as I can imagine.

Prinz would do well to rethink his rejection of morality as an adaptation, and to actively embrace the sort of gene-culture coevolutionary theory that is the foundation of scientific approaches to social theory, as developed by Marcus Feldman, Luca Cavalli-Sforza, Robert Boyd and Peter Richerson. He should accept this approach because it is correct, and no amount of philosophical hair-splitting can alter this fact.

The final chapter of this fine book is not fine. It is simply unsophisticated and uninformed. Prinz argues that morality is not a human adaptation, but a side-effect of other human capacities. His arguments are weak and not worth repeating. Moreover, Prinz fails to come to terms with the several well-known models of the evolution of morality.

Indicative of this immaturity, one of Prinz's arguments is that because humans prefer to behave prosocially, there is no need for morality. \\"If we are naturally prone to share, help, and to reciprocate, why do we ever moralize these behaviors?\\" (p. 273) His answer is that there is no need until we have large-scale societies. This astonishing answer implies that there was no such thing as human morality prior to the rise of settled agriculture and urbanization in the past 10,000 years. Yet, we know that the secondary emotions associated with morality---shame, remorse, guilt, self-esteem, honor, empathy, etc.---are intimately bound up with morality, yet evolved over tens of thousands of years, involving changes in brain structure and hormonal balance. Moreover, there is no dearth of morality in hunter-gatherer societies around the world.

One reason we need a moral sense is that punishment of moral transgression on the part of an individual must be accompanied by a sense of shame and guilt, or else the punishment will be seen by the punished individual as an unprovoked attack, and will generally be met with a counter-attack, rather than a resolve to make amends and behave better in the future. Indeed, in laboratory experiments, some individuals do react to being punished by punishing back, rather than reforming. This behavior was recently the object of a fifteen society study of \\"anti-social punishment\\" by Herrmann, Thoeni, and Gaechter, in Science. I am certain there are other benefits of morality even in small-scale societies, where the threat of violence is constant and the need for adjudication of differences and regulation of the proceeds of the division of labor are ever-present.

Humans are the source of morality, and are biologically predisposed to honor the moral rules of the societies in which they live. This is an evolved predisposition that accounts for our evolutionary success as a species.n gene-culture developmental biology. Prinz says he is happy with a scientific approach to ethics, but the principle that we have an evolved genetic predisposition to embraces some moral

principles and to reject others is about as scientific a principle as I can imagine. Prinz would do well to rethink his rejection of morality as an adaptation, and to actively embrace the sort of gene-culture coevolutionary theory that is the foundation of scientific approaches to social theory, as developed by Marcus Feldman, Luca Cavalli-Sforza, Robert Boyd and Peter Richerson. He should accept this approach because it is correct, and no amount of philosophical hair-splitting can alter this fact. The final chapter of this fine book is not fine. It is simply unsophisticated and uninformed. Prinz argues that morality is not a human adaptation, but a side-effect of other human capacities. His arguments are weak and not worth repeating. Moreover, Prinz fails to come to terms with the several well-known models of the evolution of morality. Indicative of this immaturity, one of Prinz's arguments is that because humans prefer to behave prosocially, there is no need for morality. \\"If we are naturally prone to share, help, and to reciprocate, why do we ever moralize these behaviors?\\" (p. 273) His answer is that there is no need until we have large-scale societies. This astonishing answer implies that there was no such thing as human morality prior to the rise of settled agriculture and urbanization in the past 10,000 years. Yet, we know that the secondary emotions associated with morality---shame, remorse, guilt, self-esteem, honor, empathy, etc.---are intimately bound up with morality, yet evolved over tens of thousands of years, involving changes in brain structure and hormonal balance. Moreover, there is no dearth of morality in hunter-gatherer societies around the world. One reason we need a moral sense is that punishment of moral transgression on the part of an individual must be accompanied by a sense of shame and guilt, or else the punishment will be seen by the punished individual as an unprovoked attack, and will generally be met with a counter-attack, rather than a resolve to make amends and behave better in the future. Indeed, in laboratory experiments, some individuals do react to being punished by punishing back, rather than reforming. This behavior was recently the object of a fifteen society study of \\"anti-social punishment\\" by Herrmann, Thoeni, and Gaechter, in Science. I am certain there are other benefits of morality even in small-scale societies, where the threat of violence is constant and the need for adjudication of differences and regulation of the proceeds of the division of labor are ever-present. Humans are the source of morality, and are biologically predisposed to honor the moral rules of the societies in which they live. This is an evolved predisposition that accounts for our evolutionary success as a species.

The Structural Evolution of Morality

Right Answer, Wrong Arguments — Rating: 4/5

J. McKenzie Alexander is a philosopher at the London School of Economics. Like several other moral philosophers, he had read extensively in the evolutionary game theory and agent-based simulation literature, and each of his substantive chapters is an extensive exercise in modeling and simulating some aspect of moral life---fairness, trust, cooperation, and retaliation. \\"Evolutionary game theory,\\" he says (p. 291), \\"coupled with the theory of bounded rationality and recent work bridging the gap between psychology and economics, provides what appears to be a radical restructuring of the foundations of moral theory.\\" It is refreshing indeed to find a moral philosopher capable of expressing such elementary, yet widely ignored truths as \\"our moral beliefs are simultaneously relative to our evolutionary history and our cultural background, but at the same time objectively true\\" (p. 291). Why objectively true? Because our moral beliefs are just as much a material force in the world as our capacity to metabolize nutrients, and truth in this case means exists.

Alexander's basic premise is that human beings are \\"bounded rational,\\" so we are incapable of maximizing, expected utility theory is all wrong, traditional game theory is all wrong because it depends on the rational actor model, and boundedly rational actors are not rational. Given their bounded rationality, social norms fill in to tell people what to do, and the social norms that promote individual well-being emerge, through the Darwinian process of cultural evolution, to dominate social life. Thus, we are all best off if we take the moral high road, rather than trying to scheme our way to higher payoffs.

Alexander is certainly not the first to claim that behaving morally is in our best interest, not because we might get caught and punished, but because moral rules embody a deeper understanding of human nature than our poor, beleaguered, bounded rational minds. Aristotle's virtue ethics rather neatly---the

philosopher determines what is virtuous, and the citizens follow their prescriptions, much as we ingest the medicaments prescribed by our physician. Indeed, I think this is a correct position, and there is a not inconsiderable body of experimental evidence to the effect that, for most people, doing the right thing makes them happier than doing the immediately pleasurable but selfish or immoral thing (although I personally am not completely sorry for some of the selfish and immoral acts I have committed---they make for a richer fantasy life in my twilight years---just kidding, of course).

I recommend this book for its four chapters of applied evolutionary game theory, although I think his arguments attempting to justify his position are just wrong. I will go through them, one by one.

Most important, Alexander believes our moral constitution is purely cultural as opposed to biological. He does not say why he believes this, although he makes the elementary error of thinking that it must be one or the other, when in fact, we are the product of gene-culture coevolution, to the point where it is impossible to tease out autonomous cultural or genetic elements, except in the most elementary cases (e.g., what biologically nutritious foods we find ethical to eat is culturally determined, and the physiology of shame is culturally universal). There is absolutely nothing in this volume that supports his prejudice against genetic predispositions for prosocial behavior.

Part of Alexander's problem is that he tries to support complex and sophisticated arguments with toy evolutionary game theoretic models that have only a tenuous relationship to social reality. For instance, his criticism of Gibbard is that his argument depends on coordination games, whereas in fact, these are only one of three types of two-player games (p. 278). However, the fact that there are other possible scenarios for strategic interaction does prove that they are all equally important and applicable. Indeed they are not, and Gibbard's treatment is quite insightful.

Similarly, in dealing with retaliation (Chapter 6), he takes the most obvious game, the Ultimatum Game, and show six different ways how rejections of positive offers is possible if one makes enough special assumptions (e.g., agents are imitators on a one-dimensional grid). What a glorious waste of time! This chapter, and the others on specific human moral behaviors, are classroom exercises in manipulating toy games, with no systematic relevance to reality. Alexander would have done better to look at the experimental literature on cooperation and punishment, and the biological/economic models of the evolution of fairness and reciprocity norms. Curiously, these go completely unmentioned. Nor does Alexander bother to state the fundamental theory of evolutionary dynamics with replicators: all stable equilibria are Nash equilibria of the stage game. This would have allowed him to drop almost all the replicator dynamic arguments in the book.

This point can be expressed more completely as follows. Suppose we have a population of agents who are assigned in each period t = 1,2,3,.... to groups of size n, where they play an n-player game G. Suppose a player's strategy is written in the players genome, rather than being learned. Suppose an individual's payoff in this game represents his biological fitness, so at the end of each period, individuals reproduce in proportion to their success in playing this game G, and their offspring genetically inherit their strategies for playing the game.. We call G the \\"stage game\\" and the reproduction process a \\"replicator dynamic.\\" In a replicator dynamic, then, a particular strategy increases or decreases in frequency in the population according as its payoff in playing G is above or below average for the population. The replicator dynamic is thus simply a version of Darwinian evolutionary dynamics. The fundamental theory of evolutionary game theory says that every stable equilibrium of this evolutionary dynamical system is a Nash equilibrium of the game G.

For instance, suppose G is the two player Prisoner's Dilemma. Then, the only stable evolutionary equilibrium is mutual defect for all players. Suppose the game is the Hawk-Dove game, which has a unique Nash equilibrium in mixed strategies. Then, the only stable evolutionary equilibrium will have a fraction of Hawks equal to the probability of playing Hawk in the Nash equilibrium of the game, and, a fraction of Doves equal to the probability of playing Dove in the Nash equilibrium of the game. Doing simulations is such situations is superfluous---we know before we start where we will end up.

Alexander's support for the position that \\"bounded rationality\\" is antithetical to the rational actor model and the expected utility axioms is perfectly standard, and follows Gigerenzer and Selten, who, despite their eminence and indeed brilliance, are just simple wrong in the arguments on this point. There is no contradiction between bounded rationality and the Savage axioms or any other of the standard justifications of the rational actor model. Indeed, preference transitivity can be deduced from

elementary evolutionary principles, and all surviving species have utility functions, just as described in the first-year graduate textbook. Of course, humans have limited information processing capacities, but no physically existing entity can avoid such limitations, by the very principles of quantum mechanics and information theory. The idea that game theory assumes that people can solve complex games is just wrong. Game theory has many problems (including assuming that rational agents actually play Nash equilibria), but this is despite the fact that they use the rational actor model, not because of it.

Finally, while much of morality is clearly individually fitness-enhancing, I do not think all moral rules arose because they were in the interest of individual fitness (see for instance Herbert Gintis, \\"The Hitchhiker's Guide to Altruism: Genes, Culture, and the Internalization of Norms\\", Journal of Theoretical Biology 220,4 (2003):407-418. I think all plausible models of the evolution of human morality involve group selection in the context of hunter-gather societies in which hunting and territorial defense led to the emergence of truly altruistic genetic predispositions in our species, and the reason behaving morally is in our interests today is because we have these prosocial genetic predispositions, and we care about our self-image in social life, where people judge us by our degree of prosociality.equilibrium of this evolutionary dynamical system is a Nash equilibrium of the game G. For instance, suppose G is the two player Prisoner's Dilemma. Then, the only stable evolutionary equilibrium is mutual defect for all players. Suppose the game is the Hawk-Dove game, which has a unique Nash equilibrium in mixed strategies. Then, the only stable evolutionary equilibrium will have a fraction of Hawks equal to the probability of playing Hawk in the Nash equilibrium of the game, and, a fraction of Doves equal to the probability of playing Dove in the Nash equilibrium of the game. Doing simulations is such situations is superfluous---we know before we start where we will end up. Alexander's support for the position that \\"bounded rationality\\" is antithetical to the rational actor model and the expected utility axioms is perfectly standard, and follows Gigerenzer and Selten, who, despite their eminence and indeed brilliance, are just simple wrong in the arguments on this point. There is no contradiction between bounded rationality and the Savage axioms or any other of the standard justifications of the rational actor model. Indeed, preference transitivity can be deduced from elementary evolutionary principles, and all surviving species have utility functions, just as described in the first-year graduate textbook. Of course, humans have limited information processing capacities, but no physically existing entity can avoid such limitations, by the very principles of quantum mechanics and information theory. The idea that game theory assumes that people can solve complex games is just wrong. Game theory has many problems (including assuming that rational agents actually play Nash equilibria), but this is despite the fact that they use the rational actor model, not because of it. Finally, while much of morality is clearly individually fitness-enhancing, I do not think all moral rules arose because they were in the interest of individual fitness (see for instance Herbert Gintis, \\"The Hitchhiker's Guide to Altruism: Genes, Culture, and the Internalization of Norms\\", Journal of Theoretical Biology 220,4 (2003):407-418. I think all plausible models of the evolution of human morality involve group selection in the context of hunter-gather societies in which hunting and territorial defense led to the emergence of truly altruistic genetic predispositions in our species, and the reason behaving morally is in our interests today is because we have these prosocial genetic predispositions, and we care about our self-image in social life, where people judge us by our degree of prosociality.

Law and Social Norms

Reputation is not Enough — Rating: 4/5

Eric Posner is a leading American legal scholar. Legal scholars are a special breed of academic. While firmly ensconced in academia, they have no formal training in any scientific discipline, and can be completely ignorant of mathematical formulations of social theory, of statistical hypothesis testing, and the received wisdom of the various disciplines in the social sciences. Moreover, they publish long, weighty, footnote-laden papers in law review journals that, rather than being peer-reviewed, are reviewed by law students with doubtless less expertise in the behavioral sciences that the professors whose work they judge.

As such, we do not generally expect the social sciences research of legal scholars to be of great interest to researchers in the various behavioral disciplines. However, the same conditions that deprive legal scholars from the rigors of the scientific disciplines allow them to develop exciting transdisciplinary ideas with a speculative freedom that is simply not open to an economist, psychologist, or other member of the standard disciplines. Moreover, the behavioral disciplines are less \\"scientific\\" than they prefer to consider themselves, because they disagree in the fundamentals--a situation that would never be tolerated in the natural sciences. So, we perhaps have much to learn from the legal scholars.

We can learn especially much when the scholar concerned has delved deeply in the professional literature, and wields the analytical tools with deftness and insight, yet without the grim tenacity of maintaining disciplinary boundaries so characteristic of the disciplinary academic. Eric Posner is just such a legal scholar.

This is a work in the grand tradition of \\"law and economics,\\" which began with the brilliant Coase Theorem, and was championed by the multitalented jurist Richard Posner. This strand of legal theory follows general equilibrium economic theory in assuming that all social relations are market exchanges and all individuals are standard \\"rational economic actors\\" who seek to maximize some combination of wealth, consumption of goods and services, and leisure.

The assumption that all economic social relations are market relations was sorely challenged in the last quarter of the 20th century, during which time game theory and theoretical institutional analysis analyzed the non-market social forces in the economy. More recently, the assumption of the standard rational self-interest economic actor has been challenged by \\"behavioral law and economics,\\" which holds that individuals are not the \\"rational decision-makers\\" depicted by Ronald Coase and Richard Posner.

Eric Posner does not assume individuals are necessarily self-interested, but his contribution is clearly on the side of the rational actor model rather than behavioral economics. Posner, on the other hand, takes informal social relationships and game theory extremely seriously, so we might consider him to be in the tradition of Oliver Williamson in stressing that individuals cannot assume costless contract enforcement by the judiciary.

\\"The law,\\" claims Posner, \\"is always imposed against a background stream of nonlegal regulation---enforced by gossip, disapproval, ostracism, and violence---which itself produces important collective goods.\\" (p. 4) How refreshing! The book is full of such oft ignored truths. This is Posner's great virtue: we must evaluate legal rules not as compared with Hobbes' state of nature (in which life is poor, nasty, brutish and short), but rather with evolved nonlegal social institutions that regulate and adjudicate the relations among individuals and organizations in daily life.

Posner has a theory, presented at the outset of the book---a theme of which virtually every chapter is a variation. The theory is that there are good types and bad types of people. The bad types have a short time horizon, and will cheat you if they can, without concern for the fact that you will not deal with them ever again. The good types value future returns, and are honest today so that they may get to deal with you again tomorrow. The point is that if one values the future, one can ensure high returns in the future by nurturing a reputation for honesty and fairness. For Posner, it is the complex web of reputational social relationships that ensure agreements, not the legal system. Indeed, the legal system works best, suggests Posner, when it reinforces prosocial informal norms that reward honesty and commitment.

This is a very interesting thesis, and surely a partial truth. But, it presents a problem. Many students of modern society believe the rule of law is an indispensable aspect of social efficiency and justice. What role does the judiciary play at all, in Posner's model? The answer is provided in Chapter 9, \\"Contract Law and Commercial Behavior.\\" Posner argues that when parties to a contract sue for redress in formal courts, they are ensuring that both they and the defendant will incur considerable costs, and the outcome of the suit is unlikely to depend much on the quality of the suit. Judges, says Posner, simply do not know enough about the intricacies of particular lines of trade to judge competently on specific issues. Rather, says Posner, the courts serve as credible threats of imposing serious costs on a co-contractor who violates an implicit agreement. The courts thus give individual firms a costly but highly effective means of deterring opportunistic behavior of a co-contractor. When economic conditions change so that one party to a contract might gain by abandoning his obligations, the mutual threat of litigation serves as a credible threat serving contract enforcement. Even though judicial pursuit is costly,

incurring the cost will reinforce the reputation of a contracting party in the eyes of other potential partners (the so-called chain-store strategy).

Posner has made a thorough study of the signaling literature in game theory, and applies it adroitly in several parts of the book. When there are both good types and bad types competing for your attention, a signal that is costly and can only benefit someone with a long time horizon may serve to create a \\"separating equilibrium\\" in which all the good types send the signal and the bad type do not. For instance, giving an expensive gift to a potential partner, requiring a long-term relationship before the profits from the exchange repay the gift, is a sure sign of a good type.

There are many insights to be gained from Posner's reputational signaling theory, but it is plausible only when at least one party to the exchange is a single individual, and when the encounter is repeated and renewed at a high rate. We normally have large numbers of encounters with individuals and firms that we will never encounter again, yet often we often are treated fairly and considerately by these one-shot partners, who have no reputational interest in compliance to social norms of fairness and reciprocity. Posner cannot explain such behavior at all.

Part of the reason anonymous individuals and firms exhibit compliant behavior when reputational issues are absent is the law itself: there are penalties for cheating, scamming, and assaulting unwary individuals, and in some societies these penalties are quite effective and seriously enforced. This is called \\"the rule of law.\\" A more complete theory than Posner's would model the interaction of the rule of law and private reputational equilibria.

Part of the reason anonymous individuals and firms exhibit compliant behavior is that many individuals embrace such character virtues as honesty, helpfulness, considerateness, and promise-keeping for their own sake, and many firms promote these virtues as well, in the not unreasonable belief that the culture of virtue is most likely profitable in the long run. Posner's discussion of these and related issues is weak and out of date. He entertains the possibility that altruism is an important source of compliance, but he does not review the exciting literature in this area that has emerged since 1995 or so. He discusses the internalization of norms as a source of publically shared social values, but he quickly abandons any reliance on such a force.

For an example of how Posner's total reliance on a reputation theory compromises his analysis, take the case of voting, discussed in Chapter 7. Posner correctly notes that \\"Voting is essentially a symbolic act, since an individual's vote has virtually no influence on the outcome of an election\\" (p. 112). Posner's theory is that people develop a reputation as \\"good types\\" worthy of building lasting relationships, by voting and conforming to other acts symbolic of patriotism (e.g., respecting the flag). But, voting is not very costly and one could always lie and claim to have voted without incurring the costs. Nor is there any evidence that people who do not vote or display the flag are \\"bad types\\" in the sense of being poor potential partners to social exchange.

An alternative plausible theory is that people vote because they consider it a privilege and a duty to do so, and they approve of other who vote because they share basic values with these individuals. People prefer to deal with those with whom they share value in principle, not because they will gain higher material or reputational rewards thereby.

My point, ignored by Posner, is that culture matters, and we do indeed internalize norms in a good society that induce us to behave in a prosocial manner. Of course we care about our reputations, but most of us care as much about our self-image, and about how others view us quite independent from how this affects our wealth and material ease.

From the point of view of social policy, Posner's model must be supplemented by an appreciation for the rule of law in itself and the key role of culture in promoting normative behavior. Countries in which the rule of law is weak cannot repair the situation with reputational networks alone, and where corruption, dishonesty, and other forms of cheating are condoned and even appreciated, reputational networks will thrive, but life for the majority of individuals will be nasty, brutish, and short.itly in several parts of the book. When there are both good types and bad types competing for your attention, a signal that is costly and can only benefit someone with a long time horizon may serve to create a \\"separating equilibrium\\" in which all the good types send the signal and the bad type do not. For instance, giving an expensive gift to a potential partner, requiring a long-term relationship before the profits from the

exchange repay the gift, is a sure sign of a good type. There are many insights to be gained from Posner's reputational signaling theory, but it is plausible only when at least one party to the exchange is a single individual, and when the encounter is repeated and renewed at a high rate. We normally have large numbers of encounters with individuals and firms that we will never encounter again, yet often we often are treated fairly and considerately by these one-shot partners, who have no reputational interest in compliance to social norms of fairness and reciprocity. Posner cannot explain such behavior at all. Part of the reason anonymous individuals and firms exhibit compliant behavior when reputational issues are absent is the law itself: there are penalties for cheating, scamming, and assaulting unwary individuals, and in some societies these penalties are quite effective and seriously enforced. This is called \\"the rule of law.\\" A more complete theory than Posner's would model the interaction of the rule of law and private reputational equilibria. Part of the reason anonymous individuals and firms exhibit compliant behavior is that many individuals embrace such character virtues as honesty, helpfulness, considerateness, and promise-keeping for their own sake, and many firms promote these virtues as well, in the not unreasonable belief that the culture of virtue is most likely profitable in the long run. Posner's discussion of these and related issues is weak and out of date. He entertains the possibility that altruism is an important source of compliance, but he does not review the exciting literature in this area that has emerged since 1995 or so. He discusses the internalization of norms as a source of publically shared social values, but he quickly abandons any reliance on such a force. For an example of how Posner's total reliance on a reputation theory compromises his analysis, take the case of voting, discussed in Chapter 7. Posner correctly notes that \\"Voting is essentially a symbolic act, since an individual's vote has virtually no influence on the outcome of an election\\" (p. 112). Posner's theory is that people develop a reputation as \\"good types\\" worthy of building lasting relationships, by voting and conforming to other acts symbolic of patriotism (e.g., respecting the flag). But, voting is not very costly and one could always lie and claim to have voted without incurring the costs. Nor is there any evidence that people who do not vote or display the flag are \\"bad types\\" in the sense of being poor potential partners to social exchange. An alternative plausible theory is that people vote because they consider it a privilege and a duty to do so, and they approve of other who vote because they share basic values with these individuals. People prefer to deal with those with whom they share value in principle, not because they will gain higher material or reputational rewards thereby. My point, ignored by Posner, is that culture matters, and we do indeed internalize norms in a good society that induce us to behave in a prosocial manner. Of course we care about our reputations, but most of us care as much about our self-image, and about how others view us quite independent from how this affects our wealth and material ease. From the point of view of social policy, Posner's model must be supplemented by an appreciation for the rule of law in itself and the key role of culture in promoting normative behavior. Countries in which the rule of law is weak cannot repair the situation with reputational networks alone, and where corruption, dishonesty, and other forms of cheating are condoned and even appreciated, reputational networks will thrive, but life for the majority of individuals will be nasty, brutish, and short.

Predictably Irrational: The Hidden Forces That Shape Our Decisions

Irrational? Not. Well, not always. — Rating: 3/5

Self-help books are among the hottest sales items in your favorite book store, right after Gothic novels and cookbooks. Many people are dissatisfied with their lives and don't quite know why. Self-help interpretations claim they offer helpful psychological insight, but do they? Freud gave us the quite valuable notions of id, ego, and superego, but also the quack notions of penis envy and oedipal complex. Later generations of self-help pop psychologists turned Freud into a cash cow of dangeriously overused but highly fashionable slogans, such as psychosomatic illness, inferiority complex, repressed memory, childhood trauma, and hysterical conversion syndrome.

Freudian psychology is just about dead in the self-help arena, but now we have a new contender for leader of the pop psychology: behavioral economics. Ariely's is one of several new books that take the

experimental results of the past quarter century and turn them into self-help. The main message is that we are irrational, but if we understand and correct for this, we can overcome our irrationality and improve our lives. \\"We are pawns in a game whose forces we largely fail to comprehend,\\" says Ariely. \\"Although irrationality is commonplace,\\" he continues, \\"it does not necessarily mean that we are helpless. Once we understand when and where we may make erroneous decisions, we can try to be vigilant.\\" (p. 243)

Like Freudian psychology, behavioral economics gives us a few critically important insights, including hyperbolic discounting, excessive pattern-finding, loss aversion, status quo bias, and innate altruistic cooperation and punishment. However, just as Freud was mostly wrong (and therapeutically a high-maintenance disaster), so is behavioral economics, although I doubt that people will be paying $200 per hour to sit on a couch with a behavioral economics therapist.

Now, Ariely in no way distorts the writings of the behavioral economists in this book. Ariely is a jolly guy who is hard not to like, and he uses his charm to push a popular version of the beliefs expressed in the technical journals and books all the time: the rational actor of economic theory is all wrong, and irrationality is pervasive. \\"People are not logical---they are psychological,\\" as the saying goes.

Despite the extreme value of their experiments, the behavioral economists are mostly a theoretically ignorant and indolent lot, who content themselves with showing that a highly stripped-down version of the rational actor model is wrong, and conclude, sloppily and without warrant, that \\"people are irrational.\\" Of course, the greatest behavioral economists have developed better models of human behavior that explain the experimental evidence, but these models are simply sophisticated versions of the rational actor model, not their antithesis. For instance, Kahneman and Tversky's `prospect theory,' for which Kahneman was awarded the Nobel prize in Economics, replaces the standard economic utility function with one with a kink at the individual's current position. Similarly, the various models of altruistic behavior are based on expanded utility functions that included caring, positively or negatively, about the welfare of others. There is absolutely nothing \\"irrational\\" about altruism.

Another set of behavioral findings is that people do not always make choices that are in their own interest. Some of these result from people having incorrect theories about the world. For instance, there are various \\"pop probability theories\\" that are incorrect and will lead people who follow them to lose lots of money. However, ignorance is not irrationality, and given their incorrect beliefs, these individuals perform exactly as predicted by the rational actor model. Other welfare-reducing choices stem from hyperbolic discounting. However, if we replace the standard exponential discounting model with a hyperbolic discounting model, we remain within the fold of the rational actor model, just with a more plausible preference ordering (see my Behavioral and Brain Sciences article or the draft of my game theory text, The Bounds of Reason, on my web site, for details).

Ariely is a creative experimenter with zero capacity to deal with economic theory. By accepting the behavioral paradigm (\\"people are not logical, they are psychological\\"), he makes it in principle impossible to explain his experimental results. Take, for instance, the wonderful experiment he carried out in a tavern in university town in the USA. Disguised as waiters, and with the permission of the establishment, Ariely and his assistants offered 2 oz. of complimentary beer to clients. There were four types of beer with names that indicated nothing about their taste or quality, and clients at each table were asked to state publically which beer they wanted. He found that clients were averse to making the same choice as others at their table, so for instance, at a table with four clients, each would ask for a different type of beer. This is because, he said, Americans value individuality. He performed the same experiment in Hong Kong, finding that clients tended to choose the same type of beer, confirming that the local culture valued conformity.

This is a great experiment, but where is the irrationality? Is it irrational to value conformity or diversity? I think not. Moreover Ariely stacked the deck in his favor by ensuring that the real qualities of the beer were unknown, so clients should be indifferent among them. This self-serving experimental design (behavioral economics often use self-serving designs without acknowledging this fact in any way---why they get away with it I cannot imagine) was bound to make \\"culture\\" trump \\"preferences,\\" Why not do the experiment with known beer types? Or better yet, vary the delay in delivering the beer in the four choices, so you can get one type after a 20 second delay, a second type after a 40 second delay, etc.

Why not use consumer choice theory to judge the strength of the desire for conformity or diversity, rather than just saying \\"people are irrational\\" and attempting no plausible explanation of behavior?

Ariely is certainly correct that behavioral economics has some important things to tell people about living their lives. Seeing patterns where there are none can lead to disastrous, and wholly avoidable, financial decisions. The savings rate in America can be increased by employers making 401k contributions the default condition. But, most of the behavior illuminated by behavioral experiments is not irrational and there is no reason for people to change it. Understanding why we behave as we do is valuable in its own right, without having to contribute to solving our life problems. More important from my view as a modeler of human behavior, we must stop using the i-word to keep us from developing cogent analytical models of human behavior. I am virtually certain that all such models will be extensions of the rational actor model of economics that reduce to the traditional model when appropriate assumptions holdsuch as correct beliefs and perfect knowledge of preferences.ible preference ordering (see my Behavioral and Brain Sciences article or the draft of my game theory text, The Bounds of Reason, on my web site, for details). Ariely is a creative experimenter with zero capacity to deal with economic theory. By accepting the behavioral paradigm (\\"people are not logical, they are psychological\\"), he makes it in principle impossible to explain his experimental results. Take, for instance, the wonderful experiment he carried out in a tavern in university town in the USA. Disguised as waiters, and with the permission of the establishment, Ariely and his assistants offered 2 oz. of complimentary beer to clients. There were four types of beer with names that indicated nothing about their taste or quality, and clients at each table were asked to state publically which beer they wanted. He found that clients were averse to making the same choice as others at their table, so for instance, at a table with four clients, each would ask for a different type of beer. This is because, he said, Americans value individuality. He performed the same experiment in Hong Kong, finding that clients tended to choose the same type of beer, confirming that the local culture valued conformity. This is a great experiment, but where is the irrationality? Is it irrational to value conformity or diversity? I think not. Moreover Ariely stacked the deck in his favor by ensuring that the real qualities of the beer were unknown, so clients should be indifferent among them. This self-serving experimental design (behavioral economics often use self-serving designs without acknowledging this fact in any way---why they get away with it I cannot imagine) was bound to make \\"culture\\" trump \\"preferences,\\" Why not do the experiment with known beer types? Or better yet, vary the delay in delivering the beer in the four choices, so you can get one type after a 20 second delay, a second type after a 40 second delay, etc. Why not use consumer choice theory to judge the strength of the desire for conformity or diversity, rather than just saying \\"people are irrational\\" and attempting no plausible explanation of behavior? Ariely is certainly correct that behavioral economics has some important things to tell people about living their lives. Seeing patterns where there are none can lead to disastrous, and wholly avoidable, financial decisions. The savings rate in America can be increased by employers making 401k contributions the default condition. But, most of the behavior illuminated by behavioral experiments is not irrational and there is no reason for people to change it. Understanding why we behave as we do is valuable in its own right, without having to contribute to solving our life problems. More important from my view as a modeler of human behavior, we must stop using the i-word to keep us from developing cogent analytical models of human behavior. I am virtually certain that all such models will be extensions of the rational actor model of economics that reduce to the traditional model when appropriate assumptions holdsuch as correct beliefs and perfect knowledge of preferences.

The Mind of the Market: Compassionate Apes, Competitive Humans, and Other Tales from Evolutionary Economics

Good biology and psychology, questionable economics — Rating: 3/5

Michael Shermer is uniquely gifted, holding a Masters degree in psychology and a Ph.D. in the History of Science, being one of the top science popularizers in the world and the founder of the Skeptic Society, and having been a top professional athlete (cycling). Shermer is a professional skeptic, but this book is a serious outlier---it is Shermer's profession of faith.

Shermer believes in two Big Ideas, free markets and Darwinian evolution, especially as applied to understanding our species (sociobiology, evolutionary psychology). The book conveys Shermer's infectious enthusiasm for both Ideas, and his exposition of sociobiology is accurate and fairly up to date. I would definitely recommend this book to a friend or relative who wanted to know what sociobiology is all about (Shermer does not use the word, though).

In economics, Shermer was weaned on Ayn Rand and objectivist philosophy, which he rejected in favor of the more scientific and less cultish Austrian school of economics (von Mises and Hayek). He draws free market economic theory and evolutionary biology together by treating both as dynamic nonlinear competitive, decentralized systems with emergent properties (he mention Beinhocker's exegesis of complexity economics in support of this view, and stresses the notion of `technological natural selection'). He also treats both as absolutely, beyond a doubt, scientifically grounded doctrines, so that critics of market systems (e.g., many American liberals and all socialists, anarchists, and communalists) have the same status as Creationists and Intelligent Design believers as critics of evolutionary biology.

In a kind of comic way, Shermer's book is a return to Social Darwinism, although his espousal of free markets has none of the strident right-wing tenor of the old order of Social Darwinists. He achieves a warm-fuzzy version of free market economics by simply avoided all the difficult issues. His exposition of economics is purely 19th century in its stress on verbal and philosophical argument, as though there have been no developments in economics since 1920 or so. This is quite a contrast with his treatment of evolutionary psychology, which is almost cutting edge.

I cannot imagine how Shermer teaches in a graduate economics department (Claremont Graduate University), surrounded by high-powered economists, while not having a clue what economics is really all about. The standard arguments against the notion of a free market economy with a minimal state were consolidated from 1950 to 1970, and have not been shaken since. Even Milton Friedman, who was right about so many things, and has much of importance to say about state-market interaction, was no more than an ideological hack in his parrot-like admonitions against the modern state.

Modern economies are intricately interaction systems of market and state, both sets of institutions having grown inexorably and in a unified manner for at least two centuries. There is no example of a high productivity social system without both a highly developed market and a highly developed state. Free marketers are thus like flat Earthers and Creationists---they must deny the fact to preserve their precious ideologies.

Perhaps Shermer has some critique of the standard economic growth model. If so, he spares the reader. This is a strange stance of a man who has always cherished the data and fought for empirical substantiation.

Shermer's embrace both of the aristocratic free marketer von Mises and the brilliant and vitriolic anarchist Kropotkin is refreshing, if bizarre. Of course, there have always been sub rosa libertarians among the evolutionary psychologists (John Tooby, Lida Cosmides, and Vernon Smith surely fit the bill), but evolutionary argument for libertarianism has not often been so clearly articulated. Clearly, yes, but unconvincingly. One cannot trump science with 19th century Continental philosophy,after all.

Shermer deeply believes that liberal democratic capitalism is the best system possible, and attempts to prove this using philosophical hand waving and vague analogies to Darwinian evolution. I believe that liberal democratic capitalist is the best system around, and the proof is purely empirical---just look around at the performance of actual social systems.democratic capitalism is the best system possible, and attempts to prove this using philosophical hand waving and vague analogies to Darwinian evolution. I believe that liberal democratic capitalist is the best system around, and the proof is purely empirical---just look around at the performance of actual social systems.

Moral Markets: The Critical Role of Values in the Economy

What are the Moral Values Asociated with Market Economies? — Rating: 5/5

The role of values in the modern market economy is important for two reasons. First, economic development in poor countries involves importing some subset of institutions and cultural values from

the currently advanced economies, while rejecting others in order to maintain traditional values and institutions, where possible. We have a pretty good idea as to which institutions are required for a healthy market economy, but only a few obvious organizing points when it comes to cultural values (e.g., corruption and nepotism are bad, primary, secondary, and higher education, and the rule of law are good). Second, business leaders in the United States and other advanced market economies have been involved in huge numbers of scandals in recent years, and there is a general sense that business culture tolerates a much higher level of unethical and illegal behavior that such other professions as medicine, science, education, and law. What can be done, if anything, to rectify this situation?

This problem is interdisciplinary by its very nature, drawing upon the knowledge of psychologists, economists, legal scholars, sociologists, and biologists within the behavioral sciences, as well as neuroscientists, philosophers, journalists, and even business executives themselves. Twenty years ago, the need for interdisciplinary research would have assured that nothing interesting from the scientific point of view could possibly be said. This is because until recently, interdisciplinary research meant compromising down to a common denominator that could be accepted by all representatives of diverse fields with largely contradictory organizing principles and incompatible views of social organization and dynamics.

This distressing situation is no longer the case, as this excellent volume clearly indicates. This is not a highly technical volume for the professional experts, but rather a report for the intelligent layman on what experts from a variety of fields have come to accept in common as a framework for dealing with the question of the role of values in a market economy. While the chapters of this books were written independently by various authors, most of whom had limited or no exposure to one another prior to the formation in 2006 of a \\"free enterprise research group,\\" funded by the Gruter Institute and the Templeton Foundation, there are no major disagreements among them. This is doubtless in part because researchers with incompatible ideas were not invited to join the group, but it is also because there is a solid basis in scientific research for the views put forth in the volume.

I was a member of this research group, and even though the topic is a specialty of mine, I learned an immense amount from the other participants, and this books includes in detail many of the important things I have learned. My only proviso is that I hated from the first calling the entity we were studying the \\"free enterprise\\" economy, because the latter term usually implies some right-wing ideology about minimal state intervention, whereas in fact the modern market economy requires extensive intervention to work properly and produce fair and environmentally sound outcomes. However, we addressed no issues concerning government intervention, and we accepted the stupid term \\"free enterprise\\" only because the funding agencies required us to do so.

The book's editor, Paul Zak, lays out the major issues very clearly in an introductory essay. First, morality is not simply \\"learned,\\" like physics, chemistry, or language, but is deeply ingrained in our nature as members of the species Homo sapiens. Thus, the study of morality is not the contemplative quest for the Nature of the Good and the Just, but rather the study of how people acquire, transform, and deploy moral principles in living their lives. Second, the market economy accustoms people to cooperating and sharing with strangers of different race, creed, and ethnicity,thus promoting a sense of fairness and tolerance that is generally absent from pre-market societies, in which charity and considerateness are extended only to family and close friends. While the market economy is based on competition, there are ethical values that, under the proper conditions, govern competitive interactions, including honestly, trustworthiness, and social responsibility. \\"The very freedom to exchange in markets celebrates individual dignity and choice,\\" says Zak, \\"but also allows for transgressions.\\" (p. vxii). Zak's point is that social interactions in a market economy are determined by legally enforceable contract alone, but rather by mutual trust and honesty, without which the rule of law is but a hollow shell. \\"Leges sine moribus vanae,\\" said Horace (Third Ode)---Laws without morality are useless. The commonly expressed idea that the capitalist economy is run purely on greedy self-interest is thus so stunningly false that it is difficult to believe intelligent individuals could ever have believed it. T

The first part of this book deals with some philosophical issues that must be addressed before dealing with social issues. Philosophers William Casebeer and Robert Solomon defend what is know as \\"virtue ethics,\\" associated with Aristotle among others, as opposed to intuitionist, deontological, and

utilitarian ethical theories. I think this is an excellent choice, because the character virtues of honest, trustworthiness, fairness, tolerance, and loyalty are precisely what is needed to underpin social relations in a market society where agreements cannot be enforced by law along. Economist Robert Frank develops his idea that the moral emotions are precisely what motivates us to honor our commitments when naked material gain might induce us to behave otherwise.

The second part of the book treats human morality as an extension of moral behavior in primate species that live in social groups where prosocial behavior is a prerequisite to a high average fitness of group members. The third part includes a summary by Robert Boyd and Peter Richerson of their highly original and quite cogent theory of human sociality, called gene-culture coevolution. They argue that humans are the first species to have a cumulative culture, and that this culture became the basis for genetic development of prosociality in our species.

This explains why most humans derive pleasure and satisfaction from doing good to others and living up to the standards of virtuous living---behaving this way is in both our genes and our culture. Of course, this deep commitment to the social group is also the basis for the most vicious and horrific forms of human behavior, in which we maim and kill outsiders in real or imagined defense of one's own group of \\"insiders.\\"

The final two parts of the book include several chapters that apply the foregoing principles to law, social policy, and business education.

I may be biased by being a member of the research group that produced this volume, and by having written a chapter in the book, but in complete honesty I believe this books to be absolutely seminal in jump-starting a serious scientific dialogue concerning the ethical basis of market societies. I think political democracy, civil liberties, and gender equality are intimately bound up with private property and market exchange, because powerful movements for political emancipation have been most salient in societies with modern market economies. Future research should explain why these political and economic institutions have so deep an elective affinity, and how the blessing of liberty and personal dignity can be extended the world over.ess and tolerance that is generally absent from pre-market societies, in which charity and considerateness are extended only to family and close friends. While the market economy is based on competition, there are ethical values that, under the proper conditions, govern competitive interactions, including honestly, trustworthiness, and social responsibility. \\"The very freedom to exchange in markets celebrates individual dignity and choice,\\" says Zak, \\"but also allows for transgressions.\\" (p. vxii). Zak's point is that social interactions in a market economy are determined by legally enforceable contract alone, but rather by mutual trust and honesty, without which the rule of law is but a hollow shell. \\"Leges sine moribus vanae,\\" said Horace (Third Ode)---Laws without morality are useless. The commonly expressed idea that the capitalist economy is run purely on greedy self-interest is thus so stunningly false that it is difficult to believe intelligent individuals could ever have believed it. T The first part of this book deals with some philosophical issues that must be addressed before dealing with social issues. Philosophers William Casebeer and Robert Solomon defend what is know as \\"virtue ethics,\\" associated with Aristotle among others, as opposed to intuitionist, deontological, and utilitarian ethical theories. I think this is an excellent choice, because the character virtues of honest, trustworthiness, fairness, tolerance, and loyalty are precisely what is needed to underpin social relations in a market society where agreements cannot be enforced by law along. Economist Robert Frank develops his idea that the moral emotions are precisely what motivates us to honor our commitments when naked material gain might induce us to behave otherwise. The second part of the book treats human morality as an extension of moral behavior in primate species that live in social groups where prosocial behavior is a prerequisite to a high average fitness of group members.The third part includes a summary by Robert Boyd and Peter Richerson of their highly original and quite cogent theory of human sociality, called gene-culture coevolution. They argue that humans are the first species to have a cumulative culture, and that this culture became the basis for genetic development of prosociality in our species. This explains why most humans derive pleasure and satisfaction from doing good to others and living up to the standards of virtuous living---behaving this way is in both our genes and our culture. Of course, this deep commitment to the social group is also the basis for the most vicious and horrific forms of human behavior, in which we maim and kill outsiders in real or imagined defense of one's own group of \\"insiders.\\" The final two parts of the book include several chapters that apply the foregoing principles to law, social policy, and business education. I may be biased by

being a member of the research group that produced this volume, and by having written a chapter in the book, but in complete honesty I believe this books to be absolutely seminal in jump-starting a serious scientific dialogue concerning the ethical basis of market societies. I think political democracy, civil liberties, and gender equality are intimately bound up with private property and market exchange, because powerful movements for political emancipation have been most salient in societies with modern market economies. Future research should explain why these political and economic institutions have so deep an elective affinity, and how the blessing of liberty and personal dignity can be extended the world over.

Bending the Rules: Morality in the Modern World - From Relationships to Politics and War

An Intricate argument for the immorality of war — Rating: 3/5

Robert Aubrey Hinde is a famous zoologist and peace activist, being the chair of the British Pugwash, an international conflict resolution organization founded by Joseph Rotblat (a contributor to this book) and preeminent philosopher Bertrand Russell. He was mentor to both the developmental psychologist John Bowlby and the primatologists Jane Goodall and Dian Fossey. Hinde describes this book as an application of evolutionary biology and psychology to moral theory, with the aim of showing the danger and immorality of war.

Hinde's first principle is that human morality is the product of evolutionary biology rather than intuition or philosophical truth. \\"The role of morality," says Hinde, \\"is to maintain a balance between two categories of human behaviour, prosociality... and selfish assertiveness.\\" (2) Societies that developed cultural rules favoring prosociality simply outcompeted those in which individuals were allowed to operate in their natural condition of selfish assertiveness. \\"Selfish assertiveness,\\" he asserts, \\"can be accounted for as the direct result of natural selection...Prosociality directed preferentially to kin is largely a result of natural selection...Prosociality to non-kin...is largely the result of cultural selection between competing groups\\" (50)

Hinde does not get into the details of gene-culture coevolution, but his account of human morality depends implicitly on this version of Darwinian theory. Because societies promoting prosocial moral rules outcompete societies promoting selfish assertiveness, prosocial cultures became ubiquitous in human society, so that individuals who could not adjust to prosocial behavior suffered a fitness disadvantage compare to those predisposed to moral behavior. In the long run, the genetic predisposition to prosociality became widespread. Hinde notes that even. \\"young children are predisposed to develop behaviour that we should call moral.\\" (19)

Hinde's second principle is that there is one overreaching moral principle, that of the Golden Rule: do unto others as you would have them do unto you. This rule, he holds is \\"pan-cultural\\" (15) in the sense that it is present in one form or another in every society. Whenever we act in ways counter to the Golden Rule, we are \\"bending the rules,\\" whence the title of the book: we would prefer that others not kill us, so we should not kill them. \\"There can be no question,\\" Hinde concludes, \\"that, if we remember our humanity, war is wrong in principle and nearly always wrong in practice.\\" (199) Hinde believes that \\"our propensity to divide our world into in-group and out-groups and our human desire to see ourselves in the right can indeed lead to our bending the rules,\\" (1) and hence violate the Golden Rule.

Hinde's argument, unfortunately, will convince few other than those who already believe that war is virtually always immoral. This is because the Golden Rule is not in fact pan-cultural, and probably is widely violated in all societies. If individual A harms individual B, but wishes to be treated nicely by A, then the Golden Rule says A should be nice to B. But, more commonly B will retaliate against A precisely because he knows that this is counter to A's wishes. The Golden Rule is in fact a cultural product of a society in which \\"turning the other cheek\\" is widely practiced, and there are few such societies, if any at all.

My understanding of human society is that the notion of reciprocity trumps the Golden Rule. Moral behavior includes being nice to those who are nice to you, but punishing those who are not nice to you. Moreover, in times of scarcity of some valued resource, the norm of taking from your neighbor is morally valued, on grounds of self-preservation. Wars were frequent in our hunter-gatherer past, and we are predisposed to accept the horrific forms of violence under conditions of scarcity.

Although this is somewhat orthogonal to the book's mainmessage, I think it worth noting that Hinde's notion of morality is problematic. His idea is that we are naturally selfish but culture is brought to bear on our psyches to teach us to be prosocial. This is a view shared by many Darwinian, from Huxley to Dawkins and beyond. However, there is little evidence that people would be sociopathic criminals were it not for the taming of the passions through acculturization. Rather, there is good evidence that most human being prefer to behave prosocially, and individuals who contribute to society are happier and more prosperous than individuals who are selfish, mercenary, and self-regarding.otion of morality is problematic. His idea is that we are naturally selfish but culture is brought to bear on our psyches to teach us to be prosocial. This is a view shared by many Darwinian, from Huxley to Dawkins and beyond. However, there is little evidence that people would be sociopathic criminals were it not for the taming of the passions through acculturization. Rather, there is good evidence that most human being prefer to behave prosocially, and individuals who contribute to society are happier and more prosperous than individuals who are selfish, mercenary, and self-regarding.

Experiments in Ethics (Flexner Lectures)

Richly textured, insightful contribution, full of life and spirit — Rating: 4/5

Contributions to moral philosophy, from Aristotle to Emmanuel Kant to John Stuart Mill and to John Rawls, are among the peak achievements of human intellect. Experiments in Ethics addresses The Question: how does moral philosophy relate to the effort in experimental psychology and behavioral game theory to model the contribution of moral values to individual choice and strategic interaction?

This engaging book does not fully settle the issue (does a philosopher ever fully settle the issue?), but it is packed with mordant insights and suggestive ideas for the behavioral scientist.

I start from the understanding that moral reasoning and moral behavior are an intimate part of the human behavioral repertoire. Unlike mathematics or video games, moral behavior is a part of even the simplest hunter-gatherer societies known to us, and the complexity of moral reasoning appears to be a feature of human society everywhere. Humans produce morality the same way spiders weave webs.

This understanding suggests a very simple answer to The Question: just as physics moved from Natural Philosophy to Natural Science in a previous era, and more recently just as the study of human speech moved from the Philosophy of Language to Linguistics, so now does ethics move from Moral Philosophy to Behavioral Science in the current era. If this were correct, moral philosophy in the current era would be relegated to the position of the interpretation of behavioral science, just as the philosophy of science has become the study of the practice of scientists and the interpretation of their intellectual products.

I very much like this simple answer, because I have always been hostile to the notion, shared by many moral philosophers, that they have some special access to Moral Truth, giving them the right to make value judgments concerning the moral behavior of the untutored man in the street. Just as the linguist records but does not determine the rules of grammar, so the moral philosopher reflects on ethics but does not produce moral truths.

However, this answer to The Question presupposes a rather thoroughgoing moral relativism: the institution of slavery is just in a given society if it is justified by a moral principle in that society. In particular, there is no conceptual position outside of society according to which we can judge the superior morality of one society over another. This is fine for the scientist, who is predisposed to observe without moral judgment, but it overlooks a key point: people treat a statement of the form \\"x is good\\" to be a fact about x, much as \\"x is blue\\" is a fact about x. Indeed, people can argue whether x is in fact good, and they are not arguing about how x is treated in any particular society.

It does no good to retreat the position that each individual has a personal morality, just as each has a personal genome, only partially shared with others. If we argue about morality, we are not arguing about what each of us believes, but rather what we should jointly believe.

I think this reasoning is decisive. We miss something fundamental about morality by saying merely that humans have moral rules the way they have food preferences. Behavioral scientists study the moral rules of people the same way they study the food preferences of individuals. But, there is more to morality than that. And that is why the simple answer to The Question is wrong. As Appiah puts it, \\"Does anybody really think a moral system is just merely because it has be accepted by most members of a society? \\"(150) The only reasonable answer is No.

An alternative answer is that moral philosophers specify criteria of goodness, justice, and moral worth. When people disagree with the moral values singled out by the philosopher, people are simply wrong. This is the typical stance of the various types of utilitarianism (Bentham, Sidgwick, Mill), as well as the deontological moralists, such as Kant. Since the criteria need not correspond to what people actually value morally, these schools have an ultimately intuitionist epistemology, although I imagine that it is possible to derive the guiding moral criteria from biological evolution or some other empirical regularity.

Appiah is dismissive of such theories. He says, \\"Astronomers have stars; geologists have rocks. But what do moral theorists have to work with? For centuries, they typically claimed to proceed from truths that were self-evident---or, more modestly, from our moral intuitions.\\" (p. 73). However, he notes that \\"Where surveys show people have incompatible intuitions, we should predict that each intuition has some past philosopher who constructed a theory around it. \\"(191) His point is that the variety of intuitions of the philosophers has about the same breadth, if not depth, of that of hoi poloi.

For Appiah, this does not mean that the moral philosopher should not appeal to his intuitions. He quotes Sir David Ross, in The Right and the Good (1930), who proposed that \\"the moral convictions of thoughtful and well-educated people are the data of ethics just as sense-perceptions are the data of a natural science.\\" (p. 75) The point is that the moral philosopher has the same data available as the ordinary citizen, but has spent more time and energy grappling with and trying to make sense out of this data. The evidence of the experimental psychologist and behavioral game theorist are thus welcomed by the moral philosopher, who can use this data to sort out moral issues more effectively.

Appiah thus accepts a version of virtue ethics. He says, \\"Ethics is, in that formulation of Aristotle's, about the ultimate aim or end of human life, the end he called eudemonia.\\" (164) We can translate eudemonia as \\"flourishing,\\" the term used by Amartya Sen in his work on ethics and economic theory. It is clear why Appiah is so happy with behavioral game theory and experimental psychology: to decide what is best for humans requires that we know a lot about humans. \\"The end of philosophical ethics,\\" he says, \\"is to make sense of the project of eudaimonia. It cannot do that on its own: it needs the assistance of all the moral sciences (204)

Appiah explains virtue ethics as follows: \\"The right thing to do is what a virtuous agent would do in the circumstances...A virtue is a character trait that a person needs in order to have eudaimonia---that is, in order to live a good life. (36) He recognizes that the study of real-life humans indicates that people are at best only inconsistently virtuous, often lapsing, and typically behaving virtuously only over certain idiosyncratic spheres of life. That's okay, he says. Eudaimonia is an ideal state, not one that can be achieved. He remarks that \\"Virtue ethics assumes that being virtuous is a character trait. In fact, people are virtuous in some situations and not in other situations. There is thus no such thing as a \\"virtuous disposition.\\" We are just not built that way.\\" (46) However, \\"individual moments of compassion and moments of honesty make our lives better, even if we are not compassionate or honest through and through.\\" (70)

My own analogy to Appiah's view, which I find attractive, is that the moral philosopher is like the master chef, taking everyday ingredients at their freshest and producing a culinary delight that keeps the customer coming back for more, or perhaps buying and using the master's recipe book. One positive attribute of this analogy is that food preferences, like ethical preferences, have a unity in diversity. We can appreciate the culinary arts of many cultures, but there are some foods that are delicacies in one society that are an abomination in another. So it goes with moral values, which are universal, but have their jarring incompatibilities.

Virtue ethics has something deep to teach the behavioral scientist. For many decades,economists and biologists assumed that the natural state of a human being was selfishness, a characteristic relaxed only on behalf of one's immediate kith and kin. Indeed, biologists extended \\"selfish genes\\" to selfish individuals, and economists equated \\"rationality\\" with being \\"self-interested.\\" The contrast with Appiah and other virtue theorists is quite striking. Virtue theorists believe that it may be difficult to determine what the virtuous act is, and it may be tempting to opt for an immediately rewarding act lacking virtue, but virtue is ultimately its own reward. Appiah says, \\"The claim that we ought to do what's in everyone's long-term interest...is a necessary truth underlies morality.\\" (24)

Many experimental studies in recent years have shown that people often prefer to be virtuous, and are willing to sacrifice material reward to achieve moral ends. Appiah's claim, however, is far stronger. Not only do many people strive to be virtuous, but those who routinely perform virtuous acts have more satisfied lives than those who do not. For instance, James Konow and Joseph Earley, \\"The Hedonistic Paradox\\", Journal of Public Economics 92 (2008) note that people who volunteer for community helping or are generous givers in laboratory altruism games are happier, have higher self-esteem, life-satisfaction and even physical health than those who do not.

Appiah's analysis is flawed by his unwillingness to consider analytical models of human behavior. He is happy with experiments, but he never mentions that these experiments may indicate a certain analytical framework that radically illuminates human choice. I refer here to the rational actor model (which I prefer to call the beliefs, preferences and constraints (BPC) model) for understanding the notion of objectives and constraints, and game theory, for understanding strategic interaction. In the BPC, moral values are part of the individual's objective function, so there are quite naturally tradeoffs between material self-interest and moral values, and among competing moral values. It is incorrect to say that individuals are \\"imperfectly\\" virtuous, because it is the nature of tradeoffs that there is no unique first-best point, given our constrained circumstances. I am sure that we are, each of us, imperfectly virtuous because of our human failings, but the very framework of virtue ethics, according to which the virtuousness of an act is assessed independently from any other act or concrete circumstances, is just wrong. Appiah would have a much cleaner argument if he took the beliefs preferences and constraints model seriously, and if he analyzed social interaction in game-theoretic terms.about humans. \\"The end of philosophical ethics,\\" he says, \\"is to make sense of the project of eudaimonia. It cannot do that on its own: it needs the assistance of all the moral sciences (204) Appiah explains virtue ethics as follows: \\"The right thing to do is what a virtuous agent would do in the circumstances...A virtue is a character trait that a person needs in order to have eudaimonia---that is, in order to live a good life. (36) He recognizes that the study of real-life humans indicates that people are at best only inconsistently virtuous, often lapsing, and typically behaving virtuously only over certain idiosyncratic spheres of life. That's okay, he says. Eudaimonia is an ideal state, not one that can be achieved. He remarks that \\"Virtue ethics assumes that being virtuous is a character trait. In fact, people are virtuous in some situations and not in other situations. There is thus no such thing as a \\"virtuous disposition.\\" We are just not built that way.\\" (46) However, \\"individual moments of compassion and moments of honesty make our lives better, even if we are not compassionate or honest through and through.\\" (70) My own analogy to Appiah's view, which I find attractive, is that the moral philosopher is like the master chef, taking everyday ingredients at their freshest and producing a culinary delight that keeps the customer coming back for more, or perhaps buying and using the master's recipe book. One positive attribute of this analogy is that food preferences, like ethical preferences, have a unity in diversity. We can appreciate the culinary arts of many cultures, but there are some foods that are delicacies in one society that are an abomination in another. So it goes with moral values, which are universal, but have their jarring incompatibilities. Virtue ethics has something deep to teach the behavioral scientist. For many decades, economists and biologists assumed that the natural state of a human being was selfishness, a characteristicrelaxed only on behalf of one's immediate kith and kin. Indeed, biologists extended \\"selfish genes\\" to selfish individuals, and economists equated \\"rationality\\" with being \\"self-interested.\\" The contrast with Appiah and other virtue theorists is quite striking. Virtue theorists believe that it may be difficult to determine what the virtuous act is, and it may be tempting to opt for an immediately rewarding act lacking virtue, but virtue is ultimately its own reward. Appiah says, \\"The claim that we ought to do what's in everyone's long-term interest...is a necessary truth underlies morality.\\" (24) Many experimental studies in recent years have shown that people often

prefer to be virtuous, and are willing to sacrifice material reward to achieve moral ends. Appiah's claim, however, is far stronger. Not only do many people strive to be virtuous, but those who routinely perform virtuous acts have more satisfied lives than those who do not. For instance, James Konow and Joseph Earley, \\"The Hedonistic Paradox\\", Journal of Public Economics 92 (2008) note that people who volunteer for community helping or are generous givers in laboratory altruism games are happier, have higher self-esteem, life-satisfaction and even physical health than those who do not. Appiah's analysis is flawed by his unwillingness to consider analytical models of human behavior. He is happy with experiments, but he never mentions that these experiments may indicate a certain analytical framework that radically illuminates human choice. I refer here to the rational actor model (which I prefer to call the beliefs, preferences and constraints (BPC) model) for understanding the notion of objectives and constraints, and game theory, for understanding strategic interaction. In the BPC, moral values are part of the individual's objective function, so there are quite naturally tradeoffs between material self-interest and moral values, and among competing moral values. It is incorrect to say that individuals are \\"imperfectly\\" virtuous, because it is the nature of tradeoffs that there is no unique first-best point, given our constrained circumstances. I am sure that we are, each of us, imperfectly virtuous because of our human failings, but the very framework of virtue ethics, according to which the virtuousness of an act is assessed independently from any other act or concrete circumstances, is just wrong. Appiah would have a much cleaner argument if he took the beliefs preferences and constraints model seriously, and if he analyzed social interaction in game-theoretic terms.

Why Humans Cooperate: A Cultural and Evolutionary Explanation (Evolution and Cognition)

Creative Synergy between Theory and Ethnography — Rating: 5/5

Charles Darwin is the true father of sociobiology, having written two books applying evolutionary theory to human behavior---The Descent of Man (1971) and The Expression of Emotions in Animals and Man (1872). The next great contribution to the subject was Edward O. Wilson's Sociobiology (1985). This quite startling hiatus of more than a century has a very simple explanation: Darwin's theory had be rather consistently interpreted in a bitterly right-wing manner by social Darwinists and later Nazi ideologues. The greatest anthropologists, including Margaret Mead and Franz Boaz, reacted by claiming that all of social life is \\"socially constructed\\" independent from the biological constitution of humans. In effect, they argued that humans had transcended their evolutionary origins through the development of culture.

Edward O. Wilson's brilliant contribution set off a maelstrom of controversy, with anthropologists in the forefront of condemning both Wilson's book and any notion that biology is important for understanding human behavior---see the account of Ullica Segerstrale, Defenders of the Truth: The Sociobiology Debate (Oxford: Oxford University Press, 2001). However, the scientific character of Wilson's work was incontestable, and several other biologists of the highest caliber, including Marcus Feldman, Luca Cavalli-Sforza, Robert Boyd, Peter Richerson, William Durham, Richard Wrangham, and Richard Alexander, made critical contributions to what is now called gene-culture coevolution in the period leading up to Wilson's work. The long and the short of it is that the period between 1985 and the present witness a furious period of development of sociobiology, so that at present it is a key element of modern behavioral science, even though it remains a minority view in most behavioral disciplines.

The reaction against sociobiology in departments of anthropology in American university led to a halt in the growth of the discipline. Anthropology was captured by an anti-scientific ideology called \\"post-modernism\\" that rejected the notion of the scientific study of society altogether. The beauty of Natalie Henrich and Joseph Henrich's book Why Humans Cooperate is that it shows that one can combine a scientific approach to studying society with a sensitive and insightful ethnographic approach to understanding real live social communities.

Why Humans Cooperate could well serve as an introductory text in anthropology for undergraduates, but I recommend it to any intelligent layperson who wants to learn how modern gene-culture coevolution and evolutionary psychology elucidate and enliven the description and analysis of social

groups---in this case the Chaldeans of Detroit, who are Christians from Iran who came to the United States to flee persecution, at the turn of the Twentieth century The Chaldeans are studied in detail by Henrich and Henrich.

The introductory chapters, laying out basic evolutionary theory, do a fine job of showing how culture is subject to an evolutionary dynamic quite parallel to genetic evolution, and succeeding chapters show how human society provides a framework for the evolution of human genetic predisposition for altruistic and prosocial behavior. All of this is brilliantly applied to the interpretation of Chaldean culture in the remainder of the book.

This book will help overcome the dead hand of post-modernism in anthropological theory, by showing how one can do serious science while taking equally seriously the marvelous and inscrutable beauty of human communities.anti-scientific ideology called \\"post-modernism\\" that rejected the notion of the scientific study of society altogether. The beauty of Natalie Henrich and Joseph Henrich's book Why Humans Cooperate is that it shows that one can combine a scientific approach to studying society with a sensitive and insightful ethnographic approach to understanding real live social communities. Why Humans Cooperate could well serve as an introductory text in anthropology for undergraduates, but I recommend it to any intelligent layperson who wants to learn how modern gene-culture coevolution and evolutionary psychology elucidate and enliven the description and analysis of social groups---in this case the Chaldeans of Detroit, who are Christians from Iran who came to the United States to flee persecution, at the turn of the Twentieth century The Chaldeans are studied in detail by Henrich and Henrich. The introductory chapters, laying out basic evolutionary theory, do a fine job of showing how culture is subject to an evolutionary dynamic quite parallel to genetic evolution, and succeeding chapters show how human society provides a framework for the evolution of human genetic predisposition for altruistic and prosocial behavior. All of this is brilliantly applied to the interpretation of Chaldean culture in the remainder of the book. This book will help overcome the dead hand of post-modernism in anthropological theory, by showing how one can do serious science while taking equally seriously the marvelous and inscrutable beauty of human communities.

Memo to the President Elect: How We Can Restore America's Reputation and Leadership

A Diplomat's View of Foreign Policy — Rating: 2/5

Madeleine Albright's first message, and prime directive, to the President elect is: \\"You must begin with the understanding that our right to lead is no longer widely accepted. We have lost moral legitimacy. If we fail to comprehend this, we will...be like a lawyer who assumes that, because of past triumphs, she has the jury in her pocket when she hasn't, precisely because the jury resents being taken for granted.\\" (p. 22) Such notions as the \\"right to lead\\" being \\"accepted\\", and \\"moral legitimacy,\\" as well as the idea that international affairs is like a trial with \\"lawyers\\" and \\"juries\\" are the key to understanding Albright's vision of the world of foreign affairs. In effect, Albright equates foreign affairs with diplomacy---the capacity to create an atmosphere of cordiality and resolve that permits the United States to continue to hold its preeminent position in the world.

It is not hard to see why Albright's vision of the world might be welcome to an American public that has witnessed what is perhaps the most incompetent diplomacy every sustained by an American president. The arrogance, ignorance, and abject provincialism of the Bush administration is perhaps without equal (I'm sure an historian can set me right on that one). But, there are severe limits to the ability of effective diplomacy to solve America's problems. It would be nice to be able to say that the world consists of Good Guys (us) and Bad Guys (terrorists and dictators), while most of the world's population is the jury, who will decide which side wins. However, this is not the case.

Indicative of the diplomat's world view, there are no hard constraints, no real trade-offs to be made, no irreducibly difficult decisions that must be executed. We should oppose terrorism, world poverty, nuclear proliferation, and global warming. We should support democracy, gender equality, tolerance, and human rights. We should act as an exemplary society embodying these ideals.

Of course, these things are worth being said, and the ideals espoused by Albright are the real reason that America deserves to be given a chance at world leadership. We are the country that opposed, and defeated, the major totalitarian onslaughts of the twentieth century. We are the country that save Europe and Japan from the most horrible forms of barbarism imaginable. We are the country in which the blending of races and cultures has produced the world's premier dynamically multiethnic/multiracial society. We are the country that produced the movement for gender equality that is undermining patriarchy throughout the world. We are the country that is the dream of migrants the world over. Ours is an economy that is inclusive, welcoming immigrants and assimilating them virtually completely in less than two generations. With all of our faults, including our criminal support for human rights violators in Africa and Latin America and our propping up of despotic dictators in oil-rich countries, America still has a mission to carry out in the world.

All this is to say that it would be a mistake to counter Albright's rosy and high-minded diplomatic world view with the more traditional notions of realpolitik: Machiavellian power politics, speak softly and carry a big stick, all politics comes from the barrel of a gun. Rather, history is the history of the struggle and victory of the simple people, and social justice takes the form of the poor and the dispossessed fighting for their rights and achieving them. In that world view, the best foreign policy advice to our next President would be: support people's struggles around the world, place democracy and civil rights about all else, and recognize that in the long run, our security as a nation depends on the number and power of nations that share our form of government and our culture of freedom, dignity, and equality.

The most recent President who offered a vision of this sort was Ronald Reagan, perhaps our greatest President since Roosevelt (despite his criminal support for death squads in Latin America---the product of an overzealous but admirable anti-communism). We need a new leader who is capable of voicing this simple optimism for the American way of life.criminal support for death squads in Latin America---the product of an overzealous but admirable anti-communism). We need a new leader who is capable of voicing this simple optimism for the American way of life.

Party of One: Arnold Schwarzenegger and the Rise of the Independent Voter

In this case, One is a Majority — Rating: 4/5

Basic disagreements among Americans are limited to a few, mainly religious areas, such as creationism, gay marriage, abortion rights, and sex education. Otherwise, there is remarkable agreement on such basic values as civil liberties, democracy, social security, individual opportunity and responsibility, parental rights and obligations, non-discrimination based on race or creed, freedom of religious expression, tolerance of cultural and ethnic differences. There is not even much disagreement on such basic values as fairness, honesty, trustworthiness, fidelity and the other character virtues.

Why, then, does it seem that Americans can be divided into distinct camps called \\"liberal\\" and \\"conservative,\\" with very clear characteristic social and economic policies attached to each camp? Part of the answer is that these ideological boundaries are heavily overdrawn: most Americans are not firmly wedded to the philosophical positions of the parties they vote for, and indeed many (about 30% of) voters are self-professed Independents. Part of the answer is that in a two-party system, the commitments of a party are the result of historical forces giving rise to \\"unholy alliances\\" that have little to do with ideologically coherent bodies of thought. For instance, international isolationism has wandered back and forth between the parties over the years, as has protectionism. The fundamentalist religious groups have allied with the Republicans, and progressive Catholic with the Democrats (despite disagreement over the abortion question), but there is no logical connection between free markets and restrictions on how people their lives in the privacy of their homes and intimate relations. Similarly, the southern racists were tightly allied with the Democratic party until 1960 or so, whereas since, Democrats have been strongly anti-discriminatory. Yet again, Democrats for many years argued for deficit spending and republicans for a balanced budget, but in the past fifteen years, this has turned around.

Daniel Weintraub's journalistic biography of the political career of Arnold Schwarzenegger stresses that the ex-weightlifter, ex-actor, now politician is a new breed of politician who does not conform to the ideology of either party, but rather attempts to address social problems with whatever tools seem best to achieve a successful outcome. Weintraub does a fine job of outlining Schwarzenegger's positions and policies, and has a clear-eyed and insightful understanding of the governor of California's strengths and weaknesses.

Schwarzenegger is a self-made man who grew up believing anyone could be successful if he or she just tried hard enough. Only in his third brilliantly successful career (politician) did he come to understand that some people are sufficiently disadvantaged that they cannot achieve their potential through sheer self-will and personal ambition. You can't pull yourself up by your bootstraps if you don't have any boots, Schwarzenegger found out, and this led to his commitment to improving the lives of the poor and disadvantaged. Schwarzenegger came to realize that his success was predicated on a family life and an array of social policies (in his native Austria) that fostered independence and self-confidence---social conditions that huge numbers of people in the United States, and indeed the world, lack. Similarly, Schwarzenegger grew up valuing free enterprise and the entrepreneurial spirit, but learned early in his political career, that vigorous public policy is needed to protect the environment against the hazards of modern industry and high level energy consumption. In this and many other areas, we find the governor taking positions that indicate a real care for solving the problems, without the usual level of consideration for what the party platform says.

There is no doubt but that our two parties are corrupted an in need of an overhaul made possible because of the increased number of independent voters. The Democrats profess to believe in helping the average citizen, but they support the massively anti-progressive teachers unions, who stifle competition and choice, render a decent education for the poor impossible, who fight against meritocratic reward for teachers and the firing of incompetent teachers, and who absorb increases in educational funding in the form of increased teacher salaries. The Democrats depend on organized labor, which is really just a labor aristocracy with absolutely no future except in the public sector, where it greedily opts for lining its pockets at the expense of the average taxpayer. The Republicans depend on a small minority of religious fundamentalists and the super-rich for its funding success, and they thereby betray their ostensibly individual responsibility creed at every turn. It's time for a large number of Schwarzeneggers to emerge from the political fray to open up the creative possibilities of our political future in America.Democrats profess to believe in helping the average citizen, but they support the massively anti-progressive teachers unions, who stifle competition and choice, render a decent education for the poor impossible, who fight against meritocratic reward for teachers and the firing of incompetent teachers, and who absorb increases in educational funding in the form of increased teacher salaries. The Democrats depend on organized labor, which is really just a labor aristocracy with absolutely no future except in the public sector, where it greedily opts for lining its pockets at the expense of the average taxpayer. The Republicans depend on a small minority of religious fundamentalists and the super-rich for its funding success, and they thereby betray their ostensibly individual responsibility creed at every turn. It's time for a large number of Schwarzeneggers to emerge from the political fray to open up the creative possibilities of our political future in America.

Basic Economics: A Common Sense Guide to the Economy

Solid introduction, but imbalanced in dealing with economic policy — Rating: 4/5

If people ask me to recommend popular expositions of basic evolutionary biology or quantum physics, I have no trouble. In these and many other areas of natural and behavioral science brilliant expositions of basic theory abound. Economics is a different story. It is invariably the case that a popular economics book has a \\"point of view\\" that presents a biased and fundamentally unbalanced description of the state of knowledge in economic theory and policy. I do not know why this should be the case, but it is. Invariably.

One might argue that there are no agreed-upon \\"principles of economics\\" on which there is general consent among professional economists. This surely used to be the case when neoclassical economics,

Marxian economics, Keynesian economics, and Institutional economics all held court. But, over the past two decades, a startling degree of unanimity on basic principles has developed---to the point where one can no longer say that there are alternative \\"schools of thought,\\" except for a very small minority of beleaguered \\"heterodox\\" followers of some venerable guru, such as Marx, Veblen, von Mises, or Keynes.

This does not mean, of course, that economists agree on economic and social policy. For one thing, there are many things we simply do not understand very well. Take \\"corruption,\\" for example. I believe corruption is a major impediment to growth in poor countries, but others believe corruption is a symptom rather than a cause, and I have neither the data nor the analytical model that can convince them otherwise. For another thing, economists differ in fundamentally normative ways. For instance, some believe that poverty is an abomination that should be addressed with all our economic resources. Others have a taste for reversing global warming, and others believe government should get out of the business of \\"solving social problems.\\"

Sowell's book, Basic Economics, comes pretty close to being a neutral exposition of what economists know about running the economy. There is no statement of fact, no statement of economic principle in this book with which I disagree, even though my background is from the Left, and I have never voted for a Republican in my life, and Sowell is the arch-conservative guru of Hoover Institution fame. I am sure some of my Left colleagues will be shocked at this statement, but I predict that their objections to Sowell's basic principles will be simply wrong.

So, I would offer this book to acquaintances who want to \\"learn something about economics.\\" However, Sowell's presentation is severely unbalanced in the presentation of basic economic issues. Most important, we have had a valuable model of the interaction of markets and state for the past forty years, and in the past twenty years this has involved an impartial treatment of market successes and failure, as well as the successes and failure of state interventions. Sowell treats market vs. state as a competition in which the market is almost always \\"good\\" and the state intervention almost always a disaster. By contrast, modern economic theory presents economic development as the joint growth and inextricable interaction of both state and market. We are trained to ask, in the face of a market failure, whether there is an appropriate remedy in the form of state intervention, but we are not predisposed to a negative answer. Indeed, the modern economy is precisely a synergistic interaction of state and market, with rather small deviations from a common model in all advanced countries.

As a general statement, I would say that markets do well in dealing with highly decentralized informational systems, whereas states do well in making the rules of game followed by participants in market exchange. As soon as state attempt to produce goods and services, or predict winners and losers, they are out of their domain of comparative advantage, and do poorly. On the other hand, there is nothing in fact, or in economic theory, thatsupports the notion that market exchange can generate efficient and welfare-enhancing rules of the game.

Another example of Sowell's bias is his treatment of poverty and inequality. Sowell says very clearly that it is not right to take from those who have earned their income and wealth to give to those who have little. This right-wing principle seems to me to be grotesque and bizarre. Humans have been redistributing material wealth since the time of our hunter-gatherer forbears. If a crumb is redistributed from a man with a surfeit of fine food to a starving child, this appears to be to be a just and fair act. Of course, taking from a hard-working family to support an antisocial drug addict might well be unfair, but this is a different story.

The basic unfairness of the capitalist economy is that people are born into a particular economic station, and that station will severely affect their ability to realize their ambitions and exercise their human capacities for self-realization. There is no way to avoid this situation, but Sowell does not even mention this issue is this volume. Pity.

Contemporary American liberals will not like this book because it defends free international trade and criticizes many of the types of programs liberals favor. However, I think Sowell is usually correct. On the other hand, there have been monstrously successful liberal program that Sowell does not acknowledge, such as social security, Medicare, EITC, and the welfare system. We need similar programs to deal with world poverty, domestic poverty, environmental destruction, and several other important social issues. The correct way to deal with this problems is to use the market system, but to erect incentives that lead

private individuals and firms to act on behalf of the public interest. Only a strongly synergistic pattern of market and state activity can conceivably succeed. Sowell's imbalance in favor of markets is, in this respect, part of the problem rather than part of the cure.supports the notion that market exchange can generate efficient and welfare-enhancing rules of the game.

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Rationality and Coordination (Cambridge Studies in Probability, Induction and Decision Theory)

Prescient and Full of Insights — Rating: 5/5

Cristina Bicchieri has been in the forefront of the implications of game theory for social theory and philosophy for some twenty-five years. This book, which was published in 1993 is extremely advanced for its time. I only wish I had read it ten years before I did. It would have saved me much travail and considerable grappling with the difficult problems of game theory.

The beauty of this book is its capacity to link modal logic and evolutionary biology in the attempt to deal with the contradictions and lacunae of classical game theory. She does not provide a neat, logically tight, argument, but rather experiments with a number of fruitful ideas that draw her in different, and often incompatible, directions.

Bicchieri's main point is that rationality is not enough to bring about the coincidence of beliefs that are required to support Nash equilibrium. I agree with her that this is the singe, most important, weakness in classical game theory. Actually, this would not be a weakness at all if the game theorists simply admitted this fact and went on to see what other principles are needed to model human strategic interaction successfully. However, the doctrine of methodological individualism, which holds that all social explanation can be reduced to the characteristics of individual actors, virtually commits game theorists to the position that rationality (the only characteristic of humans they consider) is sufficient to explain strategic interaction.

Bicchieri argues that what is needed in addition to Bayesian rationality is a theory of belief formation and change. Again, I think this is absolutely correct. Bicchieri bites the bullet and actually tries to develop such a theory of belief formation and change, involving both modal logic and evolutionary dynamics. While I believe this theory may apply in a few cases, but is certainly a full-fledged model.

I particularly like Bicchieri's treatment of the contradictions of game theory, particularly those associated with backward induction. Around the same time Reny, Binmore, and others were claiming as much, but Bicchieri's modal logic treatment is extremely persuasive and illuminating. Another insightful, and prescient, point she makes is that models that predict Nash equilibrium on the basis of rationality invariably make assumptions concerning error rates and/or the accuracy of signals that are both unrealistic (e.g., zero errors and perfect signals) whose abandonment leads to the total failure of the model's predictions. We now know that errors and imperfect signals are ineluctable aspects of strategic interaction and must be explicitly modeled.

One curious omission in this book is the issue of when rational agents can be expected to play mixed strategies. It was certainly known at the time that in a one shot, an individual had no reason to play a mixed strategy, or to expect other players to do so. Harsanyi had offered his defense of mixed strategies in the form of his Purification theorem, and Aumann and Brandenburger (1995) had offered the alternative of equilibrium in \\"conjectures.\\" Neither of these alternatives is successful however (Harsanyi's applies only to a few simple games, and the conjecture approach does not even attempt to explain human behavior), a point not developed, or recognized, in this book. Indeed, Bicchieri make the incorrect statement (p.233) that rational agents should play mixed strategy minimax strategy in zero-sum games.

Much has happened in game theory since 1993, but the insights of this volume make it well worth reading today.associated with backward induction. Around the same time Reny, Binmore, and others were claiming as much, but Bicchieri's modal logic treatment is extremely persuasive and illuminating. Another insightful, and prescient, point she makes is that models that predict Nash equilibrium on the basis of rationality invariably make assumptions concerning error rates and/or the accuracy of signals that are both unrealistic (e.g., zero errors and perfect signals) whose abandonment leads to the total failure of the model's predictions. We now know that errors and imperfect signals are ineluctable aspects of strategic interaction and must be explicitly modeled.

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The Grammar of Society: The Nature and Dynamics of Social Norms

Another Great Contribution by Professor Bicchieri — Rating: 5/5

This volume is Cristina Bicchieri's follow-up to her brilliant 1993 book, \\"Rationality and Coordination.\\" In that book, Bicchieri correctly identified the central weakness of classical game theory as its inadequate theory of how individuals acquire and transform their beliefs. A commonality of beliefs (\\"common priors\\") is a precondition for the attainment of a Nash equilibrium by rational agents, yet the classical theory has no model at all of belief acquisition. In that volume Bicchieri made a valiant attempt a providing such a theory, but her model applies to only a few simple forms of strategic interaction.

In this volume, Bicchieri abandons individual learning in favor of social norms as a basis for the commonality of beliefs. Bicchieri distinguishes between social norms, conventions, and \\"descriptive norms,\\" but her analysis actually applies to all. An unexamined assumption in this book is that social

norms must involve altruism or other forms of other-regarding preferences. But, in fact, nothing in the book depends on this distinction. Indeed, Bicchieri develops in some detail the behavioral game theoretic models of altruistic cooperation and punishment. With these in place, it does not matter whether social norms are self- or other-regarding.

Bicchieri argues that social norms create a commonality of beliefs because they are \\"embedded in scripts,\\" by which she means that there are social cues that inform all players what the \\"appropriate\\" norm is for a given social situation. I believe she is quite correct in this insight. Social norms are not merely Nash equilibria---they are highly choreographed affairs based on individuals' in-depth knowledge of social cues.

At least since Schelling (1960) and Lewis (1969), social theorists have interpreted social norms and conventions as Nash equilibria. More recent contributions based upon this key idea include Ken Binmore's Natural Justice (2005). This idea helps explain much about social norms and conventions, but it carries with it all of the defects of the Nash equilibrium concept. The treatment of social norms as Nash equilibria misses one key point about social norms: they are real social institutions that can have causal efficacy, and in particular can serve as coordinating devices. This contrasts sharply with the Nash equilibrium concept, which is a description of a state of affairs without

material instantiation. Social norms are affirmed and fostered, learned and taught, and can be described empirically without recourse to game theory at all. Every known society has a multitude of social norms and conventions that apply to the coordination of social affairs, and are in effect the material cause of coordinated human actions.

Bicchieri explores with great insight the implications of behavior game theory and experimental economics for a model of the interaction of social norms and Bayesian rationality. This should provide a rich mine of ideas for researchers interested in the formal modeling of epistemic and evolutionary social theory.it carries with it all of the defects of the Nash equilibrium concept. The treatment of social norms as Nash equilibria misses one key point about social norms: they are real social institutions that can have causal efficacy, and in particular can serve as coordinating devices. This contrasts sharply with the Nash equilibrium concept, which is a description of a state of affairs without material instantiation. Social norms are affirmed and fostered, learned and taught, and can be described empirically without recourse to game theory at all. Every known society has a multitude of social norms and conventions that apply to the coordination of social affairs, and are in effect the material cause of coordinated human actions. Bicchieri explores with great insight the implications of behavior game theory and experimental economics for a model of the interaction of social norms and Bayesian rationality. This should provide a rich mine of ideas for researchers interested in the formal modeling of epistemic and evolutionary social theory.

The NURTURE ASSUMPTION: Why Children Turn Out the Way They Do

An Engaging and Useful Guide to Parenting — Rating: 4/5

The dominant ideology during my parenting years was the notion that parents are responsible both for the successes and failures of their offspring. Freudians were at the forefront in promoting this ideology, to the point where even autism and asthma were considered the product of poor parenting. The ideology was by no means harmless. Consider the tragedy of the poor mother with an autistic child. Not only was she forced to bear the costs of raising a difficult child, but society blamed her for the \\"cold parenting\\" that led to her child's disorder. It was Hans Eysenck's The Experimental Study of Freudian theories (1973) with G. D. Wilson that convinced me that Freud was seriously misleading, but it took another quarter century before the love affair of the intellectuals was irreparably tarnished.

The traditional disciplines of sociology and social psychology also tended to lay great stress on parenting in the determination of a child's psycho-social development. Certainly there was a considerable body of statistical evidence supporting this notion, but it was shaking in the 1980's when behavioral geneticists showed that half the variance in many behavioral traits was genetically inherited, and the cultural

element tended to be extra-familial (non-shared environment). Judith Rich Harris's blockbuster article in the Psychological Review (1995) was therefore welcomed by many, including myself. Rich supplied an impressive body of evidence that peer effects are far more important than parental influences on adult functioning.

I expected that her book would be an expansion of her Psychological Review paper, but it is not that at all. If there is a table or a t-statistic in this book, I missed it. There is absolutely no evidence of the sort the behavioral scientist takes as persuasive in this book. I do not mean this as a criticism. Rather, I am deeply impressed. What Judith Rich Harris has produced is a philosophy of parenting that tells parents that they are important, but they are not responsible either for their children's successes, or their failures. There are good and bad ways of parenting, but good does not imply success, nor does bad imply failure. Harris urges us to be the best parents we can be, but to watch our children's successes and failure more as natural events than measures of parenting quality.

Harris suggests that the best think a parent can do for a child is provide a social environment in which the child's choice of peers is most likely to lead to a healthy developmental process and a successful adulthood. This is very wise advice

One of her most compelling arguments is that the fact that some parents have had great success in raising healthy children does not imply that all parents could be equally successful, if they only tried. Harris argues that if you have five hard-working, obedient children, you might profitably devote lots of time to their development, whereas if you have five difficult to handle children, perhaps you would do better to get them out of the house as fast as possible. Not bad advice..

Some social theorists have treated Harris's argument as a critique of the standard sociological notion of socialization and the internalization of norms. This is a mistake. If Rich is correct, peers are a more important socialization influence that parents, but her total argument is an affirmation of socialization theory., but they are not responsible either for their children's successes, or their failures. There are good and bad ways of parenting, but good does not imply success, nor does bad imply failure. Harris urges us to be the best parents we can be, but to watch our children's successes and failure more as natural events than measures of parenting quality. Harris suggests that the best think a parent can do for a child is provide a social environment in which the child's choice of peers is most likely to lead to a healthy developmental process and a successful adulthood. This is very wise advice One of her most compelling arguments is that the fact that some parents have had great success in raising healthy children does not imply that all parents could be equally successful, if they only tried. Harris argues that if you have five hard-working, obedient children, you might profitably devote lots of time to their development, whereas if you have five difficult to handle children, perhaps you would do better to get them out of the house as fast as possible. Not bad advice.. Some social theorists have treated Harris's argument as a critique of the standard sociological notion of socialization and the internalization of norms. This is a mistake. If Rich is correct, peers are a more important socialization influence that parents, but her total argument is an affirmation of socialization theory.

Supercapitalism: The Transformation of Business, Democracy, and Everyday Life

A weak vision, based on an excessive preoocupation with income distribution — Rating: 3/5

Liberals are patiently waiting for someone with the intellectual authority and the creativity of vision to supply a political philosophy for modern-day progressives. Robert Reich understands this thirst for meaning, but his most perceptive remarks are critiques of false visions and futile policies, such as opposing globalization, criticizing Wal-Mart, or promoting corporate social responsibility. His criticisms are unfailingly compelling.

Despite the breadth of Reich's knowledge and his considerable ability to convey to the average reader the course of economic change in America since World War II, he does not supply this vision. His basic message is that the capitalist economy has become stronger and more capable over time in meeting the

needs of consumers and investors, while the democratic system has become weaker and increasingly incapable of harnessing economic progress towards egalitarian redistribution and guaranteeing the economic security of the average citizen. His general message is that democracy must be strengthened by increasing the power of the masses at the expense of special interest groups.

Reich never says what the overarching social problems are that must be addressed, nor does he say how to address social problems at all. But, it is clear that he thinks the major economic problem in America is the shift of wealth away from the middle classes and toward the rich. My own perception is that the income distribution is not an important political issue, since no one really cares. Voters in the United States care about terrorism, the environment, family values, health care, social insurance, education and other concrete issues. Income distribution is just an abstraction without political import.

Liberalism and the Left gave us the advanced welfare state, the dismantling of institutional racism and sexism, and the deepening of the underpinnings of personal liberty and dignity. These achievements were not only important enhancements of social welfare, they were remarkably popular. But, it should not be forgotten that in the United States, the political power of progressivism was based squarely on the security of the Southern Democratic political machine, itself predicated on the overt racism and backwardness of Southern society. Social progress in the South was purchased at the price of the undermining of the liberal political base.

Social justice appears not to be very popular. Most inequality is across countries, not within, yet it would be ludicrous to base a domestic political campaign on the promise of curing world poverty. Domestic poverty is a quite serious issue, the poor being ceaselessly subjected to crime, fragmented social community, and horrible schools. Yet, it would be equally ludicrous to believe that elections can be won by promising to improve the position of the poor. Global warming and other environmental issues are very important, but there is absolutely no way they can trumph domestic concerns in the eyes of voters.

I suggest that no longer do the policies that would have the most impact on world social well being have much to do with the policies that get people elected to office. Reich wants to strengthen democracy, but there is no reason to believe that a stronger electorate would produce better outcomes, beyond some redistribution of income and wealth toward the middle classes---which, as I have said, is not worth very much in terms of social welfare.

What is to be done? My answer is that progressives might profitably abandon the notion that politics is about who gets what, and move towards the notion that politics is about morality, justice, family values (including lesbian and gay families) human rights, socio-political equality, and creating a healthy balance between economic growth and environmental quality. The whole history of modern times is the history of the triumph of human rights over the privileges of an authoritarian minority, and there is every reason to believe that this progress can continue.

This route will be difficult to take for liberals. Poor education is central to the maintenance of poverty in America, and poverty is an affront to the human rights of children. Yet, liberals will court the teachers' unions because of their wealth and power, and despite their abject venality, just as liberals in the 1950's courted the Southern white establishment. Liberals supported corrupt leaders around the world on the pretext of fighting Communism, and it took Ronald Reagan to affirm the centrality of democracy in the battle against Communism. The list could go on.

Politics, it is said, makes strange bedfellows. This is true, but only for those who compromise their honor by opportunistic sleeping around. The future lies with organizations like Amnesty International and Medecin Sans Frontieres, not compromised political parties. The future also lies with those that find real solutions to problems, like Grameen banks and educational voucher systems, and fight for them even when they lose votes in the short run.

I am not sure about my prescription, although I am pretty sure Reich is wrong. Perhaps it is a mistake to place our faith in the good will, altruistic sentiments, and freedom-loving propensities of the average citizen. If so, I suspect that the future of society is totalitarian, despite the fantastic success of democracies in defeating totalitarianism in the Twentieth century. \\"On s'engage,\\" Napoleon once said, \\"et puis on voit\\": throw yourself into the fray and see what happens.

My prescription in fact goes against another principle that has always been dear to my heart: the point is not to have the right values---the point is to win. I remember hearing Pete Seager on the Boston

Common during a Fair Play for Cuba rally in 1965 or so. Seager said about the Spanish Civil War, \\"We lost the war, but we had all the good songs.\\" I swore to myself then an there that I would never settle to have the good songs if they did not lead to winning the battles. Perhaps the two sentiments can be reconciled by recognizing that the struggle for human rights and dignity has given us not only the best songs, but also the iron will to fight the despots and bigots that have compromised our humanity. Qui sait? On s'engage, et puis on voit.elieve that this progress can continue. This route will be difficult to take for liberals. Poor education is central to the maintenance of poverty in America, and poverty is an affront to the human rights of children. Yet, liberals will court the teachers' unions because of their wealth and power, and despite their abject venality, just as liberals in the 1950's courted the Southern white establishment. Liberals supported corrupt leaders around the world on the pretext of fighting Communism, and it took Ronald Reagan to affirm the centrality of democracy in the battle against Communism. The list could go on. Politics, it is said, makes strange bedfellows. This is true, but only for those who compromise their honor by opportunistic sleeping around. The future lies with organizations like Amnesty International and Medecin Sans Frontieres, not compromised political parties. The future also lies with those that find real solutions to problems, like Grameen banks and educational voucher systems, and fight for them even when they lose votes in the short run. I am not sure about my prescription, although I am pretty sure Reich is wrong. Perhaps it is a mistake to place our faith in the good will, altruistic sentiments, and freedom-loving propensities of the average citizen. If so, I suspect that the future of society is totalitarian, despite the fantastic success of democracies in defeating totalitarianism in the Twentieth century. \\"On s'engage,\\" Napoleon once said, \\"et puis on voit\\": throw yourself into the fray and see what happens. My prescription in fact goes against another principle that has always been dear to my heart: the point is not to have the right values---the point is to win. I remember hearing Pete Seager on the Boston Common during a Fair Play for Cuba rally in 1965 or so. Seager said about the Spanish Civil War, \\"We lost the war, but we had all the good songs.\\" I swore to myself then an there that I would never settle to have the good songsif they did not lead to winning the battles. Perhaps the two sentiments can be reconciled by recognizing that the struggle for human rights and dignity has given us not only the best songs, but also the iron will to fight the despots and bigots that have compromised our humanity. Qui sait? On s'engage, et puis on voit.

Evolutionary Microeconomics

Engaging Supplement to Graduate Micro Text — Rating: 3/5

This textbook can serve as a supplementary text in a year-long graduate micro sequence, a main textbook in a graduate course on evolutionary microeconomics following a year of standard microeconomics, or an advanced undergraduate \\"honors\\" textbook. The authors position themselves as strong critics of traditional microeconomic theory, but they consider the main flaw of traditional theory to be \\"narrowness,\\" so virtually every contribution in the volume is a deepening of, an elaboration upon, a dynamic version of, and/or an evolutionary version of a standard microeconomic model.

From an analytical standpoint, the book has two relatively strong chapters (out of 9), one on learning by imitation and the other on modeling competitive dynamics among firms in the same industry. Every chapter has some analytical model-building, but generally the ratio of verbiage to model building is very high. There is a tendency to ignore the major journal articles on topics in favor of lesser-known contributions by the authors. For instance, the chapter on institutions references Alchian and Dempsez and Coase, but not Williamson or Hart. Moreover, in good microeconomic tradition, there are absolutely no facts brought to bear on theory, and behavioral economics is barely mentioned.

There are lots of small points to criticize in this volume. There is no index or master bibliography, and the chapter references to the literature are very brief and tend to stress old books and articles rather than the work being done today. The translation from the French is pretty awful. I have taught economics in French, and I am acutely aware of the difficulty of finding the perfect translation of common economic terms, but the translators here do not even try. Here are some examples: (a) \\"the theory of restricted relativity, proposed by A. Einstein\\"; (b) \\"it exists a `standard paradigm'; (c) \\"it

deals with the adequation achieved\\"; (d) \\"the agent is always confronted to well-defined problems\\"; (e) \\"Contrary to the common vulgate shared by some evolutionnists\\"; (f) \\"the only way to escape from this infinite regression...\\";(g) \\"evolutionnist game theory\\".Contrary to the common vulgate shared by some evolutionnists\\"; (f) \\"the only way to escape from this infinite regression...\\";(g) \\"evolutionnist game theory\\".

A Summer Place

Wuthering Heights Redux — Rating: 4/5

Ken is the hunk lifeguard to the rich and beautiful. Bart, Sylvia and their pampered friends call him The Beast. Sylvia is a beautiful Elizabeth Taylor look-alike who secretly loves the hunk. They have a brief affair, then Sylvia spurns him in favor of the rich dissolute Bart. They marry and have a girl, Molly, who falls in love with Ken's son, who had also married a person whom he neither loved nor respected. Sylvia's daughter and Ken's son fall in love, and marry.

That is the plot, except I've left out the interesting parts. It's a very engaging Gothic-type novel that is not as memorable as Man in the Gray Flannel Suit, but was quite a hit, made into a high-profile Hollywood movie, etc. Sloan Wilson is at his best talking about anything that floats: ships, boats, tugs, ice-breakers, schooners, yachts, ferries, what have you. He is also at his best talking about booze. Drinking to excess is the most common form of recreation, besides smoking endless numbers of cigarettes.

I found it hard to put this book down, and lost a couple nights sleep reading avidly. I recommend it heartily to those who like Gothic romance.

The parallel to Emily Bronte's Wuthering Heights is not likely to be coincidental. Ken is Heathcliffe, poor and rebuffed, but making his fortune and dominating the weakling rich alcoholic men who lorded over his younger years. Sylvia as Catherine, who made the mistake of spurning her poor lover and regretting it sorely. Her son is Catherine's daughter Catherine, and Ken's daughter Molly is Heathcliffe's son Hareton. Bart is the sickly, alcoholic Edgar, who marries Catherine and dies.

The difference between the two novels is also significant. Wuthering Heights is a study in the malignancy of vindictiveness. Heathcliffe's life revolves around getting revenge, in the course of which he ruins everyone around him, including his wife and child. His is a portrait in hate without respite. Ken, by contrast, it the fountain of good will and mental balance. The grief of Catherine and Heathcliffe are transformed into the warmth and love of Ken and Sylvia.

Wuthering Heights is perhaps the greatest novel in the English language. A Summer Place is a pleasant diversion. Happy endings are fun, mental health is reassuring, but the novels of greatness revel in the darker human emotions---hate, indifference, spite, vindictiveness, pettiness, and dusty death. I wonder why.e. The grief of Catherine and Heathcliffe are transformed into the warmth and love of Ken and Sylvia. Wuthering Heights is perhaps the greatest novel in the English language. A Summer Place is a pleasant diversion. Happy endings are fun, mental health is reassuring, but the novels of greatness revel in the darker human emotions---hate, indifference, spite, vindictiveness, pettiness, and dusty death. I wonder why.

Economics and Psychology: A Promising New Cross-Disciplinary Field (CESifo Seminar Series)

Professional Introduction to Contemporary Research — Rating: 4/5

Daniel Kahneman and Amos Tversky set into motion some three decades ago a research project that was destined to transform the way economists model human decision-making behavior. Kahneman was awarded the Nobel prize in economics for this work, a few years after Tversky's untimely death. Economists are reputed to be a close-minded and arrogant group, protective of their vaunted position

among the behavioral sciences. However, Kahneman and Tversky's, experimental work was quickly embraced, in the sense that their papers were rapidly published in the top tier of economics journals, and their ideas were blended with the earlier anomalous results on choosing among lotteries by economists---the famous Allais and Ellsberg paradoxes.. The research that grew up around psychological experiments on human decision-making blossomed into a field know as \\"behavioral economics,\\" which had immediate applications to such applied fields as behavioral law and economics, behavioral finance, and behavioral macroeconomics.

The editors of this volume embrace a traditional interpretation of the Kahneman-Tversky behavioral revolution. The book jacket proclaims that behavioral research \\"calls into question the assumption of complete rationality,\\" and early in the books introduction, they claim that this work \\"provides an alternative to the classical economic approach of subjective expected utility maximization.\\" Ralph Herwig discusses the most important development in behavioral decision theory in many years in the final chapter of this volume: modeling heuristic decision-making under conditions of costly information processing, led by Gerd Gigerenzer and his coworkers. Gigerenzer has also vigorously expressed the notion that the economist's model of decision-making is empirically refuted.

I want to register my objection to this interpretation of behavioral economics. Economic theory has a far more powerfully developed approach to decision-making than does psychology, for which the subject reduces to a heterogeneous collection of insights concerning deviation from the standard rational actor model. More important, decision theorists are in the process of incorporating observed choice behavior into the rational framework, so behavioral research enriches rather than undermines three centuries of research into rational decision-making behavior.

To document the rejection of the rational actor model in standard psychological theory, I reviewed a number of leading graduate and undergraduate textbooks recently. I found that none treats decision-making as a core psychological phenomenon. For instance, Sternberg and Wagner (1999} devotes the ninth of eleven chapters to ``Reasoning, Judgment, and Decision Making," offering two papers, the first of which shows that human subjects generally fail simple logical inference tasks, and the second shows that human subjects are irrationally swayed by the way a problem is verbally ``framed" by the experimenter. Goldstein (2005} placed ``Reasoning and Decision Making" the last of twelve chapters. This includes one paragraph describing the rational actor model, followed by many pages purporting to explain why it is wrong. In Mazur (2002}, choice is covered in the last of fourteen chapters, and is limited to a review of the literature on choice between concurrent reinforcement schedules and the capacity to defer gratification. Summing up a quarter century of psychological research in 1995, Paul Slovic asserted, accurately I believe, that ``it is now generally recognized among psychologists that utility maximization provides only limited insight into the processes by which decisions are made." (Slovic (1995}:365 ``People are not logical," psychologists are fond of saying, ``they are psychological."

I think this understanding of the behavioral revolution in economics is immature and completely wrong-headed. Experimental results complement rather than contradict the rational actor model, which remains perhaps the most powerful tool in the social scientists repertoire (Gintis, Behavioral and Brain Sciences 2007}. I am reminded of an earlier stupidity (yes, it deserves our condemnation), when the gene was rediscovered at the turn of the 20th century, the Genetics School used its results to deny Darwinian evolution. Not until Ronald provided the theory that unified evolutionary and genetic theory was the full power of either revealed. We are searching for a parallel synthesizer in discrepancies between behavioral psychology and rational choice theory.

But, the book under review is only in passing about the Kahneman-Tversky influence on decision theory. Rather, it focuses on a second wave of behavioral experiments involving strategic interaction (game theory) rather than single-agent choice (decision theory). Economists have been at the center of this new \\"behavioral game theory,\\" which began with the famous ultimatum game experiment of Werner Gueth in 1982 (Guth, 1982). Indeed, except for Ralph Herwig, almost every contributor to this volume is trained in economics or business rather than psychology. Nor is there any analysis of the effect of economics on psychology, except again Herwig's argument that psychologists should spend more time analyzing behavior in institutional rather than laboratory contexts.

Behavioral game theory has produced some quite notable results. Most important, researchers are corroborating what sociologists and social psychologists have known for a long time: human beings are

not the self-regarding, asocial, materialistic creatures assumed in traditional economic theory under the rubric of homo economicus. Rather most laboratory and field subjects care about fairness and justice, and are willing to sacrifice material gain in the pursuit of normative goals. Moreover, most individuals have a more or less firm commitment to such character virtues as honesty, dependability, and trustworthiness, and are willing to forego some level of personal material reward in order to conform to the principles of virtuous conduct. More generally, people care about process as well as outcome in their interactions, so are more likely to contribute to a project that was democratically chosen rather than autocratically imposed, and their notions of fairness include such other-regarding elements as returning good for good and evil for evil.

The various contributors to this volume are almost all highly visible and creative leaders in their fields. The chapters are uniformly informative and well written. Several are illuminating in both reviewing the literature and providing an analysis of a single issue in journal article depth. Topics covered include prosocial behavior and trust in general, conditional cooperation and punishment, gender differences in trusting behavior, the neuroeconomics of decision-making, measuring subjective satisfaction and finding its causes, problems of self-control and time inconsistency, procedural utility, and recommendations for closer collaboration of psychologists and economists.the most powerful tool in the social scientists repertoire (Gintis, Behavioral and Brain Sciences 2007}. I am reminded of an earlier stupidity (yes, it deserves our condemnation), when the gene was rediscovered at the turn of the 20th century, the Genetics School used its results to deny Darwinian evolution. Not until Ronald provided the theory that unified evolutionary and genetic theory was the full power of either revealed. We are searching for a parallel synthesizer in discrepancies between behavioral psychology and rational choice theory. But, the book under review is only in passing about the Kahneman-Tversky influence on decision theory. Rather, it focuses on a second wave of behavioral experiments involving strategic interaction (game theory) rather than single-agent choice (decision theory). Economists have been at the center of this new \\"behavioral game theory,\\" which began with the famous ultimatum game experiment of Werner Gueth in 1982 (Guth, 1982). Indeed, except for Ralph Herwig, almost every contributor to this volume is trained in economics or business rather than psychology. Nor is there any analysis of the effect of economics on psychology, except again Herwig's argument that psychologists should spend more time analyzing behavior in institutional rather than laboratory contexts.
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Game Theory: 5 Questions

Entertaining and Useful for Experts — Rating: 4/5

The most important facts about this book are (a) it is not for beginners, or even for those who apply game theory but do not care about theory in itself; and (b) it is very interesting and entertaining for

game theorists and those who like game theory as an intellectual exercise. The range of authors interviewed is very wide, so there is much to learn for most readers, who will be acquainted only with a subset of the areas discussed. There is perhaps too much emphasis on economics and not enough on biology (and none on any other behavioral discipline), given that game theory has many more solid explanatory and empirical successes in animal behavior theory and epidemiology than in economics, where only auctions, and perhaps industrial organization, are solid successes.

Of the five questions asked each of these game theorists, the only generally interesting question is an inquiry into what the interviewee thinks are really interesting successes in his own work and others. The answers often amount to a short review and bibliography on the person's work, which is very valuable.

I found the views of these game theorists (most of whom I know) to be generally mature and insightful. The only wrong-headed and sophomoric comments I encountered were Robert Aumann's critique of experimental economics which were incorrect, uninsightful, and not worthy of this great man. The idea of theorists criticizing empirical researchers would be unheard of in a truly scientific field, which economics is not, precisely because it refuses to take theory as a handmaiden to the facts. What Aumann does not appreciate is that game theory has revolutionized the methodology of data gathering in the behavioral sciences, as witnessed by the Nobel prizes of Daniel Kahneman, Vernon Smith, and others. Without game theory, the behavioral economics revolution could not have happened, and microeconomic theory would still be the wasteland of arid theorizing that students have had to suffer through since the mid-Twentieth century.

Let me give some specifics from Aumann's interview. \\"The conclusions of behavioral economics are based to a large extent on questionnaires and polls,\\" says Aumann. This is just completely false. I can't think of a single result in the experimental literature that depends in any way on polls, and questionnaires are used only for debriefing, demographic information, and the like. \\"Another problem is that the conclusions are based partly on experiments with money. Though there is some incentive given, this is usually small and people don't really pay much attention to it,\\" says Aumann. This is quite misleading. Subjects in most experiments are motivated to participate solely on the basis of financial reward, and the amounts involved are comparable to wages that they could earn elsewhere. Field studies often use incentives that are extremely high compared to the daily wage, and there is no data indicating that subjects \\"don't pay much attention\\" to the monetary payoffs to the games they play. Aumann's views on this matter are shockingly uninformed. Aumann also says \\"I agree with the behavioral economists that people don't think about the decisions they make.\\" First, this is a gross distortion of what behavioral economists say, to the point of being a malicious parody. Of course people think about the decisions they make, and humans are very, very fine decision-makers. Aumann's alternative account of decision-making is plausible, but not at all in conflict with the experimental literature. I am deeply distressed by Aumann's remarks. They indicate a serious area of misunderstanding in game theory. What is surprising, perhaps, is that there is so much unity in the views of game theorists concerning what we have learned and what remains to be accomplished in the future.nce the mid-Twentieth century. Let me give some specifics from Aumann's interview. \\"The conclusions of behavioral economics are based to a large extent on questionnaires and polls,\\" says Aumann. This is just completely false. I can't think of a single result in the experimental literature that depends in any way on polls, and questionnaires are used only for debriefing, demographic information, and the like. \\"Another problem is that the conclusions are based partly on experiments with money. Though there is some incentive given, this is usually small and people don't really pay much attention to it,\\" says Aumann. This is quite misleading. Subjects in most experiments are motivated to participate solely on the basis of financial reward, and the amounts involved are comparable to wages that they could earn elsewhere. Field studies often use incentives that are extremely high compared to the daily wage, and there is no data indicating that subjects \\"don't pay much attention\\" to the monetary payoffs to the games they play. Aumann's views on this matter are shockingly uninformed. Aumann also says \\"I agree with the behavioral economists that people don't think about the decisions they make.\\" First, this is a gross distortion of what behavioral economists say, to the point of being a malicious parody. Of course people think about the decisions they make, and humans are very, very fine decision-makers. Aumann's alternative account of decision-making is plausible, but not at all in conflict with the experimental literature. I am deeply distressed by Aumann's remarks. They indicate a serious area of misunderstanding in game theory. What is surprising, perhaps, is that there is so much unity in the

views of game theorists concerning what we have learned and what remains to be accomplished in the future.

Uncertainty: Einstein, Heisenberg, Bohr, and the Struggle for the Soul of Science

Elegant and exciting — Rating: 5/5

I read two graduate texts on quantum mechanics recently. The first took an historical approach, beginning with Planck's work on black-body radiation, then Einstein's treatment of Brownian motion and light quanta, proceeding on to Bohr's atom, Compton scattering, the Zeeman effect, and so on. The second started out by saying (I paraphrase), \\"Here's Schroedinger's equation. The rest of the book goes through various solutions, with different potentials.\\"

I find it completely incredible that this little equation can have so many implications, none of them ever having been found to be wrong. Lindley's book is about the \\"meaning\\" of quantum mechanics, a project that most physicists consider irrelevant at best. I still remember listening to Feynman's Cal Tech lectures on quantum mechanics, where his urged his student not to try to figure what the equation \\"means.\\" Rather, he urged them just to solve it and get an intuitive \\"feel\\" for how it works. Quantum mechanics doesn't \\"mean\\" anything. It just is.

This stance is not enough for many people, including virtually all of its creators, who worked in the dizzying years of discovery, 1900 to 1927. Bohr' model did fit some of the specroscopic data on hydrogen very well, but he spent most of his intellectual (as opposed to organizational) energy thereafter ruminating on the principle of complementarity and the so-called Copenhagen interpretation of quantum mechanics. The next generation of physicist could not have cared less. When asked about Bohr's interpretation, Dirac replied that there were no equations, so there was nothing of interest there.

This may be the bast book ever written on the topic, despite its elementary nature. Lindley handle complex topics (e.g., Mach and Carnap) with ease and brevity, yet capturing the essence of the issues. His descriptions are what might be termed \\"stream of consciousness\\" physics, because he has the ability to enter and explore highly heterogeneous modalities of consciousness, without ever leaving the physics far out of the picture. After you have read this wonderful book, try Abraham Pais' biographies of Einstein and Bohr. They are more work, but more than worth the effort.thout ever leaving the physics far out of the picture. After you have read this wonderful book, try Abraham Pais' biographies of Einstein and Bohr. They are more work, but more than worth the effort.

Putting Logic in Its Place: Formal Constraints on Rational Belief

Lots of fun and thought-provoking — Rating: 4/5

The Oxford series of which this slim volume is a member is a very exciting series of books designed to be introductions to major areas of intellectual life--sort of a \\"dummies\\" series for academia. I have read many of these slim volumes with great profit.

This contribution is introductory only in the sense that it does not presume that the reader has read the relevant literature. It is not introductory in that the issues dealt with are highly specialized, and the general field of \\"logic\\" is not covered at all. Indeed, the author assumes we are interested in a particular form of modal logic in which truth is replaced by something like warranted belief.

This is a very interesting idea, leading to a host of interesting problems that do not arise in standard logic. For instance, Modus Ponens says that p and (p implies q) implies q. Not for Cristensen. If you believe p and you believe p implies q, but you don't believe q, then you have a problem. Perhaps you you stop believing p, because you are pretty hooked on q being true. Or, perhaps p does not imply q.

A key problem addressed by Christensen is the following. Suppose p stands for \\"the ball in in the red urn\\" and q stands for \\"the ball is in the green urn.\\" If I know the ball is in one of the urns, then I

believe p or q, but if I don't know which one it is in, then I don't believe p and I don't believe q. Now in standard logic p or q is true implies p is true or q is true. But in this modal logic, I can believe p or q, but I don't have to believe p or believe q.

Christensen uses this and other techniques to argue that we need a graded, probabilistic notion of belief, not a zero-one notion. This of course is what Bayesian have maintained all the time. Indeed, I even find the idea of believing something with probability one to be questionable, since there is no way to update if you are wrong (without having implausible hierarchies of belief).

The Soulful Science: What Economists Really Do and Why It Matters

We need more solid books like this — Rating: 4/5

Want to find out about quantum mechanics without sweating out all the partial differential equations? There are a dozen excellent books. Want to find out about what's happening in economics without slaving over arcane journal articles? You are out of luck. Once in a while an interesting economics book will come along, but invariably by someone proselytizing for his own particular take on the policy issues of the day, or eager to teach you the bizarre behavior of the neoclassical rational actor. I have longed for a solid description of what's been happening in the field recently by a competent economist without a policy bone to pick. At last I would have something to offer my friends and family so they could actually answer the oft-repeated question \\"What do economists actually have to say about the issues of the day when they're not simply expressing their personal political views, or those of their employers?\\" Coyle's book the rare example of such a book.

People are generally ignorant of modern science and they know it. They are even more ignorant of the basic principles of economics, but they think they know more than they do. Therefore, they despise and fear economists, who are easily pilloried as other-worldly academics who throw around big equations but couldn't meet a payroll or punch a time clock if their professional future depended on it. Conservatives and liberals alike cherish basic principles of economics that are as stupid and inane as intelligent design and flat-earth-ism. We need a dozen more books like this excellent contribution by Diane Coyle.

Coyle covers the history and theory of economic growth, the sources and potential cures for world poverty, the nature and source of happiness and its relationship with income and wealth, the economics of adverse selection and moral hazard, rent-seeking and the politics of state intervention, evolutionary economics, behavioral economics, and the new, analytical institutional economics. Since she has a Ph.D. in economics from Harvard, Coyle for the most part acts as a participant in dealing with the issues, not simply a journalist reporting the news. Generally, her take on the various issues is insightful, balanced, and engaging. However, I would be remiss if I failed to find something in the book to grumble about, so I will discuss her treatment of behavioral economics, which I consider more of a journalistic than a professional account.

The common take on behavioral economics is that traditional economics assumes people are rational optimizers whereas the experimental evidence is that they are boundedly rational, or even irrational, non-maximizers. This is incorrect and indeed dangerous. I say this is incorrect because the evidence shows that people are not purely self-interested and they are prone to committing decision-making errors based on both weaknesses of human nature and on having incorrect theories of stochastic events. But there is no evidence that people are not fully rational. This is very important, because the economist's \\"rational actor model\\" is probably the most important tool in their tool box, and one which other social science disciplines (e.g., sociology and social psychology) ignore and thereby render systematic social theorizing impossible. It is even incorrect to say that people are boundedly rational, because basic information theory tells us that bounds on information processing are ensured by the laws of physics and not due to human frailty. Moreover, confusing incomplete or asymmetric information for bounded rationality is a highly serious error that leads us to study human psychology as opposed to the social conditions that determine the distribution of information among agents.

Of course, behavioral psychologists love to criticize the rational actor model, but in fact, there would be no modern behavioral psychology (a la Tversky and Kahneman) if it were not for the rational actor model, which they use in each and every one of their experiments. Prospect theory, for which Kahneman was awarded the Nobel prize in economics, is totally predicated upon the rational actor model, adding to the standard choice model only the notion that choice is always with respect to a status quo position. Since I have gone into this issue in detail in a recent target article in Behavioral and Brain Sciences (\\"A Framework for the Integration of the Behavioral Sciences\\"), I will forgo the pleasure of expanding on the subject here.their experiments. Prospect theory, for which Kahneman was awarded the Nobel prize in economics, is totally predicated upon the rational actor model, adding to the standard choice model only the notion that choice is always with respect to a status quo position. Since I have gone into this issue in detail in a recent target article in Behavioral and Brain Sciences (\\"A Framework for the Integration of the Behavioral Sciences\\"), I will forgo the pleasure of expanding on the subject here.

Social Psychology and Economics (The Society for Judgment and Decision Making Series)

Experimentalists talking to each other — Rating: 3/5

Northwestern University psychologist (and coeditor of this volume) J. Keith Murnighan and Harvard University economist Alvin E. Roth have worked together for some thirty years. Murnighan exclaims in their joint paper in this collection \\"It is completely clear that psychologists and economists take decidedly different approaches to understanding the same phenomena\\". (p. 330)

This should be a startling revelation, and a source of deep consternation to both disciplines. Do not both psychology and economics consider themselves sciences? How can two scientific disciplines disagree in explaining the same phenomena and yet not attempt to resolve their differences? In fact, the two disciplines appear to share a public culture of mutual respect and tolerance, despite the fact that such a culture has no place in the scientific enterprise.

There is no theory in this book. There is no social psychology theory because none exists (just lots of little nano-theories), and no economic theory because economic theory is of no value to social psychology, at least as far as I can ascertain from the editors' choices for inclusion in this collection. Rather, this book consists of social psychologists and experimental economists trading stories and bad-mouthing economic theory. While I take the experimental results discussed in this book as highly important, and they certainly imply that there is lots of work for theorists in coming to terms with actual human behavior, as a person interested in social theory, I am not thrilled with its complete absence in this book. In the rest of this review, I will discuss only how a theorist (in economics or psychology) might react to reading this book.

One theme that comes through several papers in this volume is that economists value a small number of highly general, parsimonious but somewhat inaccurate theories, while psychologists prefer a large number of highly specific theories, each of which is relatively accurate in its domain of application. Is accuracy vs. parsimony, then, an explanation of the differences between the fields? If so, the psychologists must be the winners, because there is little intrinsic value in parsimony, and great intrinsic value in accuracy. However, there is no ultimate value to the proliferation of models, each accurate over a short range of phenomena, unless they can be generalized to a common model of human behavior. For in the absence of generalization, \\"accurate\\" simply reduces to \\"descriptive.\\" The problem with descriptive models is that they reveal little about the underlying behavioral and physiological processes. Economists may have not achieved the goal of scientific explanation of human behavior, but at least their underlying theoretical method offers this as the goal of research. Proliferating descriptive nano-models, by contrast, is an inherently limited enterprise.

Of course, neoclassical economic theorists have their own weakness in their renown lack of interest in \\"the facts.\\" This bizarre group promotes a culture that treats economic theory as a set of axiological truths that may or may not have real-world application. There is no justification for this position.

Indeed, if natural scientists had this attitude over the past few centuries, we still be in the scientific Middle Ages. The Great Equations of Science are the product of painful, direct, extended empirical explorations, not the sort of sui-generis theorizing favored in economic theory.

Social psychologists have a contrasting temperament. Like nature-lovers admiring strange shells on the beach, social psychologists delight in happening upon interesting fragments of human behavior. Do humans distinguish between causing harm and not preventing harm? Wow, that's really interesting! Are many people implicit racists, even though they don't know it? Excellent discovery! A prize find for a social psychologist or behavioral economist is even more cherishedif it violates some Grand Theory, such as the economist's rational actor model. Showing that some Grand Theory is wrong, preferably a theory full of sophisticated mathematics, is to the social psychologist and the experimental economist the prize above all prizes.

There are some fine essays in this book, including those of Kevin McCabe, Iris Bohnet, and Max H. Bazerman and Deepak Malhotra. But, experimentalists talking to each other is not the answer to the deeper questions in the two fields. Pretending that this is the answer, and in particular accepting the social psychologists self-satisfaction with a situation in which the field is a collection of experiments connected to \\"nano-theories\\" that apply to tiny areas of social existence, is unsatisfying.

Economic theory should expand its horizon by applying decision theory, game theory, and perhaps other analytical tools towards developing a more general framework that explains the phenomena treated in this book, as well as other aspects of human behavior that are absent from the standard model of the self-regarding actor. Social psychology should adopt the far superior experimental methodology of behavioral economics, and since this methodology is firmly based in Bayesian decision theory and game theory, social psychology should take decision theory and game theory as the basis for modeling human behavior. Going beyond game theory and decision theory to embrace neuroeconomics may also have great explanatory value.

Social psychology is like anthropology and political science in that all must borrow certain basic principles of human behavior and social organization from other behavioral disciplines (biology, economics, sociology, cognitive and developmental psychology). By so doing, social psychology could become a field based on substantive social theory rather than a plethora of fascinating but ultimately descriptive insights.if it violates some Grand Theory, such as the economist's rational actor model. Showing that some Grand Theory is wrong, preferably a theory full of sophisticated mathematics, is to the social psychologist and the experimental economist the prize above all prizes.

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Does Game Theory Work? The Bargaining Challenge (Economic Learning and Social Evolution)

Game Theory Works, but Not Always Binmore's Way — Rating: 4/5

Ken Binmore is the Renaissance Man of game theory, combining a strong analytical presence and an excellent record of empirical research with a deep appreciation for the social role of game theory and its relationship to evolutionary biology, anthropology, and philosophy. \\"Does game theory work?' is mainly a compilation of his bargaining experiments, but it includes an new introduction explaining the issues behind the title of the book and offering an answer to the question.

The main issue behind the question is the body of experimental results that show that individuals often behave in ways not predicted by classical game theory. This body of data includes the investigation of logic and decision-making by Nobel laureate Daniel Kahneman and his coworkers on Bayesian rationality and the more recent body of experiments on strategic interaction in social dilemmas.

I agree with Binmore's answer, which is that game theory does work, but I think he is wrong and/or misleading in many of the points he makes in the book's introductory chapter. For a broader treatment of these issues, see Herbert Gintis, \\"Behavioral Ethics Meets Natural Justice\\", Politics, Philosophy and Economics 5,1 (2006):5-32.

Since I am one of the \\"behavioral economists\\" who comes into criticism in this chapter, I shall begin by stating my own views. Classical game theory holds that rational actors are self-regarding in the sense that they care only about their own material payoff in games, and they will play in ways that implement Nash equilibria. I think the evidence overwhelmingly supports this prediction in market-like interactions in which individuals cannot affect the behavior of others through strategic interaction. Indeed, Vernon Smith received the Nobel prize in economics largely for showing that this is the case. However, when individuals come into direct, personal, strategic interaction, the classical predictions fail. This is not in the first instance because there is any problem with game theory, but rather because the self-regarding model of human preferences is incorrect. Rather, people care about fairness, honesty, trustworthiness, and are strong reciprocators in the sense that they prefer to return kindness for kindness and unkindness for unkindness, even when this is personally costly in material terms.

Binmore's position, by contrast, is that there is nothing wrong with the neoclassical model of the individual as a largely selfish maximizer of personal material gain, and the apparent value of fairness, reciprocity, and ethical virtue exhibited in experimental settings arise because either the monetary stakes are very low, or the game is so complex that individuals deploy behaviors from every-day life in which these values help a selfish individual to establish and maintain a reputation that is selfishly maximizing in the long run, or individuals simply haven't had enough time to learn how to behave selfishly. I think each of these arguments is incorrect.

First, does the fact that when the monetary stakes increase people behave more selfishly contradict the other-regarding preferences model? Not at all. A simple application of the economist's rational actor model shows that unless one cares infinitely about the non-monetary payoffs, when the when the monetary rewards to a selfish behavior increase and the non-monetary rewards for unselfish behavior are held constant, behavior will shift towards the selfish behavior. For instance, suppose a fraction f(p) of subjects are willing to sacrifice an amount of money p to behave honestly. Then, as p increases, we expect f to fall; i.e. the higher the cost of being honest, the lower the fraction of the subject pool who will act honestly.

Second, it is true, as Binmore stresses, that in many experimental games, subjects begin by playing unselfishly but when the game is repeated many times, they end up behaving selfishly. Binmore interprets thisas \\"learning to play the game,\\" so the original behavior is not altruistic, but simply mistaken. For instance, in the public goods game, subjects begin by contributing more than half their income to the public pool, but after ten rounds, they contribute almost nothing. Is this because they learned how to play? Not at all. It is because some players do not contribute, and contributors feel cheated and respond by not contributing themselves. We know that this is the correct explanation because if we restart the game with experienced subjects, the same people who contributed nothing at

the end of the last series of tries, begin by contributing at their original level (Andreoni, Journal of Pubic Economics, 1988).

Binmore's final argument, that acts of altruism and kindness demonstrated in the laboratory are due to subjects' mistaking the one-shot anonymity of the laboratory for the repeated game, reputation-formation environment of everyday life, is equally without foundation. The most important indication of this is that in fact we experience many one-shot anonymous encounters in everyday life, and people are quite capable of telling the difference between such events and the recurrent ones we share with family, friends, and coworkers. The idea that anonymous one-shots are rare and we are unaccustomed to dealing with them is not plausible.

Binmore believes that repeated game theory's Folk Theorem is sufficient to explain human cooperation, and other-regarding preferences are just a small wrinkle in human behavior. This is bizarre coming from Binmore, who stresses throughout that people only learn to play simple games, whereas the Nash equilibria implemented by the Folk Theorem are horribly complex and depend on highly implausible constructs, such as individuals actually playing mixed strategies, signals been public, a mechanism existing to choose among the continuum of equilibria available, and some dynamical mechanism by which behavior is coordinated and stabilized. For groups of more than five or six agents, the Folk Theorem is a poor model of behavior indeed, and has no empirical support.

Binmore stresses that social institutions choose efficient equilibria from among the myriad Nash equilibria envisioned by the Folk Theorem, but there is no analytical model that supports this assertion. Indeed, as Aumann (1987) has shown, under many plausible conditions the natural equilibrium concept for game theory is the correlated equilibrium, which is highly amenable to instantiation through social institutions. However, it is a long distance from this plausible notion to the idea that human cooperation is based in the main on selfishness, and the other-regarding preferences and ethical proclivities of humans is just a little icing on the cake. My own view is that human society is predicated on our predisposition to behave ethically, and a society of selfish sociopaths, however patient and however enlightened to their own self-interest, would offers lives that are overarchingly nasty, brutish and short.l behavior is not altruistic, but simply mistaken. For instance, in the public goods game, subjects begin by contributing more than half their income to the public pool, but after ten rounds, they contribute almost nothing. Is this because they learned how to play? Not at all. It is because some players do not contribute, and contributors feel cheated and respond by not contributing themselves. We know that this is the correct explanation because if we restart the game with experienced subjects, the same people who contributed nothing at the end of the last series of tries, begin by contributing at their original level (Andreoni, Journal of Pubic Economics, 1988). Binmore's final argument, that acts of altruism and kindness demonstrated in the laboratory are due to subjects' mistaking the one-shot anonymity of the laboratory for the repeated game, reputation-formation environment of everyday life, is equally without foundation. The most important indication of this is that in fact we experience many one-shot anonymous encounters in everyday life, and people are quite capable of telling the difference between such events and the recurrent ones we share with family, friends, and coworkers. The idea that anonymous one-shots are rare and we are unaccustomed to dealing with them is not plausible. Binmore believes that repeated game theory's Folk Theorem is sufficient to explain human cooperation, and other-regarding preferences are just a small wrinkle in human behavior. This is bizarre coming from Binmore, who stresses throughout that people only learn to play simple games, whereas the Nash equilibria implemented by the Folk Theorem are horribly complex and depend on highly implausible constructs, such as individuals actually playing mixed strategies, signals been public, a mechanism existing to choose among the continuum of equilibria available, and some dynamical mechanism by which behavior is coordinated and stabilized. For groups of more than five or six agents, the Folk Theorem is a poor model of behavior indeed, and has no empirical support. Binmore stresses that social institutions choose efficient equilibria from among the myriad Nash equilibria envisioned by the Folk Theorem, but there is no analytical model that supports this assertion. Indeed, as Aumann (1987) has shown, under many plausible conditions the natural equilibrium concept for game theory is the correlated equilibrium, which is highly amenable to instantiation through social institutions. However, it is a long distance from this plausible notion to the idea that human cooperation is based in the main on selfishness, and the other-regarding preferences and ethical proclivities of humans is just a little icing on the cake. My own view is that human society is predicated on our predisposition to behave

ethically, and a society of selfish sociopaths, however patient and however enlightened to their own self-interest, would offers lives that are overarchingly nasty, brutish and short.

Microeconomic Theory

An Evaluation of the Game Theory Material — Rating: 4/5

This compendium of introductory graduate economic theory was written in 1995, yet is still the industry standard. The game theory portion of the book covers about 10% of the total 970-plus pages, and can be considered the \\"common culture\\" of economics graduate students operating in the neoclassical tradition. It appeared later than most of the popular game theory textbooks (including Fudenberg and Tirole, Kreps, and Myerson), but much foundational game theory was produced in the period from 1985 to 1995, and hence is not presented in this, or any other, textbook used in graduate courses. The result is that the current generation of young economists is reared on a rather Utopian and uncritical game theory catechism.

The authors ask the right question: \\"What should we expect to observe in a game played by rational players who are fully knowledgeable about the structure of the game and each others' rationality?\\" (p. 235) They begin to answer this question correctly, relying on the concept of \\"rationalizability\\" developed in 1984 by Bernheim and Pearce (the reader should Google references in this review, as I will not provide the full bibliographical details). They correctly characterize rationalizable strategies as those that survive the iterated elimination of strongly dominated strategies, but they accept uncritically the conclusion that rationalizable strategies \\"can be said to be precisely the set of strategies that can be played by rational players...\\" (p. 243). This is highly misleading. On the one hand, we have Basu's Traveler's Dilemma game in which the only rationalizable strategy is virtually never played by real-life players, even game theorists. Moreover, there is a wide class of games of strategic complementarity, exemplified by Carlsson and van Damme's investment game, in which there is a unique rationalizability strategy which is also risk-dominant. This will be played by real players only when error rates are large, and this is not because there is some failure of rationality. The problem here is that the concept of common knowledge of rationality is in some way faulty. Exactly how is an open question at the moment. Rubinstein's Email Game is another example of a game with a unique but absurd rationalizable strategy.

The authors move on from rationalizability to Nash equilibrium. I believe this is a theoretical error, since the next logical step is to assume common priors and common knowledge of rationality, which Aumann (1987) has shown renders Bayesian rationality equivalent to correlated equilibrium. As Aumann and other authors stress, correlated equilibrium is the \\"natural\\" equilibrium concept in classical game theory, not Nash equilibrium. The correlated equilibrium concept is also a bridge to a game-theoretic analysis of social institutions and \\"social epistemology.\\"

The book's defense of the Nash equilibrium concept is (justifiably) half-hearted, and does not include the strongest justification, from evolutionary game theory (there is no evolutionary anything in this book, much less evolutionary game theory). There is no satisfying justification of the Nash criterion in this book at all, in fact. However, the problems with Nash equilibrium are discussed only in passing, if at all. For instance, the authors never even try to defend the notion that a player will play a mixed strategy in a one-shot game! There are strong defenses of this notion by Harsanyi (the Purification Theorem) and Aumann (Nash conjectural equilibrium). These defense are themselves faulty, accepted by game theorists only because there is nothing better. But, the authors could have broached the subject.

The book makes a half-hearted attempt to deal with the equilibrium refinement literature, and weakly defends perfection, subgame perfection, and sequentiality. Most economists have learned in graduate school that rationality implies backward induction (subgame perfection) even though there is no justification for this view in the primary literature. The authors do little to dispel this notion, although they do present the Centipede Game as an example where backward induction may not be justified. In fact, backward induction can rarely be justified on rationality (or any other) grounds in games where players move two or more times along the equilibrium path of play, except in special circumstances.

In sum, the treatment of game theory is competent but limited, and not intellectually exciting, because the authors do not convey the deep challenges that the commitment to explaining strategic behavior on the basis of Bayesian rationality presents to the game theorist. The problematic status of game theory in its current instantiation are thereby glossed over, so that the deep epistemological problems recognized by professional game theorists are not reflected in the use of game theory by applied practitioners.he primary literature. The authors do little to dispel this notion, although they do present the Centipede Game as an example where backward induction may not be justified. In fact, backward induction can rarely be justified on rationality (or any other) grounds in games where players move two or more times along the equilibrium path of play, except in special circumstances. In sum, the treatment of game theory is competent but limited, and not intellectually exciting, because the authors do not convey the deep challenges that the commitment to explaining strategic behavior on the basis of Bayesian rationality presents to the game theorist. The problematic status of game theory in its current instantiation are thereby glossed over, so that the deep epistemological problems recognized by professional game theorists are not reflected in the use of game theory by applied practitioners.

Social Emergence: Societies As Complex Systems

Useful Contribution to Complex Systems Theory — Rating: 4/5

Human society is a prime candidate for analysis as a complex dynamical system, since societies consist in large numbers of very similar agents engaged in overlapping and interdependent interactions. Despite the power of methodologically individualist approaches in understanding human behavior, they cannot go beyond a certain point, because complex dynamical systems have emergent properties that govern the joint behavior of the individuals who constitute society. Such emergent properties cannot be properly modeled within the confines of the existing behavioral disciplines, because some disciplines (e.g., economics) are thoroughly committed to methodological individualism, and others (e.g., sociology) do not study the precise mechanisms whereby emergent properties result from the interaction of micro-level agents. Sawyer's book focuses on the requirements for a consistent approach to emergent social properties.

Sawyer argues that the agent-based modeling and complexity techniques now used form a \\"third wave\\" of social systems theory, the first being Talcott Parsons' structural-functionalism, and the second being Bertalanffy' work general systems theory. Sawyer's personal emphasis is on the role of communication in constituting complex group intentionality.

The book does a nice job of outline the history of the concept of emergence in social theory, arguing that Durkheim's work is best understood as a systematic alternative to methodological individualism. Much of the analysis difficult to deal with because it depends on a high level of abstraction from analytical and behavioral models, so lacks focus. It is difficult to have much patience with transcendental realism, critical realism, and other philosophical and sociological doctrines that pontificate on the abstract nature of social systems.

Sawyer stresses the importance of agent-based modeling of complex dynamical systems. This stress is well-founded, but the book's emphasis on the level of emergent properties leads to a slighting of the analytical modeling of human individuals. This is, of course, typical of a sociological approach to social theory, but it belies the author's earlier insistence on the cross-disciplinary nature of the task of explaining social emergence. There is neither biology nor economics here, and the analysis suffers as a result. It is incorrect to believe that a groups of computer scientists can model human communication, for instance, without knowing the empirical data on the social role of communication, the evolutionary dynamics of human language, and the conditions under which communication is veridical. In particular, it is incorrect to think one can understand communication without problematizing the conditions under which people can assume that message are truthful.

Despite erring on the side of slighting the micro components of society---the individuals who compose society in their strategic and communicative interactions---this is a valuable contribution for those interested in developing social theory beyond methodological individualismlevel of emergent properties leads to a slighting of the analytical modeling of human individuals. This is, of course, typical of a

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Evolution for Everyone: How Darwin's Theory Can Change the Way We Think About Our Lives

Evolutionary Biology Brought to Life — Rating: 5/5

David Sloan Wilson is an eminent evolutionary biologist whose major claim to fame is his steadfast and highly creative support for group selection theory and the importance of altruism in a period, roughly the years 1965 to 2000, when the notion was considered beyond the pale by most biologists. While there is still a sizeable minority who reject these notions, both theory and evidence have quite strongly supported DS Wilson's position.

There are many books upholding evolutionary theory, but Wilson's contribution is distinctive in its thorough-going humanity. Rather than tediously dissect the absurd arguments of Intelligent Design critics, he showers the reader with page after page of delightful science stories. Like Einstein and many other scientists, Wilson does not believe in a personal God, but rather that God is revealed in the wonder of the natural world and the capacity of humans to love and care for one another.

Many opponents of evolutionary biology have never actually met a working scientist and do not know how science operates. They believe a scientific discipline is like a religious cult, deeply protective of its dogmas and viciously ostracizing dissenters and innovators. While this is somewhat true, especially in the short run, for the social sciences, it is not at all true for the natural sciences, including biology. Biology journals frequently publish critiques of natural selection (e.g., the great Stephen J. Gould's) and frankly, I am a bit bored with their openness. There is not a single cogent critique in the whole literature. Wilson gives the flavor of openness and delight in discovery that characterizes many, perhaps most, evolutionary biologists.

Wilson asserts the simplicity of the basic mechanism of evolution: hereditary reproduction, non-directed variation (mutation), and selection based on fitness. He addresses nicely the major conceptual difficulty in understanding this process, which is how such undirected processes can product complexity and beauty. The great work on evolutionary transmission by Szathmary and Maynard Smith certainly helps make this process concretely comprehensible, and validates the notion of emergence in complex dynamical systems, which operates in many spheres of natural science.

Wilson stresses that cultural evolution is subject to the same dynamic as genetic evolution: heredity, non-directed mutation, and selection. He applies this to the evolutionary interpretation of human religion, summarizing very nicely his book, Darwin's Cathedral. I quite agree with his theory of religion (which, by the way, is not atheistic), and came to the same opinion, independently, several years ago. He contrasts his position, which is basically that religions survive to the extent that they foster prosocial behaviors and attitudes among adherents, with the cognitive theories of Boyer and Atran. I think the latter theories are in fact complementary to Wilson's account of religion. And, as Wilson makes clear, having a scientific theory of religion is not necessarily an atheistic enterprise. There are, after all, scientific theories of science itself.

This book is a defense of evolutionary theory, but Wilson smuggles in enough of his own personal life to make this an autobiography as well. Indeed, I believe the autobiographical side of the book is among its most attractive features. Wilson is never self-aggrandizing, and he never misses a chance to say how

much scientific curiosity enriches his life. By his own account, he has had a rich and fulfilling life. His description of his family relationships is deeply moving, enough so that I was impelled to reread two of the novels written by his father, Sloan Wilson (The Man in the Gray Flanner Suit and A Summer Place).complexity and beauty. The great work on evolutionary transmission by Szathmary and Maynard Smith certainly helps make this process concretely comprehensible, and validates the notion of emergence in complex dynamical systems, which operates in many spheres of natural science. Wilson stresses that cultural evolution is subject to the same dynamic as genetic evolution: heredity, non-directed mutation, and selection. He applies this to the evolutionary interpretation of human religion, summarizing very nicely his book, Darwin's Cathedral. I quite agree with his theory of religion (which, by the way, is not atheistic), and came to the same opinion, independently, several years ago. He contrasts his position, which is basically that religions survive to the extent that they foster prosocial behaviors and attitudes among adherents, with the cognitive theories of Boyer and Atran. I think the latter theories are in fact complementary to Wilson's account of religion. And, as Wilson makes clear, having a scientific theory of religion is not necessarily an atheistic enterprise. There are, after all, scientific theories of science itself. This book is a defense of evolutionary theory, but Wilson smuggles in enough of his own personal life to make this an autobiography as well. Indeed, I believe the autobiographical side of the book is among its most attractive features. Wilson is never self-aggrandizing, and he never misses a chance to say how much scientific curiosity enriches his life. By his own account, he has had a rich and fulfilling life. His description of his family relationships is deeply moving, enough so that I was impelled to reread two of the novels written by his father, Sloan Wilson (The Man in the Gray Flanner Suit and A Summer Place).

Beyond Individual Choice: Teams and Frames in Game Theory

Highly creative and thoughtful contribution — Rating: 4/5

There is a group of economists, decision theorists, and philosophers who have been grappling with the inability of decision theory to extend to the interaction of agents for the past two decades. They include Michael Bacharach, Robert Sugden, Robin Cubitt, Susan Hurley, Raimo Tuomela, Michael Bratman, Margaret Gilbert, Natalie Gold, John Searle, and Andrew Colman. These authors favor some notion of \\"team reasoning\\" and/or \\"collective intentions\\" (they do not share a common set of terms, so I choose a couple of prominent variants). The subject is as difficult as it is important, and these authors are discussing the issues with considerable insight. Their findings should be shared with the school of strategic epistemology initiated by Robert Aumann, and well represented in economics journals. Unfortunately, economics journals generally value an epsilon of rigor over an plenitude of insight, and hence these authors have not graced the pages of Econometrica, Games and Economic Behavior, and the like. Pity.

I will concentrate on Bacharach's arguments in this book, but the reader should recognize that the field is new and changing rapidly, so my remarks may well not apply to newer contributions to the research paradigm. Bacharach uses simple games to illustrate the weakness of Bayesian decision theory and the power of team reasoning. The first is Hi-Lo, in which two player must choose simultaneously either \\"Hi\\" or \\"Lo\\". If both choose Hi, each gets payoff 2; if both choose Lo, each gets payoff 1; otherwise, each gets payoff 0. This game is a pure coordination game, meaning that the payoffs to the two payers is equal no matter what their actions. The game has two strict Nash equilibria, one with payoff 2 and another with payoff 1, and a mixed strategy equilibrium with payoff 2/3. There is only one \\"rational\\" choice, however, consisting of both players choosing Hi, although there is absolutely no way for this to be concluded through decision-theoretic reasoning. However, real human subject almost always choose this \\"rational\\" equilibrium. Hence, people must use forms of reasoning that go beyond Bayesian rationality. The \\"team reasoning\\" researchers aim to discover the content of these forms of reasoning.

Bacharach has chosen a poor example to make his case. Bayesian decision-makers have a subjective prior over every relevant contingency. If a player has absolutely no information concerning the expected behavior of his partner, the Law of Insufficient Reason dictates placing equal probability on each of his

possible actions. In this case, this means assuming his partner will choose Hi with probability ½, in which case choosing Hi is an individual best response.

The second example is the famous prisoners' dilemma, in which each player has a strictly dominant strategy of Defect, although both do well if both players choose Cooperate. The authors note that standard game theory predicts that both players will Defect, while \\"team reasoning\\" suggests that both will Cooperate, provided that somehow it is \\"common knowledge\\" that they are a team. The authors note that in the real world, about 40% to 50% of human subjects play Cooperate in experimental prisoners' dilemma games (in a sequential prisoners' dilemma, the frequency rises to 80% and even higher). However, \\"team reasoning\\" is certainly not needed to understand this result. A more plausible candidate is that players have \\"other-regarding preferences,\\" meaning they care not only about their own payoff, but about being fair and equitable as well. Moreover, other-regarding preferences explain the behavior of players in many games besides the prisoners' dilemma, including trust games, common pool resource games, dictator games, and the like.

Bacharach apparently does not like the interactive epistemologists who base their analysis on Bayesian decision theory, if we are to judge by his references to their ideas, which are few and generally critical. This is a shame, because the real problems with extending decision theory to the interaction of rational agents have been amply documented by the interactive epistemologists. The general problem is that there is no reason within decision theory for \\"rational agents\\" to align their beliefs in such a way as to entail Nash equilibrium behavior, and decision theory offers no alternative equilibrium concept. The reason \\"team reasoning\\" is an interesting idea at all is that it could possibly provide an alternative methodology for game theory.

I doubt that it takes much courage for a philosopher to propose a notion of \\"collective intentionality\\" or \\"team reasoning\\", because both seem to exist. It does take courage, however, for a traditionally trained economist to posit a notion of non-individualist reasoning, and Bacharach is to be admired for his willingness to pursue this mode of reasoning. However, I am not convinced that this is the correct path to take. Michael Bacharach's title \\"Beyond Individual Choice\\" accurately portrays what these thinkers are trying to conceptualize, but they uniformly refuse to go \\"beyond subjective choice.\\" That is, they share with traditional decision theory the notion that aggregate outcomes are the product of individual decisions made by self-regarding agents, a doctrine known as Methodological Individualism. By contrast, these thinkers may be deemed Methodological Subjectivists, because they believe outcomes are the product of individual decisions, but that individuals can use \\"team reasoning\\" and have \\"collective intentions.\\" This view does not have any unambiguous empirical support, and behaviors that can be explained by \\"team reasoning\\" can be more simply explained by the desire of individuals to conform to social norms.

Methodological subjectivism is almost certainly incorrect. But it is also unnecessary. Human psychology coevolved with human society, in a process known as gene-culture coevolution. One of the effects of gene-culture coevolution is that humans are capable of recognizing a special category of events that might be called \\"public events.\\" A public event is something that when it occurs, becomes automatically common knowledge among the event's observers. For instance, if Alice and Carol are sipping wine, and Bob enters the room and says \\"Dinner will be ready in five minutes,\\" this is a pubic event, because it is then common knowledge among the three individuals that Bob announced that dinner will be ready in five minutes.

It may sound incredible, but there is absolutely no principle of individual or interactive decision theory that asserts when an event is a public event, or more generally, when something is common knowledge. The capacity of humans to reason, in particular, bears not implications concerning even the existence of public events. Moreover, the idea that public events could exist apart from individuals, and could be recognized by individuals, lies outside Methodological Subjectivism, for which public events must be described in terms of the mental states of individuals or the reasoning processes of individuals. In fact, public events are either some types of material events (e.g., \\"it's raining on us\\") or types of social events (e.g., \\"the goal of a football team is to get more points that its opponent\\").

One special type of public event that serves to coordinate the beliefs and hence behaviors of rational agents is what might be called a \\"social norm,\\" which is common knowledge among members of a society. Since social norms are rarely fully enunciated by an explicit proclamation, it might be better to

call them \\"focal rules,\\" which are the tacit knowledge of all members of society, much as Schelling's \\"focal\\" actions. Focal rules, when considered common knowledge by members of society, serve as correlating devices that induce Bayesian rational individuals to align their beliefs efficiently and thus contribute to playing acorrelated equilibrium. As Aumann (1987) first noted, the correlated equilibrium, not the Nash equilibrium, is the appropriate solution concept for interactive epistemology.

Another game often invoked in analyzing collective behavior is the Hawk-Dove game. Suppose a territory is worth 6, and two \\"Doves\\" always split the territory, with payoff of 3 each. However, if a \\"Hawk\\" contests with a Dove over the territory, the Hawk takes the whole thing. Finally, if two Hawks meet, they fight, leading to a loss of 5 for each. There is one Nash equilibrium to this game, in which Hawk is played with probability 3/8, and the payoffs are 15/8 for each player. Suppose there is a focal rule that is common knowledge to all that says that the player who first occupied the territory plays Hawk and the other player plays Dove. Provided \\"first occupancy\\" is a public event, this new strategy, which we may call Bourgeois, beats both the Hawk and Dove strategies, and the new correlated equilibrium (with first occupancy being the coordinating event), with expected payoff 3 > 15/8 for each player.

This example is instructive because the existence of territoriality in many mammals and birds indicates that the notion of a public event may be a biological commonality. Of course, the notion that territoriality could be explained in a methodologically subjectivist manner is highly implausible.

I have learned much from the various papers and books of the \\"team reasoning\\" thinkers, and the book by Michael Bacharach, Beyond Individual Choice: Teams and Frames in Game Theory, is a fine place to start for the interested behavioral scientist or philosopher. The bibliography of this fine book will serve as a guide to other relevant research in this area.

Bacharach died before his ideas had reached finality in this area, and the task of justifying team reasoning has been left to others. Particularly important are a paper by Cubitt and Sugden (1993) that formaizes David Lewis's model of common knowledge, and a paper by Sugden, \\"The Logic of Team Reasoning.\\"humans are capable of recognizing a special category of events that might be called \\"public events.\\" A public event is something that when it occurs, becomes automatically common knowledge among the event's observers. For instance, if Alice and Carol are sipping wine, and Bob enters the room and says \\"Dinner will be ready in five minutes,\\" this is a pubic event, because it is then common knowledge among the three individuals that Bob announced that dinner will be ready in five minutes. It may sound incredible, but there is absolutely no principle of individual or interactive decision theory that asserts when an event is a public event, or more generally, when something is common knowledge. The capacity of humans to reason, in particular, bears not implications concerning even the existence of public events. Moreover, the idea that public events could exist apart from individuals, and could be recognized by individuals, lies outside Methodological Subjectivism, for which public events must be described in terms of the mental states of individuals or the reasoning processes of individuals. In fact, public events are either some types of material events (e.g., \\"it's raining on us\\") or types of social events (e.g., \\"the goal of a football team is to get more points that its opponent\\"). One special type of public event that serves to coordinate the beliefs and hence behaviors of rational agents is what might be called a \\"social norm,\\" which is common knowledge among members of a society. Since social norms are rarely fully enunciated by an explicit proclamation, it might be better to call them \\"focal rules,\\" which are the tacit knowledge of all members of society, much as Schelling's \\"focal\\" actions. Focal rules, when considered common knowledge by members of society, serve as correlating devices that induce Bayesian rational individuals to align their beliefs efficiently and thus contribute to playing a correlated equilibrium. As Aumann (1987) first noted, the correlated equilibrium, not the Nash equilibrium, is the appropriate solution concept for interactive epistemology. Another game often invoked in analyzing collective behavior is the Hawk-Dove game. Suppose a territory is worth 6, and two \\"Doves\\" always split the territory, with payoff of 3 each. However, if a \\"Hawk\\" contests with a Dove over the territory, the Hawk takes the whole thing. Finally, if two Hawks meet, they fight, leading to a loss of 5 for each. There is one Nash equilibrium to this game, in which Hawk is played with probability 3/8, and the payoffs are 15/8 for each player. Suppose there is a focal rule that is common knowledge to all that says that the player who first occupied the territory plays Hawk and the other player plays Dove. Provided \\"first occupancy\\" is a public event, this new strategy, which we may call Bourgeois, beats both the Hawk and Dove strategies,

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The Logic of Decision

Solid philosophical introduction to foundational issues — Rating: 3/5

The outlines of modern decision theory were laid down by Ramsay, di Finetti, von Neumann, and Savage in the mid-Twentieth century. Their treatments tended to be inspired either by mathematical or behavioral concerns. Jeffery's contribution is that it takes a philosopher's viewpoint, and while by no means ignoring mathematical arguments, is accessible to readers with a limited tolerance for or proficiency in mathematical analysis.

The introductory student will find this book hospitable, but for an appreciation of the classics of the field and the varied intentions of its architects, the student will have to refer to the original sources. Jeffrey does not provide such an overview. This book was written in 1965 and updated in 1983, so it is not surprising that it does not deal with some of the salient issues in decision theory today. In particular, it does not deal with the now huge literature in experimental psychology and behavioral game theory that sheds much light on how people actually make decisions. The reader interested in such issues will be forced to go elsewhere for such an analysis. Similarly, it does not deal with the bounded rationality literature, such as Gigerenzer's contributions to \\"fast and frugal\\" decision-making.

Several of the behavioral sciences do not include the rational actor described by decision theory in its general toolbox, and most practitioners in these fields are swift to condemn this model, usually on clearly spurious grounds. For instance, many sociologists believe that Bayesian rationality presupposes that beliefs (a.k.a. subjective priors) must be \\"rationally justifiable," and reject the model because beliefs in the real world cannot be accurately described through the criterion of rational justifiability. In fact, as Jeffrey's argument makes clear, subjective priors are just that---priors. They must be updated using Bayes' Rule, but that is all. Many psychologists reject decision theory because experimental results indicates that there are important biases in human decision-making that are not accounted for by the Savage-von-Neumann axioms. This is correct and important, but it does not follow that decision theory should be rejected as a contribution to understanding human behavior. These and related contemporary arguments are not treated in Jeffrey, but he does give the reader a solid set of insights into the meaning and operation of modern decision theory.esults indicates that there are important biases in human decision-making that are not accounted for by the Savage-von-Neumann axioms. This is correct and important, but it does not follow that decision theory should be rejected as a contribution to understanding human behavior. These and related contemporary arguments are not treated in Jeffrey, but he does give the reader a solid set of insights into the meaning and operation of modern decision theory.

Pathologies of Rational Choice Theory: A Critique of Applications in Political Science

An Uninsightful and Unbalanced Assessment — Rating: 2/5

The authors identify three major rational choice theorists, Arrow, Downs, and Olson, and argue that there has been little empirical support for the application of their approach to political theory. The authors correctly identify two types of rational agent theory, \\"thin\\" and \\"thick.\\" The former represents the agent of decision theory, as modeled by Savage and others. The latter represents the rational actor of economic theory: self-regarding, pursuing materialistic goals, an omniscient decision-maker, and the like. The critique in this book covers both.

The authors did not compare the relative power of rational choice theory with its alternatives in dealing with various political phenomena. Rather, they evaluate the inadequacies of the rational choice approach in absolute terms. This is a common error, and could easily have been avoided. Moreover, their general critique is that there has been little empirical work generated by rational choice theory. This is an interesting fact, if true. But, it would have been useful to suggest where the rational choice approach is correct or incorrect when it has been tested as well.

The authors try to maintain a balanced demeanor, but the title of the book undermines any attempted show of objectivity. \\"Pathologies\\" does not set the tone for measured judgment. Nor are the judgments measured. They are extravagant, but delivered dispassionately.

The standard \\"thick\\" rational choice model of voter behavior seriously conflicts with the evidence. This model assumes rational agents are self-regarding. However, the selfish rational actor would not vote, and if he did, he would conform to Downs' median voter model. Many people vote, and the median voter model is a poor predictor. The authors do not present this evidence (e.g., concerning voting on the welfare state and other redistributional measures). Indeed, they show little evidence of being knowledgeable in the literature, which is strange given their task in this volume.

A major application of the rational choice model is to defining and analyzing power, using game theory (the \\"thin\\" conception of rationality). The authors do not even touch upon this critically important literature. It is difficult to take these authors seriously, given the gaps in their knowledge.

The authors are critical of Olson's model of social dilemmas, but they slight the phenomenally important work of Elinor Ostrom and coworkers in showing that communities often develop effective strategies for managing the commons by successfully solving the free rider problem. Ostrom's work is squarely in the rational choice tradition (including the use of game theory, a careful attention to incentives and informational issues, and the use of laboratory and field experiments). Ostrom's work is a triumph of rational choice theory (thin variety).

As an attempt at balanced assessment, this book does not succeed, but if it encourages researchers to engage in more empirical testing and to devise alternatives to existing theories, it will have served a good purpose.A major application of the rational choice model is to defining and analyzing power, using game theory (the \\"thin\\" conception of rationality). The authors do not even touch upon this critically important literature. It is difficult to take these authors seriously, given the gaps in their knowledge. The authors are critical of Olson's model of social dilemmas, but they slight the phenomenally important work of Elinor Ostrom and coworkers in showing that communities often develop effective strategies for managing the commons by successfully solving the free rider problem. Ostrom's work is squarely in the rational choice tradition (including the use of game theory, a careful attention to incentives and informational issues, and the use of laboratory and field experiments). Ostrom's work is a triumph of rational choice theory (thin variety). As an attempt at balanced assessment, this book does not succeed, but if it encourages researchers to engage in more empirical testing and to devise alternatives to existing theories, it will have served a good purpose.

Dissecting the Social: On the Principles of Analytical Sociology

Once Upon a Time Sociological Theory was not an Oxymoron — Rating: 4/5

Once upon a time sociological theory was not an oxymoron. There were Weber and Durkheim and Simmel and Cooley and Mead and more. The was Parsons, who put it all together in a magnificent edifice that exhibited the articulation of sociology with psychology and economics. But, all that has disintegrated, and now there is no sociological theory. The smartest sociologists, Hedstrom being

among them, putter around in methodology and the specification of basic building blocks. The only reason sociology remains at all is that there are sociology departments and sociological problems. There is no sociological theory.

The most cogent analysis of social interaction is presented by game theory, which is not even mentioned in this book. The most cogent analysis of culture is presented by gene-culture coevolutionary theory in biology, which is not even mentioned in this book. Why does Hedstrom think that sociology can grow its own theory independent from the other behavioral sciences, just when the other behavioral sciences are increasingly recognizing their interdependence? Why does Hedstrom not even mention socialization and the internalization of norms, which are sociology's most salient contribution to behavioral science?

Hedstrom is very smart and very cogent, but he cannot create sociological theory on his own, simply because we are in a age of consolidation of the behavioral sciences, not their individuation.

The most interesting part of this book is Hedstrom's defense of DBO (Desire, Belief, Opportunity) theory. I learned a lot from his analysis, but what he does not admit is that this is simply the rational actor model in a new suit. Indeed, in my work, I call the same theory the Beliefs, Preferences, and Constraints (BPC) model to make it more palatable to non-economists. But, it is the same theory, and a very very good one. Why does he not mention the many successes of the theory in economics and biology? Rather, he calls rational-choice theory an \\"alternative\\" to DBO theory, which is simply absurd.

Hedstrom's critique of rational choice theory (p. 60ff) is simply ignorant of the Savage axioms. The term 'rational' in decision theory means nothing more that consistency (transitivity) over the appropriate choice space. Nothing more. Nor should it mean anything more. Of course, this leaves us with a very strong theory of preferences and a very shakey theory of beliefs, but this is not a sufficient reason for attempting to distance action theory in sociology from standard decision theory.

Hedstrom makes a cogent argument for agent-based modeling, but he does not inspire us with examples of successful agent-based models from other behavioral fields. Nor does he make clear that agent-based modeling is a tool of complexity analysis. Moreover, agent-based models are tools, not theories. Where is the theory behind the models? Agent-based models are ways of solving sets of equations that cannot be solved analytically. Since there is no sociological theory, there cannot be a basic role for agent-based modeling, since there is nothing systematic to model.

Hedstrom is at his best when suggesting interesting research projects that sociologists might undertake, and by describing important tools for undertaking this research. Ignoring game theory, evolutionary theory, biological theory, and economic theory, however, is not the way to create an analytical sociology, in my estimation.ve\\" to DBO theory, which is simply absurd. Hedstrom's critique of rational choice theory (p. 60ff) is simply ignorant of the Savage axioms. The term 'rational' in decision theory means nothing more that consistency (transitivity) over the appropriate choice space. Nothing more. Nor should it mean anything more. Of course, this leaves us with a very strong theory of preferences and a very shakey theory of beliefs, but this is not a sufficient reason for attempting to distance action theory in sociology from standard decision theory. Hedstrom makes a cogent argument for agent-based modeling, but he does not inspire us with examples of successful agent-based models from other behavioral fields. Nor does he make clear that agent-based modeling is a tool of complexity analysis. Moreover, agent-based models are tools, not theories. Where is the theory behind the models? Agent-based models are ways of solving sets of equations that cannot be solved analytically. Since there is no sociological theory, there cannot be a basic role for agent-based modeling, since there is nothing systematic to model. Hedstrom is at his best when suggesting interesting research projects that sociologists might undertake, and by describing important tools for undertaking this research. Ignoring game theory, evolutionary theory, biological theory, and economic theory, however, is not the way to create an analytical sociology, in my estimation.

Evolution and Learning: The Baldwin Effect Reconsidered (Life and Mind: Philosophical Issues in Biology and Psychology)

Like Attending a First-Class Conference — Rating: 4/5

In the history of biology, Lamarkians were the humanists who believed that experience could enrich the genetic structure of organisms. When Weissmann proved the continuity of the germ line, which implies that phenotypic learning could not be incorporated in the genes of an organism's offspring, it led to panic for the Lamarkians. James Mark Baldwin, the developmental biologist, Lloyd Morgan and Conrad Waddington all jumped to fill the breach with a variety of mechanisms that would allow some causal arrow from learning to genes to survive the \\"continuity of the germ line.\\"

Of course, phenotypes, not genotypes, are selected, so there is ample room for plastic phenotypes to be selected, and the genetic basis of their plasticity or ease of learning to adapt to particular environments to become fixed in the gene pool. However, until Dawkins' \\"extended phenotype\\" and more recently Odling-Smee, Laland, and Feldman's \\"niche construction\\" theories were developed, the whole matter was quite vague.

This conference volume outlines the history of the Baldwin Effect, and the effect of the interchange of expert opinion on the reader should be pretty clear: niche construction and in the case of humans, gene-culture coevolution are the intellectual heirs of the Baldwin Effect and are extremely important biological phenomena. Paul Griffiths' and Terrence Deacon's contributions to the volume make this crystal clear. Numerous evo-devo types also want to claim a piece of the Baldwin effect, but despite reams of material on how development affects the gene pool, I remain unconvinced. But, perhaps that's my limited perspective. At any rate, if you know a fair amount of evolutionary and developmental biology, this is really quite a fine book to read. Perhaps even better than attending the original conference.

A Guide to What's Wrong with Economics (Anthem Frontiers of Global Political Economy)

With enemies like this, economics doesn't even need friends — Rating: 1/5

In June 2000, several Parisian economics students circulated a petition calling for the reform of their economics curriculum. Their complaint was the inability of the neoclassical economics they were studying to satisfy their need for a deep understanding of the operation of real-life economies. They called for a reform of the university curriculum that would tolerate analytical diversity and foster critical dialogue across contrasting approaches to economics. Their demand was taken up by large numbers of students, and a similar demand was formulated by Ph.D. students at Cambridge University in the UK the next year. This reform movement has grown in Europe, under the rubric of \\"post-autistic economics.\\" This volume presents their case, but with voices of professional economists rather than students. My interest in this book and this movement stems from my life-long battle against neoclassical orthodoxy. My conclusion from reading this edited volume is that the post-autistic economics critique is intellectually shoddy and incapable of leading to positive change in how economics is done and taught. Their central critique is that neoclassical economics does not describe real-world economies, and must be replaced by or supplemented with other approaches. This is just wrong. While the elementary courses are far from the real world, advanced courses in such areas as labor, international finance, macroeconomic policy, economic development, law and economics, environmental economics, and so on, are quite real-world. If undergraduate students left with a degree in economics that allowed them to understand The Economist and the Journal of Economic Perspectives, the level of economic awareness in the world would be considerably higher. If the undergraduate curriculum does not bring students to this level, the curriculum is, to my mind, faulty. Perhaps less stress on arcane theories that are relevant only to professional economists should be replaced by a more historical, institutional, and hands-on approach to microeconomic and macroeconomic issues. But, this is not a critique of neoclassical orthodoxy, and does require a move towards a \\"heterodox\\" analytical environment in the economics profession. There is a reason that neoclassical theory has triumphed: it is the only promising approach to economics. Marxism, Keynesianism, Institutionalism, Syndicalism, Austrian economics, and the like developed strongly for a while and then foundered. They certainly do not present analytically interesting alternatives to

neoclassical economics. My own view is that neoclassical economics has profound problems, but they can only be addressed from within, not by embracing some \\"heterodox\\" alternative. Nothing in this book even remotely shakes my confidence in this matter. With enemies like post-autistic economics, neoclassical economics doesn't need much in the way of friends. [...] There is a short piece on behavioral economics, which has been one of the most vibrant areas in economics over the past 25 years, but the author makes the mistake of thinking that behavioral economics is an alternative to neoclassical economics. It is not. It uses decision theory and game theory to critique the Homo economicus of traditional economic theory, but the profession is responding by revising Homo economicus, not by rejecting behavioral economics (see recent papers in Econometrica, the Quarterly Journal of Economics, and other journals). I believe the post-autistic economics people are simply ignorant of the phenomenal work of Ernst Fehr, Abijit Banerjee and Esther Duflo, Colin Camerer, Samuel Bowles, George Loewenstein, Daniel Kahneman, Benoit Mandelbrot, Edward Glaeser, David Laibson, Matthew Rabin, Bruno Frey, Elinor Ostrom, Armin Falk, Simon Gaechter, Jean Tirole, Aldo Rustichini, and many others. They never heard of neuroeconomics or econophysics or the notion of the economy as a complex system, with its stress on agent-based modeling. All of these authors present profound critiques of standard neoclassical economics, and some actually would sympathize with the post-autistic critique. But, the current movement is to transform analytical economics to meet the empirical challenges posed by new data, not retreat to some defunct 19th century doctrine. This volume shows that the leaders of the post-autistic economics movement prefer quantity to quality. The papers in this book are generally quite lacking in challenge for the professional economist. Many are just silly, and some are egregiously incorrect. Perhaps the worst is the paper by Bernard Guerrien, \\"Can We Expect Anything From Game Theory?\\" Guerrien asserts, without evidence, that \\"game theory models are always `stories', like fables or parables, with no relation to real-life situations.\\" Really? What about auction theory, which has been so successful in organizing the sale of bandwidth in many countries? How does one explain the role of game theory in revolutionizing Industrial Organization? Moreover, game theory is the basis for all of behavioral economics, and accounts for its experimental success in large part. Guerrien's description of game theory is quite faulty. \\"...players are supposed to choose separately and simultaneously one element of their strategy set...\\", says Guerrien, and launches a broad critique on that basis. But, he is just wrong. Evidently he never heard of extensive form games or behavioral strategies. In short, the intellectual level of this critique is abysmally low. This book is just on the wrong track. It's as simple as that. They argue that the success of neoclassical economics is due to bureaucracy, ideology, and partisan politics. In fact, it is the only game in town, although it is a flawed game that deserves to be treated with continual hostility---but hostility from within, since there is no credible alterative. Let me be even more positive: I find contemporary economic theory extremely deep and challenging, and I believe it has some of the answers, and will aid in the development of other areas in which its answers are stupid and absurd. For instance, in perhaps the best piece in the book, Geoffrey M. Hodgson asks \\"Can Economics Start from the Individual Alone?\\" He argues persuasively that it cannot. However, traditional institutional economics is hardly the remedy. Rather I suspect that a fundamental theorem of Robert Aumann on the relationship between correlated equilibrium and Bayesian rationality is the key to transcending neoclassical economics' methodological individualism. But, the post-autistic people probably haven't a clue what Robert Aumann has written, and if they did, they would write incredibly sloppy critiques, on the order of Guerrien's critique of game theory.

Real World Economics: A Post-Autistic Economics Reader (Anthem Frontiers of Global Political Economy)

With Enemies Like This, Neoclassical Economics Needs No Friends — Rating: 1/5

This collection of writings of the post-autistic critics of neoclassical economics has 59 chapters and six appendices, all in just under 500 pages. The contributions are thus short opinion pieces rather than detailed critiques of economic theory or the graduate economics curriculum. I confess that while I am an often harsh critic of neoclassical theory, I do not find much of value in these pages. My comments are directed at members of this movement and the authors in this book, whom I urge to do a more forward-

looking and analytically serious job. The single best paper in the book is by Jamie Galbraith, who urges us to stop the interminable belly-aching and get on with the task of developing an alternative to neoclassical economics, giving several insightful suggestions as to how this should be accomplished.

Neoclassical economics is a microeconomic theory not concerned with standard macroeconomic problems, such as the business cycle, monetary and fiscal policy. Many of the critiques in this book deal with macroeconomic models that bear little relationship to neoclassical theory, and I will not deal with them. Moreover, the suggestions for alternatives to neoclassical economics are mostly thinkers operating in the macroeconomic tradition. Reading Keynes and/or the post-Keynesians rather than Mas-Collel et al. simply doesn't make sense, since these authors were concerned with the single issue of under-employement equilibrium and macroeconomic stabilization theory. Reading Marx rather than game theory is also misdirected advice, since Marx deals with the division of wealth between capital and labor, an issue that is peripheral to neoclassical theory. Similarly, Veblen is great for conspicuous consumption, but there are plenty of neoclassical model that capture his insights and much more.

I find it curious that young economists would suggest that old-fashioned macroeconomic theories should replace modern neoclassical theories, given that we live in an age where macroeconomic policy is a purely technocratic enterprise, and all the really burning social issues have to do with such microeconomic issues as corruption, incentive compatibility, overcoming anti-competitive bureaucracies and entitlements in the economy, skills and qualifications, gender inequality, and the role of altruism and other-regarding preferences in explaining economic behavior. The idea of our poring over the texts of Marx, Keynes, and Veblen to answer contemporary economic problems is ludicrous indeed.

Another persistent theme in these pages is that the core micro courses in graduate schools should use less math, since all the high-tech math of microeconomic theory is worthless. Why is it worthless? Because, say the post-autistics, the super high-tech economics journals produce a lot of fancy models with no real-world relevance. The fact is that most economists are not economic theorists, and could not understand an Econometrica article if they wanted to (which they do not). However, the level of mathematics used in the everyday life is orders of magnitude higher than that of other behavioral disciplines, and one cannot write a cogent analysis of an economic issue without being able to write and analyze simple mathematical models. Economists learn how to do this in the first three years of graduate school, where almost all course are applied micro of one kind or another. This is as it should be. I think the American Economic Review and the Journal of Economic Perspective are examples of journals that thrive on high-level microeconomic model building and testing of a sort that every economists should be capable of generating and understanding. If there is some systematic alternative to microeconomic theory, I would love to see it, but I doubt that it would be less math-intensive that the standard fare of the AER.

I am frankly saddened by the vapidity of the post-autistic economics movement. Who cares how hard the courses are? So what if you have to work a little? Why do you have to read Keynes in class. Are you incapable of reading him at home?

What is the goal of this movement? It seems that the answer is: it has no goal. It is just a bunch of people fussing because the courses are too hard, and hoping for an alternative that would make the life of the economist more like that of the armchair philsopher, or the social critic who wants to get paid well for issuing arcane philosophical critiques of capitalism from the halls of academe, offering nothing in its place.

Serious critics back up their criticism with an attempt to develop serious alternatives. Moreover, it is not just the post-autistic community that is disenchanted with received wisdom in microeconomics. The smartest young economics in each of the past four or five generations have revolutionized economic theory by developing alternative that have been incorporated in the contemporary economist's toolbox. It is the kiss of death to listen to the nay-sayers, prominent in this book, who claim that all the Nobel prize winners in economics are worthless, that all new theory is just old wine in new bottles, and that the current body of economic theory is completely without merit. It is also the kiss of death to listen to some critique who claims we should immerse ourselves in the writings of dead old f-rts for inspiration.ses are? So what if you have to work a little? Why do you have to read Keynes in class. Are you incapable of reading him at home?

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A Guide to What's Wrong with Economics (Anthem Frontiers of Global Political Economy)

Not a Viable Answer to Neoclassical Orthodoxy — Rating: 1/5

In June 2000, several Parisian economics students circulated a petition calling for the reform of their economics curriculum. Their complaint was the inability of the neoclassical economics they were studying to satisfy their need for a deep understanding of the operation of real-life economies. They called for a reform of the university curriculum that would tolerate analytical diversity and foster critical dialogue across contrasting approaches to economics. Their demand was taken up by large numbers of students, and a similar demand was formulated by Ph.D. students at Cambridge University in the UK the next year. This reform movement has grown in Europe, under the rubric of \\"post-autistic economics.\\" This volume presents their case, but with voices of professional economists rather than students.

The central critique in this edited volume of post-autistic economics papers, repeated by virtually every author, is that neoclassical economics does not describe real-world economies, and must be replaced by or supplemented with other approaches, among which are mentioned Marxism, institutional economics, post-Keynesian economics, and approaches based on Critical Realism. Authors arrive at this result by analyzing the undergraduate university curriculum, with some regard for the introductory graduate economics offering. It is indeed correct that the undergraduate curriculum should be far broader, with less stress on arcane analytical issues in microeconomic theory and greater stress on real-world economic phenomena and performance. The critics are also correct in complaining that attention to a broader variety of economic philosophies would benefit students, especially if offered in the context of the history of economic development and comparative economic systems. Moreover, it is sad that most economic majors are incapable of reading The Economist and have little sophistication in their understanding of economic issues. It is a sad fact that most economics departments support an undergraduate curriculum geared towards the few students who go on to do graduate work, whereas a special track could easily accommodate such students without the need for totally distorting the undergraduate curriculum.

This is much is a critique of pedagogy, not of economic theory. But, the post-autistic economists are just as concerned to present a critique of economic theory on the professional level as well. Unfortunately, they not only do not succeed, but they actually hurt their own cause. They treat standard economic theory as \\"unrealistic,\\" when in fact, on the professional level, 99% of economists, starting with their Ph.D. dissertations, deal directly with real-world economic issues and problems. Very few young economists take the Walrasian general equilibrium model seriously, or use Representative Agent models in macroeconomics, or use microeconomic price theory except in the most elementary sense. Thus, the post-autistic critique comes off as seeming seriously misdirected.

A more gutsy critique would be to say that neoclassical economics is incorrect, not simply \\"unrealistic,\\" and to provide alternatives precisely where the theory is incorrect. But, what alternatives? Marxism, Keynesianism, Institutionalism, Syndicalism, Austrian economics, and other non-neoclassical models all developed strongly for a while and then foundered. They certainly do not present analytically interesting alternatives to neoclassical economics. Of course, neoclassical economics is not the only credible starting point for serious economic analysis, but alternatives that are old, warmed-over theories that have not stood the test of time will not succeed in displacing the current orthodoxy. The pleas for democracy, toleration, and pluralism by the \\"heterodox\\" is simply an admission that they can't win the intellectual battle by having better theories, only by having more troupes.

Curiously, the authors are unaware of contemporary economic theoretical research, which addresses many of the serious problems with neoclassical theory. There is a short piece on behavioral economics, which has been one of the most vibrant areas in economics over the past 25 years, but the author assumes that behavioral economics is an alternative to neoclassical economics. Rather, it is a complement to economic theory and a source of empirical data that can be used to generate better models. Behavioral economics uses decision theory and game theory to critique the rational actor of traditional economic theory, but the profession is responding by revising the rational actor model, not by rejecting behavioral economics (see recent papers in Econometrica, the Quarterly Journal of Economics, and other journals).

The papers in this book generally present no challenge for the professional economist. Many are just superficial, and some are egregiously incorrect. Perhaps the most bizarre is the paper by Bernard Guerrien, \\"Can We Expect Anything From Game Theory?\\" Guerrien asserts, without evidence, that \\"game theory models are always `stories', like fables or parables, with no relation to real-life situations.\\" Really? What about auction theory, which has been so successful in organizing the sale of bandwidth in many countries? How does one explain the role of game theory in revolutionizing Industrial Organization? Moreover, game theory is the basis for all of behavioral economics, and accounts for its experimental success in large part. Guerrien's description of game theory is quite faulty. \\"...players are supposed to choose separately and simultaneously one element of their strategy set...\\", says Guerrien, and launches a broad critique on that basis. But, he is just wrong. Evidently he never heard of extensive form games or behavioral strategies.

Post-autistic economics ignores the innovative work of many innovative, nonstandard, economists, including Ernst Fehr, Abijit Banerjee and Esther Duflo, Colin Camerer, Samuel Bowles, George Loewenstein, Daniel Kahneman, Benoit Mandelbrot, Edward Glaeser, David Laibson, Matthew Rabin, Bruno Frey, Elinor Ostrom, Barkley Rosser, Armin Falk, Simon Gaechter, Jean Tirole, Aldo Rustichini, and many others. It ignores neuroeconomics, econophysics, and the notion of the economy as a complex system, with its stress on agent-based modeling. These researchers transform analytical economics to meet the empirical challenges posed by new data. Some of them are extremely critical of neoclassical theory, and others are a bit more tolerant. Some of them call themselves behavioral economists, neuroeconomists, complexity economists, and the like, while others simply say they do economics, without the need to identify with a school of thought. Unlike leaders of the post-autistic school, however, they do not urge a retreat to philosophy or some defunct 20th century doctrine., which addresses many of the serious problems with neoclassical theory. There is a short piece on behavioral economics, which has been one of the most vibrant areas in economics over the past 25 years, but the author assumes that behavioral economics is an alternative to neoclassical economics. Rather, it is a complement to economic theory and a source of empirical data that can be used to generate better models. Behavioral economics uses decision theory and game theory to critique the rational actor of traditional economic theory, but the profession is responding by revising the rational actor model, not by rejecting behavioral economics (see recent papers in Econometrica, the Quarterly Journal of Economics, and other journals). The papers in this book generally present no challenge for the professional economist. Many are just superficial, and some are egregiously incorrect. Perhaps the most bizarre is the paper by Bernard Guerrien, \\"Can We Expect Anything From Game Theory?\\" Guerrien asserts, without evidence, that \\"game theory models are always `stories', like fables or parables, with no relation to real-life situations.\\" Really? What about auction theory, which has been so successful in organizing the sale of bandwidth in many countries? How does one explain the role of game theory in

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Cooperation in Primates and Humans: Mechanisms and Evolution

Definitive State of the Art Analysis — Rating: 4/5

Everyone in the field of animal and human behavior should go over this book. The authors are the very best in their line of research, the research is quite up to date, and the various authors complement one another's finding beautifully.

The relationship between human and non-human primate behavior is very important for elucidating the characteristics of individual species because, as it turns out, it is often much easier to identify a form of behavior by viewing it as part of a larger swath of behavior occuring in a variety of species, rather than viewing the behavior in isolation. It is especially difficult to problematize human behavior because, this being our own species, we tend to see as 'natural' or the simple product of human cognitive capacity, what is in fact, a highly developed adaptation (such as imitation). In this regard, it would have been nice to include a chapter or two on cooperation in various species of birds, especially nesting birds, that share much with primates in terms of social organization, intelligence, and behavior.

The book manages to avoid the back-biting and interminable recriminations that often accompany biologically oriented research into human and primate nature. There is, however, one exception. Robert Trivers attempts to save his 35 year old theory from competition by newer theories by launching a bitter attack on the newer authors (of which I am one). He does so not by dealing with the issues, but by selectively quoting out of context and attempting to make his opponents look silly and stupid. They are not. Indeed, they are without much doubt, essentially correct in suggesting gene-culture coevolutionary forces as central to cooperation in large groups of unrelated humans. This does not at all compromise Trivers' fine work, which addresses dyadic interactions alone.

Why We Vote: How Schools and Communities Shape Our Civic Life (Princeton Studies in American Politics: Historical, International, and Comparative Perspectives)

A Model for Interdisciplinary Research on Voting Behavior — Rating: 4/5

This book is essentially a sociological analysis of voter participation. The author shows that youth are more or less effectively socialized to treat voting as a civic duty, they carry their normative behavior into adulthood, homogeneous communities favor voting as a civic duty while heterogeneous communities foster voting as a political instrumentality. The volume and quality of the data are excellent, and the author's analysis thorough and credible. The author's suggested policy advice is that schools should do

more to promote political participation and foster an ethic of civic duty. This may sound like a throw-away, but it probably is good advice.

I would like to have seen some light shed on the correlates of voter participation---what kinds of people participate for what reasons. Also, are participators higher or lower in happiness, mental health, length of job tenure, success at work and marriage, and so on.

Like many political scientists, Campbell cannot seem to understand (though he presents the argument early in the book) that even voter participation with politically instrumental motives (\\"I am voting because I want this or that candidate to win/lose\\") is deeply altruistic. One voter can never make a significant difference in an election with more that 1000 voters participating, so people who claim to be voting for instrumental reasons are simply not correctly explaining their behavior.

How should we interpret politically instrumental voting? Probably, individuals of this type vote to express personal feelings in a socially acceptable venue, and/or they consider their behavior a contribution to an in-group with which they identify (\\"we people who believe in x\\"). Possibly, it would be difficult credibly to hold a strong opinion concerning certain public affairs without demonstrating some costly commitment, of which voting is one form.

The Challenge of Affluence: Self-Control and Well-Being in the United States and Britain since 1950

Wealth of information and insightful interpretation — Rating: 4/5

The great American vaudeville singer Sophie Tucker remarked, \\"I've been rich and I've been poor---and believe me, rich is better.\\" This book, which documents in great detail and insight the vast growth in per capita income in the United States and Britain (with some attention to other countries) over the past century, contrasts Sophie Tucker's widely shared sentiment with the carefully researched fact that people are getting richer, but they are not getting happier. What, asks Offer, accounts for this curious situation?

An earlier generation answered this question by noting that being richer involves both having more than before, and having more than others. If relative status is important but absolute wealth is not, argued Robert Frank (1985), then when everyone becomes richer, average well-being will not increase. Indeed, this had been the common view (although with numerous dissenters), since James Duesenbury's famous \\"ratchet effect\\" explanation of the macroeconomic consumption to income ratio (Duesenberry, 1949) and the similar view of Modigliani (1949). While relative status is clearly important for some individuals, there is no convincing evidence that it of great importance to most individuals. Certainly many individuals are eager to become a smaller frog in a larger pond by moving to a richer community, and the rate of migration from poor to rich countries is hardly favorable to the relative status hypothesis. Moreover this \\"hedonic treadmill\\" explanation ran afoul of the data in a brilliant study by Brickman et al. (1978). They found that large exogenously-generated changes in material circumstances, such as winning the lottery or becoming handicapped through accident exhibit little difference in subjective well-being even several months thereafter. The general implication of this line of research is that some people are happy and some are unhappy, and changes in wealth position has little long run effect on their subjective well-being.

Offer appears basically to accept this position (although he is quick to stress that insightfully interpreting the Modern Condition is not his forté9), updating it using information from several recent studies that find that poverty, divorce and unemployment have major negative impact on personal well-being, and there is a small but significant positive slope to the income and well-being relationship even above the poverty line, both within and across countries, especially when objective measures of well-being are used (mortality, morbidity, life expectancy, major incidence of mental illness, infant mortality, and the like).

Many environmentalists and progressive egalitarians accept this view on the basis of personal observation, using it to suggest alternatives to GDP growth and redistribution towards the poor. But, the hedonic treadmill is deeply counter-intuitive. People make great sacrifices to achieve financial security

and to assure their children with the fruits of material progress, and upon serious introspection, few will affirm that the benefits are either relative or short-lived. Personally, I have been poor and did not like it, and I am now comfortably well-off, and I like it quite a bit---every day and every little luxury (such as sitting here overlooking the Danube writing this book review on a first-class laptop, every keystroke of which gives me great pleasure, and which plays whatever enchanting music happens to be my current whim, over an Internet connection, using a music service that I---and millions of others---can afford a subscription). Moreover, subjective well-being is very important, but the fact is that neither I nor my wife, nor my son, would be alive today if it were not for modern amenities (in this case, medical services).

Offer explains the hedonic treadmill (the term is due to Brickman and Campbell (1971), and is not used by Offer) using modern behavioral economics. Because of the common tendencyto prefer small short-term rewards to large long-term rewards, we do not know how to turn the vast increases in material wealth that has come to us into real well-being (Ainslie, 1975, Elster, 1979, Loewenstein and Hoch, 1991, Laibson, 1997, Oswald, 1997, O'Donoghue and Rabin, 1999). The \\"challenge of affluence\\" is, according to Offer, the problem of learning to dealing with affluence in a manner that turns material comfort into human self-actualization. Observing the antics of (a highly visible but unknown fraction of) the newly rich, with their obscene displays of opulence, their vulgar tastes, their substance addictions and broken families, and their corrupted children does indeed remind one of the prejudices of \\"old wealth\\" that has had a few generations to adjust to material comforts against the base aspirations and untutored behavior of\\"new wealth.\\" Perhaps, then, there is a hope for the affluent societies after all.

Unfortunately, there is no known science of self-actualization, so my remarks on the topic must perforce flow from observation and introspection (it is little solice to be reminded that Hume, Locke, Shakespeare, Voltaire, and their like, relied almost exclusively on such forms of knowledge). I recall my concern for such issues in writing my Ph.D. dissertation some forty years ago, the head quote of which was from the jazz pianist Mose Allison, who wrote \\"things are getting better and better. It's people I'm worried about.\\" I took my inspiration from the Karl Marx of the Economic and Philosophical Manuscripts of 1844, which precede his development of historical materialism, and reflect the Zeitgeist of Hegel and Feuerbach (Marx, 1959). My interpretation of Marx's argument was that human nature (Marx used the term Gattungswesen---species-being) consists in several capacities, physical, psychomotor, cognitive, affective, aesthetic, and spiritual, and well-being consisted in the full development of these personal capacities. While a high level of material affluence is not an absolute prerequisite to such personal development, for those of use lacking an innately saintly character, it surely helps. Goods, services, and leisure, in this view, are merely instruments that facilitate the growth of personal capacities, and the cardinal sin of life in the affluent society is to \\"fetishize\\" commodities in the vain belief that they represent a direct route to self-fulfillment: what you cannot be, your money can buy for you. The correct position, I believe, is that what you are not, your money can help you become---a far more engaging, yet optimistic, take on the challenge of affluence. I developed this theme in several articles (Gintis 1972a,b 1974). The theme has been developed in an extremely powerful manner by Nobel prize economist Amartya Sen (1985).

Does affluence lead to the demand for the development of personal capacities, or to the deepening of commodity fetishism? The picture is not uniform. While there is no doubt but that American and British workers trade off income for job quality and leisure, they appear to do so at a lesser rate than their European counterparts. Indeed as Offer notes (p. 324), family work hours have reversed their long-term downward trend in the United States and has been increasing in recent years, in large part due to increase female labor market participation. Of course, both work hours and leisure have increased for American families due to the prevalence of labor-saving technology in the home and the movement of health care, food preparation, and education from the home to the market. Moreover, the quality of jobs has doubtless improved with the shift from unskilled manual labor to skilled white collar labor, and many individuals consider their work experience as a positive contribution to their well-being, much as our hunter-gatherer forebears did, with a joy that perhaps was confined to a small minority in the long diaspora between life in the Pleistocene and life in modern, technologically advanced, society. On the other hand, there is nothing quite as revolting as a statistic reported in The Economist several months back that 80% of French college students aspire to a career of lifetime security as functionaries in the

French government bureaucracy. Such a career may be self-actualizing for a fraction of French youth, but my insight into human nature judges 80% as an order of magnitude too high.

Offer's analysis makes it clear that economic research and proactive social policy may play an important role in meeting the challenge of affluence. The American public, for instance, voraciously consumes advice on living the good life, the news being full of the latest studies on proper diet, health maintenance practices, spiritual life, and management of interpersonal relations. It is likely that future improvements in the treatment of mental and physical illness will somewhat level the playing field in the capacity of individuals to live fulfilled lives, liberating the self-help books from the realm of self-survival to that of self-actualization. There has been a notable increase in research in this area (Frey and Stutzer, 2005), including the impressively thorough work of Daniel Kahneman and his co-workers (Kahneman and Krueger, 2006).

Throughout most of its history, economic theory has followed Jeremy Bentham's utilitarianism. It was Bentham who opined \\"Prejudice apart, the game of push-pin is of equal value with the arts and sciences of music and poetry. If the game of push-pin furnish more pleasure, it is more valuable than either. Everybody can play at push-pin: poetry and music are relished only by a few.\\" Bentham's egalitarianism is laudable, but the alternative is that Pushkin is better than pushpin, and the uneducated are cut off from fruitful paths of self-realization by not being capable of appreciating Pushkin. Indeed, my early publications took the position that not all preferences are equal, a position advocated before me by John Stuart Mill in his opposition to Bentham's utilitarianism. Happiness, I argued in support of Mill, is as much the development of preferences as their satisfaction. What are more developed preferences? They are ones that draw more heavily on our innate capacities, physical, psychomotor, affective, cognitive, aesthetic, and spiritual. My viewpoint was considered virtually heretical at the time. I still remember the embarrassed chuckles of my fellow graduate students in Robert Dorfman's Microeconomic I class when I suggested that some tastes are better than others. I analyzed the welfare implications of preference change in a less off-hand manner in my Ph.D. dissertation (Harvard University, 1969). To my surprise (and delight) in his Nobel Prize acceptance speech in 1970, Paul Samuelson pointedly criticized my writings on the grounds that economists should not impose their personal tastes and moral choices on others. \\"Just recently, says Samuelson, I was reading an article... written in blank verse...The writer was scathing on the notion of Pareto-optimality. Yet...it seemed to me that precisely in a society grown affluent...there arises an especial importance to the notion of giving people what they want.\\" My foray into blank verse may not have panned out, but as evidence of progress in economic theory, there are probably few economists alive today that do not believe that an important contribution of the economy to well-being is the improvement of moral character and personal capacities to enjoy what life has to offer.

Offer's book covers consumption and leisure as source of personal well being, but there is strong evidence that social conditions are also important source of happiness and unhappiness. For instance, Frey and Stutzer (2000) exhibit a strong correlation between the level of political democracy and individual well-being, correcting for the effects of democracy on material wealth. However, there is some evidence that the correlation is bidirectional. There is also evidence that some minority groups who are victims of social prejudice suffer attenuated well-being. These phenomena should be included in an overall assessment of the causes of well-being.

The major innovation in Offer's analysis is his deployment of the results of behavioral research in economics and psychology towards understanding the relationship between economic growth and individual well-being. By well-being, Offer almost always means subjective well-being, and despite an excellent treatment of the relationship between health, status, and income, I would have liked and expanded treatment of the objective aspects of well-being, such as mortality and infant mortality. I suspect that Offer will be the start of a trend in economic growth research that uses behavioral measures and experiments to assess the success of various policies, and to suggest ways of transcending the human weaknesses that prevent the translation of material comforts into happiness and self-actualization.ocene and life in modern, technologically advanced, society. On the other hand, there is nothing quite as revolting as a statistic reported in The Economist several months back that 80% of French college students aspire to a career of lifetime security as functionaries in the French government bureaucracy. Such a career may be self-actualizing for a fraction of French youth, but my insight into human nature judges 80% as an order of magnitude too high.

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Politics of Nature: How to Bring the Sciences into Democracy

Very old wine served in recycled postmodern bottles — Rating: 1/5

There is a very common French political discourse in which the writer takes the position of Guru Who Will Reveal Truth through Cryptic Raving. Latour is very good at this discourse, but it is really just Garbage Talk. Garbage Talk is a method in which one says the trivial and the well-known, but crammed with neologisms, and repeated many times in different cryptic ways. Well, in fact the Emperor Has No Clothes. The two reviews of this book on Amazon are light years ahead of Latour in cogency and promise.

Latour starts the book off as follows: \\"What is to be done with political ecology? Nothing. What is to be done? Political ecology!\\" This is the essence of Garbage Talk, and it is all downhill from there.

Neologism is at the heart of Garbage Talk (Discours de Poubelles in French). On p. 10 Latour defines \\"Science* as the politicization of the sciences through epistemology in order to render ordinary political life impotent through the threat of an incontestable nature.\\" Latour's Garbage Talk replaces reason and logic with epithet and bombast. This is not okay. I am not free to define Science in such a stupid a derogatory way, and neither is Latour. In fact, there is a serious literature on the relationship between science, politics, and social policy, but none of this comes through in Latour's ravings.

The content of this volume is a rehash of Rouseauian romantic populism, with absolutely no new insights. True to Garbage Talk form, there is virtually no analysis of any issue in political ecology, and it is quite impossible to pin Latour down on any point.

Handbook of Computational Economics, Volume 2: Agent-Based Computational Economics

An Invaluable Resource for Practicing and Novice Agent-based Modelers — Rating: 5/5

This excellent volume should be entitled \\"Explorations in Agent-Based Modeling,\\" as a comparison with Volume I of the Handbook of Computational Economics should make clear. The earlier volume is an extremely mature product summarizing the application of computer-intensive mathematical techniques to traditional economic problems--a subject the history of which goes back to the earliest applications of computers during World War II. The volume under review, Volume II, has a completely different character. Agent-based modeling is a young and vigorous, rather than a mature and technically plodding science. Mathematics, rather than being the central focus, tends to be rather a simple-minded tool, and the programming, rather than being of the number-crunching variety, tends to be a versatile and imaginative mirroring of real-world processes in silicon life-forms and object-oriented structures. The subject matter, moreover, is not limited to the bread and butter of traditional economics (computable general equilibrium, solving for Nash equilibria, macroeconomic modeling, parallel computation, dynamic programming, and the like), but rather explores novel themes in the interface between economics and the other behavioral sciences--especially in this volume politics, biology, and ecology. The chapters do accomplish fairly comprehensive literature reviews (but beware--in this fast-moving field some of the most important contributions are likely to be the most recent, and hence not referenced), but they are rarely technically detailed summaries of the state-of-the-art. Rather, chapters tend to develop themes that are particularly interesting to the author. This makes for a very readable volume, but I am not sure the appellation \\"Handbook\\" is truly appropriate.

Tesfatsion's first sentence in her introductory essay to the volume gets right to the point. \\"Economies,\\" she asserts, \\"are complex dynamic systems.\\" What, we may ask, makes an economy a complex dynamic system? For one thing, the complex economy is never in equilibrium, but is constantly subjected to shocks, both exogenous and endogenous, that affect its short-term movements. There are frequent local nonlinear resonances that lead to significant deviations of economic variables (prices, quantities, wages, asset prices) from their equilibrium values even in the absence of strong or systematic perturbations to the system. We see such deviations in many economic time series, which often have the \\"fat tails\\" characteristics of the power laws of complex systems, as opposed to the Gaussian distributions of Neoclassical theory. Second, in a complex (a.k.a. real-world) economy, the Law of One Price fails. For instance, in the European Union, the standard deviation of prices rose from 12.3% in 1998 to 13.8% in 2003, despite the extensive dropping of trade barriers and

movement to a common currency over this period. A third characteristic of the complex economy is that it rarely, if ever, achieves the sort of optimality that can be attained in simple engineered systems. For instance, since economies are rarely in equilibrium, most production, trade, and consumption takes place out of equilibrium, and hence is Pareto-suboptimal, at least when measured against a complete information Walrasian economy that has somehow attained equilibrium.

It is evident, then, that standard Neoclassical economic theory, as taught in the college and graduate textbooks and developed in the mainstream economics journals, does not recognize that the economy is a complex dynamic system. If the first volume of this pair of Handbooks might be called \\"how to do traditional economics better with computers,\\" the volume under consideration could be called \\"How to transform economic theory using agent based modeling.\\" We can chart the following characteristics of the complex economy: (a) The complex economy is thermodynamically open, dynamic, nonlinear, and generally far from equilibrium, whereas theWalrasian economy is thermodynamically closed, static, and linear in the sense that it can be understood using algebraic geometry and manifold theory; (b) In the complex economy, agents have limited information and face high costs of information processing. However, under appropriate conditions, they evolve non-optimal but highly effective heuristics for operating in complex environments. There is no assurance that when faced with novel environments, individuals will shift efficiently to new heuristics. In the Neoclassical economy, by contrast, agents have perfect information and can costlessly optimize; (c) Agents in the complex economy participate in sophisticated overlapping networks that allow them to compensate for having limited information and facing formidable information processing costs. In the Walrasian economy, agents do not interact at all. Rather, each agent faces an impersonal price structure; (d) In the complex economy, macroeconomic patterns are emergent properties of micro-level interactions and behaviors, in the same sense as the chemical properties of a complex molecule, such as carbon, is an emergent property of its nuclear and electronic structure, or that thermodynamics is an emergent property of many-particle systems. In such cases we cannot analytically derive the properties of the macro system from those of its component parts, although we can apply novel mathematical techniques to model the behavior of the emergent properties. In the case of the complex economy, these higher level modeling constructs are currently largely absent, although agent-based modeling may provide the data needed to develop the appropriate mathematical tools. By contrast, the Walrasian economy has no macro properties that cannot be derived from its micro properties (for instance, the First and Second Welfare Theorems); (e) In the complex economy, the evolutionary process of differentiation, selection, and amplification provides the system with novelty and is responsible for the growth in order and complexity. In the Walrasian economy there is no mechanism for creating novelty or growth in complexity. In his chapter in this book, Axel Leijonhufvud develops the insight that many contributions to economic theory from the Marshallian tradition, effectively eclipsed by the influence of Edgeworth, Walras, and their general equilibrium successors, are echoed and developed in the agent-based simulations of economic dynamics.

Several authors address the question as to the epistemological status of agent-based models. It is indicative of the youth of this brand of research that widely divergent answers are offered. One such view is that agent-based modeling is an alternative to formal analytical economic theory. It strikes me that this is not at all the case. Rather, an agent-based model is a set of empirical data, and building such models is akin to laboratory experimentation. One can use the results of such experimentation to inspire theorists to construct analytical models in which one can derive logically the properties of the system observed in the laboratory. Or, if the complexity of the system precludes analytical modeling, one can make broad generalizations based on a comparative study of different agent-based systems. In principle, an agent-based model could provide an existence theorem for a particular emergent phenomenon, but in general there are sufficient differences between a mathematical model of a process and its agent-based implementation (for instance, real numbers are approximated by fixed-precision floating point numbers, and random numbers are approximated by deterministic algorithms with long periods), that the two models could have substantively different properties.

Representing ABM models as empirical rather than theoretical contributions is likely to improve the chances for publication in mainstream journals, and hence improve the communication among economists. Economic theorists often make the point to me that in reading an analytical paper, the assumptions and the method of proof are completely transparent, while an agent-based model must be

taken on faith, since the model itself is not presented in a journal article, nor would it make much sense if it were, except to an expert in the computer language used. If the ABM is presented as a contribution to theory, it is easy to see why it is rejected by respectable journals: it is asking the reader to take the authors' assertions on faith alone. If the ABM results are represented as empirical data, this problem disappears.

When agent-based models are not accepted in mainstream economics journals, modelers tend to place the blame on the closed-mindedness and traditionalistic mentality of the reviewers. I consider this a very serious error, because it gives the agent-based modeler no means of correcting the problem. I think that it is almost always good advice to blame yourself when a paper is rejected, because the you is the only one with an incentive to change to meet the reviewers' criteria the next time around. The authors in this volume do not make this mistake, and several have valuable suggestions as to how agent-based models must be crafted to increase their scientific value (Robert Axelrod's suggestions are particularly incisive).

It is interesting that none of the authors appears to have noticed the inverse problem: agent-based models are all the rage in some circles, and many faulty models get past reviewers and are published in top journals, including Science and Nature. The fact is that if two researchers are given the same specifications and write the computer code independently, there is a very good chance their models will differ in substantial ways. There is simply no way for a reviewer to assess the quality of a simulation without spending a considerable amount of time going over the code. Moreover, I have found that researchers often bias code generation in such a way as to support their pet theories. The nature of this bias often cannot be revealed without a thorough inspection of the computer code. This sort of author behavior is not not necessarily due to our dishonesty, but rather due to our capacity to self-delude. If the ABM behaves the way we want it to, we leave the code alone. If it does not, we work over it to find out why. The resulting code is thus virtually certain to be self-serving and biased.

I do not know how to get around this problem. It is reminiscent of a similar problem with econometric research with complex data sets, where it is virtually impossible for reviewers to ascertain the significance of the results, especially in the case of economic time series. In the case of econometric analysis, the problem is attenuated if researchers are obligated to place the data in the public domain, making replication feasible. In the case of agent-based models, there is usually no \\"data\\" different from the model itself. It would be a step forward to require researchers to place their code in the public domain, so that the threat of public scrutiny might serve to attenuate the temptation to torture the code whose results one does not like, while coddling the code that reinforces our prejudices and expectations.

Another important issue not systematically addressed in this Handbook is the mechanics of producing an agent-based model. If the researcher does not do his or her own programming, clearly the researcher should generated a completely unambiguous set of specifications for programming the model. However, if the research does not know computer programming, this is impossible in all but the most simple cases. Even if the researcher is an expert programmer, he or she cannot pre-envision exactly how the model should function, since often one tries several alteratives for each piece of code, and one often does not know what the real dynamics of the model are until one has done considerable hands-on programming. For this reason, if I had my way, I would never accept a paper for publication that was not programmed by the researchers themselves, except for the simplest sort of models. Therefore, I believe training in ABM should include training in computer programming to the point of professional proficiency. I do not even accept using canned ABM software, because it is difficult to tell what the software is doing, the implementation is always painfully slow compared to a real computer language, and there are strict limits as to what can be accomplished with such software. However, I know that many leading ABM researchers disagree with this, and happily teach their students to use Swarm, StarLogo, and the like. Until this issue is thoroughly investigated and the truth sorted out from the myth, ABM will remain of limited value to the economic research community.

I commend the Editors for doing a fine job in addressing the needs of the ABM community, while producing a volume that can be profitably read by those new to the field. Nevertheless, there remain hard problems that must be soberly addressed before ABM becomes a standard part of the repertoire of economic researchers, and ABM results appear widely in top economics journals.s often make the point to me that in reading an analytical paper, the assumptions and the method of proof are completely

transparent, while an agent-based model must be taken on faith, since the model itself is not presented in a journal article, nor would it make much sense if it were, except to an expert in the computer language used. If the ABM is presented as a contribution to theory, it is easy to see why it is rejected by respectable journals: it is asking the reader to take the authors' assertions on faith alone. If the ABM results are represented as empirical data, this problem disappears.

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The Trouble With Physics: The Rise of String Theory, the Fall of a Science, and What Comes Next

A Critique of Smolin's Critic — Rating: 5/5

I am a behavioral scientist with a background in physics and mathematics. Like many others, I much admired Smolin's book, and perhaps in another review I will deal with the book directly. Here, I want to apply my understanding of Smolin's argument to a critique of Lubos Motl's review of Smolin's book, which he entitled \\"Another postmodern diatribe against modern physics and scientific method\\". Motl is a very fine string theorist at Harvard, and an interesting person with a great physics blog. I admire him a lot. But, he is wrong in many of his remarks (I cannot evaluate them all, for lack of expertise), and his argument fully supports Smolin's general position on the intellectual social structure of modern physics and the role of \\"groupthink\\" in normal science.

Let us begin with the title of Motl's review, \\"Another postmodern diatribe...\\" Anyone who knows me will relate that I cannot stand postmodernism. I despise postmodernism. I have nothing for contempt for postmodernism. If a postmodernist ever supported a book I wrote, as did Evelyn Fox Keller of Smolin's book, I would probably conclude that I was dreaming (a particularly cruel nightmare, I might add). But, neither Keller nor any other postmodernist (assuming she is one---I read one book of hers and could not stand it) is in The Trouble with Physics, nor among the blurbs on the book jacket. Smolin does not have a single postmodern strand in his argument. Not a single one. His basic framework is consistent with Thomas Kuhn's \\"normal science,\\" \\"paradigm,\\" and \\"anomaly\\" framework, and Lord knows, Kuhn could not abide the use of his work by postmodernists. His scientific criterion is basically a combination of Popper (a scientific statement must be refutable, and it must not be accepted until it is tested in a situation where refutation is possible) and Feyerabend (Against Method). Smolin's interpretation of Feyerabend (who has been incorrectly interpreted as postmodern) is in no way postmodern, and highly refreshing and accurate. So much for Motl's title. Not surprisingly, it is all downhill from there.

Motl begins his review not by dealing with Smolin's argument, but by an ad hominem attack on Smolin himself. He says, \\"Lee often visits us. We smile at each other and Lee is being politely explained why his newest theories can't really work. Lee says that he understands these arguments. Then he returns to a conference or a journalist and repeats that all of his theories have been perfectly proven, while offering even more unusual theories.\\" Now, Smolin is not beyond describing the idiosyncrasies of his string theorist friends, but only late in the book, after his scientific argument is completed. Motl might learn that ad hominem attacks are treated by intelligent scientists as beyond the pale. Motl is an excellent physicist, but he clearly doesn't know how to make an argument: we already have an indefensible title and an ad hominem first paragraph.

Moreover, it is completely false that Smolin claims that \\"all of his theories have been perfectly proven.\\" Does Motl think we are fools, making such an assertion? If it were not for his stature in string theory, I would have stopped reading his review right there.

A bit later in his remarks, Motl attempts to deflect the criticism from string theory by asserting that \\"Lee reveals his intense hostility against all of modern physics, not just string theory. He believes that quantum mechanics must be wrong at some fundamental level and many people should try to prove it. He also believes that the attempts to falsify the theory of relativity are among the most important topics to work on.\\" In fact, we know that both quantum mechanics and the general theory are both \\"wrong\\" because they are inconsistent with one another and neither separately covers the explanatory ground covered by the other. Motl concludes that \\"Lee is trying to sell things that could never be bought by the experts because heknows that his lay readers won't be able to tell the difference between a result and a nonsense.\\" It is true that my personal knowledge of string theory is way out of date. If I get time this summer, perhaps I can come up to snuff, or perhaps it really take the year or more that Smolin suggests is needed. Perhaps it is nonsense. But, the fact is that string theory has moved from asserting that the answer is just around the corner to proliferating sui-generis arguments that substitute for real testable, physical theories. Smolin is asking for more resources to be devoted to those who do not operate in the string theory framework. Nor is he arguing that anyone but physicists should

be involved in shifting resources (e.g., departmental positions, research funds). Never does he say that Congress or NSF administrators make such decisions. Motl is once again off target.

Motl then claims that \\"Lee proposes a truly radical thesis that it is wrong for mathematics to play a crucial role in theoretical physics.\\" If I didn't already know that Motl is perfectly happy offering drivel to his readers, I would be astonished at this assertion. Nothing in the book says anything of the kind. Smolin says that physics goes through stages in which deep thinking is critical and others where just crunching the math is extremely productive, as in the case of the standard model. Smolin is correct, I believe. His remarks apply very nicely to the behavioral sciences I know well, including Economics, which is the most mathematical of the behavioral sciences.

Motl : \\"Smolin... tries to paint the mainstream physics community as a group of evil people.\\" Fact: Smolin says many times that they are, almost to a person, NOT evil people. Rather it is the \\"sociology\\" that produces a \\"groupthink\\" outcome.

Motl: \\"he proposes ... that the conclusions [of a paper] must be accepted by everyone if their author is a person of good faith.\\" Fact: Smolin does nothing of the kind. He suggests that highly skilled and well-trained renegades should be supported more than they are.

Motl: \\"These and other proposals are clearly meant to transform the scientific community to a dogmatic, non-mathematical, and irrational institution with double standards that is similar to the Catholic Church in the Middle Ages.\\" Fact: all I can do here is roll my eyes in disbelief that anyone could take this as an implication of Smolin's book. Completely absurd!

I am sorry for spending so much time dumping on poor Motl, who is doubtless as fine as a physicist as he is deplorable as a meta-physicist (i.e., a person capable of thinking clearly and intelligently about where research energy in physics should devoted at the current time). I hope a better defense of string theory appears (I read a rather silly review in Science or Nature a couple of weeks ago), because I really don't want to have to spend my declining years finding the answer out for myself.because he knows that his lay readers won't be able to tell the difference between a result and a nonsense.\\" It is true that my personal knowledge of string theory is way out of date. If I get time this summer, perhaps I can come up to snuff, or perhaps it really take the year or more that Smolin suggests is needed. Perhaps it is nonsense. But, the fact is that string theory has moved from asserting that the answer is just around the corner to proliferating sui-generis arguments that substitute for real testable, physical theories. Smolin is asking for more resources to be devoted to those who do not operate in the string theory framework. Nor is he arguing that anyone but physicists should be involved in shifting resources (e.g., departmental positions, research funds). Never does he say that Congress or NSF administrators make such decisions. Motl is once again off target.

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where research energy in physics should devoted at the current time). I hope a better defense of string theory appears (I read a rather silly review in Science or Nature a couple of weeks ago), because I really don't want to have to spend my declining years finding the answer out for myself.

The Altruism Equation: Seven Scientists Search for the Origins of Goodness

A History of Altruism Glowing with the Author's Enthusiasm — Rating: 4/5

The altruism equation relates to a very simple equation explaining altruism among kin in terms of costs, benefits, and the degree of relatedness. The equation does not have the generality of Newton's Third Law or Einstein's mass-energy equation, but it may well be the most important quantitative relationship in biology.

But, this book is more about people than about equations. It consists of a beautiful set of cameos of some the the greatest biologists who have worked on the issue of altruism, including Darwin, Huxley, Kropotkin, Hamilton, Dawkins, and Price. It is an easy read and very elegant and exciting. There is some mention of results beyond 1970, but they are very, very sparse. Perhaps an historical narrative is warranted only when all the principals are dead. At any rate, for a discussion of the modern theory human altruism, together with spandrels, sociobiology, a scientific approach to morality and the social emotions, you will have to look elsewhere.

Moral Minds: How Nature Designed Our Universal Sense of Right and Wrong

The Science of Morality Comes of Age — Rating: 5/5

When Darwin discovered natural selection, he was quick and remarkably insightful as to how this might affect our understanding of our own species, Homo sapiens. Alfred Russel Wallace, the impressive co-discover of the theory, never agreed to its application to humans. He considered our mental faculties far too advanced to be accounted for by the same forces that gave rise to pond scum and even chimpanzees. The debate continues to this very day, and will not be resolved in the forseeable future.

Nevertheless, there is now little doubt but that we share many of our mental faculties with other species, including, as Marc Hauser shows us in this fine volume, some of our moral capacities. Even those we do not share with our evolutionary relatives, he claims, are clearly the product of biological evolutionary forces. I think his argument accurately reflects our current state of knowledge, and is impressive indeed. Sociobiology, which was roundly rejected and indeed excoriate by most behavioral scientists when first proposed by Edward O. Wilson in 1975, has been fully vindicated.

The past decade has seen a strong push for the notion that ethics is a part of science, and the philosophy of ethics, in principle, ought not to be that different from the philosophy of physics. In particular, our ethical notions do not come from some rarified Platonic realm, or the capacity to perceive synthetic a prioris, or our superior informational processing power, but rather from our evolution as a species that has spend most of its history living in small bands of mobile, propertyless, stateless, hunter-gatherers.

Hauser deals with our current understanding of virtally all aspects of the mental life of humans, cognitive, affective, and moral, and he consistently weaves an intellectual web in which the mental capacities of animals and humans are inextricably interwoven. His specific claim, and unique to my knowledge, is that we can understand human morality in much the same manner as we have come to understand human language, based on the work of Chomsky and his coworkers. Humans are genetically endowed with a universal moral grammar, a tool kit for building specific human moralities, the latter being the product of cultural specificity. Thus, just as we cannot understand a foreign tongue, so we cannot appreciate a foreign morality, even though we know it springs from the same basic human capacities.

I think the analogy of ethics with language is a fruitful one, and well argued by Hauser on the basis of the facts (e.g., people cannot defend their ethical beliefs any more than they can explain the rules of grammar that they follow, unless they have been trained to do so). I am less sure that it is true. This is because the actual content of ethical principles is largely the same across all societies, and certainly across major religious and cultural groups (see Donald Brown, Human Universals, and Hauser's discussion of religion, pp. 421ff). We humans certainly can amplify our petty differences (e.g., what to eat, what to call our God, when to wear what), and there are important non-petty differences (tolerance, gender equality, abortion and homosexuality), but these vary systematically with level of economic development, and are not the cocophony of human languages.

This book is written for the novice, and is a wonderful introduction to the recent liturature on the human mind, by an eminent researcher whose knowledge of \\"wild minds\\" (the title of his previous book) is unsurpassed, and who has enriched us all by turning his gaze to human primates.ality in much the same manner as we have come to understand human language, based on the work of Chomsky and his coworkers. Humans are genetically endowed with a universal moral grammar, a tool kit for building specific human moralities, the latter being the product of cultural specificity. Thus, just as we cannot understand a foreign tongue, so we cannot appreciate a foreign morality, even though we know it springs from the same basic human capacities.

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The Language of God: A Scientist Presents Evidence for Belief

Science is not the Only Way of Knowing — Rating: 5/5

Despite the conviction of many scientists, science is not the only way of knowing. \\"Science without religion is lame,\\" once proclaimed Albert Einstein, while \\"religion without science is blind.\\" And despite the conviction of many devout believers, faith is not the only accurate guide to truth. Science can answer few of the ultimate why questions, such as why is there something, rather than nothing? Why is there something that knows that there's something (consciousness)? Why is there something that wonders why (Homo sapiens)? Faith, by contrast, tells us absolutely nothing about the nature of the world we inhabit, its history, its properties, or its evolution.

Collins does us an immense favor by showing that intelligent and sensitive individuals can be both absolutely rigorous scientists and completely devout believers in a personal God who cares for our well-being. Collins is a fine and sometimes eloquent writer, and his scientific and religious exposition can be appreciated by readers steeply versed in neither science nor theology.

Collins is at his best when describing the ecstasy of scientific discovery and the boundless joy and awe of the spiritual experience. To my mind, the validation of both science and faith are rooted in our personal experience. I know truth exists because I have discovered it. I know beauty exists because I have seen it. I know the depth of spirituality because I have experienced it. No one can take that away from me. Collins makes it clear that this is also the basis for his affirmation of both science and religion.

Collins devotes much of his effort, however, at the more impersonal level of defending science against its critics (creationists, intelligent designers, and the like), and defending religion against its critics

(atheists and agnostics). He does the first very well, but not better than many others who have written on the subject. He is rather better, although still not original, in accomplishing the second. Nor does Collins claim to be a great theologian; rather, he draws his inspiration here from C. S. Lewis, St. Augustine, and others, whose greatness in this regard cannot be doubted.

One of the great qualities of Collins' argument is that he rejects one of the most prevalent arguments in favor of the existence and power of God: the inability of science to explain certain natural phenomena, such as the origin of life, gaps in the fossil record, or the complexity of cellular mechanics. He correctly notes that science is likely to fill in these gaps in coming years, and nevertheless our belief in God and spirituality will not be thereby compromised.

In place of such \\"God of the gaps\\" arguments, Collins defends two distinct arguments in favor of the existence of a God who loves us and personally cares about us. The first draws heavily from modern physics and biology (p. 200), and asserts that (a) despite massive improbabilities, the properties of the universe appear to have been precisely tuned for life; (b) given this fundamental structure of the universe, no special devine intervention was necessary to ensure the eventual emergence of complex life forms; (c) humans, however, are unique in ways that defy evolutionary explanation, including our advanced consciousness, our capacity for love and empathy, the huge gap between our cognitive and spiritual capacities and that of other of God's creatures, and our capacity to understand the nature of physical and biological laws.

I find this argument extremely powerful, but it can only really be appreciated if one has a deep understanding of both physics and evolutionary biology, since the critical steps involve deep understanding of physical law and the character of animal behavior. Collins cannot really do justice to either of these aspects of his central argument in this short and elegant book, but he may do enough to convince many of his readers who lack expertise in these areas.

Collins' second argument is that human morality (the Moral Law) presupposes God. His arguments here are weak, and he betrays his ignorance of modern evolutionary biology as applied to humans. This happens to be an area of my own expertise, and I can confidently say that we can explain human morality without recourse to divine intervention. Those interested can browse my web site for reference to the literature. Ironically, Collins here falls into the \\"God of the Gaps\\" argument that he so forcefully criticizes elsewhere.

Collins answers most of the arguments of non-believers effectively--I especially like his critique of agnosticism, which is essentially that it is not okay to cop out on really important questions--based on the contributions of C. S. Lewis and others, but he fails to deal effectively with the argument that if there is a God who loves us, the why does He allow us to suffer? Collins answer is not (thankfully) that we are sinners and deserve to suffer, but rather that we bring suffering upon ourselves because of our exercise of free will. He repeats this argument several times, but we all know of many cases where our loved ones suffered horribly through no fault of human action, but through disease and natural defect.

This is a book that should not only be read, it should be the subject of active proselytization. Give it to your family members for birthdays and holiday gifts. Talk it up. Imagine how wonderful it would be if the science-religion debate were wrested from the hands of the atheists and the bigoted, and returned to those dedicated to expanding human knowing in its many dimensions.these areas.

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Albert Einstein: Historical and Cultural Perspectives

Touching and Insightful — Rating: 4/5

Einstein is certainly one of the most beautiful and concise thinkers of all time. His most famous equations contain fewer than ten characters and can be jotted down in a few seconds. Their implications are still being drawn out by physicists and mathematicians. What many people fail to understand is that Einstein was also an incredibly deep and poetic student of metaphysics and spiritual life. Such sayings as \\"God does not play Dice,\\" and \\"God is crafty, but He is not malicious,\\" are both deep and whimsical. This book celebrates this complementary cultural side of the Great Man.

This book does not avoid the complexities of quantum mechanics, special and general relativity, but the reader can easily skip over the equations. The reader who comes away wanting more can turn to Abraham Pais' biography of Einstein, Subtle is the Lord, and Alice Calaprice's compendium of Einstein's sayings.

Encyclopedia of Jewish Humor: From Biblical Times to the Modern Age

Informative, but not funny — Rating: 3/5

There is much to learn about Jewish slang and the structure of Jewish humor in this collection, but the author has a knack for taking funny material and making it sound stupid. Let me give an example by relating one of my favorite Jewish jokes, in my own words.

Hymie and Sophie owned a little convenience store in a nice Jewish neighborhood, and they made a nice living. However, the neighborhood began to change, the Jews moving to the suburbs and a wave of Catholic immigrants replaced them, working in the growing factories around the city. Their business fell to almost nothing. One day Hymie says to Sophie [please add Yiddish accent here and throughout], \\"you know, if we were Catholics, we would get our business back.\\" So the next day the couple went to the local Catholic church and professed their desire to become Catholics. Father O'Reilly was suspicious and put the pair through months of study and service, but the couple pulled through with honors. On the Sunday they were to be baptized, the whole Catholic community attended, each in his or her best attire. Hymie and Sophie looked radiant. They knelt before the alter, ate the wafer, and the good Father O'Reilly blessed them. Three times to each he said, \\"you're a Catholic,\\" sprinkling the water on them. There followed a great feast and celebration.

Well, business did pick up. The couple were doing so well that one day Hymie said, \\"You know, Sophie [add Yiddish accent] we must invite the priest to dinner.\\" Father O'Reilly accepted with pleasure, and showed up Friday evening for dinner. The had some wine and hors d'oeuvres, and Sophie came out of the kitchen with the steaming piece de resistance: a magnificent pot roast. Father O'Reilly was horrified. \\"After all your studies, you don't remember that you must eat fish on Friday!\\" Sophie, mortified, quickly regained her composure. Taking some water from the pitcher, she stood over the pot roast, intoning \\"You're a fish, you're a fish, you're a fish\\" while sprinkling the steaming dish.

Now, that is a funny joke! Forever after, when you want to say that you can't change the leopard's spots in Jewish, you just say \\"You're a fish.\\"

What is the joke like in the book? It occurs on page 61. I won't repeat the whole joke, but only the last three paragraphs. \\"This is disgraceful!\\" cried the indignant priest. \\"Didn't you promise to abstain from eating meat on Friday?\\" \\"Meat? Who's eating meat?\\" answered the other blandly. \\"This is gefilteh fish.\\" \\"You must take me for a fool!\\" snapped the outraged priest. \\"How can anyone make fish out of meat?\\" \\"The same way you made a Catholic out of a Jew,\\" answered the convert smoothly. \\"I sprinkled water on it!.\\"

Isn't that just awful? Lots of adverbs and adjectives (\\"indignant\\" \\"outraged\\" \\"smoothly\\"...) but no subtlety. I invite someone to take these joke and restore their humor.

By the way, if you liked my version of the joke, someday I'll tell you \\"I Could Have Saved Mama\\". Now that's a funny joke.kling the steaming dish. Now, that is a funny joke! Forever after, when you want to say that you can't change the leopard's spots in Jewish, you just say \\"You're a fish.\\" What is the joke like in the book? It occurs on page 61. I won't repeat the whole joke, but only the last three paragraphs. \\"This is disgraceful!\\" cried the indignant priest. \\"Didn't you promise to abstain from eating meat on Friday?\\" \\"Meat? Who's eating meat?\\" answered the other blandly. \\"This is gefilteh fish.\\" \\"You must take me for a fool!\\" snapped the outraged priest. \\"How can anyone make fish out of meat?\\" \\"The same way you made a Catholic out of a Jew,\\" answered the convert smoothly. \\"I sprinkled water on it!.\\" Isn't that just awful? Lots of adverbs and adjectives (\\"indignant\\" \\"outraged\\" \\"smoothly\\"...) but no subtlety. I invite someone to take these joke and restore their humor. By the way, if you liked my version of the joke, someday I'll tell you \\"I Could Have Saved Mama\\". Now that's a funny joke.

The Psychology of Economic Decisions: Volume 1: Rationality and Well-Being

Serious Attempt to Join Psychology and Economics — Rating: 4/5

This is the first of two volumes of papers by very prominent economists and psychologists with the aim of developing a better model of the relationship between choice and welfare than either discipline currently possesses. The book is sufficiently important that I will comment separately on the various chapters, returning to this review to edit periodically, as I go through the book.

The first chapter, by Roy F. Baumeister, explains why people make choices that are \\"irrational,\\" in the sense of not contributing to their well-being. The economist will note that we do not use the term \\"irrational\\" for this phenomenon. Rather, \\"irrational\\" in economics means lacking consistent preferences. There is a tendency for psychologists to use the term anyway they please, and indeed, economists are generally no more coherent in their use of the term. I have given up on the term \\"rational\\" altogether for this reason. For instance, in this review I will refer to the rational actor model as the Beliefs, Preferences, and Constraints (BPC) model. This chapter may be useful for a novice, but it is analytically weak and excessively general. It includes really incorrect assertions, such as \\"A rational being should by definition pursue enlightened self-interest.\\" (p. 3). This consigns altruistic and virtuous (e.g., truth-telling) activity to irrationality, which is a mistake. Consistent with this, the author suggests that self-destructive activities should emphasize tradeoffs and counterproductive strategies. Aside from the lack of analytical clarity of these phenomena, they again exclude critical choice forms, such as acting out of obligation, keeping promises, and sacrificing for one's family and society.

The second chapter, by Kent C. Berridge, has a fine description of the neurological basis for the difference between \\"decision\\" and \\"experienced\\" utility, but hooked up to a completely naïve understanding of the economists' BPC model. Like other psychologists in this book, he therefore ends up not adjudicating economics and psychology, but denying economic theory altogether. This, by the way, is common among psychologists, who appear to love to describe behavior as \\"irrational\\" as a way to win brownie points in a disciplinary battle with economics. It should not have been tolerated by the editors of this book, because it is destructive of the project of developing a unified model of the individual decision-maker. In this case, Berridge considers and experiment where subjects are given

subliminal visual cues that are either \\"happy\\" or \\"angry\\", verifies that subjects were not aware of the cues and their self-reported emotional state was not effected. However, those shown the \\"happy\\" cues preferred more of a sweet soft drink than those shown the \\"angry\\" cues. Berridge holds that this is \\"irrational.\\" It is no such thing. Human choice depends on preferences, beliefs and constraints. Preferences are a function of the state of the individual, and hence are not unchanging. Hunger, thirst, sexual drive, previous consumption history, and a host of other parameters affect choice. Moreover, most of our mental activity is not available to our consciousness, so whether we are aware of our current state or not is quite irrelevant. Burridge's argument is thus symptomatic of the psychologist's inability to deal maturely with economic theory, in a way that could produce a unified model. This is a fine paper if you start with section 3.

The third chapter, by the prominent behavioral economist George Loewenstein and well-known coauthors, argues that the pursuit and assessment of happiness can be self-defeating. This is quite correct, of course. For instance, if I constantly ask myself if the music I'm listening to is good or bad, I cannot really enjoy it. Similarly, hard work, honesty, and self-sacrifice might produce more happiness than attempting always to stimulate the pleasure centers. Much interesting material is presented here. However, the authors go to great lengths to alienate economists, making absurd statements whose sole value is to dump on economic theory. For instance, they hold that \\"ordinal\\" utility theory is a mistake, and we should return to Bentham's \\"cardinal\\" utility of pleasure and pain. In fact, individual choice deviates consistently and profoundly from pleasure maximization, and it is a great step forward for economics to recognize this over the past half-century. Experienced utility is very important, but it is not a superior theory to the BPC model, which takes the relationship between choice and welfare as an empirical problem to be unraveled. Of course, the authors know this, but they cannot resist making absurd statements whose sole value is to piss off most economists.

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More to come...

Shame and Guilt (Emotions and Social Behavior)

I Question their Central Message — Rating: 4/5

I work on the role of the social emotions (empathy, shame, guilt, sympathy, pride, positive and negative altruism, etc.) in promoting social cooperation. In this work, my colleagues and I treat guilt as a self-evaluative emotion, not depending on whether others agree with us or know what we have done, and we treat shame as an interpersonal emotion, depending on how others think of us. As such guilt is probably uniquely human, and shame is very close to uniquely human (perhaps dogs, highly domesticated to meet human social needs, feel shame). Both shame and guilt, we believe, evolved because they enhanced individual human fitness is the context of a highly complex social order in which deviations from social norms would likely be punished.

In this book Tangney and Dearing propose a definition of guilt close to ours, but define shame as a self-evaluative emotion in which one's total worth as a person is brought into question, whereas guilt deals with more specific behaviors. Thus for the authors, both shame and guilt are self-evaluative emotions. This definition suits their purposes because their evidence is in the form of self-description (attitude and personality surveys). Their conclusion is that shame is dysfunctional in the sense that individuals who tend to evaluate their behavior in terms of shame have a difficult time dealing with others and ameliorating their behavior, whereas those who evaluate themselves in terms of guilt are more likely to be able to correct the problem.

I think the authors' results are compatible with the more general use of the term \\"shame\\" in interpersonal interactions. The capacity for shame is both prosocial and individually welfare-enhancing (those without shame tend to be sociopaths), but the tendency to apply shame evaluations to oneself may be personally dysfunctional.

Defending Science-Within Reason: Between Scientism and Cynicism

New Age Philosophy of Science — Rating: 3/5

Classical philosophy of science attempted to demonstrate that the scientific method was a, or perhaps the only, means to attain truth concerning objective reality. Scientists liked this approach, bu it failed--not that scientists really cared one way or another. What followed, with interesting intermediaries such as Kuhn and Lakatos, was the emergence of social constructivism, a post-modern attack on science that held that what scientists do is, in principle, no different from what any group does when it creates culture and attempts to validate and defend this culture against the claims of other groups. Scientists hated this approach, which has, thankfully, been beaten back somewhat in recent years.

Haack's work seems to me to be a new stage. I call it New Age because it reminds me of New Age music, which avoids the Sturm und Drang of classical music, the intense intellectuality of Jazz, and the raw beastiality of popular music, erecting in their place a refuge for the poor, beknighted soul, devoid of sharp edges but also not likely to jar or annoy. I think this is a great accomplishment, especially after going several rounds with Popper, the Vienna Circle, or abominable post-Kuhnian social constructivists. Everything Haack says makes sense, and is soothing to the psyche.

The problem with New Age is that it lacks depth, and this is the case for Haack as well. There are many burning issues in the philosophy of science today, including (a) science and religion; (b) science and the liberal arts; (c) the imperialism of science in evaluating non-scientific cultural practices; (d) the unity of the sciences; (e) natural vs. behavioral/social science; (f) public participation in science; (g) governmental control of scientific research. Whenever Haack confronts issues such as these, she finds a soothing middle ground, whereas often others find the material for pitched battle and vitriolic words. Soothing is nice, but may simply be a way of avoiding the difficult issues.

I have always defended science against its bitter critics, most of which have come from the political left (I come from the political left, myself). With the decline of the left, there has been a decline of the traditional criticism of science, and the rise of various reactionary criticisms of science, in the form of Creationism (aka Intelligent Design). I can't stand the Creationists, but I do like their willingness to Question Authority. They are wrong, in my view, but they beat the New Age mentality of basing one's life on the results of the most recent medical study of behavior and longevity. Give me the Science Wars of yore any time.difficult issues.

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Professionalism, the Third Logic: On the Practice of Knowledge

Mischaracterizes the position of professionalism in modern society — Rating: 2/5

Following the Weberian tradition, Freidson contrasts the professions with the competitive market and the bureaucratic institution as ideal types. This is an interesting task and should take about twenty

pages, not a whole book. The interesting observation, however, is that in modern economies, the three are not alternatives, but rather are complementary. For instance, physicians (professionals) work in hospitals (bureaucracies) whose success depends on attracting patients (the competitive market). The interesting question, not addressed in this book, is the conditions under which professionalism can be maintained and expanded, even in the context of markets and competitive bureaucratic institutions. Answering this question requires using sophisticated analytical tools from economic theory (e.g., game theory and principal agent models) as well as anthropological skills used in investigating the characteristics of professional activities. Friedson is capable of neither.

Vaulting Ambition: Sociobiology and the Quest for Human Nature (MIT Press)

Outdated in Detail, Still a Telling Critique in Broad Outline — Rating: 5/5

Edward O. Wilson's great work Sociobiology unleashed a furor of vitriolic criticism from mainstream social scientists, who preferred purely cultural models of human behavior, and from politically progressive crusaders who believed that the appropriate socialization processes could overcome the selfishness and mean-spiritedness inculcated by the possessive individualism fostered by modern capitalism. Both groups were deeply offended by the attempt to give biological explanations for human behavioral propensities. The ensuing steamy controversy is reviewed admirably by Ullica Segerstrale in her book, Defenders of the Truth: The Sociobiology Debate (Oxford: Oxford University Press, 2001).

Philip Kitcher's Vaulting Ambition may well be the only contribution to this debate that remains of scientific interest today, although Stephen Jay Gould and Richard C. Lewontin probably deserve a place with their famous paper, \\"The Spandrels of San Marco and the Panglossian Paradigm: A Critique of the Adaptationist Programme\\", Proceedings of the Royal Society of London B 205 (1979):581-598. Sociobiology has come a long way since this book, however. Kitcher mentions but does not deal with Cavalli-Sforza and Feldman's seminal work, Cultural Transmission and Evolution (Princeton, NJ: Princeton University Press, 1981), and does not mention the equally great Robert Boyd and Peter J. Richerson, Culture and the Evolutionary Process (Chicago: University of Chicago Press, 1985). The important contributions of Evolutionary Psychology were still some years away, in the form of Jerome H. Barkow, Leda Cosmides and John Tooby (eds.) The Adapted Mind: Evolutionary Psychology and the Generation (New York: Oxford University Press, 1992). Similarly, most of the great evolutionary anthropological works of the behavioral ecologists had yet to be written in 1985. For this reason, Kitcher's book is outdated. But some of its broad arguments remain cogent today, and this book is well worth reading by anyone interested in the topic.

The basic critique is summed up in the Postscript (p. 435): \\"Sociobiology has two faces. One looks toward the social behavior of nonhuman animals. The eyes are carefully focused, the lips pursed judiciously. Utterances are made only with caution. The other face is almost hidden behind a megaphone. With great excitement, pronouncements about human nature blare forth.\\" Kitcher's point is that the sociobiology of non-human animals is carefully integrated into the research scholarship of animal behaviorists, where it is subject to minute scrutiny. There, Kitcher recognizes that evolutionary theory has had great impact. He would be much more impressed today, I suspect, since the evolutionary game-theoretic approach now dominates the field. In human sociobiology, by contrast, there were a few high-profile books that captured the attention of the public, but did not engage in the painstaking gathering of experimental and field data that would turn speculation into scientific fact.

The scientific basis for sociobiology is immeasurably advanced over its state two decades ago. While the great public debate was in progress, researchers like Cavalli-Sforza and Feldman, Boyd and Richerson, Cosmides and Tooby, Daly and Wilson, Boehm, Hawkes, Kaplan, Wiessner and many others have established the biological foundations of human behavior as a fruitful field of study. Nevertheless, debates based on highly speculative assertions rage in the popular science press, fueled by the considerable expository skills of Robert Wright, Stephen Pinker, Mat Ridley, and others. Moreover, modern-day sociobiologists, who are more likely to call themselves \\"evolutionary biologists,\\" continue to exhibit two traits which are major subjects of attack by Kitcher. The first is to see every

human characteristic as a biological adaptation with a genetic basis, and the second is to consider biological adaptations as aspects of human nature that are basically immutable through cultural intervention. Neither of these is reasonable. On the first count, human characteristics are the product of gene-culture coevolution, not genes alone, and the cultural elements are often dominant. For instance, in human society, increased longevity and wealth has led to a decrease in family size (the so-called \\"demographic revolution\\"), which is directly fitness-reducing by definition. Our species is, indeed, the only known species to which the Malthusian population mechanism does not apply in full force. To call this behavior a biological adaptation is absurd. On the second count, while sociobiologists are doubtless correct in asserting that there are genetic differences between men and women that lead to consistent behavioral differences, it is likely that egalitarian institutions and gender-neutral cultural norms can promote a high degree of gender equality in modern societies.

Kitcher's critique of E. O. Wilson (p. 181ff) on this count is very telling. Kitcher notes that sociobiologists have pointed to the failure of the Israeli kibbutzim as an example of the immutability of the sexual division of labor. He suggests, quite rightly, that there are many alternatives to the kibbutz besides the patriarchal family. And so there are!

There is also one extremely important difference between the politics of sociobiology today and yesteryear. Kitcher takes it as axiomatic that sociobiology is profoundly conservative, racist, sexist, and intolerant of diverse life-styles (e.g., homosexuality). I have my doubts about this characterization of the sociobiologists of the period, but there can be no question but that this is how they were perceived by the public and their intellectual enemies. This is no longer the case. While dyed-in-the-wool Marxists still rant about the conservatism of contemporary sociobiology, by and large its proponents have shed this image and are widely appreciated for creative insights in promoting racial and gender equality, tolerance of diversity, and opposition to senseless violence.

Kitcher asserts there is no general sociobiological theory (p. 118), so there is no overarching critique of sociobiology, but only piecemeal critique of each of its many assertions. This critique was doubtless correct, although I now think that gene-culture coevolutionary theory is an encompassing framework for contemporary sociobiology (others believe that Evolutionary Psychology holds this position).

The later chapters of the book are less successful. Kitcher's critique of Lumsden and Wilson, Genes, Mind, and Culture: The Coevolutionary Process (Cambridge, MA: Harvard University Press, 1981) is correct, but his time would have been better spent dealing with a better book; e.g., the Cavalli-Sforza and Feldman book published in the same year. Kitcher's critique of the \\"Panglossian\\" tendency of sociobiology is mostly wrong, and certainly out of date. Of course, the idea that natural selection leads to optima is generally fallacious, but this has little to do with sociobiology. Finally, Kitcher's defense of traditional philosophical approaches to ethics (altruism, free will, morality), is interesting and spirited, but I think it is just wrong. Philosophers would do well, I believe, to take an evolutionary approach to ethics, rather than the Platonic, axiomatic approach that they tend to take.are basically immutable through cultural intervention. Neither of these is reasonable. On the first count, human characteristics are the product of gene-culture coevolution, not genes alone, and the cultural elements are often dominant. For instance, in human society, increased longevity and wealth has led to a decrease in family size (the so-called \\"demographic revolution\\"), which is directly fitness-reducing by definition. Our species is, indeed, the only known species to which the Malthusian population mechanism does not apply in full force. To call this behavior a biological adaptation is absurd. On the second count, while sociobiologists are doubtless correct in asserting that there are genetic differences between men and women that lead to consistent behavioral differences, it is likely that egalitarian institutions and gender-neutral cultural norms can promote a high degree of gender equality in modern societies.

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The Scientific Study of Society

Valuable, though excessively bland, defense of social science — Rating: 4/5

This book is a labor of love. Steuer expresses his shock that many university students care deeply about society and study social science, but are scornful and dismissive of science itself. His task in this book is to establish what is and what is not social science, and to defend the project of value-neutral scientific research into the nature of society.

Steuer defines five social sciences: anthropology, economics, political science, social psychology, and sociology. Following two chapters of explaining exactly what \\"science\\" is and how it is done, he shows how each of the five disciplines deals with different aspects of social life. The areas he delves into are crime, migration, family, money, housing, and religion.

Steuer argues that the various disciplines never conflict with one another, but rather explored different facets of each problem. Thus, he considers each discipline to be \\"biased\\", but together they tell a rather full story of each of the social phenomena with which he deals. His description of social research is rather ample and relaxed, well worth the reader's time and effort.

Steuer is not interested in theory, but rather in social research. From the point of view of the theoretician, Steuer's complacency with the current state of social science is unwarranted. This is because four of Steuer's five disciplines (excluding political science) have extremely different and indeed incompatible models of human behavior. Sociologists, social psychologists, and anthropologists, for instance, accept that individual behavior is based on following norms that are socially inculcated through cultural institutions, whereas economics holds that individuals are rational self-interested agents who maximize their material gain and are motivated by material incentives alone. To my mind, for this reason the social sciences are in a dreadful state of disrepair, and can hardly call themselves sciences.

Steuer never deals with biology at all. One would think that biology has nothing to say about human behavior, and the social sciences have no biological foundations. This is very typical of the social science perspective, which treats human beings as if they had no biological nature worth analyzing. However, the contribution of evolutionary biology and psychology towards understanding human behavior has advanced mightily in recent years, and deserves to be included in the mix.s with biology at all. One would think that biology has nothing to say about human behavior, and the social sciences have no biological foundations. This is very typical of the social science perspective, which treats human beings as if they had no biological nature worth analyzing. However, the contribution of evolutionary biology

and psychology towards understanding human behavior has advanced mightily in recent years, and deserves to be included in the mix.

The Failure of Democratic Nation Building: Ideology Meets Evolution

Just wrong — Rating: 1/5

According to the authors, political democracy is rare and declining, so the United States would do better to deploy its resources in supporting democracy at home rather than attempting to support the extension of democracy to other countries. The reason they give for their position is that our species, being a member of the small class of social primates, is hierarchical and authoritarian by nature, so only the most fortuitous confluence of circumstances is favorable to political democracy. In essence, it takes extremely powerful cultural forces favorable to democratic government to counterbalance our genetic predisposition towards authoritarian government.

This book is well written and hard-hitting, nicely produced, short and to the point, though horribly overpriced. Clearly the publisher expects only libraries and a few benighted souls such as myself, to fork over the cash. The authors delight in acknowledging how unpopular their view is, and how widely it is ignored. Yet, they aver, basic evolutionary psychology leads them inexorably to their dismal conclusion.

Now, I would vigorously dispute their claim that democracy is on the decline in the world, and the United States has wasted its resources in supporting democratic regimes. The democratization of Japan, Germany, and even France and Italy after WWII were directly the result of US efforts, and these democracies have been extremely enduring. The US supported mostly right-wing dictatorships in South America and the Pacific Basin after WWII, prior to the Reagan administration. Following this period, and with US support, there were extremely successful and enduring democratic regime changes throughout Latin America and the Pacific. Of course, there is much more to be done, but to lament the decline of democracy in the world is startlingly out of touch with reality, in my view.

But, the main problem with the authors' thesis is that an evolutionary perspective on human nature leads much more naturally to the conclusion that humans are deeply hostile to being on the receiving end of illegitimate authority and imposed hierarchy, and that most of human history, which consisted of hunter-gatherer bands in the Pleistocene, were probably extremely egalitarian, as are contemporary hunter-gatherer groups. Only with aggregation in cities and the rise of agriculture some 10,000 years ago was it possible for rulers to accumulate land, valuables, and armies to the degree that they could impose their will on the masses. From the dawn of history (i.e., the birth of cities and sedentary agriculture) to the present, the wealthy and powerful have attempted to impose their will and thus expand their wealth and power, and have always encountered the hostility and insurrection of the subjugated, who throughout history have fought against such tyranny. Only in the Twentieth century have the masses begun to win their fight for political power and representation.

Not only do the authors completely ignore this anthropological evidence (they cite in a footnote that they disagree with Paul Rubin and Chris Boehm, who have written at length in support of the historical interpretation given in the previous paragraph), but they never say why. Similarly, the appear never to have heard of the bonobo chimps, who are certainly social primates, very close to humans evolutionarily, and yet are not hierarchical (they do not even cite Frans deWaal, who has written extensively about the bonobo chimps). Moreover, there are many other primate species that are not hierarchical, and chimps differ greatly from humans in many social respects (e.g., they are polygamous whereas humans are predominantly monogamous, males do not care for young, whereas human males are major providers for young in hunter-gather groups).

Perhaps my understanding of the social conditions under which our species evolved is incorrect, although I doubt it. By simply ignoring the mountain of evidence and the received wisdom (I merely express the received wisdom here), they cannot possibly do justice to their position.y express the received wisdom here), they cannot possibly do justice to their position.

The Evolution of Cognition (Vienna Series in Theoretical Biology)

The Real Evolutionary Psychology — Rating: 4/5

The pioneers of evolutionary psychology have developed a small set of principles that they defend at all costs (modularity of mind, selfishness of humans, strongly distinct male and female behavior, the derivative character of culture, the irrelevance of game theory and mathematical model building, the nefariousness of behavioral genetics, and so on). I am, frankly, quite sick of the ideological intransigence of the supporters of this little coterie of researchers. It is time to reclaim evolutionary psychology in the large, which is simply the study of the evolution of mind and brain in animals (including humans), applying the usual standards of scientific practice. This edited collection does exactly that.

The volume is weak on organic evolution and neuroscience, a fact which perhaps flows from its focus on \\"cognition,\\" but in the area of cognition, it is a valuable summary of current views, at least up to 1998 or so. The essays are of uniformly high quality with ample references, and there is considerable inter-chapter reference, so one gets the impression that one is assimilating a whole product, not just a random assortment of topics and authors. The topics include such low-level pheonomena as imprinting, abstraction, and discrimination, as well as much higher level topics, including consciousness and culture. It would be to the reader's advantage to have had a course or two in elementary psychology and perhaps one on animal behavior, because the level of discourse is pretty high (almost no equations, however).

Natural Ethical Facts: Evolution, Connectionism, and Moral Cognition (MIT Press)

Nice Try — Rating: 4/5

Philosophical ethics generally takes the form of deriving moral principles from arguments based on reason alone. The only bow to empirical reality is, in Kant's phrase, \\"ought implies can\\"; i.e., a moral principle must be capable of being followed by normal mortals. This position is virtually forced upon philsophers who accept Hume's critique of the \\"naturalistic fallacy,\\" according to which it is impossible to derive normative principles from empirical facts alone (\\"is\\" cannot imply \\"ought\\"), or Moore's argument that \\"the Good\\" cannot be reduced to a set of descriptions of the natural world.

Casebeer rejects both arguments, and attempts to develop a naturalistic ethical theory from human nature (evolution) and the structure of the human brain (connectionism), arriving at an Aristotelian \\"virtue theory\\" in which the virtuous person strikes the appropriate mean between possible extremes of social behavior. Casebeer's argument is an extended and rigorous defense of Paul Churchland's treatment of moral cognition as a \\"skill\\" that is learned by example. \\"Moral knowledge becomes\\" Casebeer concludes (p. 105) \\"...knowledge of the structure of our social environment and how to navigate effectively within it.\\"

Casebeer is an intelligent and engaging writer, and there are many very interesting insights and arguments in this book, which I therefore recommend to others interested in ethics. However, I do not believe Casebeer succeeds in defending his position, and indeed, I think it is quite indefensible.

Ethics, for Casebeer, Churchland, and perhaps even Aristotle, is the study of how people should behave if they are to \\"flourish\\" in the sense of maximizing their human potential, which is what is meant by \\"navigating successfully\\" in society. Ethical behavior is like good manners and appropriate dress, all of which are higher level social skills that allow one to better cultivate the self. It is thus virtually taken for granted that if one knows what is ethically correct, one will naturally follow its precepts (Casebeer follows Aristotle in analyzing \\"akrasia\\"---knowing the right thing to do but choosing not to do it---to \\"weakness of will\\" or other forms of irrationality).

This view of morality is of some personal and social importance, but does not cover moral choices that involve sacrificing one's personal well-being on behalf of the well-being of others (e.g., voting, participating in a collective action, saving a drowning child, fighting bravely for one's country), or when to behave in certain ways that are personally costly but have higher moral value (e.g., being honest or working hard). Nor does this view cover basic issues of political ethics, such as when is authority justified, what is the proper division of labor between the sexes, is it ethical to buy and sell bodily organs, and should abortion be legal? These fall completely outside the framework of this book.

The relationship between ethics (even of the limited sort entertained by Casebeer) and connectionism is also less obviously important than the author would have us believe. Connectionism as a psychological theory is itself not highly plausible, despite the voluminous writings of its few advocates, since neural nets reflect some but probably not all of brain structure. Moreover, the only implication of connectionism with ethics that I could ascertain from this book (and the writings of Paul Churchland and other connectionists) is that moral teaching is better accomplished by example than by the listing of basic principles. This may be true, but it does not require connectionism and it is hardly an earthshaking insight.

A final point: there is virtually nothing about evolution in this book.ect, one will naturally follow its precepts (Casebeer follows Aristotle in analyzing \\"akrasia\\"---knowing the right thing to do but choosing not to do it---to \\"weakness of will\\" or other forms of irrationality). This view of morality is of some personal and social importance, but does not cover moral choices that involve sacrificing one's personal well-being on behalf of the well-being of others (e.g., voting, participating in a collective action, saving a drowning child, fighting bravely for one's country), or when to behave in certain ways that are personally costly but have higher moral value (e.g., being honest or working hard). Nor does this view cover basic issues of political ethics, such as when is authority justified, what is the proper division of labor between the sexes, is it ethical to buy and sell bodily organs, and should abortion be legal? These fall completely outside the framework of this book. The relationship between ethics (even of the limited sort entertained by Casebeer) and connectionism is also less obviously important than the author would have us believe. Connectionism as a psychological theory is itself not highly plausible, despite the voluminous writings of its few advocates, since neural nets reflect some but probably not all of brain structure. Moreover, the only implication of connectionism with ethics that I could ascertain from this book (and the writings of Paul Churchland and other connectionists) is that moral teaching is better accomplished by example than by the listing of basic principles. This may be true, but it does not require connectionism and it is hardly an earthshaking insight. A final point: there is virtually nothing about evolution in this book.

Basic Instinct: The Genesis of Behavior

Of Tempests and Teapots — Rating: 4/5

Nativism is the view that many complex behaviors are direct developmental expressions of the organism's genetic constitution, provided the organism experiences a normal environment. Anti-nativism is the view that complex behaviors are virtually always the product of complex epigenetic dynamics. Stephen Pinker is a prime example of a nativist, and Blumberg of a passionate anti-nativist.

The debate between these two positions has a long intellectual lineage, and there is no sign of a let-up, despite the huge increase in our understanding of the brain and of developmental processes in the past quarter century. Each side has executed seeming deadly thrusts against the other, only to see the other bounce back, better armed then ever.

When a scientific dispute such as this leads such an extended existence, one suspects that there is a reinterpretation in which each is correct. Such was the case, for instance, in the ancient debate about the wave vs. particle nature of light.

Blumberg's strongest anti-nativist thrust in this book is the story of several dramatic claims by nativists that human infants, without experience, are primed to mimic facial movements, to understand basic

physical laws, and to have the concept of number. Blumberg's account of the evidence against these nativist views is quite persuasive.

Blumberg does not closely analyze what is perhaps the most compelling case for a nativist behavior in humans: the structure of language. This nativist argument that human language as genetically encoded, a view that goes back to Chomsky in the mid-Twentieth century, is treated by Blumberg in a perfunctory and uncompelling manner. Blumberg explains the evidence that there is a \\"universal grammar\\" (UG) exhibited by all known languages and learned rapidly by children in all but the most deprived environments, by saying that all current languages are offshoots of a single \\"primordial\\" language spoken by our common ancestors. There is certainly no evidence of such a primordial language, and to assert this is the sort of \\"just-so\\" reasoning that Blumberg rightly criticizes. Blumberg claims that language creates linguistic capability developmentally, which would be at least plausible were the primordial language argument correct. But, it is not. Moreover, Blumberg does not even mention the many cases in which societies without language (e.g., deaf children who never learned sign language, or a mixture of ethnicities that use a pidgin discourse that does not conform to the UG, and is indeed much more primitive) develop a UG-conformant language within a generation. There are certainly linguists who agree with Blumberg's anti-nativist position on language, but I believe Blumberg sides with this minority view simply to present a united anti-nativist position.

A possible way to adjudicate the differences between nativists and their opponents is to assert that the nativist's \\"normal environment\\" may itself be a complex product of interaction between developing individuals and the epigenetic structures they face as well as create. A close, fine-grained look at the emergence of complex behaviors thus follows the epigenetic models, while a coarser look fits the nativist preconception. This view is very likely in the case of language, and may apply in many other cases. Nativists should be comfortable with this adjudication, and it appears to me to satisfy the criticism of the anti-nativists.

The nail in the coffin of nativism would be the verification that in many or most cases, there are novel environments that allow organisms to develop extremely novel, yet fitness-enhancing behaviors, through learning and/or adjustment of population gene frequencies. I believe this probably false for most species, but is the case for some complex human traits, and perhaps for some traits in non-human primates (behavior in captivity, for instance, may be very different that in the wild for somespecies).

One of the most dramatic applications of nativism to humans is the Evolutionary Psychology notion, promoted by Pinker, David Buss, and many others, that contemporary humans have an advanced technological environment, but are still possessed of a \\"stone-age mind\\" that prevents us from achieving our most cherished ethical ideals. While there may be some complex human behaviors that fit this description, mostly likely most do not. This does not mean, however, that the \\"blank slate\\" view of the human mind, bitterly criticized by Lida Cosmides, John Tooby, Stephen Pinker, and other evolutionary psychologists, is in the least bit plausible. It is not. The fact that there may be different environments that elicit (through a dynamic exchange of genetic and epigenetic forces) novel behaviors does not mean that for every behavior, there is an environment that will elicit that behavior.

To this outsider (I am an economist, not a psychologist), the extremely primitive level at which this debate is carried out is indicative of the primitive state of modern cognitive psychology. The brain is an exceedingly complex piece of nature and modern psychology has an exceedingly primitive understanding of its functioning. Studying modern psychology, one learns many facts and gains many insights. But, there is no theory there, and there is no theory on the horizon at the present moment, despite fMRI and other new techniques for probing the physiology of thought. In the absence of a common theory to which we all adhere by force of its explanatory value, we have the sort of tempests in a teapot exhibited by the nativist/anti-nativist controversy.ons of nativism to humans is the Evolutionary Psychology notion, promoted by Pinker, David Buss, and many others, that contemporary humans have an advanced technological environment, but are still possessed of a \\"stone-age mind\\" that prevents us from achieving our most cherished ethical ideals. While there may be some complex human behaviors that fit this description, mostly likely most do not. This does not mean, however, that the \\"blank slate\\" view of the human mind, bitterly criticized by Lida Cosmides, John Tooby, Stephen Pinker, and other evolutionary psychologists, is in the least bit plausible. It is not. The fact that there may be different environments that elicit (through a dynamic exchange of genetic and epigenetic

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Darwinian Conservatism (Societas)

Disingenuous Argument — Rating: 2/5

Larry Arnhart is a serious, perceptive ethical philosopher whose works deserve praise (and to be read), but this book is a failure. The arguments are weak and will certainly fail to convince most \\"conservatives\\" to embrace Darwinian evolutionary theory.

Evolutionary biology is scientifically correct, which is the main reason it must be accepted by anyone, whatever their political philosophy (Arnhart does not stress this). However, Darwinian biology can be either used or ignored in making political arguments, so I will rephrase the issue as: are there good arguments flowing from evolutionary biology for conservative political philosophy?

We must note that at least in the USA, there are two quite different branches of conservativism, one espousing religious fundamentalism and the other classical economic liberalism. They have almost nothing in common intellectually and are simply politically linked by historical events. Arnhart does not stress this point.

Arnhart's arguments directed towards religious conservatism can be summarized as: (a) evolutionary biology is compatible with belief in God; (b) evolutionary biology recognizes and reinforces the notion that religious belief is a universal element of human nature; and (c) a strong adherence to family values is part of human nature. I agree with these statements, but Arnhart never addresses the burning issues, which include abortion, homosexuality, gay marriage, and state-religion separation. He does deal with intelligent design, which he rejects as a scientific theory. This is in part why I call his book \\"disingenuous:\\" he simply avoids the hard topics.

Turning to classical liberalism, Arnhart says that Darwinian evolution supports a Burkean political philosophy. I think this is a plausible argument, although Arnhart avoids all the hard questions by choosing as the alternative political philosophy an absurd caricature of the leftist alternative that is more or less 19th century Utopianism. Societies grow organically, Arnhart says, and cannot be socially engineered using the principles of Reason alone. Of course this is correct, but this is accepted by all relevant political philosophers today (except Peter Singer and his bizarre ilk). What about the proper extent of government, the treatment of poverty, the environment, and foreign relations? Nothing here.

I am not a conservative, and I don't think much of conservative political philosophy, but if I were, I would not be moved by Arnhart's arguments (I am also not a liberal, by the way, and in fact I think the liberal/conservative dichotomy is a sick joke, but that's a topic for another day...)19th century Utopianism. Societies grow organically, Arnhart says, and cannot be socially engineered using the principles of Reason alone. Of course this is correct, but this is accepted by all relevant political philosophers today (except Peter Singer and his bizarre ilk). What about the proper extent of government, the treatment of poverty, the environment, and foreign relations? Nothing here.

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Sense and Nonsense: Evolutionary Perspectives on Human Behaviour

Sorting out the Issues — Rating: 4/5

Kevin Laland is a prominent researcher in gene-culture coevolution, niche construction (the study of how organisms modify their social and physical environment, and thereby modify their own gene pool) and animal social learning. Gillian Brown is a primatologist who studies parenting behavior. Their book is a study of six strands of evolutionary theory as applied to human behavior: (a) Darwin and his pre-sociobiology followers (including Galton, Spencer, Lorenz, Tinbergen, von Frisch, and Ardrey); (b) the founders of sociobiology, including Dawkins, Trivers, Hamilton, Maynard Smith, and E. O. Wilson; and three offshoots of sociobiology, (c) behavioral ecology (including Hill, Kaplan, Hawkes, and Chagnon); (d) evolutionary psychology (including Cosmides, Tooby, Daly, Margo Wilson, Pinker, Buss); (e) memetics; and (f) gene-culture coevolution (including Cavalli-Sforza and Feldman, Boyd and Richerson, and Laland himself).

The title is inspired by the authors' impression that, despite the fact that the academic social sciences have virtually ignored evolutionary approaches, the public finds them very sexy and provocative, to the point where evolutionary research is continually influenced by political and journalistic concerns, and the science tends to be overwhelmed by the junk and the hype. I fully share this impression, and I think they have done a fine job in extracting the \\"sense\\" from the \\"nonsense.\\" They even manage to treat memetics seriously, despite the fact that memetics' attempt to detach culture from reproduction, production, cooperation, conflict, and the other basic activities of social life cannot possibly succeed.

Laland and Brown vigorously defend the early Darwinists and sociobiologists against the many politically motivated attacks against them (they do not deal with religious critiques). While the authors recognize that their ideas have often eclipsed by more contemporary research, they find no major fault in the constitution of these two schools. I think this is a bad mistake. In the century from Darwin to E. O. Wilson, evolutionary researchers managed to isolate themselves from every mainstream social science, including economics, sociology, psychology, political science, and to a lesser extent, anthropology. It is futile to blame this on the mainstream. The fault lies squarely with the evolutionary theorists, who failed to make a convincing case for the position.

This is quite unforgivable, because mainstream social science has made many central contributions that must be integrated into evolutionary theory to provide a solid, scientific body of knowledge concerning human behavior. Laland and Brown give no reason for this isolation of evolutionary theory, except the trivial commonplaces mouthed by virtually everyone in this tradition (traditional social science is ideology, the mainstream is afraid of being tainted with the sins of eugenics and racist genetic determinism, and so on). The major problem facing evolutionary theory today is not to shuck the nonsense, but to account for its failure to become part of the mainstream, I believe, and Laland and Brown do not recognize this.

The very idea of forming schools of thought, such as behavioral ecology, evolutionary psychology, and gene-culture coevolution is an indication of the inability of evolutionary theory to consider itself a science. Scientists seek integration, not fragmentation. Behavioral ecologists, for instance, are anthropologists who study simple societies, while evolutionary psychologists are psychologists who study commonalities in human behavior across all societies. How could they possibly consider themselves \\"alternative\\" theories? They very idea is absurd, a capitulation to the natural human tendency to congregate in small groups of \\"insiders\\" whose major motivation is to triumph over the many groups of \\"outsiders\\" whose strange ways are threatening and unsettling.

This one issue aside, I find Laland and Brown very convincing in adjudicating among the various approaches, and in their plea for tolerance and exchange of information among them. Like the authors, I believe that gene-culture coevolution is the overarching principle that includes the others as subclasses. I also believe that gene-culture coevolution is the most promising basis for the integration of evolutionary with mainstream social science. The authors' only critique of gene-culture coevolution is that it tends to be highly mathematical and does not generate many empirical studies. I do not agree with this critique. Cavalli-Sforza and Feldman, as well as Boyd and Richerson, have done admirable empirical work, and with the use of experimental game theory in recent years, we will have much more

such research in the near future. The true critique of gene-culture coevolutionary theory, in my view, is its ignorance of and contempt for traditional social science. Unless this is overcome, evolutionary social theory will remain marginalized for the foreseeable future.

Of course, most potential readers of this book will have the same prejudices concerning the traditional disciplines as do the authors, and they should find this book a welcome and incisive corrective to the disarray within evolutionary social theory.issue aside, I find Laland and Brown very convincing in adjudicating among the various approaches, and in their plea for tolerance and exchange of information among them. Like the authors, I believe that gene-culture coevolution is the overarching principle that includes the others as subclasses. I also believe that gene-culture coevolution is the most promising basis for the integration of evolutionary with mainstream social science. The authors' only critique of gene-culture coevolution is that it tends to be highly mathematical and does not generate many empirical studies. I do not agree with this critique. Cavalli-Sforza and Feldman, as well as Boyd and Richerson, have done admirable empirical work, and with the use of experimental game theory in recent years, we will have much more such research in the near future. The true critique of gene-culture coevolutionary theory, in my view, is its ignorance of and contempt for traditional social science. Unless this is overcome, evolutionary social theory will remain marginalized for the foreseeable future.

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The Origins and Nature of Sociality

A Revival of Classical Political Philosophy — Rating: 3/5

This volume results from of a series of workshops and symposia sponsored by the prestigious American Association for the Advancement of Science, most of which took place at their Annual Meetings and the meetings of the American Anthropological Association (the first editor was editor-in-chief of the American Anthropological association for some dozen years). The various chapter are complementary and there is little disagreement among authors. As such, this volume might well represent something like a generally accepted orthodoxy, laid out by some of the most senior members of the behavioral science research community. For this alone the volume is well worth reading.

Audrey R. Chapman received a Ph.D. in public law and government from Columbia University and graduate degrees in theology and ethics from New York Theological Seminary and Union Theological Seminary. She has been extremely active in promoting fundamental human rights around the world, and works closely with the United Nations Committee on Economic, Social and Cultural Rights. Robert W. Sussman is a distinguished primatologist at Washington University in St. Louis, and is a specialist in the ecology and social structure of primates.

The editors take the \\"sociobiology/evolutionary psychology\\" model of human behavior as the \\"dominant paradigm\\" and consider their collective intervention as a counterweight to this dominant paradigm. In his summing up at the book's conclusion, for instance, theologian Stephen J. Pope asserts: \\"The primate studies traced in this book offer a helpful alternative to the dominant paradigm. If other primates are prone to social behavior more often than antisocial behavior, perhaps pity, empathy, and other prosocial feelings do not have to be laid on top of a substrate that is essentially antisocial.\\" (p. 329).

What is the \\"dominant paradigm?\\" The editors make this clear in the first half dozen pages of their introductory essay (pp. 3-9). \\"Sociobiology...offers a radically selfish and individuals account of human nature...In the sociobiology account, human beings are ethical solely to because morality is a strategy to promote self-interest.\\" The offenders include Richard Dawkins, Robert Wright, Mark Ridley, Michael Ruse, E. O. Wilson and Richard Wrangham.

In effect, we here have a replay of the age-old debate in political philosophy between the \\"romantics\\" like J. J. Rousseau and Karl Marx on the one side, and the \\"conservatives\\" on the other, including the Hobbes of Leviathan, the Adam Smith of Wealth of Nations, as well as modern

academic disciplines of biology and economics. Indeed, it is curious that prominent economists are not included among the \\"dominant paradigm's\\" proponents. Nor is mention made of John Tooby and Lida Cosmides, Steven Pinker, David Buss, and the other prominent proponents of Evolutionary Psychology. Nor is it surprising that the proponents of the \\"alternative view\\" are mainly anthropologists and theologians---the romantic wing of the behavioral sciences---rather than biologists and economists, who form the conservative wing.

There are several fine essays in this volume, far more than I have room to discuss here. Christopher Boehm's work on chimp and hunter-gatherer human societies is among the most important contributions in recent decades. Elinor Ostrom never ceases to have interesting observations to make. Irving Bernstein's analysis of conflict management in primate societies is refreshing, and his notion of the \\"social bond\\" as a primate psychological characteristic that accounts for much sociality is interesting and under-recognized. Even individual sentences sometimes are pregnant with meaning. For instance, Watanabe and Smuts note that \\"language...has transformed human sociality into highly semioticized encounters of intention and meaning that nonetheless depend on contingently negotiated conventions of trust and truth.\\" (p. 305).

The weakness ofthe volume is the same as its strength---its intention to provide an \\"alternative\\" to the dominant paradigm. The dominant paradigm is not wholly wrong, and there is no place for a complete \\"alternative\\" to this paradigm. There is need for balance and integration. Neither the editors nor most of the chapter authors recognize this. The following terms, for instance, are not analyzed in the book, and do not appear in the Index: punishment, ostracism, jealousy, spite, shame, guilt and revenge. By contrast, \\"empathy\\" appears seven times and \\"fairness\\" appears twelve times in the Index. In a sense, this book is sociobiology (vintage Dawkins) turned on its head.

Surely the editors do not believe that there is war, racism, and genocide because people believe in the sociobiological model of human nature proposed by Dawkins et al. Surely they do not believe that if an august and prestigious group academics proclaims that human nature is basically good, or even if this were to become the dominant paradigm, there would be no more war, racism, and genocide. Surely they must understand that both cooperation, love and empathy emerge under certain circumstances and conflict, hatred, and malevolence emerge under others. The question is to understand the nature of these circumstances and how they may be controlled in such manner as to bring about socially desirable outcomes. This requires a rejection of the romantic vs. conservative dichotomy in favor of something involving the ineluctable duality of human nature.

One such approach of this type is described in Herbert Gintis, Samuel Bowles, Robert Boyd and Ernst Fehr, Moral Sentiments and Material Interests: On the Foundations of Cooperation in Economic Life (Cambridge: The MIT Press, 2005). We argue for a concept of \\"strong reciprocity\\" according to which people are naturally predisposed to cooperated towards meeting common needs, but also naturally predisposed to punish free riders and other norm violators, even when neither cooperation or punishment is in the individual's personal material self-interest. We show how the behavior manifests itself by using the results of behavioral game theory and laboratory experiments with human subjects, we show how this may have evolved in our long evolutionary prehistory as a species, and we apply the notion towards understanding such contemporary phenomena as managing the commons, analyzing the welfare state, the role of fairness in wage determination, the role of reciprocity in the law, and other arenas of cooperation and conflict. My web site has lots of other papers and books devoted to a dual model of human nature.

One of the most effective ways that humans cooperate is in sacrificing for one's group in conflict with other groups. This strong \\"insider-outsider\\" psychology is doubtless the product of our long evolutionary history divided into small groups of hunter-gatherers who periodically were forced to fight for valuable resources. The same psychology that allows us to build castles, epic poems, and the modern welfare state also allows us to kill others with great effectiveness, and often with great glee. We need more research resources dedicated to understanding how our capacity for love and sacrifice can so easily turn into orgies of mass murder and genocide. We do not need that much more devoted to showing that some old-fashioned, one-sided, notion of human nature is better than some other old-fashioned, one-sided, notion of human nature./>The weakness of the volume is the same as its strength---its intention to provide an \\"alternative\\" to the dominant paradigm. The dominant

paradigm is not wholly wrong, and there is no place for a complete \\"alternative\\" to this paradigm. There is need for balance and integration. Neither the editors nor most of the chapter authors recognize this. The following terms, for instance, are not analyzed in the book, and do not appear in the Index: punishment, ostracism, jealousy, spite, shame, guilt and revenge. By contrast, \\"empathy\\" appears seven times and \\"fairness\\" appears twelve times in the Index. In a sense, this book is sociobiology (vintage Dawkins) turned on its head.

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Adapting Minds: Evolutionary Psychology and the Persistent Quest for Human Nature (Bradford Books)

Worth a serious reading — Rating: 4/5

David Buller, a philosopher, has written a book critiquing the scientific work of a subgroup of evolutionary psychologists who adhere to a doctrine first clearly articulated in a series of brilliant articles and books by D. Symons, L. Cosmides and J. Tooby. Their work was immeasurably enhanced by its uptake by popular science writers R. Wright and S. Pinker.

I think the philosophy of science is quite important, but I cannot think of a case where philosophers, qua philosophers, have added anything substantive to the critique of a scientific theory. I read this book only because of the extravagant praise afforded it by prominent behavioral scientists, including David Sloan Wilson, Linnda Caporeal, and Kim Sterelny. While I think this book does have a lot to offer the interested lay reader, it certainly does not violate my generalization about the worthlessness of philosophers criticizing scientific theories.

The author is clear in stating that his contribution is not a critique of evolutionary psychology in general, but only of this particular subgroup, which he distinguishes by capitalizing the name. For a general description of evolutionary psychology and Evolutionary Psychology (which I call EvPsych), please see my review of Scher and Rauscher, Evolutionary Psychology.

Much of Buller's effort goes to criticizing a few prominent examples of the empirical research of EvPsychers, including D. Buss's analysis of mate preference, M. Daly and M. Wilson's analysis of parenting vs. step-parenting, and C. Cosmides and J. Tooby's analysis of cheater detection modules. I think this was an unfortunate choice because the general EvPsych approach does not stand or fall on these examples in any way. Despite Buller's strong critique of Daly and Wilson, I suspect that their data analysis will emerge superior to Buller's, if only because they are consummate professionals in the area and he is a rank amateur. But, either way, their predictions do not depend in any way on the particular doctrines of EvPsych, but are broadly based on the evolutionary psychology paradigm. Buss's analysis of mate choice is impressively broad-based and thorough, but he has not been able to show that his results are due to EEA adaptations as opposed to strong cultural uniformities across societies, based on male dominance of modern political and economic hierarchies. Cosmides and Tooby's analysis of cheater detection modules is directly related to a major EvPsych proposition (the modularity of mind), but the only people convinced by their cheater detection argument are themselves and their disciples.

In dealing with the theoretical basis of EvPsych, Buller is very successful only one point, albeit a major one: the existence and nature of mental modules. His success is based on a highly cogent critique of the EvPsych position that the human mind is composed of a set of distinct, complexly organized and independent modules, each of which evolved as a solution to a particular evolutionary challenge to our species. The critique, however, is not philosophical but scientific, based on the work of contemporary developmental neurobiologists. This is perhaps the best part of the book.

Buller also critiques somewhat effectively the notion that there has been little development in the human gene pool, vis-à-vis mental development, in the past 50,000 years, and hence that we possess \\"stone-age minds.\\" The arguments Buller uses are plausible, and take the form of noting that genetic change is much faster in many cases than assumed by the EvPsychers. Nevertheless, this point has not been nailed down by population biologists or quantitative geneticists, as far as I know.

Buller also deploys the argument that there was no single EEA, and hence there is no basis for the notion that human nature is homogeneous. This is a correct, but well-known argument. Only the EvPsychers themselves stick adamantly to the Orthodoxy on this point.

Doubtless the least effect part of this book is Buller's extended attempt to deny that there is a such thing as \\"human nature.\\" Borrowing an argument from Hull, he asserts that species are \\"individuals\\" rather than \\"natural kinds\\" and only \\"natural kinds\\" have the sort of being that allows us to discuss their \\"nature.\\" This, to my mind, is exactly the type of philosophizing that renders the philosophical critique of science so bizarre and ineffective. Ducks have duck nature. It is what we learn when we study the character and behavior of ducks. Mosquitoes similarly have mosquito nature. Humans being are no different. The philosopher is not allowed to define the terms of science in his own bizarre way and then claim to have detected a synthetic a priori inconsistency in the scientific use of the term.

In short, I do not believe this book is an important contribution to the development of evolutionary psychology or to the critique of EvPsych, although it is a great introduction to the literature for an interested lay person, since Buller develops his themes carefully and lucidly, never leaving even the most uninstructed reader behind.o the Orthodoxy on this point.

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Evolutionary Psychology: Alternative Approaches

An Excellent Collection of High Quality Papers — Rating: 4/5

The human brain is the result of a long and complex evolutionary trajectory. Evolutionary psychology attempts to use this fact to understand the human brain's particular capacities and limitations. Evolutionary psychology has provided many key insights into human behavior. First, since the human brain is extremely costly to nurture and maintain, its general contribution to human fitness must be high, and hence the brain must be an adaptation to the particular conditions under which our species evolved. Therefore, understanding these conditions may shed strong light on human psychology. Second, the human brain's information processing capacities are likely to be closely associated with the particular adaptive needs of our species, rather than being a simple, general purpose information processor. Thus, rather than being infinitely malleable, humans are predisposed to behave in certain ways in the sense that under a very broad range of environmental conditions some behaviors will be virtually universally exhibited and others will be extremely rare, while behaviors to which we are not predisposed will be exhibited either not at all, or only in a very restricted set of environmental circumstances. In short, evolutionary psychology holds that a consideration of our evolutionary history is extremely powerful in generating plausible hypotheses concerning human psychology that can be tested using the standard tools of experimental research.

Those who reject evolutionary psychology in the general form stated above are generally either ill-informed or have a political or religious agenda that clouds their scientific judgment. Creationists, for instance, cannot accept evolutionary psychology. Nor can Marxists or extreme cultural determinists, for whom human nature either does not exist, or takes the form of infinite cultural malleability.

Evolutionary psychology, then, is simply one more tool (albeit an unusually powerful tool) in the behavioral scientist's repertoire. However, a small but highly creative and extremely influential group of evolutionary psychologists, including D. Buss, J. Tooby, L. Cosmides, D. Symons, S. Pinker have constructed a version of evolutionary psychology that includes key assertions that are highly contentious and many believe are incorrect. These thinkers appear to many scientists (myself included) to form a sort of scientific cult: they always agree with each other, they reject any outside criticism, their message never changes, and they recruit by directly training new members rather than having their ideas accepted by the general scientific community. To distinguish this group from evolutionary psychology in general, I will call their doctrine EvPsych (the book under review calls them \\"narrow\\" evolutionary psychologists, a particularly poor choice of words, since they are anything but narrow, and Kluwer, the bureaucratic and infinitely stuffy publisher, true to form, insists on an identically worded disclaimer at the head of each chapter of book, saying that by \\"narrow\\" they do not mean \\"narrow.\\")

EvPsychers believe that (a) human culture is an effect of human genetics, and culture explains nothing important concerning human behavior; (b) human behavior in general is an adaptation to the specific conditions of the Environment of Evolutionary Adaptation (EEA) in which our species emerged from other hominid species; (c) the human brain is a highly modular organ, each module having emerged to solve a particular evolutionary problem; (d) for this reason, the human brain lacks all the characteristics of a general information processor, and cannot solve any problems other than those that challenged our existence in our dim evolutionary past. In particular, we are doomed to apply old, generally ineffective, methods to the solution of new problems. This is the tragedy of the human condition.

EvPsych is wrong in each of the above assertions, and everyone knows this exceptthe EvPsychers themselves. Moreover, they have hindered the general integration of evolutionary psychology into the repertoire of behavioral science with their tendentious and outlandish claims. The book under review is an important contribution towards restoring evolutionary psychology to its rightful place in the

behavioral sciences. It's main attraction is that the editors, Steven Scher and Fredrick Rauscher, recognize that the best critique is a cogent alternative, and this is exactly what the various chapter of the book provide for us. I do not have the space to comment on each of the thirteen chapters, but a few prominent themes emerge.

First, several authors challenge the coarse-grained modularity assumption of EvPsych, using our contemporary neuroscientific and developmental knowledge of the structure of the brain. This includes especially stunning contributions of Steven Quarts, William Bechtel, and Jennifer Mundale. These authors present the state of the art understanding of the neurological development of the human brain from embryo to adult form, and argue for a \\"developmental evolutionary psychology\\" in which the brain has a fine-grained modularity that results from the dynamic interaction between organism and environment during growth and maturation of the individual.

Second, several authors challenge the \\"gene-centered\\" view of evolution, which the EvPsychers borrowed from Dawkins, Hamilton, Wilson and other biologists who dominated evolutionary theory in the 1960's and 1970's. Thus Linnda Caporeal argues for \\"repeated assembly,\\" which is a form of what is commonly known as gene-culture coevolution, and David Sloan Wilson points out the errors in reasoning that lead gene-centered theorists to reject truly altruistic (other-regarding) behavior in humans. Sarah Blaffer Hrdy exposes the sexual stereotypes of the gene-centered approach by reviewing the evidence on female mate choice.

Several chapters are philosophically-motivated critiques of EvPsych. I do not believe that philosophers ever contribute by criticizing scientific theories, and I think my view is confirmed by this book.

I quite recommend this book to those who are new to the field. There is some excellent material here. A major drawback is the publisher, Kluwer. The book is grossly overpriced, there is no index or general bibliography, and the typeface is cramped and low resolution.s except the EvPsychers themselves. Moreover, they have hindered the general integration of evolutionary psychology into the repertoire of behavioral science with their tendentious and outlandish claims. The book under review is an important contribution towards restoring evolutionary psychology to its rightful place in the behavioral sciences. It's main attraction is that the editors, Steven Scher and Fredrick Rauscher, recognize that the best critique is a cogent alternative, and this is exactly what the various chapter of the book provide for us. I do not have the space to comment on each of the thirteen chapters, but a few prominent themes emerge.

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Evolution in Four Dimensions: Genetic, Epigenetic, Behavioral, and Symbolic Variation in the History of Life (Life and Mind: Philosophical Issues in Biology and Psychology)

Evolution Beyond the Grand Synthesis: This Book is Completely Accurate and Highly Informative — Rating: 4/5

The Grand Synthesis of Mendelism and Darwinism, involving such greats as Haldane, Fisher, Wright, Maynard Smith, Mayr, Hamilton, Dawkins, Dobzhansky and many more, is one of the greatest achievements of modern science. Like every great theory, the Grand Synthesis has had its prominent critics, but most of the charges laid against it have failed to take root. By the 1970's and 1980's such critics were widely dismissed as crackpots and minds were closed against their ideas.

Subtitling their 1995 book \\"The Lamarckian Dimension\\" was about as in-your-face a flaunt on orthodoxy imaginable, and I was surprised that the book turned out to be quite a credible review of our understanding of epigenetic inheritance. Their new book is on the same topic, but is much more considerate of the reader, mature, and self-assured than the author's previous foray.

Genetic (DNA), epigenetic (non-DNA chemical), behavioral (learning/assimilating), and symbolic (language, theory) information transmission are important in many levels of biological organization, from the structure of the cell to the social organization of masses of ants and humans. This much was clearly laid out in a number of recent books, including those of Maynard Smith and Szathmary, Keller, Michod, Durham, Boyd and Richerson, and others. But, this book is unique in being both accessible to the interest lay reader and having great breadth, covering many of the important levels in \\"multi-level selection.\\"

I remember the first time it hit me that the problem of regulating the behavior of errant cells in a multi-cellular organism is the same, in principle, as regulating the behavior of an individual member of a social species. I also remember clearly when it first occurred to me that all of evolutionary theory consists of models of information transmission and behavior modification across time. Both of these are well illustrated in this book, sometimes in an almost poetic manner.

It is common for objectors to the Grand Synthesis to have some ideological agenda, such a Marxism, Post-Modernism, or Transcendental Holism, to put in the place of evolutionary theory. It is a great relief to find authors who express the new age of evolutionary biology without falling into these common traps. It just tells the truth, unembellished, but with a light tone.br />It is common for objectors to the Grand Synthesis to have some ideological agenda, such a Marxism, Post-Modernism, or Transcendental Holism, to put in the place of evolutionary theory. It is a great relief to find authors who express the new age of evolutionary biology without falling into these common traps. It just tells the truth, unembellished, but with a light tone.

The Company of Strangers: A Natural History of Economic Life

A Bioeconomic Masterpiece — Rating: 5/5

Despite the rough treatment handed to Edward O. Wilson's call for a unification of biology and the social sciences some three decades ago, and despite the hostility still aroused by the notion of \\"sociobiology\\" by some traditionalists, the process of integrating social science into natural science appears to be in full swing. Paul Seabright's new book is a welcome and important contribution to this process.

The idea behind sociobiology is that there are many social species, and our understanding of ourselves will be enhanced by analyzing the similarities and differences between human and non-human social systems. The main title of Seabright's book, \\"In the Company of Strangers\\" isolates a unique characteristic of human sociality: while several species evolved a highly complex and decentralized division of labor, humans are the only species with extensive cooperation among unrelated individuals.

The maturation of sociobiology since E. O. Wilson's call to arms has included several key strands of research. One is a broadened concept of sociality, in which it is recognized that from the emergence of multi-cellular organisms to the rise of Homo sapiens, major evolutionary transitions have required novel mechanisms facilitating the cooperation among the complex parts of biological wholes. It is now routine, for instance, to note that the disciplining of an aberrant cell in an organism, an ovipositing worker in a bee hive, and a shirking worker in a business enterprise are modeled in a similar manner. A second contribution is gene-culture coevolutionary theory, important because human sociality has been far more cultural than that of any other species.

Seabright's book exemplifies a new breed of economic analysis, seeking answers to fundamental question wherever they are best found, ignoring disciplinary boundaries. A transdisciplinary approach to economics life is nothing new. Adam Smith, for instance, not only wrote The Wealth of Nations, but also The Moral Sentiments, which is perhaps the greatest work of psychology prior to William James. But this tradition was all but buried in the early years of the Twentieth century, only recently to be rediscovered.

Seabright provides elementary, but nonetheless richly fascinating, introductions to such standard economic topics as the division of labor, prices, money, and firms, and addresses such perennial economic problems as unemployment, poverty, environmental destruction, and economic instability. The novelty is that he consistently does so from a long-run evolutionary perspective. This is decidedly not a book on economic policy. Even such traditionally central questions as capitalism versus socialism, the balance between competition and regulation, and the distribution of wealth and income are mentioned only in passing.

The innovation in this book lies in its treatment of the psychological prerequisites of modern economic life. As Seabright notes, \\"[M]odern society is an opportunistic experiment, founded on a human psychology that had already evolved before human beings ever had to deal with strangers in any systematic way.\\" (p. 4) This psychology has two elements, one of which is well known and the other relatively novel in behavioral science. The well known is what Seabright calls \\"rational calculation,\\" by which he means a capacity for logical reasoning, information processing, and technique mastery that far exceeds that of any other of Earth's creatures. The novel is what he calls \\"reciprocity,\\" which is \\"the willingness to repay kindness with kindness and betray with revenge, even when this is not what rational calculation would recommend.\\" (p. 27)

Two terminological issues are important to set straight from the outset. First, by \\"reciprocity\\" Seabright means what has been called \\"strong reciprocity\\" (Bowles and Gintis, Nature 415 Jan 2002). The \\"strong\\" adjective is meant to distinguish the behavior from the self-interested notion of reciprocity common in the biological literature. Second, Seabright follows a long tradition in economics of considering reciprocity to be non-rational, using the term \\"rational\\" when one means \\"caring only about oneself\\" as though the terms were synonymous. There is nothing \\"irrational\\" about such other-regarding elements of strong reciprocity as returning kindness with kindness and retaliating against someone who has harmed one, even when these behaviors involve net material costs.

Seabright's treatment of human society is innovatory because both biologists and economists have long maintained both that humans are selfish when dealing with non-kin, and their cooperation can be explained by long-term self-interest. Moreover, there is a long tradition, especially on the Left, of faulting capitalism for promoting greed and selfishness, which is at best a partial truth, since market economies at least tolerate, and probably promote, strong reciprocity. Experimental economics, as described by Seabright, has shown that most people are indeed reciprocal and in fact neither economic nor biological models of self-interested cooperation are rarely plausible when they involve groups of more than a few individuals.

Seabright also analyzes the \\"dark side\\" of strong reciprocity, which is the tendency to exhibit hostility to \\"outsiders\\" in the name of \\"insider\\" cooperation. \\"Cooperation within a group,\\" he observes, \\"can make the group more lethally aggressive in its dealing with outsiders... [the] systematic killing of unrelated individuals is so common among human beings that... it cannot be described as exceptional, pathological, or disturbed.\\" (pp. 209,53). He concludes that \\"what Adam Smith famously described as the human propensity to 'truck, barter and exchange' has always coexisted uneasily with a rival temptation to take, bully, and extort.\\" (p. 233).

This book is highly readable and will be accessible to a wide audience. It is, however, weak on details, eschews formal model building and extended analytical argumentation, and hence will serve only as a stepping-stone to the field for those interested in the economy as a dynamically evolving system.om the self-interested notion of reciprocity common in the biological literature. Second, Seabright follows a long tradition in economics of considering reciprocity to be non-rational, using the term \\"rational\\" when one means \\"caring only about oneself\\" as though the terms were synonymous. There is nothing \\"irrational\\" about such other-regarding elements of strong reciprocity as returning kindness with kindness and retaliating against someone who has harmed one, even when these behaviors involve net material costs.

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Mendel's Legacy: The Origin of Classical Genetics

An Admirable Way to do History of Science — Rating: 5/5

This book is a labor of love by a professional geneticist with a sharp intellect and a mature understanding of society as well as science. The book is beautifully produced, with many diagrams and portraits of the scientists, as well as photographed excerpts from famous papers (although there are no color plates).

Perhaps the most attractive aspect of Carlson's approach is the care with which he presents the evidence for specific genetic principles, and the arguments used by opponents of what are now elementary textbook principles. Appreciating basic genetic principles is much enhanced by realizing the intellectual struggle involved in each piece of the puzzle. For instance, I have read a dozen times that quantitative geneticists rejected Mendelism because they believed in evolution by continuous, incremental change, whereas Mendel's laws appear to support discontinuous, saltationist, change. I always thought this to be a quite silly objection, and that R. A. Fisher's demonstration of the compatibility of the two views was stating the obvious. Carlson suggests a far deeper objection. Following Galton, quantitative geneticists believed in regression to the mean and blending inheritance, both seeming incompatible with Mendelism. Overcoming these objections is quite a sophisticated task.

In another passage, Carlson presents Sewall Wright's reasons for developing his position on gene interaction and environmental effects on natural selection, based on his study of coat color in guinea pigs. Again, he shows that opposition to Mendelian segregation was not just conservative stubbornness, but rather a reaction to the fact that a considerable fraction of inheritance studies did not conform to Mendelian segregation. We now know why, with our understanding of transpositions, gene jumping, and the like.

The glory of this book is simply reading the detailed history of marvelous discoveries in an almost blow-by-blow fashion. But, almost as welcome is Carlson's historical method, which he presents briefly at the end of the book. Science, he says, is the \\"winning of the facts.\\" I interpret this to mean that truth needs no explanation---it is its own justification. \\"I have read accounts\\" Carlson says (p. 208) \\"...that attempted to explain science in sociological (in-groups versus outsiders), political (Marxism versus capitalism), or historical (depression, war, and ideology) contexts, and I found these either false or extraneous.\\" This viewpoint is such a breath of fresh air after plowing through so many insufferable post-modern treatments of science.

Carlson does have strong and interesting arguments concerning the time and place of scientific discoveries. He notes that genetics was a European stronghold in the Nineteenth century and became an American-led endeavor in the classical period from 1900 to 1930. He attributes this to the scientific freedom offered by the American graduate school, among other things. Hitler and Stalin account for the continued prominence of the American school after 1930, since they induced extremely talented scientists to emigrate to the United States, where they had the freedom to do their research. It is not unreasonable to think that if freedom triumphs in the world, it will be in no small part because good science requires it.elcome is Carlson's historical method, which he presents briefly at the end of the book. Science, he says, is the \\"winning of the facts.\\" I interpret this to mean that truth needs no explanation---it is its own justification. \\"I have read accounts\\" Carlson says (p. 208) \\"...that attempted to explain science in sociological (in-groups versus outsiders), political (Marxism versus capitalism), or historical (depression, war, and ideology) contexts, and I found these either false or extraneous.\\" This viewpoint is such a breath of fresh air after plowing through so many insufferable post-modern treatments of science.

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Pioneering Research: A Risk Worth Taking

A meandering, unconvincing discussion — Rating: 1/5

Donald Braben add his voice to a growing chorus of scientists and science policy analysts who believe that a larger share of the scientific research budget should be allocated to high creativity people who are permitted to follow their own personal research agenda. I am also of this opinion, but I cannot get much ammunition for my position from this book. The book does a lot of grumbling, tells many stories, and presents the author's distaste for peer review (I don't agree with him about this). But he has no in-depth case histories, no aggregate statistics, do discussion of what fields are most in need of this treatment, no discussion of how one assess the social value of a \\"creative\\" science policy, no comparative studies of different systems. In short, there is nothing useful here in support of a cogent policy position on the topic.

Risk and Culture: An Essay on the Selection of Technological and Environmental Dangers

A Plausible Thesis, but not Properly Balanced — Rating: 2/5

The authors suggest, reasonably enough, that one's personal political and cultural predispositions affect how one assess the risk of different possible social dangers. If this were the only factor affecting people's

risk assessment, it would be quite difficult to generate an informed social policy in a democratic society, and research in to actual risk levels associated with different degrees of social damage would be worthless, since people simply listen to the gurus that support their personal positions.

The authors present no data. Why is data important? Because if 90% of voters fit their description, we are in a much different situation that if 10% do. My best guess is that people systematically underestimate most social risks (e.g. accidental nuclear war, deadly SARS-type plagues) and overestimate a few (riskiness of air travel, danger of poisons in food). Most people, however, are willing to let the ideologues battle it out, and are strongly affected by the way the journalistic accounts of the battle portrays the cogencies of different positions. If I am right, the extremists on either side of positions, of the sort depicted by the authors, perform a valuable function but do not determine the outcome for the purposes of social policy. For instance, there are vehement supporters of gun control and equally vehement supporters of the rights of gun owners. Most voters, however, lie somewhere in the middle and are swayed both by events and scientific evidence. If that is so, the possibility of effective social policy is possible in a democracy. But, some say, the extremists are willing to put in time and money to sway the public, so ideology wins the day in this manner. I respond that it is wise for voters to take the strength of preferences into account in making social policy decisions. At any rate, no balanced discussion of these issues will be found in this volume.

Mind: A Brief Introduction (Fundamentals of Philosophy Series)

Clear and incisive — Rating: 5/5

One of my favorite philosophical sayings is from Berkeley: \\"The philosophers kick up the dust and then complain they cannot see.\\" John Searle is not this kind of philosopher. Rather, he draws on science and common sense to render ostensibly complex issues simple. The central issue of the book is the mind-body problem. He rejects dualism, materialism, epiphenomenological and functionalist approaches, among others. Rather, he argues that the mind is part of nature, a product of biological evolution, and hence part of the physical world. The mind, he says, is simply the operation of the brain from an organizational point higher than the neuron and synapse, the same as we might say that a computer is the operation of electronic devices, viewed at a level higher than the bit and the byte.

How very simple! Why is this pellucid view more acceptable today than a century or a millennium ago? The answer is that modern science has made Searle's answer credible. First, we now can chart the development of mind in animals, and we can be quite certain that many vertebrates are conscious beings. Therefore consciousness and mind are products of biological evolution. Second, modern science is quite at home with the stunning inscrutability of the natural world. Einstein, a Twentieth century scientist with a Nineteenth century aesthetic and morality, never accepted quantum mechanics, considering it just too, too weird. Complexity theory, revealed mathematically and through the power of the computer, allows us to understand the concept of emergence, in which a higher level of complexity supports the emergence of properties that cannot be predicted or analyzed completely from component parts.

It used to be thought that science is reductivist, but now we know that sciences is a dynamic tension between reducing wholes to their parts, and recognizing that at critical points, the whole is a complex, nonlinear, dynamical system that transcends it parts.

If you understand how profoundly weird the laws of nature are, and if you appreciate how stunningly beautiful and unexpected are the products of evolution, then you will have no trouble accepting Searle's thesis. The human mind is an entity of completely, utterly, overarchingly inscrutable functioning. But, for all that, there is no reason to cast mind out of the realm of the physical, into some other mysterious never-never land. This is Searle's message.

All of Searle's positions flow from the above insight. For instance, he resolves the issue of free will vs. determinism by asserting that since mind is part of the physical world, and since physical entities can cause physical events to occur (Searle rejects Humean skepticism concerning causation), then

psychological causes are possible, and hence free will is possible, at least at our current level of understanding of mental events.

Searle replaces philosophical questions with scientific questions. If mind is part of physical reality, and if free will is possible, then there must be something radically missing from physics and chemistry, which cannot explain mind. But, of course, physics and chemistry cannot explain life, either in the deepest, most mysterious sense of ontological being, or in the most mundane sense of biological theory. It does not help to know the quantum state of a frog. Similarly, the fact that physics cannot explain consciousness in no way means that mind is something other than part of nature.

The last sentence of the book says it all. \\"There is just one world; it is the world we all live in, and we need to account for how we exist as part of it.\\"ly weird the laws of nature are, and if you appreciate how stunningly beautiful and unexpected are the products of evolution, then you will have no trouble accepting Searle's thesis. The human mind is an entity of completely, utterly, overarchingly inscrutable functioning. But, for all that, there is no reason to cast mind out of the realm of the physical, into some other mysterious never-never land. This is Searle's message. All of Searle's positions flow from the above insight. For instance, he resolves the issue of free will vs. determinism by asserting that since mind is part of the physical world, and since physical entities can cause physical events to occur (Searle rejects Humean skepticism concerning causation), then psychological causes are possible, and hence free will is possible, at least at our current level of understanding of mental events. Searle replaces philosophical questions with scientific questions. If mind is part of physical reality, and if free will is possible, then there must be something radically missing from physics and chemistry, which cannot explain mind. But, of course, physics and chemistry cannot explain life, either in the deepest, most mysterious sense of ontological being, or in the most mundane sense of biological theory. It does not help to know the quantum state of a frog. Similarly, the fact that physics cannot explain consciousness in no way means that mind is something other than part of nature. The last sentence of the book says it all. \\"There is just one world; it is the world we all live in, and we need to account for how we exist as part of it.\\"

Beyond Evolution: Human Nature and the Limits of Evolutionary Explanation

Many points worth considering — Rating: 4/5

Science explains more things every day. This fact gives many people the courage to say that everything that is capable of explanation, is capable of scientific explanation, and every mystery is either an ultimately inpenetrable mystery on one that will, at the appropriate future time, be explained scientifically.

Human beings are a species, and hence like all other creatures, a product of Darwinian evolution. This fact has emboldened many to claim that all that is human can be explained by the evolutionary principles of reproduction with mutation, selection, and adaptation. Of course, it is far from true that scientists have succeeded in explaining all human characteristics and behaviors. We do not understand why we have self-reflective consciousness or language, whereas other creatures do not. We do not understand why we can produce science, mathematics, music, art, poetry, and a host of other human achievements that appear to lie so far beyond the requirements of evolutionary success, as exhibited by the rest of the natural order.

Many scientists claim that, although we do not have explanation of such phenomena at the present time, since we are the products of evolutionary adaptation, all these myriad human capacities are necessarily adaptations. And this is the case, whether we eventually succeed in explaining them or not.

O'Hear argues the contrary with respect to three aspects of human achievement: epistemology, morality, and beauty. His epistemological argument is the most cogent, I believe. Why do human being seek truth? The evolutionary epistemologist will say that truth-seeking is adaptive. But, no other species seeks truth. Why is truth-seeking adaptive for us alone? An evolutionary approach to knowledge suggests that an organism will seek truth only insofar as the fitness gains outweigh the search costs.

Humans, on the other hand, appear to have an incessant, unquenchable, insistent, drive to understand the world around them. This drive cannot be deduced from evolutionary theory. Indeed, evolutionary theory shows that very often being deluded has a fitness advantage over knowing the truth. For instance, avoided all prey with certain coloring may be fitness enhancing because some such prey is poisonous. But one is deluded concerning the non-poisonous prey with this coloring. The predator species may well remain deluded in this respect during its whole existence, since its inquisitive members have died off it the search for truth. Evolutionists may tell many just-so stories to convince themselves that the drive for truth is an adaptation. But they don't convince beyond their own little circle, I believe.

Turning to morality, O'Hear correctly characterizes Twentieth Century evolutionary biology as holding that humans are selfish, and that morality is either a justification of pursuing selfish ends, or is an artificial overlay on basic human nature, required to keep us civil to one another in complex, modern societies. This opinion follows from the general rejection of group selection by biologists over the past fifty years. O'Hear argues that humans have a distinctive, relatively altruistic, morality stemming from the nature of human consciousness, and that this is therefore not given by the conditions of human selection and evolutionary adaptation.

His argument is that \\"Self-consciousness looks for recognition and validation by other self-consciousnesses.\\" For this reason, we have empathy for others, and we act in healthy prosocial manners. That this argument is incorrect can be inferred from the existence of sociopathic individuals, who possess all their cognitive faculties, have a sense of self, recognize that others have minds and selves, but care not one whit whether they are recognized positively by others, and care not one whit whether others live or die, so long as they, the sociopaths, get what they want in the world.

The fact is that empathy, sympathy, shame, guilt, and other prosocial traits most humans share are in fact the product of our evolutionary history. This means that the Twentieth century biology to the contrary is incorrect. This is the conclusion of much research that has been carried out over the past fifteen years. It is summarized in a forthcoming book from MIT Press, Moral Sentiments and Material Interests, and there are many relevant articles that people can find reference to on my personal web site.

O'Hear's approach to beauty is to note that once we have a degree of freedom from immediate want, non-utilitarian motivations can affect our behavior and development. O'Hear's argument is cogent, but I was surprised to find the sensory exploitation theory of Ryan and others is missing from his account. The sensory exploitation theory is a quite compelling explanation of why we find beautiful some of the same things that attract birds, bees, and other creatures, and shows that there is a biological continuity in the appreciation of sensory input across the species spectrum. The Ryan thesis may also explain the absolutely stunning fact that there is close agreement on what is an is not beautiful that overrides cultural differences. I remember personally the first time I saw African wood sculptures and Oceanic statues. I was totally transfixed, despite the fact that I had never seen anything like either (they are very, very different, of course) before.

Despite the fact that O'Hear could have made a better argument for beauty had he dealt with the sensory exploitation of neural circuitry, I found myself in basic agreement with his thesis that the sense of beauty goes immeasurably beyond the survival requirements of our species, and obeys a natural dynamic that cannot be captured by survival of the fittest.

I am pretty convinced that evolutionary explanations of human behavior are absolutely central to our understanding. I am also convinced that humans have capacities that cannot now, and most likely never will, succumb to the models of evolutionary theorists, although they may be explained in other ways, both secular and transcendant. O'Hear's book is useful in freeing us to speculate about this \\"higher\\" dynamic.at empathy, sympathy, shame, guilt, and other prosocial traits most humans share are in fact the product of our evolutionary history. This means that the Twentieth century biology to the contrary is incorrect. This is the conclusion of much research that has been carried out over the past fifteen years. It is summarized in a forthcoming book from MIT Press, Moral Sentiments and Material Interests, and there are many relevant articles that people can find reference to on my personal web site.

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Reorienting Economics (Economics as Social Theory)

Guru of the Economic Flat Earthers — Rating: 1/5

I finished reading Lawson's first book a few days ago, Economics and Reality. I did not have much sympathy with his argument (see my review), but when I saw that there was a new volume coming out, some seven years later, I purchased it to see what progress had been made on forging an alternative to mainstream economics. The answer is simple: none. This book is simply a rewrite of his earlier book, with several journal articles appended as chapters.

The fact is that the twin ideas of ontological commitment and critical thinking are simply generalities that have no possiblity of generating a research program. Lawson will appeal to people who (a) don't like math; (b) have a vague idea that there must be something better than contemporary capitalism, but they don't quite know what; (c) believe that superficial description, when suitably enveloped in philosophical jargon, becomes deep (critial realism, ontology, consciousness, human subjectivity, etc.)

Lawson's assertion that there is something wrong with contemporary mainstream economics has no intellectual basis at all. He notes that undergrads are not majoring in economics (not true, except perhaps in a couple of countries), that French students critique their curriculum, and mainstream economists sometimes gripe about the discipline. Economics is not a popularity contest for undergraduates. Economics is quite imperfect, and there is lots of room for complaining. But Lawson wouldn't know success in economics if it smacked him in the face, because he never deals in the least with modern economics. Nothing on classical game theory. Nothing on evolutionary game theory. Nothing on experimental economics. Nothing (more) on econometrics. The economics of the period 1950-1975, which he continues to take for all of economics, has been mightily succesful, and more than half of economists are employed (at good salaries) applying it in industry and government. Perhaps their employees are also completely deluded. Perhaps they should hire economists who understand ontology. But I doubt it.

Lawson is the height of blandness. He doesn't say economics should be an art rather than a science. He doesn't say that mainstream economists are evil or self-serving. He doesn't claim that mainstream economics is an ideological apology for capitalism, patriarchy, or materialism. He simply says that mainstream economics ignores methodology, and hence can't be sufficiently scientific.

The problem is that scientists never care much about methodology. The great economists (like great physicists, geologists, et al.) learn a very simple set of messages concerning how research is done, and then they do it. It doesn't require extended training. Philosophers who think they can preach to scientists how they should ply their trade are profoundly wrong. Philosophy is wonderful, but not when it tries to tell scientists how to do their work.

It is really sad, to me, that something this shoddy could get the rave blurbs it does, from people who should know better. I am, frankly mystified. The simplest explanation is that Lawson has a small but loyal following, and he is preaching to the choir. I will get lots of \\"unhelpful\\" votes for this review, but I've never seen an naked emperor without exclaiming his lack of suitable attire.hey should hire economists who understand ontology. But I doubt. Lawson is the height of blandness. He doesn't say economics should be an art rather than a science. He doesn't say that mainstream economists are evil or self-serving. He doesn't claim that mainstream economics is an ideological apology for capitalism, patriarchy, or materialism. He simply says that mainstream economics ignores methodology, and hence can't be sufficiently scientific. The problem is that scientists never care much about methodology. The great economists (like great physicists, geologists, et al.) learn a very simple set of messages concerning how research is done, and then they do it. It doesn't require extended training. Philosophers who think they can preach to scientists how they should ply their trade are profoundly wrong. Philosophy is wonderful, but not when it tries to tell scientists how to do their work. It is really sad, to me, that something this shoddy could get the rave blurbs it does, from people who should know better. I am, frankly mystified. The simplest explanation is that Lawson has a small but loyal following, and he is preaching to the choir. I will get lots of \\"unhelpful\\" votes for this review, but I've never seen an naked emperor without exclaiming his lack of suitable attire.

Economics and Reality (Economics as Social Theory)

I probably could disagree more, but not much — Rating: 2/5

Tony Lawson is a \\"critical realist\\" who argues that mainstream economic theory is incorrect, the basic problem being that (a) it follows the \\"deductivist\\" method rather than having a seriously empirical, inductive, historical-descriptive encounter with economic reality; and (b) it doesn't take methodology seriously, which it should. Much of the book is involved in developing economic methodology, and using the product of this development to critique deductivist economics and provide a basis for an alternative.

I disagree completely with (b), and only partially with (a). Lawson never argues at all why we should study methodology. He just believes it is obvious. But, when you study economics, you learn of lots of people who have contributed, none of whom was a methodologist, and most of whom never studied or took seriously methodology (except perhaps in their old age, long after their contributions). Natural scientists learn just enough methodology to get started researching, and pick up some more through tacit knowledge (learning from colleagues). But, mostly it's intuitive. Just as you don't need to know linguistics to speak perfect English, you don't have to know methodology to be a great researcher. And obversely.

The important point is: the only successful critique of a theory is a theory that predicts and explains better. Methodological critiques carry no weight at all with scientists, natural or behavioral. I believe that is both correct and as it should be, and the book gives me no reason to think otherwise.

As to the first point, Lawson seriously understates the value of \\"deductivist\\" models. From the Physiocratic Tableau, to Cournot's model of duopoly and Ricardo' theory of rent, to models of supply and demand, thence to the Edgeworth Box and ultimately to general equilibrium theory and its Fundamental Theorem, deductive arguments have been incredibly important in explaining why market economies work and why incentives are important. We would not have the foggiest idea of how to assess economic arrangments unless we had studied these models.

Lawson is correct in saying that most of the deductivist theory found in the journals is just drivel, but that is true in natural science too, and even in mathematics. We only know ex post what is important. For instance, the past few decades have given us principal-agent models, which are incredibly important for understanding market economies, and game theory, which is immensely revealing and used in policy-making, structuring of government and private auctions, and industrial regulation, to name a few applications.

Lawson is also especially critical of econometrics and economic forecasting. He is wrong on both counts. First, he only discusses time series macroeconomic forecasting, when most econometrics is used on cross-sectional data, and it works quite well. Even in time series, while the grand hopes of the 1970 to make accure macro forecasting models never materialized (and are no longer pursued by theorists), econometric forecasting is probably one of the most sought-after skills an economist has, and is used widely in business and government.

So, what is left of Lawson's critique? Nothing. I have ordered his new book, to see if it is any better, but I don't have high hopes.

This does not mean that mainstream economic theory is in great shape and cannot be critiqued. Far from it. The point is, however, that each generation of young economists sees the errors in the previous, and the enterprising ones transform research by moving to repair the problems. Criticizing mainstream economics is difficult because it is a moving target--always changing to meet new circumstances.

Lawson does not look at new developments in economics at all. His book was published in 1997, but it deals with the economics of the 1950-75 period (e.g., the author's extended dialog with Frank Hahn, whose work is of this period). No game theory. Very old-fashioned econometrics. No experimental economics. These are the moving forces of contemporary economics! Lawson devotes much space to how economics cannot be experimental, whereas experimentalist are now in the ascendancy in economics (witness the Nobel prize given to Daniel Kahneman and Vernon Smith two years ago).se work is of this period). No game theory. Very old-fashioned econometrics. No experimental economics. These are the moving forces of contemporary economics! Lawson devotes much space to how economics cannot be experimental, whereas experimentalist are now in the ascendancy in economics (witness the Nobel prize given to Daniel Kahneman and Vernon Smith two years ago).

The Theory of the Individual in Economics: Identity and Value (Routledge Advances in Social Economics)

Okay if written in 1985 — Rating: 2/5

The image of the individual in economics theory is being rewritten, due to advances in behavioral decision theory, behavioral game theory, experimental economics, and evolutionary game theory. This process has been going on for more than a decade, and results appear frequently in book form, in the economics journals, in psychology journals, and even in such general scientific journals as Nature, Science, New Scientist, and Scientific American. Such major names as Daniel Kanheman, Amos Tversky, Elinor Ostrom, Bruno Frey, Vernon Smith, Kevin McCabe, and Ernst Fehr do not appear in this book. Evolutionary game theory, which has all but displaced classical game theory, is mentioned a couple of times, in passing. Modern developments are completely absent from this book, which is therefore woefully out of date.

This is not very surprising. The author critiques theory rather than producing it, while others are producing new theories that at least outdate the critiques, and perhaps also solve some of the problems indicated by the critic.

What the author does, he does fairly well, although sometimes exceptionally complex arguments are alluded to rather than developed and assessed, as is the case of the presumptions of classical game theory in justifying the Nash equilibrium concept.

All in all, this will assuage the curiosity of newcomers to economics and dabblers, but there is nothing new here.

Modeling Rational Agents: From Interwar Economics to Early Modern Game Theory

Instructive Review — Rating: 4/5

There are several ways to write the history of thought. Giocoli's is a classic ways: describe the subtle transformation of a single concept across time. This is an important endeavor because the individuals involved in the transformation rarely appreciate that the process is occurring, or if they do, they consider the reconceptualization to be a part of the accumulation of knowledge, rather than a shift in what is being explained.

Giocoli's book is a subclass of the \\"transformation of ideas\\" approach which adds a critical dimension, claiming that the earlier concept has a richer value than the later, and the supposed scientific advance was at best, purchased by a certain trivialization of the subject, and at worst, no advance at all.

In this case the concept is that of the rational actor. Giocoli sums up his views very early: \\"We started from the classic notion of a rational agent [who is] a relentless maximizer who aimed at pursuing his/her own goals and desires, and ended with the shrinking of rationality to a formal requirement of consistency, where the notion of agency itself was so stripped down of its human peculiarities as to become an all-purpose concept valid for real individuals as well as for groups or machines.\\" (p. 3)

How could economists have accepted such a move from substance to formalism? Giocolo argues that the transformation of the rational actor was part of a more general movement in neoclassical economics from a substantive system of forces (SOF) approach to a formalistic system of relations (SOR) approach. In

an SOF approach, one attempts to explain real actors as substantive rational actors striving to maximize, whereas in an SOR approach, one attempts to idealize the actor and explain the idealization.

Unlike Giocoli, I very much admire the economic theory that he critiques, although I certainly agree with him that one of its effects is that a good deal of economic theory suffers from a ludicrous \\"mathematics envy\\" that would be amusing if it were not such a tragic waste of talent. Indeed, many mathematical economists pride themselves on their ignorance of real economies, and pursue their irrelevant studies with an absurdly inflated self-importance. For instance, von Neumann-Morgenstern-type game theory, with its stable sets, Shapley values and the like, continue to be the object of intensive investigation, despite the fact that the cooperative game theory model has never shown itself to be in the least useful. Simillarly, theorists give each other kudos for proving that a result that holds for a finite number consumers continues to hold with a continuum of consumers. But, in fact, there are only a finite number of consumers, so there is no reason to generalize to the continuous case! Of course, if you cannot prove something

in the finite case but you can in the continuous case, that is a different story. The continuous case may be a simplifying assumption, but it often gives rise to powerfully predictive models.

Each of the theories Giocoli criticizes has been the basis for a staggering variety of empirical findings that are now being used to revise the formalist theory in such a way as to become, once again, substantive. Consider, for instance, decision theory. This became formalist in the hands of Savage, Samuelson, and others, who showed that one could retrieve the maximization

subject to constraints model from a few simple axiomatic consistency assumptions. The resulting model, however, became the key element in the experimental methodology of choice theory in psychology. In the expert hands of Amos Tversky, Daniel Kahneman and others, this \\"formalist\\" decision theory, with its stripped-down concept of rationality, yielded a surfeit of

psychological generalizations that were quite unavailable prior to the \\"formalist revolution\\" in decision theory.

Giocoli's treatment of game theory suffers from an excessive attempt to fit things nicely into his overall theory. He praises the cooperative game theory of von Neumann and Morgenstern as being part of the system of forces (SOF) approach which is being abandoned by economists, even though nothing has ever come of the theory in terms of successful models of real social processes, and the main result of their work was the axiomatization of choice under uncertainty (expected utility), which was the underpinning of the formalization of the rationality concept. Giocoli tries to explain why the Nash equilibrium concept was ignored during the 1950's and 1960's, and did not come into its own until the 1980's and later, by saying that Nash's concept of equilibrium is \\"formalist\\" and could not be

embraced until neoclassical economics itself had become \\"formalist.\\" I do not accept this explanation at

all.

The period from 1950 to 1970 was one in which economic theory was preoccupied with relatively narrow issues concerning economic stabilization (fiscal and monetary policy), the market/state mix (public economics), and development economics, itself stressing physical and human capital formation and

technical change. Game theory has relatively little to say about these subjects. By the mid-1970's, by contrast, economists were fully involved in dealing with such social areas as crime, poverty, substance abuse, gender roles, corruption, the family, and other areas in which game theory excels. The work of Nobel prize winner Gary Becker exemplifies these new concerns,

but many economists have been involved. Noncooperative game theory, and the Nash equilibrium as its organizing concept, have been central to understanding these areas, and game theory has accordingly been admitted to the center of contemporary neoclassical economics.

Nevertheless, Giocoli is correct in saying that the Nash equilibrium concept is \\"formalist.\\" I say this because the Nash criterion calls something an equilibrium when no single agent can gain by moving from it, whereas in the real world, multiple agents can move at the same time, and even in concert. Of course, such coordinated movement is at the heart of equilibrium notions in cooperative game theory, which may well be why von Neumann rejected Nash's work. It is telling that when the animal behaviorist John Maynard Smith appropriated game theory in the period 1972-1982, he saw fit to correct this weakness in the Nash criterion, developing the notion of an \\"evolutionarily

stable strategy,\\" which is anything but formalist. The value of evolutionary game theory in biology has been of the highest order, effectively revolutionizing animal behavior theory in the three decades since Maynard Smith and Price wrote their first article on the subject.

Giocoli reveals the weakness of his approach in his treatment of evolutionary game theory. I will not go through the details of his argument, which is quite shabby. The weakness of his approach is simple: when he sees economic theory developing in an incorrect manner, he writes a critique. This is fine for dealing with the past, but when operating in the present, one must look around and see if there are researchers aware of and attempting to develop a better theory. For instance, he does not mention my review of attempts to correct economic formalism in my book Game Theory Evolving (Princeton University Press, 2000), even though this predates his book by three years. Much more surprising is the lack of mention of the contributions of Kahneman and his coworkers. One might infer that Giocoli is as unconcerned with empirical reality as those that he criticizes.

His failure to look for contemporary developments led Giocoli to

underappreciate the salutary effect of \\"formalist\\" decision theory and game theory on empirical work and hence on the repair of formalism. All of the competitors of the neoclassical tradition he criticizes have fallen by the wayside, and the neoclassical tradition has been only fortified and strengthened by its critics. Giocoli's critique clearly applies to much overbearing super-formalism in contemporary neoclassical theory, and this book's message will appeal to those opposed to analytical model-building altogether. But, until a better alternative comes along, I will continue to defend evolutionary game theory and other attempts to contribute to the analytical modeling of human behavior.

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Everyday Irrationality: How Pseudo- Scientists, Lunatics, And The Rest Of Us Systematically Fail To Think Rationally

A Journalistic Account of Solid Psychological Research — Rating: 4/5

Robyn Dawes is a distinguished psychological researcher whose personal contributions to understanding human behavior have been prescient and pathbreaking. This is very lively, informal, and humorous commentary on our society based on rigorous psychological research undertaken by Daniel Kahneman, Amos Tversky,Richard Thaler, and their coworkers over the past few decades. I know other readers found this book tedious, but I'm not sure why. Perhaps because it has some math in it? At any rate, I treated the book like pleasant light reading.

Dawes claims to hold a very tight definition of rationality, but in fact, he uses the term to describe a host of different behaviors, including holding unfounded beliefs, having weird personal moral values, or just ignoring the evidence. I use a

very narrow definition of rationality in my work (preference consistency is the substance of it), and I generally disapprove of throwing the term "rationality" around ad libidem---academics invoke rationality to justify their prejudices in the same manner clergy invoke God to justify theirs. But Dawes is sloppy in such a disarming way in his usage that it is hard to fault him.

Dawes actually relies on only a couple of well document psychological phenomena (he could have dealt with several more). One is a framing effect, in which if a choice is framed in terms of losses, people choose one way, and if in terms of gains, a very different way. It is actually closely related to loss aversion, which Dawes does not discuss.

A second phenomenon is ignoring base rates. For instance, suppose you learn that a test for HIV is 90% accurate, and you ask people what is the probability they have HIV is they test positive. Most say 90%. However, suppose only one person out of

100 is HIV positive. Take a group of 1000 people. Ten will be HIV positive (on average...) and nine will test positive. But 990 will be HIV negative and 99 of these will test positive. Thus, if you test positive, your chances of being HIV positive are only 9/(99+9)=8.33%.

This is an important phenomenon, but "irrational" is a bit strong here, as elsewhere in the book. We expect experts to know how to do conditional probabilities, but it is no more "irrational" to get this wrong than to fail to solve third order partial differential equations.

I very much liked Dawes' treatment of Sexual Abuse Hysteria. In this chapter, he really does show the aberrant reasoning of the judges and attornies associated with the incredible miscarriages of justice associated with this dark period in American history.ll test positive. Thus, if you test positive, your chances of being HIV positive are only 9/(99+9)=8.33%.

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Coevolution: Genes, Culture, and Human Diversity

This is a classic, but still completely up to date — Rating: 5/5

In humans, both genes and culture are containers of information passed from one generation to the next. Both genes and culture affect the phenotype, and therefore individual behavior. It follows that both genes are culture are subject to Darwinian selection. In addition, genes are part of the environment in which culture evolves, and culture is part of the environment in which genes evolve. Of course, the physical representation of genes and culture are very different. Genetic information is coded in DNA, while cultural information is coded in the synaptical structure of the brain. Moreover, Fisher's fundamental theorem, which says fitness tends to increase, is true for a single genetic locus, but not for a single culture locus, since agents can sustain an increase in a fitness-decreasing meme. Durham uses the term 'meme' for a unit of cultural inheritance. I think his defense of this is one of the strongest points in this great book. He shows that culture cannot be identified with phenotype or behavior. It follows that we must drop the term 'geno-phenotype'. In its place we can use the term 'geno-memotype.' Variants at a cultural locus are called allomemes by Durham. Good choice.

We have learned much about brain functioning, the role of emotions, autism and sociopathy, and human altruism since this book was published (1991), and Durham uses no math, which I always thought a necessary part of gene-culture coevolutionary theory. Neither of these is a drawback, and indeed the fact that he produces a brilliant model of coevolution without the usual mathematical tools is a true tour de force!

Durham provides extended analyses of Tibetian marriage patterns, lactose tolerance, sickle-cell anemia, and disease transmitted by cannibalism. These are standards of the trade now, but Durham's analysis are absolute gems, even if you know the literature on the topic.

The Emergence of Everything: How the World Became Complex

A Reply to Scientific Atheism — Rating: 5/5

Morowitz the scientist makes a single point, which he drives home again, and again, ceaseless, incessantly, until finally it begins to sink in. It is, in this respect, perhaps the intellectual equivalent of Ravel's Bolero, or the yogi's infinitely repeated "Om". The point is that reductivism is the only tool we have for analyzing the world, it is an amazingly powerful tool, and yet at every level of complexity, emergent phenomena arise that could not have been predicted by the levels that preceded them, and can barely, if at all, be modeled an understood using reductivist analytical and experimental techiques.

This is a message that will be rejected by one particular group: the self-styled "scientific atheists" who claim that scientific methodology ineluctably implies that God does not exist, or at least that there is no more reason to believe in God than it is to believe in the Tooth Fairy. Morowitz, by contrast, follows Spinoza in identifying the world of science as dealing with the product of the "immanent God" whose transcendance we attempt to capture spiritually.

Scientific atheism's error is its inability to appreciate the notion of emergence. Just as consciousness emerges from a material and chemical substrate the scinetific understanding of which tell us virtually nothing about the nature of its emergent properties, so the physical universe may give rise to an emergent spirituality that simply escapes the scientific imagination. Morovitz' interesting book makes this point extremely clearly.

I believe Amazon is due major kudos for providing a forum in which readers can compare and contrast their ideas. I really enjoyed the previous nine reviews of this provocative book.

Theory and Reality: An Introduction to the Philosophy of Science (Science and Its Conceptual Foundations series)

A Model of Balance and Clarity — Rating: 5/5

I studied a lot of philosophy of science when I was in college and graduate school, just for fun. But that was many years ago, and I needed a dispassionate overview of the field and a guide to the various philosophical problems confronting scientific explanation. This was the perfect book.

Godfrey-Smith saves his own position for the last few chapters of the book, and tries to present a variety of views in the body of the book with great tolerance for imperfections, rough edges, and infelicities. Yet, he has no qualms about proclaiming that a certain view is no longer treated seriously in the field (e.g., logical positivism, covering law theory, analytic/synthetic division).

The book covers the whole of the Twentieth Century, from logical positivism, through Quine, Goodman, and Popper, to Kuhn, Lakatos, Feyerabend, Science Studies, feminism, and post-modernism. He is more balanced than I, I must say, since I really hate post-modernism and all of its fellow-travellers, whereas the author tries to find some pearls of wisdom scattered across the dross.

Godfrey-Smith comes out for versions of empiricism, naturalism, and scientific realism. I like his mix, but I am a scientist, not a philosopher, so my opinions carry no weight.

I would have liked the book to deal with creationism and intelligent design, which are burning issues in the US, though not (yet) in Europe. I would also have like the book to deal with forms of knowledge other scientific (e.g., aesthetic, street smarts, spiritual). Finally, the book doesn't deal with ethics at all. One could defend this by saying that this has nothing to do with science, but I think that is a conclusion and not a premise, and one which is in fact incorrect.

The Imitation Factor: Evolution Beyond The Gene

Imitation and Beyond — Rating: 4/5

Lee Alan Dugatkin is a first-rate animal behavior experimentalist whose specialty is the guppy, as well as a game-theoretic modeler. Most welcome is Dugatkin's talent for popular exposition of animal behavior research.

This book is a very general exposition of animal behavior theory for the general public, with a special emphasis on epigenetic transmission of information, which Dugatkin equates with cultural transmission. He does quite a good job, and I would recommend this book to curious newcomers to the field. Dugatkin is especially good at weaving general themes (e.g., the various explanations of mate choice) with the specifics of particular

experiments.

My concern here will be as an animal behaviorist whose specialty is human beings. Humans come into the picture in the first sentence of Dugatkin's book: "We desperately want to think of ourselves as somehow distinct from other life forms on our planet...Currently there is the sense that we are unique because

"culture" is found only in humans...As we shall see, culture is not humanity's gift to the universe." (p. ix). There is no doubt but that Dugatkin is correct, and indeed, it is impossible to understand human culture as divorced from the broad sweep of cultural phenomena across species. The attempt to do so is a major flaw in sociological and anthropological approaches to human culture--but that is another story to tell.

While Dugatkin's assertion is correct, and his efforts to motivate his position are quite successful, it is curious that he does not place his argument in intellectual context. John Tyler Bonner's pathbreaking The Evolution of Culture in Animals (Princeton University Press 1984) is not mentioned, nor is Eva Jablonka and Marion Lamb's ambitious Epigenetic Inheritance and Evolution (Oxford University Press 1995) are not mentioned.

Nor is the Baldwin effect, which is a major causal link from culture to genes (Baldwin, "A New Factor in Evolution", American Naturalist 30 1896).

Dugatkin is quite orthodox in taking the gene-culture coevolution definition of culture as "information", a definition anchored in the two great contributions of Cavalli-Sforza and Feldman, Cultural Transmission and Evolution (Princeton University Press, 1981), and Boyd and Richerson, Culture and the Evolutionary Process (University of Chicago Press, 1985). In brief, this view holds that culture is information concerning the organism's physical and biological environment. While the basic biological information transmission mechanism is genetic inheritance, epigenetic transmission may also be fitness enhancing, and when it is, we can expect cultural transmission in animals. I do not dispute the fact that culture includes epigenetic information transmission. For instance, as Dugatkin stresses the tendency for previously mated male guppies to be desirable to unmated females may be due to the fact that older female guppies "teach" younger females who the desirable males are (although there are other plausible explanations of this phenomenon). I do believe, however, that (a) imitation in animals is categorically distinct from the "teaching" and "learning" that typically occurs in human cultural transmission; and (b) the culture-as-information definition of culture is considerably too narrow to embrace all of human culture, and misses what is particularly unique about human culture.

On the first point, most animal behaviorists have come to accept the idea that, pace bird imitations of vocalizations, animals do not imitate complex learned behavior directly. Rather, the contiguity of an individual to a conspecific carrying out a particular learned behavior increases the probability that the individual will stumble upon the same behavior. For instance, if a chimp discovers how to use a stone to smash open a food item,

her child will be frequently in situations where stones and thefood item are contiguous, and hence is more likely to discover the complex behavior. But the behavior is neither "learned" from the parent, or "taught" by the parent to the child. For more on this topic, the reader might refer to Tomasello and Call, Primate Cognition (Oxford University Press 1997), Daniel Povinelli, Folk Physics for Apes: The Chimpanzee's Theory of How the World Works (Oxford 2000), and Marc Hauser, Wild Minds: What Animals Really Think (Henry Holt, 2000).

The most distinctive characteristic of human culture, however, is the existence of ethical norms and values. A value such as "dress modestly," "work hard and do not succumb to temptations that yield only short-run pleasures," and "forgive those who transgress upon you," are deeply cultural forms, but they do not involve objective information about the world. Unlike a technique, such as how to fashion a tool, where to look for prey, or what types of things are edible, an ethical value has no scientific truth value. Of course, one might assert that if one follows a certain norm, certain material results will obtain (e.g., long life, good after-life, high fitness, happiness), but humans follow norms for their own sake, and

even when these good results are not expected. In sociology this is called the internalization of norms (see, for instance, Grusec and Kuczynski, Parenting and Children's Internalization of Values: A Handbook of Contemporary Theory, John Wily & Sons 1997). The human capacity to internalize norms is thus akin to the programmability of human goals, since the key factor in an internalized value is that people \emph{conform to the prescribed behavior for its own sake, and as a goal of action, rather than a means towards the realization of other goals. As I argue in "The Hitchhiker's Guide to Altruism: Genes, Culture, and the Internalization of Norms", Journal of Theoretical Biology 220,4 (2003):407-418, the programmability of the preference function is key to human prosocial behavior, quite on par with the accumulation and transmission of the types of cultural techniques associated with improving the ability to exploit the physical and natural environment.

I would have preferred that Dugatkin include in his analysis both the factors leading to a commonality of culture across species, and the factors involved in the special cultural position of humans, but just dealing with the first of these makes for a quite informative and interesting contribution.item are contiguous, and hence is more likely to discover the complex behavior. But the behavior is neither

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Why Men Won't Ask for Directions: The Seductions of Sociobiology

An Intemperate and Unbalanced Critique — Rating: 2/5

This book is a testimonial to the fact that Sociobiology continues to go against the grain of many behavioral scientists, long after the ideological debates of the previous century have subsided, and at a time when a more measured approach to the contribution of this strain of biological and social theory is plainly available. The novelty of this book is that it counterposes sociobiology to developmental biology rather than its traditional foe, anti-biological approaches to human sociality. This counterposition is particularly curious, since many developmental biologists consider this the age of \\"evo-devo\\", where the synergistic interaction of evolutionary and developmental modeling are increasingly recognized. Despite Francis' concerted and repeated attempt to portray sociobiology and behavioral developmental biology as alternative approaches to understanding social behavior, I remain completely unconvinced.

Francis writing style and mode of reasoning are profoundly distasteful to me, though others might enjoy it. Francis relishes in contrasting ideas that are in principle mutually consistent and even reinforcing. He draws the intellectual landscape in stark black and white/good and evil, where I generally see the textured grays of creatively contrasting and equally plausible ideas just waiting for some insightful researcher to draw them together into a satisfying explanatory framework. For instance, he depicts the search for the evolutionary origins of social behavior as the \\"paranoic\\" search for \\"teleological explanations.\\" Metaphors relating to psychological illness when speaking of \\"adaptationist theory\\" recur incessantly throughout this distinctly intemperate book. Evolutionary psychology, for instance, is flippantly referred to as \\"evo-psycho.\\"

Even substantively, Francis' method of dealing approaches alternative to his own is, to my mind, shallow and distasteful. I was taught that when disagreeing with a theory, one must first present the theory in as strong and coherent manner as possible, and critique only the most shining and forceful of the theory's ostensible successes. Francis, by contrast, is a bottom-feeder who will launch his missiles against any random representative of the opposing school. Indeed, despite that fact that more than one-

third of this book is devoted to notes, index, and bibliography, Francis rarely deigns to cite directly his opponent, rather being content to provide an broad description of the field in question. Typical is the argument relating to the title of book. I don't know of a serious sociobiological argument as to why men don't ask for directions. I don't even know if it's a true fact in search of an explanation. Francis, nevertheless, treats the issue as though it had some intrinsic scientific value.

Francis is smart enough, however, to recognize that he is no match for the greats of the field, so when George Williams, Ronald Fisher, John Maynard Smith, Edward Wilson, or Niko Tinbergen is mentioned, Francis abandons the derogatory bravado and accurately describes the eminently reasonable positions they have taken on the issue of the relationship between evolution and development, adaptation and developmental constraints, and the other topics treated in this book.

The stance taken by Francis is a shame, because there are

super-adaptationists that tend to consider just-so story as adequate explanations, and are loathe to deploy any non-adapationist argument.

Francis' chapter on the mimicking capacity, perhaps the best in the book, is a case in point. Francis defends the sensory exploitation hypothesis ably against the classical runaway selection and costly signaling approaches to modeling mate choice, and effectively defends the theory that the mockingbird's mimicking capacity is simply a by-product of their song-learning versatility. This versatility may itself have adaptive value, but the fact that many bird species that occupy ecological niches similarto that of the mockingbird lack its versatility calls this into question. Indeed, Francis presents a welcome argument to the effect that exotic animal characteristics are unlikely to be adaptation, or they would be more widely share among species share the exotic species' life style and ecological niche. The female hyena's hypertrophied clitoris, the elephant's trunk, hermaphroditism fish, the giraffe's neck, and the human brain may all be examples of characteristics that occurred despite, rather than because of, adaptationist dynamics.

Francis is insistent that sociobiology can only countenance causal forces from physiology and genetic constitution to social constitution, and not vice versa. He contrasts this view, which he calls \\"misguided materialism\\" with the developmental view that social organization can affect brain physiology in the short run and genetic structure in the long run. Presumably he never heard of the Baldwin Effect (the term does not appear in his index), despite its centarian age, or the gene-culture coevolutionary models of Cavalli-sforza and Feldman, Boyd and Richerson, and a host of related analyses that have populated the biology, anthropology, and even economics journals for the past quarter century.

Perhaps the most egregious chapter in the book is \\"Sex without SEX,\\" in which he critiques the adaptationist theory of sexual reproduction. Sexual reproduction is not an adaptation in vertebrates. Rather, he argues, there is a developmental constraint against hermaphrodism, and adaptationists are too blind to see this shining truth. Francis' argument is shabby and incorrect. First, sexual reproduction is extremely costly and could not persist if it did not provide offsetting advantages. Second, as he notes, there are many hermaphrodite fish species, and lizard species as well, but they appear to be evolutionary dead ends. This could be because there are development constraints in vertebrates (there certainly are, in the form of gene imprinting, in mammals), but this remains to be determined. Third, there is no general non-adaptationist theory of sexual reproduction, to my knowledge. He certainly presents none.

Historically, developmentalists have been indifferent or hostile to evolutionary modeling because the do not see how such dynamic historical modelshelp them develop the structural and developmental mechanisms characteristic of living organisms. This stance is no longer fruitful. We now understand that evolutionary models do not prove anything. Rather, they suggest hypotheses to be explored and substantiated. Adaptationist arguments are essential because they suggest the function of homologous and analogous physiological structures. Charting the development of behaviorally-relevant characteristics, such as brain size and social organization, the structure of brains and vocal apparati, using the paleographic evidence, sheds critical light on the path to successfully modeling biological development from the level of cell to that of the complex animal or human society. We increasingly need researchers to explore the synergy between development and evolution. This ill-tempered book could have been written in that spirit, but it was not.o that of the mockingbird lack its versatility calls this into

question. Indeed, Francis presents a welcome argument to the effect that exotic animal characteristics are unlikely to be adaptation, or they would be more widely share among species share the exotic species' life style and ecological niche. The female hyena's hypertrophied clitoris, the elephant's trunk, hermaphroditism fish, the giraffe's neck, and the human brain may all be examples of characteristics that occurred despite, rather than because of, adaptationist dynamics.

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Passions Within Reason: The Strategic Role of the Emotions

A Pathbreaking Contribution — Rating: 5/5

Passions within Reason is a remarkably prescient and insightful book, drawing upon behavioral research of the decade leading to its publication (1988). It is also a rather subtle book. Even though I used in in a college course I taught in 1989, I do not believe I really understood it until I reread it very recently.

Frank asks: why to people help others, and retaliate against others who harm them, even when they can expect no future personal, material gain from so doing? His answer is that there are emotional rewards to helping those who deserve our aid and hurting others who deserve our ire. Our behavior towards others is regulated by the passions: empathy, spite, shame, remorse, guilt, compassion, and the other social emotions.

He then asks: why are those who behave in this emotional way not displaced (e.g., by having more offspring, or by acquiring more earthly possessions) by others who are purely selfish, and who help and hurt only when a dispassionate calculation indicates that it is in their material interest to do so? He answers this by noting that our emotions \\"precommit\\" us to keeping our promises and carrying out

our threats, so that we gain in the long run by not being able (or willing) to make the dispassionate calculation. We gain because others will trust our promises and respect our threats. Frank calls the the \\"commitment model.\\"

This idea that it is \\"rational\\" to be \\"emotional\\" is, of course, a commonplace today, and has been popularized by neuroscientist Alberto Damasio's fine book, Descartes' Error, and more recently, philosopher Martha Nussbaum's UPheavals of Thought. Experiments using behavioral game theory more than amply confirm the centrality of emotions in decision-making even in the company of strangers (see papers on prosocial emotions on my web site: [...]

A thornier question is: why can a purely selfish type (otherwise known as a sociopath) not simply mimic the behavior of a committed altruist when it suits his purposes, and not otherwise? If this were possible, and there were no other counteracting tendencies, sociopaths would surely drive out committed altruists. Here Frank is less convincing. He says simply that it is very hard to fake the emotions, just as it is difficult for a small bullfrog to fake his size by mimicking the deep-throated croaks of his larger bretheren. This is true, but some people do this very successfully. Why do they not prosper? Moreover, there is no obvious developmental constraint in humans opposing the evolution of excellent emotional cheats.

Perhaps the payoffs to faking commitment are not that high. Surely this would explain why it is \\"difficult to fake emotions\\": they payoff to doing is low or negative, so the capacity for faking has not evolved to a high level in humans. More recent research, using models of gene-culture coevolution, indicate that this may well be the case. See, for instance, Herbert Gintis, \\"The Hitchhiker's Guide to Altruism: Genes, Culture, and the Internalization of Norms\\", Journal of Theoretical Biology 220,4 (2003):407-418, and Robert Boyd, Herbert Gintis, Samuel Bowles and Peter J. Richerson, \\"Evolution of Altruistic Punishment\\", Proceedings of the National Academy of Sciences 100,6 [mar] (2003):3531-3535.ses, and not otherwise? If this were possible, and there were no other counteracting tendencies, sociopaths would surely drive out committed altruists. Here Frank is less convincing. He says simply that it is very hard to fake the emotions, just as it is difficult for a small bullfrog to fake his size by mimicking the deep-throated croaks of his larger bretheren. This is true, but some people do this very successfully. Why do they not prosper? Moreover, there is no obvious developmental constraint in humans opposing the evolution of excellent emotional cheats.

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Trust and Reciprocity: Interdisciplinary Lessons for Experimental Research (Russell Sage Foundation Series on Trust (Numbered))

A Major Contribution to Understanding Altruism — Rating: 5/5

Trust and Reciprocity is an exciting compilation of cutting-edge experimental research into the bases of social cooperation. The editors and contributors are prominent and distinguished contributors to experimental and interdisciplinary approaches to modeling cooperation.

The editors quickly identify the central problem of cooperation: while all gain from cooperating, each individual has an incentive to free-ride on the good will of the others. No cooperation takes place unless the free rider problem is successfully addressed. Ch. 2 presents compelling evidence that face-to-face communication alone is capable of sustaining cooperation in small groups, especially when the task is repeated several times. Moreover, if experimental subjects are allowed to fine shirkers, at a cost to

themselves, they do so, despite that fact that purely self-interested subjects would never engage in such activity.

There is a fine computer simulation (Ch. 7) that beautifully illustrates the capacity of agent-based modeling to generate interesting hypotheses concerning human behavior--in this case, the synergistic relationship between cooperation and conflict. The experimental chapters of of uniformly high quality, and quite illuminating, including a chapter on the development of trust and reciprocity in children.

The theory side of the book is less successful. Several authors say that the experimental results \\"contradict game theory.\\" This is simply incorrect. Like mathematics, game theory can be more or less useful in modeling a phenomenon, but it cannot be \\"wrong.\\" Indeed, all of the experimental results are based squarely on game theory as a tool of experimental design.

More important, despite ample evidence that trust and reciprocity cannot be explained assuming selfish individuals, the theorists in the book attempt repeatedly to assert just that. According to the authors, altruistic behavior is caused by mistakes in reasoning! The major theoretical chapter in the book (Ch. 4), for instance, is an exposition of Robert Trivers' concept of \\"reciprocal altruism,\\" which is just long-term self-interest. The experimental results on reciprocity are incompatible with this concept, unless one assumes that subjects simply are ignorant and mistake-prone in their behavior. Numerous experiments show that this is decidedly not the case. In Chapter 6, we are told that subjects are only altruistic because they are afraid that the conditions of anonymity in the experiment are highly imperfect--despite the fact that the evidence for this is extremely weak (one study done in 1994, which has not been replicated, using a dictator game, which is not a social interaction or a social dilemma), and the evidence against which is virtually overwhelming. Later in the chapter we are told (p. 162) that people cooperate in one-shot games because they confuse them with repeated games, with which they are more familiar. This argument is specious, however, because many experiments reveal that people are quite capable of distinguishing between one-shots and repeated games, and cooperate much more in the latter than in the former.

So this book will not win any awards for social theory, but it is deep and rich with highly insightful descriptions and analysis of human behavior under conditions where trust and reciprocity increase well being. The Russell Sage foundation, which underwrote the research and preparation of the volume, is to be commended for a job well done.he book (Ch. 4), for instance, is an exposition of Robert Trivers' concept of \\"reciprocal altruism,\\" which is just long-term self-interest. The experimental results on reciprocity are incompatible with this concept, unless one assumes that subjects simply are ignorant and mistake-prone in their behavior. Numerous experiments show that this is decidedly not the case. In Chapter 6, we are told that subjects are only altruistic because they are afraid that the conditions of anonymity in the experiment are highly imperfect--despite the fact that the evidence for this is extremely weak (one study done in 1994, which has not been replicated, using a dictator game, which is not a social interaction or a social dilemma), and the evidence against which is virtually overwhelming. Later in the chapter we are told (p. 162) that people cooperate in one-shot games because they confuse them with repeated games, with which they are more familiar. This argument is specious, however, because many experiments reveal that people are quite capable of distinguishing between one-shots and repeated games, and cooperate much more in the latter than in the former.

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Eurekas and Euphorias: The Oxford Book of Scientific Anecdotes

[] Tales for Scientists — Rating: 5/5

If you love science, you love humor, and you are a student of human behavior, this is a book for you. I enjoyed virtually every one of these nine score vignettes.

But these are not just stories. Most are [] tales, in which good tends to triumph over [bad]. Some are about brilliant female scientists who overcome male chauvinism, and other about the numerous afflictions beset upon Jewish scientists in the Nazi era. Several illustrate the intrinsic carnality of science--scientists who experiment on themselves and who revel in human bodily fluids.

The stories are also often quite instructive, in case you are not totally up to snuff in chemistry or physics, and could use a non-technical refresher.

The Hidden Connections: Integrating the Biological, Cognitive, and Social Dimensions of Life Into a Science of Substainability

The New Age Philosophy of Life and Behavior Falls Short — Rating: 2/5

Capra is a physicist but his writing is geared towards instructing non-science types in the implications of science for the meaning of our lives. This is a very admirable goal, and more physicists should become engaged in this critically important task. The problem is that Capra's analysis and interpretations make very little contact with the physical reality he is trying to describe. Rather, he couches pedestrian descriptions of the natural world in complex new age terminology that might lull the unknowledgeable reader that something is being said, when in fact, nothing is being said.

For instance, we are informed that life is characterized by cellular constitution, and cells are autopoietic, dissipative structures. When you find out what these arcane terms mean, you are no closer to understanding life, or even cells. Capra doesn't bother talking about what cella are really like, or why life consists of cells. He simply describes them in complicated terms, drawing on the neuroscientists turned philosophers Maturana and Varela, whose brilliance in their fields of expertise is not reflected in their treatment of human consciousness. While their New Age musing may impress non-scientists with their verbal facility, they cut no ice with those who really study life. Cabra flirts with Prigogine's quirky (and completely unuseful for practicing scientists) interpretation of thermodynamics, and since Prigogine is a Nobelist, we are supposed to be duly impressed. I am not. Prigogine did excellent work in the early 1950's, but then seemed to don some sort of intellectual toga and gave up interacting with the real world.

I am not prone to an excess of emotion in evaluating scientific projects, which probably saves Capra from a good deal of invective in this review. But, I purchased the book, and I am allowed my say. This book is a hoax, as are all new age interpretations of physical and biology that I have come across. The only readers who will be impressed are the scientifically naive and the scientifically informed who have dropped into the sixth dimension to do a little soul-repairing.ifically naive and the scientifically informed who have dropped into the sixth dimension to do a little soul-repairing.

Billy in Love

Kotker in Love with Life — Rating: 4/5

This is a very sad, very funny, very human slice of the lives of an all-to-human all-to-middle-aged couple, engaged to be married. Billie falls in love with Joyce with depth and commitment, following the death of his first wife Alice. His weakness is a voracious sexual appetite and abolutely no idea that satisfying this appetite with a variety of women is any sort of transgression at all. Joyce likes the finer things in life, has superficial tastes and goals, but cannot stand Billie's roaming ways. Billie, on the other hand, is a scrupulously honest businesman who refuses to compromise his principle to make an \\"easy million or two\\" as Joyce's son Roy puts it. Joyce? She could care less.

This lovely and touching book is also a bit of a Requiem for Kotker, who was suffering from the illness that eventually killed him at the time. The tragedy of death, one gets the impression from this book, is the incomparable beauty of life, as long as you don't take it too seriously, and don't ask too many questions. Because there are no answers.

An Introduction to Programming with Visual Basic 6.0 (4th Edition)

Great for Learning Programming Fast — Rating: 5/5

I wanted to teach my graduate student in economics how to program for agent based simulations. I liked this book because it has lots of exercises that my students could do and I could analyze and correct. This is not a VB book, but rather a book on the fundamentals of programming using VB to communicate ideas. It worked out very well.

Dawkins Vs. Gould: Survival of the Fittest (Revolutions in Science)

Solid and Lively — Rating: 4/5

Richard Dawkins and Stephen Jay Gould are prominent evolutionary biologists. Both are great writers and both are extremely contentious. Moreover, they disagree in public forums with a startling level of invective. Kim Sterelny is a philosopher with a solid background in evolutionary theory, and in this book tells the tale of their disagreements with skill and journalistic polish.

Despite the bitterness of the debate, most of the issues Dawkins and Gould disagree on are either unscientific (e.g., militant atheism vs. tolerance for religion and other non-scientific forms of knowing) or matters of interpretive preference (e.g., the role of chance vs. selection in evolution, the extent to which evolution involves increasing complexity, the importance of population genetics vs. the study of large-scale patterns in the history of life, or the view of evolution as a conflict of genes vs. an organic conflict among species-level and higher biological forms). Other issues that separate them relate to the schools of thought to which they belong---Dawkins' friends being the sociobiologists and evolutionary psychologists (G. Williams, W. Hamilton, E. O. Wilson, et al.) and Gould's being the left-wing critics of sociobiology (R. Lewontin, L. Kamin, et al.). By limiting the debate to Dawkins and Gould alone, the book does not flesh out this larger, and quite interesting intellectual opposition.

Sterelny neither takes sides nor tries to adjudicate the differences between these writers, though he does say that their differences appear to be narrowing over time. Being less unpresuming, I assess the situation as follows. Dawkins' gene-centered view makes for good journalism, but is fatally flawed for one simple reason: the heart of evolution is mutation and selection, not replication, which is simply an uncreative prerequisite for evolution. A mutation can spread only if it is more fit that existing alleles, and fitness is a frequency dependent, highly nonlinear phenomenon, best described by game theory on the level of phenotypes. Gould's mass extinctions and punctuated equilibria make perfect sense from evolutionary game theory, and involve nothing beyond mutation, selection, and replication. On the other hand, Gould's dismissal of sociobiology and evolutionary psychology are ideologically based and quite without merit.

Sterelny describes a debate that is more a reflection of the expansive egos of two great popularizers, and their inability to understand, or their reluctance to publicize, the work of younger generations of evolutionary biologists, rather than some real scientific clash of paradigms. But if it gets young people interested in evolutionary biology, I'm all for it, and Sterelny does a good job of dramatizing the debate.best described by game theory on the level of phenotypes. Gould's mass extinctions and punctuated equilibria make perfect sense from evolutionary game theory, and involve nothing beyond mutation, selection, and replication. On the other hand, Gould's dismissal of sociobiology and evolutionary psychology are ideologically based and quite without merit.

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Educating Eve: The Language Instinct Debate (Open Linguistics)

Nativism emerges attacked, but unscathed — Rating: 2/5

'Nativism' holds that we are genetically predisposed to learn language systems with specific properties (nouns, verbs, tenses, tree structure...), and we learn other sorts of languages (e.g., computer languages, mathematical languages) only with great difficulty. 'Empiricism' says the mind is a 'blank slate,' so languages and language acquisition are purely cultural matters. Among the leading nativists (who dominate the discipline of linguistics) are Chomsky, Pinker, Bickerton, and Jackendorff. Sampson's book is dedicated to showing they are wrong.

Sampson is a confident and vigorous writer. He aims a barrage of criticism against nativism, most of which I found less than convincing. Moreover, he offers as an alternative not a linguistic theory, but a general philosophical approach, which he associates with Karl Popper. In my view, philosophy has its place in the world, but the philosophy of science is not an alternative to science. Therefore, Sampson provides no alternative, except that people 'learn by trial and error.' Thanks!

Here are some facts that support nativism: (a) all languages of the world have approximately the same complexity and share strong underlying structural commonalities; (b) children learn their native language very rapidly, and without being taught, whereas they learn other things (e.g., math, science, the arts, natural lore) relatively slowly and almost always with intensive instruction; (c) individuals raised without a native language never learn to speak fluently, later in life, when they encounter language;(d) isolated groups create their own languages (creoles) that are much like existing languages; (e) people with brain damage often lose extremely specific capacities--e.g., to name fruits, or form plurals.

This whole area of study is fraught with ambiguity, because we simply don't know how the brain processes language. Nativists appear to believe there are dedicated, hard-wired modules that efficiently process language, whereas neuroscientists do not find such modules, or believe such modules are the end-product of learning and development, not their starting-point. So there's a lot more to be said on this issue.

I am not a linguist, so I certainly admit that I may be in dire need of an education in this area. But at this point, I stand with the Nativists.hereas neuroscientists do not find such modules, or believe such modules are the end-product of learning and development, not their starting-point. So there's a lot more to be said on this issue.

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Stories of the Invisible: A Guided Tour of Molecules

Very Good for Someone who Reads One Science Book a Year — Rating: 3/5

Phillip Ball writes well, capably cuts through the complex stuff to get to the heart of the matter, and tells good stories. If you read one science book a year, or you want to give a gift to your Aunt Minnie who always wanted to find out why chemicals aren't all bad, this is the book for you.

I downrated this book because it doesn't really do what it says it is going to do. It purports to be about chemistry, and it has blurbs written by four Nobel Prize winners in Chemistry. The book claims it wants to restore chemistry to its rightful position among the natural sciences, having been relegated to a lowly position by New Age environmentalist non-think. However, the book spends most of its time on biochemistry, cell biology, and other biological topics! Phillip Ball does not really address his challenge, because so little of the book is about the chemistry of chemists (molecular engineers?) as opposed to biologists.

I wish Ball would write another book--this one really about chemistry. There's a great story to tell.

Animal Traditions: Behavioural Inheritance in Evolution

Some Excellent Stuff Here — Rating: 3/5

The message of this book is that in species with significant behavioral plasticity and ability to learn, there is a coevolution of learned behavior and structure of social interaction on the one hand, and genetic development on the other. The authors justify this message empirically and theoretically, while lamenting the tendency of most animal behaviorists to downplay the importance of learning and the causal feedback from social macrostructure to genetic microstructure.

Chapters 8 and 9 constitute the heart of this book, and Chapter 10 (the final chapter) provides an intelligent and thoughtful commentary on the implications of the book for research and even political philosophy. If I taught a course on animal behavior, I would start with a standard account (e.g., Alcock), but spend a fair amount of time at the end of the course on Chapters 8-10 of this book. The discription of the Baldwin effect, Waddington's empirical research, and the niche construction ideas of Odling-Smee and coauthors is particularly clear, important, and difficult to find elsewhere.

I am much less happy with the first 7 chapters of the book. Indeed, I am not sure who the intended audience is. There are many critiques of standard theories (e.g., inclusive fitness, gene-centered evolution, group selection, evolutionary psychology), but the theories they critique are not systematically presented, and what explanation they give generally appears in footnotes. This indicated the material is not for beginners, but for experts. However, the arguments against these "enemies" will appear sloppy and ill-considered to experts in the field---in sharp contrast to the presentation in the final three chapters.

Some of the critiques of standard theories are completely ignorant and off the mark, such as the critique of parental care theory on p. 166. If an undergraduate student had written that drivel, I would have sent the student back to the drawing board.

So careless are the remarks in these chapters that at times I was convinced they were parodying New Age mindlessness. For instance, the criticize Karl Marx for being a sexist when he wrote "from each according to his ability," showing that he didn't care about women!!! If these foolish authors ever read the work of Marx, they would find Marx, like his contemporary J. S. Mill, to be in the forefront of sexual equality.

In general, the first seven chapters treat theory sloppily, treat evidency sloppily, and treat the relationship between the two sloppily. They often do not present alternative interpretations of their data, they treat other theories as straw men, they demand absolute proof of other theories, but accept offhand observation as "proof" of their own, and they routinely fail to qualify their statements. I would not want students to think this is the way scientists think. It is not.

Moreover, the authors have a strong political axe to grind. They hate "sociobiology" and "evolutionary psychology" as applied to humans. In particular, they believe that all differences among "normal" human individuals is environmentally determined (p. 48). This is my own area of expertise, and I can assure them that their position has virtually no evidence in its favor and a ton of evidence against it (they do not even mention the evidence, for or against, in this case).in these chapters that at times I was convinced they were parodying New Age mindlessness. For instance, the criticize Karl Marx for being a sexist when he wrote "from each according to his ability," showing that he didn't care about women!!! If these foolish authors ever read the work of Marx, they would find Marx, like his contemporary J. S. Mill, to be in the forefront of sexual equality.

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Choices, Values, and Frames

The Cutting Edge of Behavioral Decision Theory — Rating: 5/5

Daniel Kahneman and Amos Tversky have spent their whole lives developing an alternative to the "rational actor" model of human decision-making, the standard of traditional economic theory and the decision sciences. Their ideas were received rather well from the start, but in recent years, their alternative, which we can fairly call "behavioral economics" has virtually displaced traditional decision theory as an active research area.

People often think of the Kahneman-Tversky behaviorists as "bomb-throwers" in the sense that they appear to love to destroy traditional concepts of rationality rather that put constructive models in their place. This collection, which consists of 42 very high quality essays by the leading lights of the field, shows clearly that this is not the case. Prospect theory, loss aversion, framing effets, status quo effect, and the like are carefully modeled in this book. I came away quite impressed.

It is a shame that Amos Tversky never lived to see the light of day of this fine volume. It is certainly a vigorous vindication of his lifetime research agenda.

Behavioral Law and Economics (Cambridge Series on Judgment and Decision Making)

Behavioral Economics Comes of Age — Rating: 5/5

There are several prominent legal scholars who work in the interface of social theory and law, but Cass Sunstein is, to my mind, one of the very few really innovative thinkers with full control of social theory. This edited collection shows that the approach he has been working on for the past several years, has finally come of age.

The first synthesis of law and economics took place several decades ago, based on the seminal work of Nobel prize winning Chicago economist Ronald Coase. The synthesis was based on the so-called "rational actor model" (often called homo Economicus) that can be derived from certain axiomatic, mathematics-like principles, based on the notion of self-interest and utility maximization. This was a major breakthrough in social theory and policy.

But the "rational actor model" has been shown to be systematically violated by real human beings, and behavioral economics arose to ammend the "rational actor model" to fit the reality. It's not that people are irrational, but rather the concept of rationality used in the traditional theory is seriously wanting. If you're interested in this larger backdrop to the present book, there is a marvelous new book on the subject edited by its creators, Daniel Kahneman and Amos Tversky, called "Choices, Values, and Frames."

The introductory chapters of Behavioral Law and Economics are refreshingly clear and free of jargon. These are followed by some of the most important articles that have been written on the topic over the past several years.

Behavioral law and economics is not just some academic field. It is absolutely, front and center, critical to political philosophy and the policy sciences in general. This book is for both expert and layperson alike---a real tour de force.

Survival Strategies: Cooperation and Conflict in Animal Societies

Beautiful, Charming, yet Scientfically Challenging — Rating: 5/5

I first encountered Gadagkar through his work on genetic relatedness in wasps and bees. His professional work is extremely careful, quantitative, and innovative. I was surprised to find a different side of this impressive animal behaviorist in this charming little book. Gadagkar has an admirable ability to explain complex biological theory without recourse to complicated terminology and equations.

The centerpiece of Gadagkar's interpretation of cooperation and conflict in animal societies is Hamilton's inequality, which says that individuals will, in the long run, help others at a cost to themselves, if the benefit to the others times their relatedness to the helper is greater than the cost to the helper. This simple little equation is a powerful leitmotif that runs through each and every example in this book. And the examples are extremely elegant and memorable---reading this reminded me of when I read Ray Bradbury's Illustrated Man when I was a kid, so wide ranging and daring are his examples---except that in this case what is being described is scientifically impeccable.

This book is great for beginners in sociobiology and animal behavior, but it is also a wonderful treat for those (like myself) who have read widely in the field.

There are two areas of cooperation/conflict that Gadagkar does not touch. The first is homo sapiens. You'll have to look elsewhere for the sociobiology of humans. The second is cooperation/conflict among cells in multicellular organisms. I recommend the collection edited by Laurent Keller (Princeton University Press) for an introduction to the latter.

The Design and Evolution of C++

Good for Seasoned Programmer Learning C++ — Rating: 4/5

I've programmed in several languages, and use programming regularly in my research (mostly artificial life simuations, statistical programming, and the like). I resisted learning C++ because (a) the implementations have been really awful, as compare with Visual Basic and Delphi, and (b) it's a complicated language. But this summer I bit the bullet, and I've started using C++ in my work. What changed my mind was the Borland C++ Builder compiler, which makes it easy to write applications. I found that C++ was as complex as I expected, but quite fast and versatile. This book really helped me understand the design philosophy of C++, so I feel much more at home with the language than I did just a few days ago. I can't imagine that this book would be good for a beginner at programming, though, since it throws around computer science terminology quite freely (early binding, late binding, for instance), and without much explanation.

The Triumph of Sociobiology

An Excellent book for the Educated Layman — Rating: 5/5

Sociobiology is the application of the principles of evolutionary biology to humans. Since we are a biological species that has evolved an extremely powerful form of sociality, how could a scientist studying human society NOT be a sociobiologist?

The answer to this question is simple, and is well laid out by Alcock: if the human brain has evolved into a general purpose instrument on which knowledge, culture, and behavioral norms can be written as though it were a blank slate, then there would be no need to study the biology of social behavior. Despite the overwhelming evidence against the blank slate belief---an impressive amount of the evidence is carefully presented and clearly explained by Alcock---many social scientists and science journalists refuse to believe it.

Alcock makes a valiant attempt to show that the reasons given for rejecting sociobiology are specious. The most important scientific critique is that we need powerful and accurate models of human behavior, not simply vague and unprovable evolutionary just-so stories purporting to explain human behavior. Alcock shows that evolutionary thinking provides an incredibly rich source of hypotheses concerning

behavior, so is the essential basis for conceiving of plausible models of behavior. In no way does evolutionary thinking substitute for analytical model building and testing.

But virtually all of the hostility to sociobiology is motivated not by scientific interests, but rather by political interests. Alcock exhibits skill and patience in both demonstrating the errors in reasoning in politically-motivated attacks on sociobiology, and showing that sociobiology is in fact neither hostile to nor partial to any particular political position. For instance, he explains that the fact that there is a natural explanation for certain immoral behaviors (e.g., neglecting stepchildren, male philandering, ethnocentrism) does not justify these behaviors or suggest that they are inevitable.

I think, however, sociobiology does conflict with certain strongly held positions common on both the right and the left wings of the political spectrum. The hallmark of many politically committed people (and social theorists), I believe, is the belief in the attainability of a social utopia based on eradicating the social influences that lead to 'evil' behavior, and socializing people to conform to a utopian vision of behavior and belief. For such a vision to be possible, one must hold the 'blank slate' model that sociobiogists have shown not to exist. To my mind, this is the most important contribution of sociobiology to making a better world: utopian visions based on blank slate models of the human mind do not work and never will. Let's get on we making a better world with what we have: human nature as it is, not as we would have it be.nk, however, sociobiology does conflict with certain strongly held positions common on both the right and the left wings of the political spectrum. The hallmark of many politically committed people (and social theorists), I believe, is the belief in the attainability of a social utopia based on eradicating the social influences that lead to 'evil' behavior, and socializing people to conform to a utopian vision of behavior and belief. For such a vision to be possible, one must hold the 'blank slate' model that sociobiogists have shown not to exist. To my mind, this is the most important contribution of sociobiology to making a better world: utopian visions based on blank slate models of the human mind do not work and never will. Let's get on we making a better world with what we have: human nature as it is, not as we would have it be.

Ethnic Conflict and Indoctrination: Altruism and Identity in Evolutionary Perspectives

An excellent, multifaceted sourcebook on ethnic prejudice — Rating: 4/5

Informed students of Homo sapiens have long noted that there is virtually no justification for the concept of "race" in our species, since the within group differences on almost all traits are much greater than the between group differences for any known taxonomy of racial groups. The same can be said even more strongly for a biological concept of "ethnicity." Yet human beings are keenly sensitive to both "race" and "ethnicity" as biological concepts; i.e., people widely feel connected by kinship and geneology to others of their group---the insiders--- and are very willing to extend this feeling to mistrust and hatred of other groups---the outsiders.

Racial and ethnic prejudices are unmitigated evils, but they can be eliminated only if we understand them from a scientific point of view.

According to the dominant paradigm in social theory for much of the previous two centuries, human beings are an ideological 'tabula rasa' on which virtually any array of cultural beliefs and values can be inscribed through the appropriate socialization practices. This view suggests that prejudices can be eliminated by simply teaching people that they are wrong.

But many students of human society, myself included, have found that human beings have a certain predilection for prejudice and ethnic hatred. This prejudice is easily aroused and leads people to make great personal sacrifices in supporting "their own." Ethnic conflict today is doubtless the leading cause of war and the violation of personal rights, not to mention a major force in preventing economic and political development around the world.

This book, which included contributions by the editors as well as about two dozen experts in various areas of behavioral theory, attempts to develop an alternative behavioral perspective, in which a predisposition to favor insiders and punish outsiders, even at a fitness cost to oneself, is somehow

innately human. However, unlike many innately human traits, which are exhibited in virtually all societies (see Donald E. Brown, Human Universals (New York: McGraw-Hill, 1991), ethnic prejudice is often absent and must be evokes by charismatic leaders or social conditions. For this reason the editors call this predisposition an "evolved trait of indoctrinability," and the other contributors follow their lead.

Ethnic conflict and Indoctrination is a very fine sourcebook for those who would model the physiology, varienty, and dynamics of ethnic prejudice, but it does not produce answers. This is in part because most of the contributions aim to provide partial insights into the issue by close analysis of particular aspects of the problem. It is also because no one has a generally plausible model of why human beings are so willing to incur fitness costs on themselves on behalf of groups of virtually unrelated individuals. By far the most useful analytical paper in the book, to my mind, is that of Peter Richerson and Robert Boyd, "The Evolution of Human Ultrasociality," who make it clear that the same evolutionary and behavioral mechanisms that account for cooperation and prosociality in humans is doubtless also responsible for ethnic hatred and the predisposition toward violence.ver, unlike many innately human traits, which are exhibited in virtually all societies (see Donald E. Brown, Human Universals (New York: McGraw-Hill, 1991), ethnic prejudice is often absent and must be evokes by charismatic leaders or social conditions. For this reason the editors call this predisposition an "evolved trait of indoctrinability," and the other contributors follow their lead.

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Evil: Inside Human Violence and Cruelty

Pop psychology masking as science — Rating: 1/5

This book pretends to be a scientific study of "evil," but in fact it is just a bunch of entertaining stories of people being nasty to each other, interspersed with "analysis" that amounts to little more than the mouthing of platitudes and banalities. We are told that perpetrators of antisocial acts do not consider themselves evil, and often consider their acts justified, or not of great importance. We are told that people seek revenge because their self-esteem is threatened. We are told that drugs and alcohol do not induce people to perform evil deeds, but rather allow people to perform deeds they would otherwise have restrained themselves from performing. We are told that many evil-doers are self-centered and uncaring of others. We are told that we could all behave in an "evil" manner under the right circumstances.

This is all drivel, of course, masquerading as science. None of these statements is subjected to anything like scientific scrutiny. Most of them are obvious (e.g. perpetrators say they don't care about their victims) or false (revenge occurs because people's self-esteem is threatened) or meaningless (most of the sentences in the book fall under this category, since most of the emotions and forms of consciousness described are of the offhand, pop psychology type).

So, if you want to read about lots of dirty stuff people have done to one another, this is your book. And if you like to think your reading is enlightening and informative without actually dealing with the difficult analytical and quantitative tasks of modeling and testing human behavior, this is your book.

My only consolation in purchasing this book is that is was cheap, yet quite nicely put together. Also, it gives me a chance to write a nasty review. I take revenge no doubt beause of a threat to my self-esteem, no doubt.

Without Conscience: The Disturbing World of the Psychopaths Among Us

Titillating Stories with No Scientific Content — Rating: 3/5

A considerable fraction of the human population, perhaps five percent, are psychopaths, unable to experience the emotions of shame, guilt, empathy, and sympathy for the plight of others. This book purports to analyze the psychopathic personality, but fails miserably. The author spends most of his time entertaining the reader with the goulish exploits of famous serial murderers and other notorious killers, yet has not the slightest evidence that they are psychopaths. Moreover, Hare stereotypes psychpaths rather than analyzing them. All the people he interviews and describes are good looking, intelligent, verbal, social charmers, impulsive, glib and lie extensively. Each and every one, mind you. The real world of psychopaths is more nuanced.

Virtually all of the evidence presented concerning the psychology of psychopathy are from interviews and writings of the psychopaths themselves. But if they lie freely and without compunction, why should we believe their own stories? There is, of course, absolutely no reason. Moreover, we know that some psychopaths are quite sadistic (they torture their victims, kill animals) while others are simply devoid of feeling for others. Shouldn't these be two different types of personality syndrome?

This is a very good read with lots of gruesome titillation. Dr. Hare evidently wrote a Psychopathy Checklist, but we never get to see it, or to find out why it's a valid indicator of anything. I didn't learn much from this shallow volume.

The Sokal Hoax: The Sham That Shook the Academy

Tremendously funny, yet serious and instructive — Rating: 5/5

Sokal's parody of postmodern thought is thoroughly witty and enjoyable, and especially so if you are moderately literate in math and science. If you have little tolerance for the fashionable jargon of postmodern criticism, you will delight in the way Sokal has put the screws on the pretensions of this pompous movement.

One of Sokal's important contributions is to quote liberally from the postmodern gurus of the French academic establishment. Reading Lacan, Derrida, Deleuze and Guattarri, and their colleagues for meaning is virtually impossible (the French, by the way, is no more lucid than the English translations), so the several quotes from their work in Sokal's essay are about as close as any rational reader will get to their work.

But what they say is indeed hilarious. Here is Derrida: "The Einsteinian constant is not a constant, is not a center. It is the very concept of variablity--it is, finally, the concept of the game." This, of course, means absolutely nothing--even in context. But at least it is not wrong, as is the following from Lacan: "This diagram [the Mobius strip] can be considered the basis of a sort of essential inscription at the origin, in the knot which constitutes the subject...it explains many things about the structure of mental disease. If one can symbolize the subject by this fundamental cut, in the same way one can show that a cut on a torus corresponds to the neurotic subject, and on a cross-cut surface to another sort of mental disease." Lacan is justly famous--here we see him taking silly to the heights of sublimity.

Here is Lacan again: "...human life could be defined as a calculus in which zero was irrational. When I say 'irrational' I'm referring not to some unfathomable emotional state but precisely to what is call ian imaginary number." How incredibly erudite-sounding to define human life as a "calculus" (whatever that is) in which zero is "irrational" and in which "irrational" means "imaginary." This is really rich!

There are some excellent essays in this book, besides that of Sokal. These include excellent pieces by Steven Weinberg (the physicist), Paul Boghossian (the philosopher), Meera Nanda (scientist/journalist), and Barbara Epstein. My favorite one-liner is Weinberg's tale of a physicist friend

who, on his death bed, confesses to draw some consolation from the fact that at least he won't have to look up the meaning of 'hermeneutic' any more in the dictionary.

My favorite humor book is Woody Allen's Without Feathers. But this comes in a close second, and there's lots to learn, too."irrational" means "imaginary." This is really rich!

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The Biology of Moral Systems (Evolutionary Foundations of Human Behavior Series)

A great book with an outdated model of human behavior — Rating: 4/5

Where does morality come from? The traditional answer are from God, as revealed by theologians, or from Reason or Intuition, as revealed by philosophers. In fact, as Richard Alexander makes clear in this landmark book, morality comes from our evolution as a species. Individuals who developed ethical awareness and practiced moral behavior in the course of our emergence from the hoard of pre-human hominids had an evolutionary edge over those who did not. It follows that to understand morality, one must undertake a scientific and evolutionary approach. Ethics is thus something like linguistics, in that both are extremely complex human ideational forms that must be modeled, and the success of ethical theories is their capacity to explain how humans express and make moral choices.

The scientific approach to morality espoused by Alexander is a deeply refreshing alternative to the endless pious platitudes of the theologians, who believe they have a special line to the Almighty's will, and the supercilious meanderings of the philosophers who think their personal moral predilections are something more than mere personal prejudice. We owe to this book the reorientation of ethical theory from the prejudices of the privileged to the realm of the scientific. As such, Alexander's book is must reading for a student of ethics.

However, contemporary evidence shows that his major thesis is flawed. Here are some key quotes and my critique of the assertions made in the quotes.

Quote from p. 3: \\"ethics, morality, human conduct, and the human psyche are to be understood only if societies are seen as collections of individuals seeking their own self-interest...\\"

Critique: This is of course the model of human action in standard economic theory, and I have spent my whole life dealing with its inadequacies and proposing alternative models more in line with the empirical evidence on human behavior. Alexander's description of human behavior ignores such prosocial other-regarding behaviors as altruistic cooperation, altruistic punishment, and the tendency to conform to social norms independent from the possibility of being detected and punished for such behavior. We now have lots of behavioral evidence in favor of the existence of strong reciprocity (a propensity to cooperate in social dilemmas and to punish free riders without regard to personal material payoffs), as well as its ability to foster sustainable cooperation when self-interest would lead to social breakdown. See, for instance Herbert Gintis, \\"Strong Reciprocity and Human Sociality\\", Journal of Theoretical Biology 206 (2000):169-179 and Ernst Fehr and Simon Gaechter, \\"Cooperation and Punishment\\", American Economic Review 90,4 (2000). See also my web site.

I also believe that empathy and shame are counterexamples to Alexander's model. Indeed, sociopaths who have neither empathy nor shame can be considered as \\"self-interested\\" in Alexander's sense in that they refrain from harming other human beings only if they calculate that the personal costs (e.g., of being caught) exceed the benefits flowing from harming others.

Quote from p. 34: \\"That people are in general following what they perceive to be their own interests is, I believe, the most general principle of human behavior.\\"

If this is not tautologous (whatever people want to do is in their interest by definition), then it is false, for the same reason as in my critique of the previous quote, since people who punish violators of group norms often \\"perceive\\" their actions to be for the benefit of the group, and understand quite well that it is not in their own self-interest.

But there are other problems with Alexander's statement. (a) If I am addicted to smoking I might perceive that I am not acting in my own self interest when I smoke, and do it anyway. (b) I may \\"perceive\\" it in my own interest to help the poor, or contribute to environmental groups, or perform other prosocial acts when in fact it is not. If humans systematically misperceive their self-interest, as in this case, and if the misperception is very likely in a prosocial direction, then violations of self-interest might be central to human social cooperation, even were Alexander's statement correct (which it is not). In fact, I do not believe that humans systematically misperceive their self-interest. Rather, they choose often to act altruistically against their self-interest because they have other-regarding preferences.

Quote from p. 77: \\"Moral systems are systems of indirect reciprocity.\\"

This is the first statement of Chapter 2, \\"A Biological View of Morality.\\" It is not an aside, but Alexander's fundamental explanation of moral systems. By \\"indirect reciprocity\\" he means almost exactly what Robert Trivers calls \\"reciprocal altruism,\\" but which in fact is just enlightened long-term self interest. It is fundamentally wrong. The evidence is that virtually all moral systems exhort forms of altruism that do not reduce to self interest, even in the long run, and large numbers of people subscribe to and to some extent follow these non-self-interested principles.

I should note that even criminals and psychopaths often exhibit non-self-regarding behavior, as when, for instance, a man takes revenge on his \\"enemies\\" and then kills himself.

Of course, a lot of human behavior is self-interested, and some non-self-interested behavior is just random noise in the behavioral system. But the types of systematic prosocial behavior promoted by strong reciprocity, shame, empathy, and identification with \\"insiders\\" is, unless I am mistaken, the key to the particular strength of human cooperation.ystematically misperceive their self-interest, as in this case, and if the misperception is very likely in a prosocial direction, then violations of self-interest might be central to human social cooperation, even were Alexander's statement correct (which it is not). In fact, I do not believe that humans systematically misperceive their self-interest. Rather, they choose often to act altruistically against their self-interest because they have other-regarding preferences. Quote from p. 77: \\"Moral systems are systems of indirect reciprocity.\\" This is the first statement of Chapter 2, \\"A Biological View of Morality.\\" It is not an aside, but Alexander's fundamental explanation of moral systems. By \\"indirect reciprocity\\" he means almost exactly what Robert Trivers calls \\"reciprocal altruism,\\" but which in fact is just enlightened long-term self interest. It is fundamentally wrong. The evidence is that virtually all moral systems exhort forms of altruism that do not reduce to self interest, even in the long run, and large numbers of people subscribe to and to some extent follow these non-self-interested principles. I should note that even criminals and psychopaths often exhibit non-self-regarding behavior, as when, for instance, a man takes revenge on his \\"enemies\\" and then kills himself. Of course, a lot of human behavior is self-interested, and some non-self-interested behavior is just random noise in the behavioral system. But the types of systematic prosocial behavior promoted by strong reciprocity, shame, empathy, and identification with \\"insiders\\" is, unless I am mistaken, the key to the particular strength of human cooperation.

That Complex Whole: Culture And The Evolution Of Human Behavior

A Behavioral Ecologist's Approach to Culture — Rating: 5/5

This graceful and well written book tries to do two things. First, he reviews an extensive body of modern behavioral ecology. If you've never encountered the treatment of culture in contemporary evolutionary psychology, behavioral ecology, or biological anthropology, this book provides a very nice introduction.

Second, Cronk argues that behavioral ecologists have understated the role of culture, and suggests how it be integrated into an overall theory of human behavior.

Towards the first goal, Cronk opposes the traditional notion in cultural anthropology and structural-functional sociology that holds that people's actions and values are reflections of the dominant culture. In Chapter 1, he gives several elegant examples of how people affirm their culture, while at the same time behaving in ways quite contrary to its dictates. In Chapter 2 he reviews the evidence that there is a universal human culture, and that it is rooted in human biology. The evidence is impressive and strong. In Chapter 3 he argues for the unity of the behavioral sciences around the coevolution of human genes and culture, and the marginalization of ethical philosophy that results from increasing scientific knowledge of human behavior. He illustrates this in Chapter 4 with a review on the universalities and particularities of human mating patterns, on which there is much evidence, most of which is quite hostile to the traditional notion that humans are highly manipulable through the proper acculturation. In perhaps the most original chapter in the book, Chapter 7, he argues that traditional cultural relativism is a vicious enemy of freedom, thus turning a traditional critique of sociobiology on its head. I am in complete agreement with him here.

Cronk begins his own approach with a review of memetics, which is an evolutionary model of cultural diffusion. I think memetics is incurably fuzzy and quite useless for analytical purposes (mostly because it provides no theory of when memes spread and when they die out), but Cronk is a bit more tolerant. In Chapter 5, he provides his own theory of culture, which is that culture is a set of tools that people use to achieve their own ends. In this approach, people are active participants in making their lives, not the passive dupes who simply play out their culturally-dictated roles, as in most of traditional social theory. I am partial to this view. Indeed, I wrote a long article on the subject in 1981, and it appears front and center in Samuel Bowles and my Democracy and Capitalism (Basic Books, 1985).

I have two criticisms of the book. First, culture is not merely a tool. It also sets up conventions that give rise to what game theorists call Nash equilibria, in which, given the behavior of others, one's optimal behavior is quite narrowly truncated. This 'conventional' notion of culture must appear along side and instrumental view of culture. Second, I think we need analytical, mathematical models of behavior, without which all the theorizing in the world is just so much talk. Cronk doesn't go into this side of behavioral ecology, and in particular does not do justice to Boyd and Richerson, Cavalli-Sforza and Feldman, and others who try to model gene-culture coevolution.ad and when they die out), but Cronk is a bit more tolerant. In Chapter 5, he provides his own theory of culture, which is that culture is a set of tools that people use to achieve their own ends. In this approach, people are active participants in making their lives, not the passive dupes who simply play out their culturally-dictated roles, as in most of traditional social theory. I am partial to this view. Indeed, I wrote a long article on the subject in 1981, and it appears front and center in Samuel Bowles and my Democracy and Capitalism (Basic Books, 1985).

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The Unconscious Quantum

Excellent Exposition of Modern Physics — Rating: 5/5

Stenger is a physicist completely at home in contemporary mathematical physics, yet incurably curious about the deeper philosophical issues brought up by quantum mechanics. I have read many books attempting to explain quantum mechanics to the layman and I consider this the most careful and enlightening--also quite up to date (even in the year 2000).

The problems arising around quantum mechanics can be analyzed using the famous Bell equation, which Stenger develops extremely nicely (although it helps to be able to read the simple algebra in the optional 'boxes'). The violation of Bell's inequality, he argues (drawing on many technical papers and books) violates either Determinism + Locality or Separability + Locality, or Completeness + Locality (all terms well defined in the book). He argues strongly that quantum mechanics does not violate Locality itself,which Stenger takes as very important to maintain.

Stenger presents the classical Copenhagen interpretation of the collapse of the wave function, as well as Bohm's hidden variable interpretation, the many-worlds interpretation, and the most recent (and to my mind satisfying) decoherence approach.

The Unconscious Quantum's main message is that modern physics provides absolutely no support for New Age and more traditionally religious notions of supernaturalism. Stenger is refreshing in not denying the existence of spirituality, but holding that the world of spirituality does not, as far as we know, intersect the natural world described in the natural sciences. "While I cannot bring myself to worship a hypothesis," he notes, "I have no wish to disparage those who do. I simply ask that they not assume that science, in its current state, provides any buttress for their belief..."

This does not mean Stenger supports New Age guruism. In a truly beautiful passage he says, "Anyone listening to New Age gurus and modern Christian preachers cannot miss the emphasis on the individual finding easy gratification, rather than sacrificing and selflessly laboring for a better world. Holisitic philosophy is the perfect self-delusion for the spointed brat of any age, all decked out in the latest fashion, who loves to talk about solving the problems of the world but has no intention of sweating a drop in acheiving this noble goal."emphasis on the individual finding easy gratification, rather than sacrificing and selflessly laboring for a better world. Holisitic philosophy is the perfect self-delusion for the spointed brat of any age, all decked out in the latest fashion, who loves to talk about solving the problems of the world but has no intention of sweating a drop in acheiving this noble goal."

Levels of Selection in Evolution

A Panoramic, yet Compelling, View of Multilevel Selection — Rating: 5/5

A multicellular organism has specialized structures to destroy mutant cells that wildly multiply; when these structures fail, the organism suffers from possibly lethal tumors. A beehive has workers who police the behavior of other workers to ensure that work gets done and that only queens lay eggs. Without such disciplinarians, the hive would soon fail. Humans have evolved internal behavioral structures that allow us to cooperate in society, and impel us to punish non-cooperators.

All of these are instances of multilevel selection, as discussed in this fine book of essays. Some readers will be startled to find this material instead of the ancient debates over individual vs. group selection and self-interest vs. altruism---the place where the debate over multilevel selection began in the mid-1960's. The contributors are tops in their respective fields, including H. Kerne Reeve, Eors Szathmary, Richard Michod, Andrew Pomiankowski, Craig Packer, John Maynard Smith, and other equally fine biologists. Their uniting in this book shows that the group selection debate is over, at least among the knowledgeable.

I loved this book, and have spent many hours following up on the other writings of the authors, both in book and article form. This book suggests what I have long had a suspicion is the case: all of biology is sociobiology, in the sense that whenever you have organisms consisting of more than one type of cell that cooperate in making a whole, you have social mechanisms involved in mediating among the divergent interests of the individual parts, and structures emerge that more or less successfully resolve the mediation problems. Darwinian selection then operates upon these mediating structures, yet in no way different from, or even in addition to, the way selection operates on individual genes.

The Limits and Lies of Human Genetic Research: Dangers For Social Policy (Reflective Bioethics)

A Competent and Serious Book, Despite the Silly Title — Rating: 4/5

The Standard Social Sciences Model (SSSM), virtually universally accepted in social science in the last half of the 20th Century, held that the human mind was a behavioral blank slate, so that human behavior could be determined by cultural socialization. For instance, all differences between men and women were considered cultural, and the talents, aptitude, and personality of individuals was attributed completely to their upbringing.

That model has been repeatedly falsified in recent years through a wide array of empirical data. Moreover, our increasing ability to located the neurological bases of human sociality and to discover the genetic bases for some diseases has led to a complete turn-around in the public perception of the relative importance of genes and environment in influencing human behavior and health.

The popular understanding of these scientific advances often takes the form of "its hereditary, so there's nothing we can do about it." This book is a serious and informed attempt to show that this interpretation is dead wrong. The book is not light reading---it takes seriously the task at hand, and it assumes the reader is willing to follow a complex scientific argument. But by doing so, the reader will be well rewarded.

The main point of the book is this: the fact that something is hereditary to a given degree says something about the interaction of people with their environment. When heredity is high (as in the case of height, or IQ) it does not mean that we cannot find environments in which we can increase people's height, or equalize their IQ's. Moreover, to a significant extent, people create their own environments (niches), which appear mathematically as a product of genes, but misleadingly so.

For instance, height is highly heritable, but succeeding generations of Americans are consistently taller than their parents. IQ is heritable, but IQ scores rise dramatically from generation to generation (the Flynn effect).

The new genetic research should not make us conservative and defeatist concerning the possibilities of improving the welfare of humanity, but rather guide and inform us in how to search for more effective environmental interventions.

There are problems with Kaplan's book, however, and they are serious. First, he blames the common public view of the matter on the researchers ("Lies"), when almost all in the field (including me) agree wholly with his analysis, and say it again and again in print! Kaplan considers the new research something of a right wing conspiracy against the welfare state, which is just nonesense. He trots out the book by Herrnstein and Murray again and again as an example, when he must know that virtually the whole behavioral genetics community has criticized it vigorously. There are NO examples in his book, as far as I can tell, where the researchers are at fault.

In fact, I see this reaction to behavioral genetics a lot from well-intentioned, progressive people, who wish we were back in the Good Old Days of the SSSM, where proper socialization and spending plenty of money were considered sufficient to solve social problems. Well, it just ain't so. We will not get social policy on track in eliminating poverty, sexism, racism, or any of the other ills that Kaplan (and I) bemoan, until we work out the proper interaction of human nature, genetic potential, and environmental interaction. Just criticizing the scientists won't get us anywhere, I am afraid.(the Flynn effect).

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Evolution and the Theory of Games

A Classic and Still Great and Readable Book — Rating: 5/5

With this book, John Maynard Smith initiated a major strand of modern theoretical biology! The book does not require sophisticated mathematical preparation, but it operates on a consistently high level of analytical rigor. It is also very nicely written, with lots of biological examples.

Darwinian Natural Right: The Biological Ethics of Human Nature (Suny Series, Philosophy & Biology) (Suny Series in Philosophy and Biology)

A Fine Contribution to a Perilous Subject — Rating: 5/5

Arnhart holds that the good is desirable, and since we are a natural species, the good can be discerned from our individual environments and our universal constitution as a species. Arnhart's contribution is Aristotelian, in that this philosopher started from the natural position of humanity (e.g., we are a zoon politican--a social animal) rather than from Plato's Ideal World. Arnhart is a Darwinian, in that our constitution as a specied derives from our evolutionary history.

This book can be read with profit by professional philosophers as well as beginners interested in understanding evolutionary ethics. It is clear and systematic, avoids jargon, and amply discusses alternative views.

I take issue with one part of Arnhart's analysis. I learned that "the good is the desirable" in my graduate student days in economics. I have always thought this quite incorrect (I wrote my Ph.D. dissertation on the topic!). For instance, I may desire potato chips (or heroin) but not consider it good, and may indeed wish that I did not desire these things. In place of Arnhart's principle, I would suggest "The good is what allows us to flourish and to use our natural capacities to the fullest." The idea of flourishing as a criterion is associated with Nobel Prize winner Amartya Sen and others, and the idea of developing one's capacities to the fullest is associated with the young Karl Marx, in his Economic and Philosophical Manuscripts of 1844.

At any rate, virtually all of Arnhart's arguments go through with this minor change.

People like me, behavioral scientists, tend to ignore ethical philosophy and have contempt for its practitioners because it tries to find ethical truths independent from the natural position of human beings in the world. Arnhart is a wonderful antidote to this tendency, maintaining a high level of both philosophical and scientific reasoning.

Game Theory: Analysis of Conflict

An Elegant and Deep Treatment — Rating: 5/5

I just completed a game theory book (Game Theory Evolving, Princeton University Press, 2000). To find the best way to present various materials, I went through virtually every game theory book in existence. For the presentation of the basic material on normal and extensive form games, nothing even came close to this book in clarity of presentation and depth of understanding of the issues. Most textbooks, even highly touted ones that are mathematically challenging, do not even come close, and rarely even present the material in a coherent form at all.

I used to do a lot of carpentry, and I always knew the good carpenters from the run of the mill. The latter talk about how to build stuff. The good ones talked about how you choose, preserve, treat, and sharpen your tools. Myerson is, for game theory, like the good carpenter, and this book is more about the nature of the tools of game theory than their deployment--although it is certainly that, too.

The subtitle of this book is silly ("The Analysis of Conflict"). Game theory is the analysis of cooperation as much as conflict, and much, much else as well. So is this book.

Consilience: The Unity of Knowledge

Two Problems with a Great Book — Rating: 5/5

This is a great, deep, inspiring, and artfully argued plea for the unity of the sciences and humanities. Many have viewed this book as narrow-minded and reductionist, an extended argument that all humanly relevant phenomena can be \\"reduced to physics.\\" This, I think, is a very narrow misreading of Wilson's argument. Indeed, I found Consilience itself to be a carefully unified exercise in natural science/social science/artistic creation. Wilson has a shining human vision of the unity of cognition, emotion, and spirit that transcends traditional classificatory boundaries. \\"Neither science nor the arts can be complete without combining their separate strengths,\\" says Wilson. \\"Science needs the intuition and the metaphorical power of the arts, and the arts need the fresh blood of science.\\" (p. 230) Moreover, Wilson locates exactly the transmission channel between science and the arts. \\"Interpretation,\\" he claims, \\"is the logical channel of consilient explanation between science and the arts.\\" (p. 230)

Wilson's basic argument is rather metaphysical and must, I believe, be taken on faith. \\"There is intrinsically only one class of explanation,\\" he holds. \\"The central idea of consilience world view is that all tangible phenomena, from the birth of stars to the workings of social institutions, are based on material processes that are ultimately reducible, however long and tortuous the sequences, to the laws of physics.\\" (p. 291) Wilson is not horribly dogmatic about this faith---he argues that there is increasing evidence for it, but he is prepared for its falsification if future evidence warrants it. Wilson's faith is not severely reductionist because he sees the relationship between levels of complexity as a dialectic of reduction of the complex to its parts, and the synthesis of the whole from its parts, in full recognition that the backward movement is much simpler than the forward. Wilson recognizes the concept of complexity, according to which a higher level of organization cannot be predicted or fully understood in terms of the characteristics of its parts, but he does not go the whole complexity distance, which involves maintaining that a complex system has emergent properties that cannot, perhaps even in principle, be inferred from the characteristics of its parts. Indeed, the term \\"emergence\\" does not appear in the index to Consilience. Nevertheless, Wilson's description of a consilient analysis of a complex structure (e.g., a eukaryotic cell) is quite detailed and to my mind accurate. He certainly never says we can capture the complex whole as the sum of its simpler constituents, although he correctly affirms that we should try to do so and may in important cases be successful.

To give a flavor of Wilson's argument, consider the following. \\"To dissect a phenomenon into its elements, in this case the cell into organelles and molecules, is consilience by reduction. To reconstitute it, and especially to predict with knowledge gained by reduction how nature assembled it in the first place, is consilience by synthesis. That is the two-step procedure by which natural scientists generally work: top-down across three or four levels of organization at a time by analysis, then bottom up across the same levels by synthesis.\\" (p. 74). Now, this is a grand description, but highly idealized. Certainly knowledge at a lower level is critical for understanding how a higher level works, but when there are emergent properties to the higher level, the synthesis of the lower level information is in itself incapable

of reconstructing the whole. For instance, quantum mechanics is useful for analyzing the structure of chemical molecules, but is incapable of generating the higher level molecular models. Similarly, solid state physics helps understand the computer, but computer sciences is light-years away from being a branch of applied solid-state physics.

Wilson wants to see the unification of three spheres of human knowledge: natural science, social science, and the humanities/arts. As I pointed out above, \\"interpretation\\" is the key link between science and the arts. Wilson does not elaborate on this link, and I am not sure it has been followed up in the literature in the twelve years since Consilience was published. The link between natural science and social science, by contrast, is quite carefully elaborated. This link is \\"gene-culture coevolution.\\" Since this phenomenon is part of biology, Wilson obtains the natural-social science link by placing biology among the natural sciences. This is fair enough, although I generally place the part of biology that deals with behavior, especially social behavior, in the \\"behavioral sciences, which in addition include economics, sociology, psychology, anthropology, and political science.

For Wilson's purposes, including biology in the natural sciences and seeing gene-culture coevolution as the major linking mechanism is perfectly acceptable. In my own treatment of the unification of the behavioral sciences (The Bounds of Reason, Princeton, 2009), I argue that gene-culture coevolution is the first and most basic of five principles bridging the various social science disciplines. Because gene-culture coevolution is a key element of sociobiology, it is not surprising that Wilson was among the first to discuss the mechanism, positing the \\"culturgen\\" parallel to the \\"gene\\" as units of evolutionary dynamics (C. J. Lumsden and E. O. Wilson Genes, Mind, and Culture, Harvard University Press, Cambridge, MA, 1981). Other key figures in the development were Luca Cavalli-Sforza and Marcus Feldman Cultural Transmission

and Evolution, Princeton University Press, Princeton, NJ, 1981), and Robert Boyd and Peter J. Richerson, Culture and the Evolutionary Process, University of Chicago Press, Chicago, 1985).

What is gene-culture coevolution? Because of the importance of culture and complex social organization to the evolutionary success of Homo sapiens, individual fitness in humans depends on the structure of social life. Because culture is both constrained and promoted by the human genome, human cognitive, affective, and moral capacities are the product of an evolutionary dynamic involving the interaction of genes and culture. We call this dynamic gene-culture coevolution. This coevolutionary process has endowed humans with preferences that go beyond the self-regarding concerns emphasized in traditional economic and pre-sociobiology biological theory, and with a social epistemology that facilitates the sharing of intentionality across minds. Gene-culture coevolution is responsible for the salience of such other-regarding human values as a taste for cooperation, fairness, and retribution, the capacity to empathize, and the ability to value such character virtues as honesty, hard work, piety, and loyalty.

Gene-culture coevolution is the application of sociobiology, the general theory of the social organization of biological species, to humans--the only species that transmits culture in a manner that leads to quantitative growth across generations. This is a special case of niche construction, which applies to species that transform their natural environment so as to facilitate social interaction and collective behavior.

The genome encodes information that is used both to construct a new organism and to endow it with instructions for transforming sensory inputs into decision outputs. Because learning is costly and time-consuming, efficient information transmission will ensure that the genome encode those aspects of the organism's environment that are constant, or that change only very slowly through time and space, as compared with an individual lifetime. By contrast, environmental conditions that vary rapidly can be dealt with by providing the organism with phenotypic plasticity in the form of the capacity to learn. For instance, suppose the environment provides an organism with the most nutrients where ambient temperature is highest. An organism may learn this by trial and error over many periods, or it can be hard-wired to seek the highest ambient temperature when feeding. By contrast, suppose the optimal feeding temperature varies over an individual's lifetime. Then there is no benefit to encoding this information in the individual's genome, but a flexible learning mechanism will enhance the individual's fitness. There is an intermediate case, however, that is efficiently handled neither by genetic encoding nor learning. When environmental conditions are positively but imperfectly correlated across

generations, each generation acquires valuable information through learning that it cannot transmit genetically to the succeeding generation, because such information is not encoded in the germ line. In the context of such environments, there is a fitness benefit to the transmission of epigenetic information concerning the current state of the environment. Such epigenetic information is quite common, but achieves its highest and most flexible form in cultural transmission in humans and to a considerably lesser extent in other primates.

The parallel between cultural and biological evolution goes back to Julian Huxley , Karl Popper , and William James. The idea of treating culture as a form of epigenetic transmission was pioneered by Richard Dawkins, who coined the term \\"meme\\" in The Selfish Gene to represent an integral unit of information that could be transmitted phenotypically. There quickly followed several major contributions to a biological approach to culture, all based on the notion that culture, like genes, evolve through replication (intergenerational transmission), mutation, and selection. Cultural elements reproduce themselves from brain to brain and across time, mutate, and are subject to selection according to their effects on the fitness of their carriers. Moreover, there are strong interactions between genetic and epigenetic elements in human evolution, ranging from basic physiology (e.g., the transformation of the organs of speech with the evolution of language) to sophisticated social emotions, including empathy, shame, guilt, and revenge-seeking.

Wilson's treatment of ethics and religion are cogent and masterful. He contrasts two modes of thinking about morality, transcendentalist and empiricist. While recognizing the transcendentalist yearnings in the breast of most humans, and while acknowledging that religious sentiments of the transcendental sort are the product of gene-culture coevolution, he argues that the evidence is strongly on the side of empiricists, who recognize the human significance of ethics, but root ethics in material processes that have an existence independent from that of a transcendental God or Reason. On these grounds he faults not only Kant, but Moore and Rawls as well. For instance, he argues that Moore's `Naturalistic Fallacy' is itself a fallacy. \\"If ought is not is, then what is it?\\" (p. 273) In other words, everything that is, is part of some material process, so the transition between ought and is is not cross-category but rather within-category. This does mean that everything that is, ought to be, but rather, we determine the ethical principles that are valid for humans by studying how humans create and transform the moral lives.

The only drawback of this book is his treatment of the social sciences. Wilson is well-read in the various social sciences and his criticisms of sociology, anthropology, and economics are generally accurate, however harsh. His recommendation for reform is that they recognize gene-culture coevolution and reform their theories accordingly. However, he gives us no idea how to accomplish this. Fortunately, dear reader, I supply the answer in my book, The Bounds of Reason (Princeton 2009) and my forthcoming book with Samuel Bowles, A Cooperative Species (Princeton 2011). For other hints, see my web site [...]rature is highest. An organism may learn this by trial and error over many periods, or it can be hard-wired to seek the highest ambient temperature when feeding. By contrast, suppose the optimal feeding temperature varies over an individual's lifetime. Then there is no benefit to encoding this information in the individual's genome, but a flexible learning mechanism will enhance the individual's fitness. There is an intermediate case, however, that is efficiently handled neither by genetic encoding nor learning. When environmental conditions are positively but imperfectly correlated across generations, each generation acquires valuable information through learning that it cannot transmit genetically to the succeeding generation, because such information is not encoded in the germ line. In the context of such environments, there is a fitness benefit to the transmission of epigenetic information concerning the current state of the environment. Such epigenetic information is quite common, but achieves its highest and most flexible form in cultural transmission in humans and to a considerably lesser extent in other primates. The parallel between cultural and biological evolution goes back to Julian Huxley , Karl Popper , and William James. The idea of treating culture as a form of epigenetic transmission was pioneered by Richard Dawkins, who coined the term \\"meme\\" in The Selfish Gene to represent an integral unit of information that could be transmitted phenotypically. There quickly followed several major contributions to a biological approach to culture, all based on the notion that culture, like genes, evolve through replication (intergenerational transmission), mutation, and selection. Cultural elements reproduce themselves from brain to brain and across time, mutate, and are subject to selection according to their effects on the fitness of their carriers. Moreover, there are strong

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Evolutionary Origins of Morality: Cross Disciplinary Perspectives

Exciting Overview of a Scientific Approach to Morality — Rating: 5/5

There are two virtually undiscussed background assumptions to this volume, which consists of four major papers, each with a set of ten or so expert, cross-disciplinary, commentaries. The first is that there is a characteristic human morality that is exhibited in almost all societies, from the simplest hunter-gatherer society to the most complex high-tech market society. The second is that one studies morality not by abstractly theorizing on the basis of logic and intuition alone, has has been the habit of philosophers, but by treating morality as a material force and studying it scientifically as an evolutionary and structural phenomenon.

The first paper, by Jessca Flack and Frans de Waal, argues that some basic elements of human morality are prefigured in primate behavior.

The second paper, by Chris Boehm, argues that the basis for our morality of cooperation and punishment come from the evolutionary history of humans in consciously egalitarian (though violent) foraging groups.

The third paper, by Eliot Sober and David Sloan Wilson, argues that human prosociality takes the form of evolutionary and psycholotical altruism that developed through a process of group selection over the history of hominid evolution.

The final paper, by Brian Skyrmes, studies evolutionary game theory, which underlies the arguments of each of the previous papers, contrasting this form of game theory from its classical counterpart.

Perhaps I am biased, since I contributed two of the commentaries, but I found the papers to be a fair reflection of the authors' often extensive writings on the subject, and I found the commentaries to be useful and at times extremely interesting in terms of their suggestions for future research.

This book is accessible to the general reader, while offering lots of interesting material for the professional researcher.

Foundations of Social Evolution

A Book for the Specialist — Rating: 5/5

This is a book for mathematically-inclined population and evolutionary biologists and other behavioral scientists. It is not for the layperson. The book is an extended exegesis on Price's equation---like variations and themes. The exposition is a bit rough, but some of the formulations are marvelous.

Price's equation is great for dealing with the interaction of structured populations, but there are other important approaches, including developing Markov processes and/or sets of differential equations to capture the dynamics of interacting social groups.

Defenders of the Truth: The Battle for Science in the Sociobiology Debate and Beyond

A Masterful Historical and Interpretive Success — Rating: 5/5

This is a dense but well-written history of the sociobiology debates between E. O. Wilson, Richard Dawkins, John Maynard Smith and others on one side, and Stephen Jay Gould, Richard Lewontin, and Science for the People on the other. Most of the authors material was gather for her 1983 Ph.D. dissertation, but there is plenty of material from the mid to late 1990's as well.

Despite the length and degree of detail of the book, I found it difficult to skip even a page, so well is it written and so engaging is the author. It is hard to believe that she could still inject new insights in to the analysis 300 pages in to the book, but this she does, and repeatedly so.

The author has deep respect for the anti-sociobiologists, but she is clearly on the side of their critics. In this I believe she is correct. While my personal history is closer to that of the opponents (I was a Marxist and an anti-racist activist at the same time Gould, Lewontin, et al. were) I never had the slightest sympathy for their critique of E. O. Wilson (I read Sociobiology when it first came out and didn't even mind the infamous last chapter, though I though it was wrong---and it is), and their treatment of Maynard Smith, Dawkins, and more recently evolutionary psychology, is to mind simply silly and ignorant---the opponents may be great biologists, but they are third rate amateurs at understanding social theory and human sociality, in my opinion.

I'm sure there are lessons to be learned from this intellectual saga, but I must report that the greatest pleasure for me was to see great minds battle it out in public. Of course, behind the scenes scientists were slowly and patiently working out the real issues, and we are measurable better informed now that when this battle began in the mid-1970's. The sociobiologists and behavioral ecologists won the scientific war, though the enemy is still sniping away around the perimeter.

The Reciprocal Modular Brain in Economics and Politics: Shaping the Rational and Moral Basis of Organization, Exchange, and Choice

A Great Title, but does not Deliver the Goods — Rating: 1/5

I write as an economist who works in behavioral ecology in general, and on the analytical modeling and empirical testing of theories of reciprocity in particular. From my point of view, the book leaves much to be desired.

I do not have the expertise to comment on the author's neuroscientific arguments. Whatever their value, his applications to economics and the other social sciences are highly general and superficial, consisting of quoting some authorities from the past and interspersing one or two current references on a given topic. The link between neuroscience and behavioral ecology is pure hand-waving.

A Natural History of Rape: Biological Bases of Sexual Coercion

Pros and Cons of TP's Argument — Rating: 3/5

Thornhill and Palmer (TP) review tons of evidence on the nature of rape. The plusses of the book are (1) they show that rape is a sexual act directed at obtaining pleasure rather than being an expression of male power; (2) they show that as predicted by evolutionary theory, males are evolutionarily adapted to rape, whereas females are not. These are terribly important facts, and they go against the accepted wisdom in contemporary sociology and some brands of feminism; but the accepted wisdom has no empirical basis whatever, in the authors opinion and mine as well. The minuses of the book will appear trivial to those who believe in the accepted wisdom and are shattered by its demise. But they are important nonetheless. Most important, TP view males as touting up the costs of raping (pleasure, possible reproduction) against the costs (getting caught and punished). If the benefits exceed the costs, the male rapes. This ignores all forms of interpersonal interaction except the brute physical. For instance, the 'cost' of causing harm to an innocent victim, the 'cost' of seeing a victim helpless and miserable because of your actions, the 'cost' of having the self-image as a sexual predator, and the like, are simply not part of their model of human motivation. Yet there is overwhelming evidence that people are not self-interested in the way depicted by TP. Males who use TP's cost/benefit analysis are better described as psychopaths or sociopaths rather than normal humans. This is because in the course of our evolution, humans have picked up fundamental prosocial traits. When these are absent in a person, the person is an abnormal, pathological case. In short, an alternative to TP's characterization of rape is that rapists are males who have abnormal personalities (including but not limited to psychopathy) the allow them to act out on urges that all males have but in most are countermanded by basic human sympathies. TP do a disservice to evolutionary theory, which they use to portray humans as a sorry lot of selfish brutes. The fact is that evolution produces morality and beauty, sensitivity and love, just as much as rape, murder, and indifference.onary theory, which they use to portray humans as a sorry lot of selfish brutes. The fact is that evolution produces morality and beauty, sensitivity and love, just as much as rape, murder, and indifference.

The Soros Lectures: At the Central European University

Perhaps our only Modern Public Intellectual Does a Good Job — Rating: 4/5

"In the course of my life," says well-known financier and philanthropist George Soros, \\"I have developed a conceptual framework that has helped make money... It is about the relationship between thinking and reality... My goal is ambitious. It is that this conceptual framework should provide the foundation for a better understanding of human affairs\\" (p. vii,3) This book is short, to the point, and stuffed with interesting ideas. If you want to go for an exhilarating merry-go-round with an interesting thinker, I recommend Soros highly. His blend of extreme arrogance and unstudied humility is worth experiencing, as is thinking deeply about the principles he espouses.

Soros studied with the great philosopher Sir Karl Popper, and indeed Soros confesses that in his school days in London (having barely escaped the Nazis in his homeland, Hungary) he \\"harbored some fantasies of becoming an important philosopher.\\" (p. 7) He has thus spent much of his life switching back and forth between making (lots of) money and writing semi-popular philosophical tracts. As he admits, and for which he blames only himself, these tracts were widely read but dismissed by serious philosophers and economists.

Soros learned from Popper that the \\"open society\\" is the only way to truth, and political democracy with civil liberties and a non-intrusive state are the key institutions of an open society. He learned from economics that buyers and sellers are by and large rational, and their judgments about the future are, on average, very accurate. This is the so-called \\"rational expectations macroeconomics\\" that developed in the mid-1970's in the hands of Robert Lucas and friends, but was long held in a more tacit form much earlier by most of the great University of Chicago economists, including Milton Friedman and George Stigler, and was doubtless taught at the London School of Economics.

The central principle of rational expectations macro theory is the so-called Efficient Markets Hypothesis (EMH). The weak form of the EMH states that financial markets are informationally efficient, so that the current price of a security contains all publicly available information concerning its future

performance. Because the past performance of a security add no information concerning its future performance, one cannot on average \\"beat the market\\" by judicious buying and selling based on stock market levels or dynamics. I believe this principle is highly defensible. Indeed, investors who think they can beat the market using some daffy scheme or other based on market levels or dynamics do nothing other than line the pockets of their brokers.

The strong form of the EMH holds that investors' mean expectations about the future securities prices are unbiased. If the strong form of the EMH were it true, there should never be speculative bubbles, and financial markets should be intrinsically stable. Soros rejects rational expectations theory and the strong form of the EMH precisely because speculative bubbles and financial instability indubitably exist. He is, of course, not alone in holding this position.

It may seem that the weak form of the EMH implies the strong, because in the midst of a speculative bubble, those who get out before the collapse necessarily earn superprofits. Therefore the weak form of the EMH appears to imply that there are no speculative bubbles. The problem with the argument is that no one knows when the collapse will occur, and it may always be better to stay in for the ride rather than watch by the wayside.

Soros' alternative to rational expectations macroeconomics is the theory of reflexivity. \\"It so happened that the theory of reflexivity,\\" he tells us, \\"provided me with a new way of looking at financial markets, a better way that the prevailing theory.\\" (p. 8) The theory of reflexivity starts with the observation that there are two aspects of thinking about the social world: the cognitive (understanding the world) and the participatory/manipulative (changing the world). We thus accept an idea either when it true, or when it is very useful and by accepting the idea, we tend to induce others to accept the idea as well. Thus we may embrace ideas, whether true or false, that when conveyed to others, leads them to behave in ways we prefer. Soros gives the example of the idea `This is a revolutionary moment.' Soros observes, \\"That statement is reflexive, and its truth value depends on the impact it makes.\\" (p. 13)

The most important form of reflexivity for Soros is the reflexive feedback loop: \\"The participants' views influence the course of events, and the course of events influences the participants' views. \\" (p. 14) Such feedback loops, suggests Soros, can be negative, in which case the participants' views and the actual situation are brought closer together over time, or positive, in which case they are driven ever further apart. Negative feedback loops are thus self-correcting, while positive feedback loops are inherently self-reinforcing, and hence unstable. Soros also calls positive feedback loops \\"fertile fallacies.\\" (p. 16)

It is obvious how positive feedback loops can explain speculative bubbles, and hence how Soros' theory of reflexivity might provide an alternative to traditional financial theory. Soros goes further than this to argue that the problem with traditional economics is that it pretends that one can do social science in the same way that we do natural science, and that this is a mistake. \\"In the case of the natural sciences,\\" says Soros, \\"events unfold irrespective of the views held by the observers.\\" By contrast, in human affairs, the thoughts and ideas of the observers change the social dynamic. As a result, he says, \\"social theories themselves are reflexive.\\" (p.23) Therefore social science is far different from natural science: the former is more challenging, simply because it is impossible to tease out the cognitive from the participatory/manipulative aspects of a social theory. In particular social theories can suffer from the same sort of positive feedback loops as occur in human thought in general. In the natural sciences, by contrast, there is no participatory/manipulative element to thought, simply because inert matter does not think, and we cannot persuade it to behave the way we would like. Thus there is never a positive value of an incorrect theory over a correct theory.

If Soros is correct, then we must abandon any attempt to base economic theory in general, and financial theory in particular, on the sorts of scientific models generally used today, and inspired by the successes of the natural science over the past three centuries. Rather, he argues, a philosophical analysis of economic activity, based on the notion of reflexivity and related ideas, can provide the basis for social policy, much as these ideas, he contends, made money for him. This doctrine should be carefully assessed before lending our agreement, because it implies that economic theory, solidly based on the principles of scientific research, is inevitably the enemy of sound social policy. I shall argue that Soros is incorrect in his relegating social theory to the annals of non-scientific discourse.

Soros' assessment of social science is a standard view of some prominent sociologists, especially those informed by Ludwig Wittgenstein's later writing (see for instance Peter Winch's The Idea of a Social Science, 1958). This assessment is rejected by most scientists, natural and social alike. The idea is also a key element of postmodern social theory, which I believe is a humanistic movement lacking any analytical core. Soros does distance himself clearly from postmodernism, asserting that reality eventually comes to bear even on the most vigorous positive feedback systems, holding that a positive feedback system \\"cannot go on forever because eventually the participants'views would become so far removed from objective reality that the participants would have to recognize them as unrealistic.\\" (16) I infer from this that Soros takes positive feedback systems as occasionally large excursions from a basic equilibrium system in which the majority of feedback mechanisms are negative.

Soros defends his assertion that social theory cannot be scientific by stressing that science is about the natural world, but human thought and subjectivity, the core elements of social life, lie in a subjective realm beyond the natural world. Soros' subjective/objective, ideal/material dichotomy has a venerable lineage back to Hegel and Marx, but it is not at all persuasive. The fact is that the human brain is a part of natural reality, and is subject to the same natural laws as the rest of natural reality. Subjectivity is an expression of the genetic structure of Homo sapiens, and despite its complexity, is substantive part of the natural order. For instance, Soros' positive and negative feedback loops, which he is correct in implicating in humans social dynamics, are part of reality itself, and hence in principle can be studied by traditional scientific methods.

Moreover, the contention that in the natural world, events unfold irrespective of the views of the observers, whereas in the social world, observers and their theories change the course of events, is not correct. Astronomy, geology, epidemiology, evolutionary biology, and host of other natural science research areas have had huge influence on the direction and pace of social change in the modern world, and natural science theories are regularly espoused and rejected because of their social implications. Indeed, individuals have consistently attempted to interpret scientific principles in a way favorable to their political goals (think of Lysenko in the Soviet Union and George W. Bush and his cronies in the United States). However I do not believe that the social sciences have been substantively affected by the reflexivity of thinking.

Soros' second essay is an application of reflexivity theory to financial dynamics. His main point is that the theory of reflexivity is a better approach to understanding the financial system (and making money) than is standard economic theory. I must warn the reader that what Soros calls \\"economic theory\\" is almost exclusively neoclassical financial theory, which is not even taught to students in most universities. Young economists are taught that there is a `real' economy on the one hand and `money' on the other hand, and the money side of the economy does not have much effect on the `real' economy. This perspective is probably grossly incorrect, and we can expect economic theory to incorporate finance more directly in coming years. Nevertheless, there is nothing in microeconomic theory, including in the Walrasian general equilibrium model, that suggests that \\"markets are self-correcting.\\" Free market ideologists may believe this (recall Federal Reserve chief Alan Greenspan's famous admission to the House Committee on Oversight and Government Reform that \\"Those of us who have looked to the self-interest of lending institutions to protect shareholders' equity, myself included, are in a state of shocked disbelief). He and his colleagues may have believed the strong EMH, but it does not follow from standard economic theory, which indeed has no acceptable model of multi-market dynamics (see my paper Herbert Gintis, \\"The Dynamics of General Equilibrium\\", Economic Journal 117 (2007):1289-1309, and related papers on my web site).

Soros' critique of standard financial theory, especially the strong EMH, is quite correct. However, it can be couched in terms of standard complex systems theory, especially using models with many heterogeneous agents. Indeed, a vigorously developing school of economic complexity researchers is contesting the strong EMH and related strands of neoclassical financial economics, precisely on the grounds that there are strong interactions among agents in the financial sector that can lead to positive feedback loops. Thus, as Soros suggests, ideas and expectations can be \\"contagious\\" so that the error terms in modeling financial forecasts are positively correlated, leading to economic series with \\"fat tails\\" as compared with standard Gaussian distributions. This means that excursions from equilibrium are highly likely under some conditions. I should stress these alternative models are

completely scientific, and do not employ any conceptual notions that are absent from standard scientific theories.

Soros also criticizes so-called \\"rational expectations\\" macroeconomic theory, as developed by Robert Lucas, Robert Barro, Thomas Sargent and others identified with the University of Chicago economics department. Soros' critique is perfectly correct. This theory fails to deal with financial fragility because it was not created to deal with the financial sector at all. Rather, it was created as a reaction to the Keynesian theory that increasing the money supply and increasing aggregate demand through running government deficits could not trigger inflation until unemployment was purely frictional (perhaps three or four percent). The stagflation of the mid-1970's showed that this theory was incorrect, and the rational expectations school explained this failure by noting that economic actors could not be fooled into ignoring the possibility of inflationary spirals and the necessity of repaying government debt through higher taxes in the future. I believe rational expectations macroeconomics is fundamentally flawed and must be replaced, but the rational expectations school was a scientific rather than purely political intervention, despite its huge implications for economic policy. The true weakness of rational expectations theory is revealed only when we try to use it to understand financial fragility and other aspects of international economics based on the interaction of heterogeneous agents operating in complex networks. In this context, the theory is about as flawed as Soros suggests, and for reasons that he lays out clearly in his second essay.

The policy recommendations that flow from both the reflexivity approach and heterogeneous agent complexity theory agree on the following policy recommendations for reforming the world financial system. These recommendations all stem from the simple observation that contemporary financial fragility is caused by excessively tight interactions among participants in the network of financial institutions. This excessive institutional interpenetration leads to amplifying rather than damping reactions to shocks to the system.

1. Banking regulations should foster a large number of small and medium sized financial institutions, as well as limited inter-institutional connectedness.

2. There should be firewalls between different types of financial institutions of a sort that limit contagious asset bubbles and collapses.

3. Stockholder groups should ensure that monetary incentives for decision-makers in the financial sector favor long time horizons.

4. There should be a complete separation of auditing and audited institutions. In particular, the latter should not hire and fire the former.

5. Auditing firms should be financially liable for covering up weaknesses in the firms they audit.

6. We need a new macroeconomic model replacing the rational expectations model that is engineered to deal with complex networks of financial institutions.

7. There perhaps should be a small tax on financial transactions.

8. The European Union should develop a central back with the full powers of a national central bank.

9. Government accounts should be audited by international lending institutions, thus preventing covering up the true state of a country's finances.

The major impediment to implementing these changesis the political influence of the financial sector, especially in the United States. The current \\"too big to fail\\" system is perfectly acceptable to the giants of finance, and the move to accountability will be vigorously opposed. In Europe, the obstacle to reform is political fragmentation.

Soros' third lecture is potentially very interesting, but as it stands is not well thought out. Soros uses the same arguments to critique Popper's \\"open society\\" theory that he does to critique the current financial system (positive feedback loops), but instead of concluding that we need more openness to prevent or dampen or eliminate feedback loops in public discourse, he concludes that nothing can be done. This is an excessively hasty rush to judgment. Just as we can reform the financial system, we can foster public institutions that promote truth-telling and negative feedback loops.

In his third essay, Soros defines the \\"Enlightenment fallacy\\" as the notion that \\"free political discourse is aimed at understanding reality\\" (p. 55). This of course was the major premise of his teacher Karl Popper, but Soros believes that the \\"manipulative function\\" of thinking undermines the \\"cognitive function,\\" so that the open society need not produce truth. This is of course correct, but is not grounds for rejecting the open society, unless one proposes a superior social alternative. To my knowledge, there is none. Soros does not suggest otherwise, but he remains supremely pessimistic about the possibility of a human social system that consistently produces truthful discourse. \\"People are not particularly concerned with the pursuit of truth,\\" says Soros. \\"They have been conditioned by ever more sophisticated techniques of manipulation to the point where they do not mind being deceived; indeed, they seem to positively invite it.\\" (p. 60) I consider this very far from a plausible interpretation of how citizens value truth in open societies. Soros goes to great length to distinguish himself from postmodernism, which is a justly reviled movement of superficial mindlessness that has infected intellectual life in recent decades, but only on one point: Soros holds, in contrast to postmodernism, that eventually reality takes over and destroys the socially constructed fantasies that people have created. He agrees with the postmodernists that human beliefs, even in contemporary post-Enlightenment societies, are socially constructed without regard to the objective facts.

Soros' bizarre position concerning the open society is an extension of his assessment of the Efficient Market Hypothesis. Just as investors manipulate their expectations so as to generate financial bubbles and crashes, so voters manipulate their critical faculties to support whatever form of wishful thinking they are collectively taken up by. However, the correct critique of the EMH is not based on inadequacies of human nature (as some famous economists are wont to do, in including Robert Shiller and George Akerlof in their book, Animal Spirits) is not in accord with what we know about financial dynamics. Central to financial dynamics is a tendency towards \\"herding behavior\\" because when information is incomplete, it is often optimal to imitate the decisions of others and to adopt, provisionally, their assessment of business conditions. This can occur even when most, or even all, market participants do not believe their behavior can be sustained in the long run. Inadequacies of human nature are not involved in this dynamic at all.

The same line of reasoning applies to public discourses in general. There is no superior alternative to free and open discussion in a democratic society, even though there are surely conditions under which this framework can lead to very poor decisions. Supporters of the open society do not passively bemoan the irrationality of public decision-making, but rather work to ensure that the institutional structure of society minimizes the possibility of poor decisions. Every major failure of discursive decision-making of which I am aware was based on the public's being deceived by faulty information. Voters supported the invasion of Iraq believing that Saddam Hussein harbored weapons of mass destruction. When that turned out to be false, voters moved quickly to wanting the US to leave Iraq as soon as decently possible. The financial collapse in the US in 2007 was based on faulty information concerning the quality of residential mortgages, exacerbated by financial auditors who simply lied about the health of the enterprises they audited. The current Euro crisis was caused by the Greek government lying about the size of its debt obligations at the time of its admission to the Euro region. To make the open society decision-making process work, we must make it more open. It's that simple.

The fourth of Soros' essays is devoted to what he calls the agency problem. \\"Agents,\\" Soros says, \\"are supposed to represent the interest of their principals, but in fact, they tend to put their own interests ahead of the interest of those whom they are supposed to represent.\\" (p.71) Soros recognizes that this is treated at length in standard economic theory (it is a short stretch to say that this is the central message of modern economic theory), but he rightly notes that there cannot be a solution by tinkering with contractual terms with purely monetary incentives, but rather a solution requires that economic actors behave morally, a concept foreign to economic theory. My I and my coauthor Rakesh Khurana, who is a professor at the Harvard Business School, have dealt at some length with this problem: Herbert Gintis and Rakesh Khurana, \\"Corporate Honesty and Business Education: A Behavioral Model\\", in Paul J. Zak (Eds.) Moral Markets: The Critical Role of Values in the Economy (Princeton: Princeton University Press, 2008). Rakesh Khurana, From Higher Aims to Hired Hands: The Social Transformation of American Business Education (Princeton: Princeton University Press, 2007); and Rakesh Khurana, Nitin Nohria and Daniel Penrice, \\"Management as a Profession\\", in Jay W. Lorch and Leslie Berlowitz and Andy Zelleke (Eds.) Restoring Trust in American Business\\"

Cambridge: The MIT Press, 2005). The essence of our analysis is that there are professions, such as science, law, and medicine, where professional ethics are of such importance as checks on material self-interest that these professions could not operate on self-regarding motives alone. American business at one time operated on such professional principles, but all that changed when American business schools began teaching agency theory, which holds that greedy self-interest is the motivating principle of business. Khurana argues, correctly I believe, that a healthy business ethic could be fostered even in highly competitive environments.feedback loops. Thus, as Soros suggests, ideas and expectations can be \\"contagious\\" so that the error terms in modeling financial forecasts are positively correlated, leading to economic series with \\"fat tails\\" as compared with standard Gaussian distributions. This means that excursions from equilibrium are highly likely under some conditions. I should stress these alternative models are completely scientific, and do not employ any conceptual notions that are absent from standard scientific theories. Soros also criticizes so-called \\"rational expectations\\" macroeconomic theory, as developed by Robert Lucas, Robert Barro, Thomas Sargent and others identified with the University of Chicago economics department. Soros' critique is perfectly correct. This theory fails to deal with financial fragility because it was not created to deal with the financial sector at all. Rather, it was created as a reaction to the Keynesian theory that increasing the money supply and increasing aggregate demand through running government deficits could not trigger inflation until unemployment was purely frictional (perhaps three or four percent). The stagflation of the mid-1970's showed that this theory was incorrect, and the rational expectations school explained this failure by noting that economic actors could not be fooled into ignoring the possibility of inflationary spirals and the necessity of repaying government debt through higher taxes in the future. I believe rational expectations macroeconomics is fundamentally flawed and must be replaced, but the rational expectations school was a scientific rather than purely political intervention, despite its huge implications for economic policy. The true weakness of rational expectations theory is revealed only when we try to use it to understand financial fragility and other aspects of international economics based on the interaction of heterogeneous agents operating in complex networks. In this context, the theory is about as flawed asSoros suggests, and for reasons that he lays out clearly in his second essay. The policy recommendations that flow from both the reflexivity approach and heterogeneous agent complexity theory agree on the following policy recommendations for reforming the world financial system. These recommendations all stem from the simple observation that contemporary financial fragility is caused by excessively tight interactions among participants in the network of financial institutions. This excessive institutional interpenetration leads to amplifying rather than damping reactions to shocks to the system. 1. Banking regulations should foster a large number of small and medium sized financial institutions, as well as limited inter-institutional connectedness. 2. There should be firewalls between different types of financial institutions of a sort that limit contagious asset bubbles and collapses. 3. Stockholder groups should ensure that monetary incentives for decision-makers in the financial sector favor long time horizons. 4. There should be a complete separation of auditing and audited institutions. In particular, the latter should not hire and fire the former. 5. Auditing firms should be financially liable for covering up weaknesses in the firms they audit. 6. We need a new macroeconomic model replacing the rational expectations model that is engineered to deal with complex networks of financial institutions. 7. There perhaps should be a small tax on financial transactions. 8. The European Union should develop a central back with the full powers of a national central bank. 9. Government accounts should be audited by international lending institutions, thus preventing covering up the true state of a country's finances. The major impediment to implementing these changes is the political influence of the financial sector, especially in the United States. The current \\"too big to fail\\" system is perfectly acceptable to the giants of finance, and the move to accountability will be vigorously opposed. In Europe, the obstacle to reform is political fragmentation. Soros' third lecture is potentially very interesting, but as it stands is not well thought out. Soros uses the same arguments to critique Popper's \\"open society\\" theory that he does to critique the current financial system (positive feedback loops), but instead of concluding that we need more openness to prevent or dampen or eliminate feedback loops in public discourse, he concludes that nothing can be done. This is an excessively hasty rush to judgment. Just as we can reform the financial system, we can foster public institutions that promote truth-telling and negative feedback loops. In his third essay, Soros defines the \\"Enlightenment fallacy\\" as the notion that \\"free political discourse is aimed at understanding reality\\" (p. 55). This of course was the major premise of his teacher Karl Popper, but

Soros believes that the \\"manipulative function\\" of thinking undermines the \\"cognitive function,\\" so that the open society need not produce truth. This is of course correct, but is not grounds for rejecting the open society, unless one proposes a superior social alternative. To my knowledge, there is none. Soros does not suggest otherwise, but he remains supremely pessimistic about the possibility of a human social system that consistently produces truthful discourse. \\"People are not particularly concerned with the pursuit of truth,\\" says Soros. \\"They have been conditioned by ever more sophisticated techniques of manipulation to the point where they do not mind being deceived; indeed, they seem to positively invite it.\\" (p. 60) I consider this very far from a plausible interpretation of how citizens value truth in open societies. Soros goes to great length to distinguish himself from postmodernism, which is a justly reviled movement of superficial mindlessness that has infected intellectual life in recent decades, but only on one point: Soros holds, in contrast to postmodernism, that eventually reality takes over and destroys the socially constructed fantasies that people have created. He agrees with the postmodernists that human beliefs, even in contemporary post-Enlightenment societies, are socially constructed without regard to the objective facts. Soros' bizarre position concerning the open society is an extension of his assessment of the Efficient Market Hypothesis. Just as investors manipulate their expectations so as to generate financial bubbles and crashes, so voters manipulate their critical faculties to support whatever form of wishful thinking they are collectively taken up by. However, the correct critique of the EMH is not based on inadequacies of human nature (as some famous economists are wont to do, in including Robert Shiller and George Akerlof in their book, Animal Spirits) is not in accord with what we know about financial dynamics. Central to financial dynamics is a tendency towards \\"herding behavior\\" because when information is incomplete, it is often optimal to imitate the decisions of others and to adopt, provisionally, their assessment of business conditions. This can occur even when most, or even all, market participants do not believe their behavior can be sustained in the long run. Inadequacies of human nature are not involved in this dynamic at all. The same line of reasoning applies to public discourses in general. There is no superior alternative to free and open discussion in a democratic society, even though there are surely conditions under which this framework can lead to very poor decisions. Supporters of the open society do not passively bemoan the irrationality of public decision-making, but rather work to ensure that the institutional structure of society minimizes the possibility of poor decisions. Every major failure of discursive decision-making of which I am aware was based on the public's being deceived by faulty information. Voters supported the invasion of Iraq believing that Saddam Hussein harbored weapons of mass destruction. When that turned out to be false, voters moved quickly to wanting the US to leave Iraq as soon as decently possible. The financial collapse in the US in 2007 was based on faulty information concerning the quality of residential mortgages, exacerbated by financial auditors who simply lied about the health of the enterprises they audited. The current Euro crisis was caused by the Greek government lying about the size of its debt obligations at the time of its admission to the Euro region. To make the open society decision-making process work, we must make it more open. It's that simple. The fourth of Soros' essays is devoted to what he calls the agency problem. \\"Agents,\\" Soros says, \\"are supposed to represent the interest of their principals, but in fact, they tend to put their own interests ahead of the interest of those whom they are supposed to represent.\\" (p.71) Soros recognizes that this is treated at length in standard economic theory (it is a short stretch to say that this is the central message of modern economic theory), but he rightly notes that there cannot be a solution by tinkering with contractual terms with purely monetary incentives, but rather a solution requires that economic actors behave morally, a concept foreign to economic theory. My I and my coauthor Rakesh Khurana, who is a professor at the Harvard Business School, have dealt at some length with this problem: Herbert Gintis and Rakesh Khurana, \\"Corporate Honesty and Business Education: A Behavioral Model\\", in Paul J. Zak (Eds.) Moral Markets: The Critical Role of Values in the Economy (Princeton: Princeton Univer

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SuperCooperators: Altruism, Evolution, and Why We Need Each Other to Succeed

A Wild Ride through Modern Sociobiology — Rating: 4/5

Martin Nowak is a mathematician and scientist of great stature, expansive ambition, and all-embracing energy. He avoids being hog-tied to any particular discipline, but rather follows his fancy where it takes him in the behavioral sciences. Nowak is especially admirable because he is an iconoclast who comes out guns a-blazing to confront any Received Wisdom with which he fundamentally (or even marginally) disagrees. He apparently does not mind being wrong (he sometimes is) because when he is right, it more than makes up for his goof-ups. Nowak was a student of Peter Schuster, the great mathematical chemist, and a student and coauthor of the biological mathematician Karl Sigmund, at the University of Vienna in the late 1980's. Nowak is currently the head of the Program for Evolutionary Dynamics at Harvard University. He was hired by Harvard after an admirer offer to contribute a Very Large Sum to the Harvard endowment as part of a deal to install him as Professor of Mathematics and Biology at the august institution. Nowak steps on lots of peoples toes, and there is little chance he would have been hired at the venerable school without the huge monetary emolument. This is no criticism of Nowak---Harvard does not cotton up to anti-Establishment, transdisciplinary, iconoclastic intellectuals. To round out Nowak's multidimensional cerebral life, he is an observant and pious Catholic, and his work at Harvard is co-sponsored by the Templeton Foundation, famous for its support of projects that link science and spirituality. The main theme of SuperCooperators is both important and ubiquitous in modern behavioral science: we humans are who we are because we evolved that way biologically, and cooperation has been the key to our success as a species. \\"Out breathtaking ability to cooperate is one of the main reasons we have managed to survive in every ecosystem on Earth, from scorch, sun-baked deserts to the frozen wastes of Antarctica to the dark, crushing ocean depths\\" (the hyperbole is a typical of Nowak's literary tricks; in fact we have not survived in any of the three ecosystems he mentions, but we have in most of those he does not). If the last half of the Twentieth century was the Homage to Selfishness, the first half of the current century is the Homage to Cooperation. Perhaps the most important contribution to this new theme is John Maynard Smith and Eors Szathmary's The Origins of Life, which depicts each stage in the development of biological complexity as the synergistic synthesis of hitherto competing biological entities, from single-cell to multicellular organisms, from prokaryotic to eukaryotic cells, all the way up to social species, of which our species is among the most successful. As for humans, Samuel Bowles and I have argued this position for some fifteen years, our book \\"A Cooperative Species\\" (Princeton, 2011) coming out in a few months, and our colleagues Robert Boyd and Peter Richerson predated our effort by at least a decade. SuperCooperators is extremely accessible to non-scientists. It dispenses with footnotes and highly accurate but complex phraseology, in favor of explaining concepts in a witty, conversational, and light-handed manner. One is struck throughout with Nowak's love of mathematics and science. He repeatedly conveys to the reader his the love of knowledge for its own sake (he regularly quotes from Albert Einstein, a man whose passion for truth approached theological levels). He also conveys his commitment to and fondness for his co-researchers, both teachers and mentors (the book is dedicated to Bob and Karl---presumably his mentor Robert May and his teacher and coauthor Karl Sigmund). In fact, SuperCooperators is much more a book about the work of Nowak and his Harvard Program for Evolutionary Dynamics than it is an even-handed overview of the field and its development. This was a good choice on Nowak's part, because it permits him to convey the degree of collegiality and personal commitment that is one of the great comforts of scientific research, and is often ignored in favor of maintaining the emotional flatness that is (falsely) reputed to be the hallmark of good science. How do we account for human cooperation? Nowak offers five very broad mechanisms: direct reciprocity, indirect reciprocity, spatial selection, multilevel selection, and kin-selection. He devotes a chapter to each of these mechanisms, in each case highlighting his own contributions. This may sound self-aggrandizing, and it is. But I do not think this is a mistake. The benefit for readers is a sense of intimacy with the writer, who becomes the protagonist in a scientific melodrama, a knight in shining armor slaying falsity and promoting truth wherever his wanderings take him. However, this approach does not allow the reader to appreciate the substantive scientific issues involved. For instance, Nowak is strong supporter of kin-selection, but a bitter critic, along with Harvard colleague Edward O. Wilson and co-worker Corita Tarnita, of William Hamilton's explanation of kin-selection in terms of \\"inclusive fitness.\\" Now you must understand, dear reader, that the inclusive fitness concept has become the standard explanation of cooperation in population biology and animal behavior theory, so Nowak's critique, presented in Nature in 2010, produced a major shake-up in the profession. Nowak presents his critique here, but does not attempt to relate the counterarguments, which are at least extremely interesting, and probably indicate serious problems

with the Nowak-Tarnita-Wilson argument. For one think, the authors pose inclusive fitness theory as an \\"alternative to natural selection,\\" which is pretty ludicrous. Right or wrong, inclusive fitness theory is a form of natural selection, not an alternative to natural selection. To convey his light-handed treatment of scientific themes, consider Nowak's treatment of multilevel selection. After two short paragraphs going over the history of group selection (focus on Wynne-Edwards' latter years studying red grouse with binoculars from the window of a room in a rest home in the Dee Valley), Nowak confesses that earlier attempts to model multilevel selection were \\"too complicated for my taste\\" and that he and Karl Sigmund did not find them \\"particularly convincing.\\" This manner of presenting objections to a scientific theory bypasses all substantive issues (what were the earlier models and what were their successes and deficiencies) and moves directly to the subjective emotions of Nowak and Sigmund. How does Nowak describe his and Sigmund's passage into the theory of multilevel selection. \\"In the heart of the Rauriser Urwald,\\" he writes, \\"Karl [Sigmund] and I came across a little wooden board bearing a poem by Goethe (1749-1832)...Goethe's poem begins as follows: \\"Muesset beim Naturbetrachten immer eins wie alles acten.\\" This translates as \\"When looking at nature, you must always consider the detail and the whole.\\" I could not think of a better way to express the idea of multilevel selection and, though I realized the field had a long, troubled, and vexatious history, I began to think about whether it might work in the real world.\\" Now, of course, the Goethe quote can be interpreted in many ways, but none of them has anything to do with multilevel or any other form of selection. Moreover, I frankly do not believe that this story is accurate. It sounds like an apocryphal yarn, like the one about Newton and the apple. Nowak goes on to explain the model of multilevel selection with Arne Traulsen that is no different than a dozen previous models of the within-group cost and between-group benefit of altruistic behavior, and with no mention of Price's equation, which was the inspiration for all previous mathematical models of multilevel selection (Nowak belittles Price's equation later in the book as being \\"tautological\\", which is incorrect, as it depends on a empirically meaningful analytical representation of biological fitness). The paper Traulsen and Nowak wrote (PNAS 2006) was indeed simple and elegant, but hardly earthshaking. The elegance derives from its simplifying assumptions (recall Nowak's distaste of complexity), which include (a) no migration; (b) fixed maximum group size; (c) groups of maximum size consist of all cooperators or all defectors. None of these conditions is biologically relevant, so the Nowak Traulsen contribution is likely only of passing interest. To reiterate, I do not consider Nowak's self-aggrandizement a mistake, given his goal of presenting the non-scientist reader with a highly human treatment of behavioral and mathematical theory. The historians will sort out who actually did what, and the average reader does not really care at all. However, this approach does lead to the suppression of scientific content in favor of personal feelings and memorable anecdotes. Given his strong personal commitments to his co-workers, it is not surprising that Nowak rarely has praise for the sustained and seminal contributions of contemporary researchers who work outside his research group. Luca Cavalli-Sforza, Robert Boyd, Peter Richerson, Robin Dunbar, Alan Grafen, Amos Zahavi, and Joseph Henrich are not mentioned at all, and others, including Samuel Bowles and Marcus Feldman, are mentioned in passing for a particular study or two, but nothing revealing the depth of their thought or nature of their contributions to modern behavioral science. Similarly, he has little room for contributions from other fields, such as economics, sociology, and psychology, or evidence from archeology, history, anthropology, or paleontology. This I also consider a shortcoming. Weaving the contributions of others with his own in a more substantive way would give the reader a better appreciation for the contemporary state of research on cooperation and conflict in the animal and human world. Perhaps this is just tit-for-tat, as I find that few authors from the behavioral sciences outside of Nowak's circle pay much attention to the work of Nowak and his students. My problem with Nowak's models is that they tend to remove important aspects of the subject being modeled in the interest of obtaining elegant formulas. What, for instance, is the value of a model of group selection without migration and variable group size? What, indeed, are we supposed to make of the Prisoner's Dilemma played on a grid, when in real life no species plays any games at all on a grid. I like the fact that Nowak does not shy from headlong attack on ideas that he thinks are wrong. I am not so happy, however, when the ideas of people with whom I work are being attacked. Nowak's Chapter 12, \\"Punish and Perish,\\" is just such an attack. In various works, my colleagues and I have proposed that humans exhibit a behavioral syndrome we call \\"strong reciprocity,\\" according to which most humans have a predisposition to cooperate in collective endeavors that depend on voluntary participation, the success of which depends on a high rate of cooperation and a low rate of defection,

and also have a predisposition to punish those who free-ride on the cooperation of others, without requiring that their efforts be repaid in the future. The latter predisposition has been called \\"altruistic punishment,\\" and it is this concept to which Nowak objects. I think Nowak has correct objections to assertions we do not make but that he attributes to us, and incorrect objection concerning statements we do make. Nowak begins Chapter 12 by saying that \\"Punishment is not, as some have claimed, a mechanism for the evolution of cooperation.\\" Rather, he claims, \\"punishment fits neatly into the framework of the Prisoner's Dilemma.\\" Here Nowak's claim is incorrect. The Prisoner's Dilemma, and direct reciprocity as well, are only relevant in dyadic interactions, and it is quite true that altruistic punishment is irrelevant in such interactions, or in fact in even broader interactions where reputation effects are powerful and ubiquitous. However, human cooperation occurs in large groups in which reputation effects have little or no power. It is these situations that altruistic becomes relevant for sustaining cooperation. For instance, consider voting in a democratic society. It is costly to vote and because one vote cannot change the outcome of an election except in the smallest of communities, a purely self-regarding person would never vote. Voting is thus mostly an example of the positive side of strong reciprocity, that of altruistic cooperation. However, many people vote because their family, friends, and associates would disapprove of their lack of community spirit if they did not vote. If A does not vote and B expresses disapproval, then B incurs the cost of disrupting the normal relationship between A and B. Disapproving of A is thus an act of costly altruistic punishment, supporting democratic norms at personal expense without the likelihood of any personal gain therefrom. Without such altruistic punishment, voting might be considerably less common than it is, a situation that could delegitimize political democracy. Consider also ostracism, which is a common group punishment to a member who violates the norms associated with group membership. An individual is ostracized when all (or at least most) group members rupture normal relations with the individual and/or actively prevent the individual from participating in group activities or sharing the benefits of these activities. We tend to ignore the altruistic punishment side of the ostracism phenomenon, but it is always present, unless there is an external third party who has an incentive to enforce the ostracism decision. Nowak does recognize the existence of mufti-player games, as when he says \\"If I punish you for defecting in games with other players, that is indirect reciprocity.\\" This statement, however is incorrect. Indirect reciprocity depends on the ability of the group to establish strong reputational information, but such information is generally not available in large groups. If I express to you my disapproval of your not voting who, other than yourself, will see this action and use it to increase my stock of \\"good reputation\\"? The answer is generally, no one; nor do I express my disapproval because I hope to gain reputation-wise. Of course altruistic punishment is not a \\"mechanism of evolution\\" in the sense of direct reciprocity, indirect reciprocity, and the others among Nowak's \\"big five.\\" The big five are social mechanisms, whereas, altruistic punishment is an evolved form of behavior exhibited by humans that contributes to human cooperation, and hence to the emergence of our species as a world-scale key player. It operates in direct interactions, large groups, and explains important aspects of multilevel selection in humans, but like big teeth, wings, or an advanced immune system, it is not a \\"mechanism\\" of evolution. Nowak also stresses that in the many experiments that have shown the efficacy of altruistic punishment in fostering cooperation, in fact the cost of punishing often completely offsets the gains from cooperation. He does not, however, present the important study by GÃÃ‚Ã‚Â¤chter, Renner and Sefton (2008) in which subjects are allowed to interact over 50 periods rather than just 10. They found that after the initial rounds, the net benefits to the group with the punishment option significantly exceeded those of the no-punishment group with the difference in net payoffs growing over time, except for the final round in which the hapless end-game free-riders were heavily punished. Given that most social dilemma interactions in neighborhoods, work teams, and the like, extend over far more than 10 periods, the concern that altruistic punishment lowers group benefits to be misplaced. The experiment to which Nowak refers (Dreber et al. 2008) does not constitute evidence for the counterproductive punishment hypothesis for the additional reason that their two-person game made punishment irrelevant, for one could always retaliate on a defector simply by withdrawing cooperation, thus obviating the need for any special kind of punishment. But while the 50-period design of the GÃÃ‚Ã‚Â¤chter et al. experiment corrects one of the design biases that suggested counterproductive punishment in the earlier experiment, their design still misses something essential to altruistic punishment in the real world: it is effective only if it is regarded as legitimate according to widely held social norms. Ertan, Page, and Putterman (2009) designed an ingenious experiment to

explore this possibility. They allowed experimental subjects prior to playing the public goods game to vote on whether punishment should be allowed and if so, should it be restricted in any manner. From their first opportunity to vote, no group ever allowed punishment of high contributors, most groups eventually voted to allow punishment of low contributors in the baseline treatments, and the result was both high contributions and high efficiency levels. In the laboratory, groups solved their free-rider problems by allowing low contributors alone to be punished. Apparently the determination of the punishment system by majority rule made the punishment not only an incentive but also a signal of group norms. Nowak also argues that what we call altruistic punishment is often costly but not motivated at all by prosocial feelings of punishing norm violators. Rather it is motivated by spite and a taste for revenge. Punishing those who have hurt you is normally motivated by a taste for retribution rather than a selfless expression of support for public morality. Indeed, in our research we tend to term this costly punishment, and it is altruistic in the sense of being other-regarding. However, fully understand that retribution is generally not motivated by prosocial intentions. Much of the punishment that occurs under the rubric of strong reciprocity is motivated by the urge to retaliate simply because hurting those who hurt you is a selfish, however socially useful, pleasure. Nowak's critique of altruistic punishment in Dreber et al. probably should not have been published because it is well known that cooperation can be sustained in the repeated prisoner's dilemma by self-regarding players without punishment (it is called tit-for-tat), and interpreting cooperating as \\"reward\\" in this setting is just a semantic ploy with no substance. However in 2009, in Science, Nowak published a true public goods game with punishment (groups of size four), called \\"Positive Interactions Promote Public Cooperation,\\" with coauthors David G. Rand, Anna Dreber, Tore Ellingsen, and Drew Fudenberg. The paper contends that experimental evidence with human subjects in the laboratory shows that reward is more effective than punishment in eliciting cooperation in a public goods game. The paper has two serious and obvious flaws. First it is indefinitely repeated, so there are no end game results. This design contrasts with virtually all previous studies of the public goods game, which assumes that players know exactly how many periods will be played, and much can be learned from the course of play from early to late rounds. It is well known, for instance, that the rate of decay of cooperation depends on the length of the game, and even when cooperation is sustained for most of the game, it can break down towards the final periods. In the Supplementary Online Material (SOM) the authors justify this deviation from the standard protocol by saying that indefinite repetition is more realistic than a fixed number of periods. This is true, but irrelevant. Having a fixed number of periods is an experimental control condition that is introduced precisely to avoid the ambiguity of indefinite repetition: there are an infinite number of equilibria to the indefinitely repeated game, and which if any is chosen is likely to depend on extraneous framing effects. Much more important however, the \\"reward\\" in the experiment costs 4 points for the rewarding subject while the recipient gains 12 points. Of course reward will outperform punishment if the experimenter pays sufficiently for the reward, while the players pay for the punishment! It would be a surprising result if the authors came to the same conclusion with the recipient getting 4 points, not 12. In fact, it is clear that the punishment/reward stages of the game in this paper form another public goods game with a multiplier of 3, in which individuals cooperate with no end-game effects. The fact that rewarding players can choose to whom to direct the benefits they generate is interesting, but we still have two overlapping public goods game in which the second includes a signal (previous contribution) that partially recreates the conditions of a two-player repeated prisoner's dilemma. This is a worthy subject of study, but in no way supports the authors' conclusions. By the way, the reader would never suspect the existence of any of the egregious flaws in this paper by reading the published material. It is all available only in the Supplementary Online Material, which is read only by experts. I doubt that the reviewers of the paper even glanced at the Supplementary Online Material. If I were a Science editor, I would compel reviewers to review, separately, the main contribution and the supplementary material. The quality of reviewing might improve considerably, at least in areas with which I am acquainted. Nowak's hostility to altruistic punishment appears to flow from his preference for rewarding good behavior rather than punishing bad behavior. This is of course very enlightened thinking when it comes to raising children and managing employees. But here he confuses the sorts of social dilemmas dealt with in the human cooperation literature with reward an punishment in the sort of principal-agent models that economists commonly deal with, such as employer employee. In an employer-employee setting, despite the predictions of standard economic theory, punishing bad behavior often has severely efficiency-reducing effects, whereas trusting an employee to \\"do the right

thing\\" is often the most cost effecting strategy an employer can use. In effect, by trusting, the employer sets up a setting where the strong reciprocity predispositions of employees operate to great effect. This was shown by our colleagues Ernst Fehr. Simon Gaechter, and Georg Kirchsteiger (1997) in one of the most famous experiments in behavioral game theory, in which they show that trust is a potent contract enforcement device. More recently, Ernst Fehr and Bettina Rockenbach, in their paper \\"Detrimental Effects of Sanctions on Human Altruism\\", Nature 422 [March 13] (2003):137-140, showed clearly that when employers have an available punishment device but choose not to use it, they elicit the best performance from workers. Sanctions are important, but they surely backfire when deployed in inappropriate circumstances. Social dilemmas where cooperation is voluntary and regulated by peer-relationships are not principal-agent models, which are dyadic hierarchical interactions. However, it is usually true even in principal-agent models that the principal has some means of punishing miscreant agents (e.g. firing them). Nowak's idea of a world in which reward reigns supreme and the threat of punishment is absent is not our world. Nowak's iconoclasm is a wonderful gift to scientists, because he stirs up the muddy waters in fruitful directions even when he is ultimately wrong in his critiques. In the long run, however, Nowak's modus operandi may be costly to an assessment of his scientific contributions. Nowak often jumps into a field he barely knows, makes arguments that experts merely dismiss as half-baked, and is taken seriously only by scientists and non-scientists who are even more ignorant of the field than Nowak. Human cooperation is a case in point. his statement, however is incorrect. Indirect reciprocity depends on the ability of the group to establish strong reputational information, but such information is generally not available in large groups. If I express to you my disapproval of your not voting who, other than yourself, will see this action and use it to increase my stock of \\"good reputation\\"? The answer is generally, no one; nor do I express my disapproval because I hope to gain reputation-wise. Of course altruistic punishment is not a \\"mechanism of evolution\\" in the sense of direct reciprocity, indirect reciprocity, and the others among Nowak's \\"big five.\\" The big five are social mechanisms, whereas, altruistic punishment is an evolved form of behavior exhibited by humans that contributes to human cooperation, and hence to the emergence of our species as a world-scale key player. It operates in direct interactions, large groups, and explains important aspects of multilevel selection in humans, but like big teeth, wings, or an advanced immune system, it is not a \\"mechanism\\" of evolution. Nowak also stresses that in the many experiments that have shown the efficacy of altruistic punishment in fostering cooperation, in fact the cost of punishing often completely offsets the gains from cooperation. He does not, however, present the important study by GÃÃ,Ã,Â¤chter, Renner and Sefton (2008) in which subjects are allowed to interact over 50 periods rather than just 10. They found that after the initial rounds, the net benefits to the group with the punishment option significantly exceeded those of the no-punishment group with the difference in net payoffs growing over time, except for the final round in which the hapless end-game free-riders were heavily punished. Given that most social dilemma interactions in neighborhoods, work teams, and the like, extend over far more than 10 periods, the concern that altruistic punishment lowers group benefits to be misplaced. Theexperiment to which Nowak refers (Dreber et al. 2008) does not constitute evidence for the counterproductive punishment hypothesis for the additional reason that their two-person game made punishment irrelevant, for one could always retaliate on a defector simply by withdrawing cooperation, thus obviating the need for any special kind of punishment. But while the 50-period design of the GÃÃ,Ã,Â¤chter et al. experiment corrects one of the design biases that suggested counterproductive punishment in the earlier experiment, their design still misses something essential to altruistic punishment in the real world: it is effective only if it is regarded as legitimate according to widely held social norms. Ertan, Page, and Putterman (2009) designed an ingenious experiment to explore this possibility. They allowed experimental subjects prior to playing the public goods game to vote on whether punishment should be allowed and if so, should it be restricted in any manner. From their first opportunity to vote, no group ever allowed punishment of high contributors, most groups eventually voted to allow punishment of low contributors in the baseline treatments, and the result was both high contributions and high efficiency levels. In the laboratory, groups solved their free-rider problems by allowing low contributors alone to be punished. Apparently the determination of the punishment system by majority rule made the punishment not only an incentive but also a signal of group norms. Nowak also argues that what we call altruistic punishment is often costly but not motivated at all by prosocial feelings of punishing norm violators. Rather it is motivated by spite and a taste for revenge. Punishing those who have hurt you is normally motivated by a taste for retribution

rather than a selfless expression of support for public morality. Indeed, in our research we tend to term this costly punishment, and it is altruistic in the sense of being other-regarding. However, fully understand that retribution is generally not motivated by prosocial intentions. Much of the punishment that occurs under the rubric of strong reciprocity is motivated by the urge to retaliate simply because hurting those who hurt you is a selfish, however socially useful, pleasure. Nowak's critique of altruistic punishment in Dreber et al. probably should not have been published because it is well known that cooperation can be sustained in the repeated prisoner's dilemma by self-regarding players without punishment (it is called tit-for-tat), and interpreting cooperating as \\"reward\\" in this setting is just a semantic ploy with no substance. However in 2009, in Science, Nowak published a true public goods game with punishment (groups of size four), called \\"Positive Interactions Promote Public Cooperation,\\" with coauthors David G. Rand, Anna Dreber, Tore Ellingsen, and Drew Fudenberg. The paper contends that experimental evidence with human subjects in the laboratory shows that reward is more effective than punishment in eliciting cooperation in a public goods game. The paper has two serious and obvious flaws. First it is indefinitely repeated, so there are no end game results. This design contrasts with virtually all previous studies of the public goods game, which assumes that players know exactly how many periods will be played, and much can be learned from the course of play from early to late rounds. It is well known, for instance, that the rate of decay of cooperation depends on the length of the game, and even when cooperation is sustained for most of the game, it can break down towards the final periods. In the Supplementary Online Material (SOM) the authors justify this deviation from the standard protocol by saying that indefinite repetition is more realistic than a fixed number of periods. This is true, but irrelevant. Having a fixed number of periods is an experimental control condition that is introduced precisely to avoid the ambiguity of indefinite repetition: there are an infinite number of equilibria to the indefinitely repeated game, and which if any is chosen is likely to depend on extraneous framing effects. Much more important however, the \\"reward\\" in the experiment costs 4 points for the rewarding subject while the recipient gains 12 points. Of course reward will outperform punishment if the experimenter pays sufficiently for the reward, while the players pay for the punishment! It would be a surprising result if the authors came to the same conclusion with the recipient getting 4 points, not 12. In fact, it is clear that the punishment/reward stages of the game in this paper form another public goods game with a multiplier of 3, in which individuals cooperate with no end-game effects. The fact that rewarding players can choose to whom to direct the benefits they generate is interesting, but we still have two overlapping public goods game in which the second includes a signal (previous contribution) that partially recreates the conditions of a two-player repeated prisoner's dilemma. This is a worthy subject of study, but in no way supports the authors' conclusions. By the way, the reader would never suspect the existence of any of the egregious flaws in this paper by reading the published material. It is all available only in the Supplementary Online Material, which is read only by experts. I doubt that the reviewers of the paper even glanced at the Supplementary Online Material. If I were a Science editor, I would compel reviewers to review, separately, the main contribution and the supplementary material. The quality of reviewing might improve considerably, at least in areas with which I am acquainted. Nowak's hostility to altruistic punishment appears to flow from his preference for rewarding good behavior rather than punishing bad behavior. This is of course very enlightened thinking when it comes to raising children andmanaging employees. But here he confuses the sorts of social dilemmas dealt with in the human cooperation literature with reward an punishment in the sort of principal-agent models that economists commonly deal with, such as employer employee. In an employer-employee setting, despite the predictions of standard economic theory, punishing bad behavior often has severely efficiency-reducing effects whereas trusting an employee to \\""do the right thing\\"" is often the most cost effecting strategy an employer can use. In effect by trusting the employer sets up a setting where the strong reciprocity predispositions of employees operate to great effect. This was shown by our colleagues Ernst Fehr. Simon Gaechter and Georg Kirchsteiger (1997) in one of the most famous experiments in behavioral game theory in which they show that trust is a potent contract enforcement device. More recently Ernst Fehr and Bettina Rockenbach in their paper \\""Detrimental Effects of Sanctions on Human Altruism\\"" Nature 422 [March 13] (2003):137-140 showed clearly that when employers have an available punishment device but choose not to use it they elicit the best performance from workers. Sanctions are important, but they surely backfire when deployed in inappropriate circumstances. Social dilemmas where cooperation is voluntary and regulated by peer-relationships are not principal-agent models which are dyadic

hierarchical interactions. However it is usually true even in principal-agent models that the principal has some means of punishing miscreant agents (e.g. firing them). Nowak's idea of a world in which reward reigns supreme and the threat of punishment is absent is not our world. Nowak's iconoclasm is a wonderful gift to scientists because he stirs up the muddy waters in fruitful directions even when he is ultimately wrong in his critiques.

Rationalizing Capitalist Democracy: The Cold War Origins of Rational Choice Liberalism

Shoddy scholarship, Elementary Faults in Logic and Scientific Method

I was induced to purchase and read this book, despite its absurd title, by the sterling endorsements it has received. Here is a sample: "Amadae brilliantly identifies the historical roots and philosophical structure of this fundamental reworking of classical liberalism and critically assesses its pivotal role in the Cold War battle." (Robert Bellah); "Superb. (Russell Hardin); "I welcome Amadae's integration of public choice ideas" (James Buchanan).

In fact, this book is a complete disappointment, a futile exercise in "guilt by association" with no substantive structural or causative support. The basic argument is that rational choice theory emerged at the same time as the Cold War, many rational choice theorists were committed liberal democrats who worked for the Rand Corporation to combat Communism and improve public sector decision-making, rational choice theory is a strong support for liberal democracy and a powerful critique of Marxism, from which it follows that the intellectual roots of rational choice theory lie in the Cold War and the effort to defeat Communism. This sort of shoddy reasoning is called "post hoc propter hoc," or more prosaically, "coincidental correlation." This type of reasoning is common among post-modernists, the archetypes of modern sloppy thinking, but I never encountered this bizarre form of reasoning in a work that applauds rather than critiques the blatant exploitation of science for political ends. Here are some examples of Amadae's bizarre statements.

"Kenneth Arrow created his impossibility theorem while firmly ensconced within the context of America's Cold War with the Soviet Union... It was no accident that Arrow's inspiration for his famous theorem came during a summer internship at the quintessential Cold War institution, the RAND Corporation." (p. 102) In fact, it was exactly that---an accident. Moreover, Arrow's theorem is more devastating as a critique of liberal democracy than it is of Communism, by far. Communism is not wedded to the notion that the state should be responsive to the whims of voters, whereas liberal democracy is precisely wedded to this notion. Ms. Amadae, where is your common sense?

"It is not possible to argue that the development of rational choice theory was inevitable. Rational choice theory grew out of the Cold War environment in which the nightmares of Schumpeter, Popper, and Hayek were daytime reality for millions of people." (p. 154) Of course, it is often difficult to argue "inevitability," but in this case, it is easy. The roots of rational choice theory lay in the French school of probability theorists, including Blaise Pascal and Daniel Bernoulli, the English theorists George Boole, Thomas Bayes, and Frank Ramsey, as well as the Italian di Finetti. Leonard Savage in the United States produced the most polished version thereof at the height of the Cold War (1954), but rational choice theory was already very strong by the time his Foundations of Statistics appeared. By the way, Savage did participate in RAND Corporation research, but so did many people whose relationship to the Cold War military or ideological effort was completely minimal, including Alfred Tarski, Rudolf Carnap, and Willard v. O. Quine. Ms. Amadae, where is your common sense?

"Rational theorists enthusiastically employed the new framework for analyzing collective decisionmaking to secure the foundations of American constitutional democracy by countering the threats posed by authoritarianism and communism... [Mancur] Olson's The Logic of Collective Action resembles the other texts in the rational choice canon by posing a direct challenge to Marxist political philosophy" (p. 176-177) In addition to being a confusion of correlation with causation, this assertion

makes no logical sense. To repeat: authoritarianism and communism do not need a theory of how correct social policy might flow from the competition of diverse interest groups, but liberal democracy needs precisely this. Mancur Olson's work on the free rider problem is of seminal importance, but it played no role in Cold War ideology whatsoever. Ms. Amadae, where is your common sense?

"Rational choice theory and its structuring of American political discourse and practice can be perceived as a direct response to Marxist social theory." (p. 185) This statements is completely false and completely outrageous, much like the rest of the supremely shoddy book. What amazes me most is that this poor excuse for scholarship could be endorsed by Robert Bellah, Russell Hardin, and James Buchanan.