BOOK REVIEW BOOK REVIEW

Blending Psychology and Economics

Animal Spirits
How Human Psychology Drives the Economy, and Why It Matters for Global Capitalism
By **George A. Akerlof** and **Robert J. Shiller**
Princeton University Press
230 pages

Nudge
Improving Decisions About Health, Wealth, and Happiness
By **Richard H. Thaler** and **Cass R. Sunstein**
Yale University Press
293 pages

Reviewed by **Tobias Madden**
Regional Economist

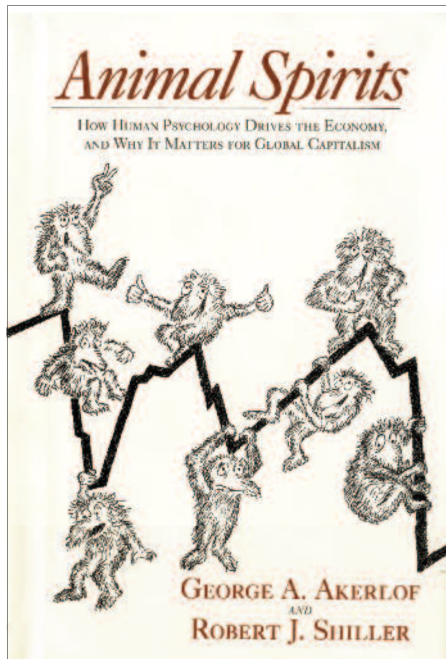
Neoclassical economic theory relies heavily on the assumption that people and businesses behave rationally. However, psychologists point to numerous situations where economic agents behave differently than portrayed in economists' mathematical models. The burgeoning field of behavioral economics attempts to redefine economic theory away from reliance on models that assume "rational actors"—people, or firms, who make decisions without being swayed by emotion or significant cognitive shortcomings.

Much of the work of behavioral economists focuses on running controlled experiments of individuals making decisions, and indeed, they find that decisions often appear as suboptimal or inconsistent. For example, these economists note, many people have an aversion to loss or a bias to the status quo. People are sometimes fooled by inflation, use rules of thumb or assume their success is due to intelligence but failure to bad luck.

Individual decisions can be affected by a host of other notions and emotions that have been carefully catalogued and measured by behavioral scientists: gambler's fallacy (e.g., since heads came up in the last three flips of a balanced coin, heads will come up on the fourth), greed, fear, herd behavior, fairness, endowment effect (i.e., people tend to value an item they own more than items they don't) and extreme preference for the here and now.

These deviations from rational behavior have been shown to have a systematic bias, but it has been difficult for behavioral economists to create an overall theory because there are several classes of anomalies and they occur in many situations. Nonetheless, several prominent economists have been working to overcome these difficulties, and they've been suggesting public policy changes on the basis of findings from behavioral experiments. Two popular books on behavioral economics, *Animal Spirits* and *Nudge,* are recent fruits from these efforts. (See the June 2008 *Region* for a review of three books in a similar vein.)

In *Animal Spirits,* George A. Akerlof and Robert J. Shiller present a theory that completely refocuses macroeconomic theory on human psychology. In *Nudge,* Cass R. Sunstein and Richard H. Thaler present a theory they call "libertarian paternalism," which incorporates some psychology into microeconomic theory.



Animal Spirits

In *Animal Spirits,* Shiller (famous in part for the Case-Shiller home price index) and Nobel Laureate Akerlof resurrect Keynesian theory (indeed, their title comes from Keynes) and attempt to explain economic activity by using their animal spirits theory. According to this theory, huge swings in economic activity are caused by an individual's confidence level, sense of fairness, temptation to corruption, money illusion ("decisions are influenced by nominal dollar amounts") and sense of self.

The first part of the book fleshes out the theory, with each chapter devoted to one form of animal spirits. Economic agents, they suggest in the first such chapter, can get into a feedback loop in which increasing asset prices induce buyer confidence, which leads to more buying of those assets, driving prices still higher. This mass psychology can lead to overconfidence and thereby contribute to asset price bubbles.

In a separate chapter they explain that happiness depends on the fairness of consumers, producers and the government, in addition to pure economic utility. Another chapter's topic: People may have sinister intentions, and that tendency multiplies throughout society as corruption breeds corruption. Two more chapters: In making choices, individuals have a hard time adjusting for inflation. People and society can be affected by stories as well as empirical evidence because "storytelling [is] fundamental to human knowledge."

The second half of the book attempts to use this theory to answer the following eight questions:

1. Why do economies fall into depressions?
2. Why do central bankers have power over the economy, insofar as they do?
3. Why are there people who cannot find a job?
4. Why is there a trade-off between inflation and unemployment in the long run?
5. Why is saving for the future so arbitrary?
6. Why are financial prices and corporate investments so volatile?
7. Why do real estate markets go through cycles?
8. Why does poverty persist for generations among disadvantaged minorities?

Quantity vs. quality

Animal Spirits faces significant challenges in answering these questions and supporting its theory. Economists typically use quantitative research to develop and test economic theories, employing mathematical and statistical methods to analyze data and examine relationships among variables. However, it is difficult to gather solid data on the building blocks of Akerlof and Shiller's theory. Quantifying confidence, fairness, temptation, money illusion and sense of self isn't easy.

As the authors themselves note: "Econometric models are generally well described as feedback models involving only observable data, with all unobservables relegated to so-called error terms. While we believe these models to be often useful, they most certainly neglect some important structure that involves *psychological variables that we cannot quantify*" (p. 194, emphasis added).

Other social sciences such as sociology and anthropology have dealt with the problem of unobservable data by relying heavily on qualitative methods: the case study, narratives, phenomenology, ethnography and grounded theory. Qualitative methods cannot be used to test quantitative hypotheses but can provide some evidence. For example, qualitative methods could be used to

answer the question, how do unemployed men describe how they search for a job?

The research question helps determine the appropriate research method (quantitative, qualitative or a mix). But while the questions Akerlof and Shiller pose are largely quantitative, they often take a qualitative approach to answer them. Even though quantitative data can sometimes be used as a proxy for some animal spirit attributes (e.g., the consumer confidence index as a stand-in for consumer confidence), the book doesn't provide mathematical models of behavior using any proxies, although both authors are skilled in quantitative research.

Akerlof and Shiller provide a brief background on past quantitative research that has tried to answer (or refute) their eight questions. They then argue that animal spirits offer a better explanation of why these macroeconomic phenomena occur. But their arguments, intended for a mass audience, are not likely to satisfy academic economists.

They note, for example, that confidence and corruption have increased before many economic downturns, and they assert that these factors therefore cause depressions. However, big increases in confidence often accompany major technological shocks or large asset price increases—an overreaction to the shock, not the surge in confidence, may be an underlying cause of depression. As these economists well know, correlation doesn't prove causality.

They also argue that the money illusion has distorted perceptions of fairness, which in turn has deepened recessions. They cite work by one-time Minneapolis Fed advisers Hal Cole and Lee Ohanian, which argues that bad government policy has a role in the creation of depressions. Akerlof and Shiller link the creation of bad government policies to animal spirits. (For more on causes of depressions, see *Great Depressions of the Twentieth Century* online at minneapolisfed.org.)

The natural rate

One of the authors' primary motivations for writing *Animal Spirits* is to address the question of whether there is a long-term trade-off between inflation and unemployment, often referred to as the Phillips curve hypothesis. They are concerned that mainstream economists and central bankers are too focused on the theory of a natural rate of unemployment. The latter assumes that people are not fooled by inflation—they don't confuse real and nominal prices. Therefore, a "natural rate" of unemployment occurs, and hence there is no long-run trade-off between unemployment and inflation.

But behavioral economists show that sometimes people do have a money illusion—they *are* fooled by inflation—and therefore the natural rate theory is refuted.

"Our problem with natural rate theory is not with the theory itself," they write. "We think that it does offer a correct insight: that wage and price setting will both be affected by inflationary expectations. But we are highly skeptical that these inflationary expectations always, exactly, and invariably affect wage setting and price setting one for one" (p. 113).

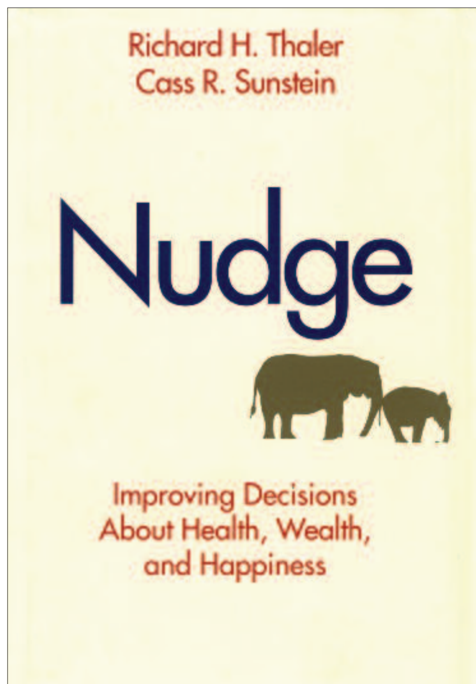
They estimate that "a permanent reduction of inflation from 2 percent to zero increases the unemployment rate permanently by 1.5 percent" (p. 110). The authors hope that the Fed will pay more attention to the Phillips curve. However, the authors do not mention that this phenomenon has been seen only during periods of both low inflation and low unemployment, nor do they address the considerable empirical evidence that undermines support for systematic exploitability of the trade-off—that is, raising inflation to lower unemployment.

Stories and fairness

On the question of intergenerational poverty among minorities, the authors explain that "stories and fairness play a major role in the perpetuation of these problems" (p. 158). It is difficult to quantify stories and fairness, so they rely on ethnographies, in which researchers observe a cultural group over a prolonged period of time. Many of these studies show that African Americans believe they are "in a world that is psychologically stacked against them" (p. 161) and as such may respond with anger and by giving up. (An example the authors could have mentioned, but don't, is President Barack Obama's narrative *Dreams from My Father,* which describes his struggles as an African American teenager dealing with racism by using drugs and acting out.)

Akerlof and Shiller suggest that the remedy to

the poverty problem may be to make things fairer through affirmative action, better schools and a fairer legal system. Perhaps a new story of fairness and hope is developing with the notion that the new president will change the world.



Nudge

In contrast to an economy largely driven by emotion, Sunstein and Thaler, in their book *Nudge,* acknowledge the powerful role of cognitive thought. They say that people use both rational thought and emotion in making decisions—they refer to these as "econ" and "human" systems. "Econ" is the reflective system that is deliberate and self-conscious. The human system is the side of people that is automatic—rapid and instinctive. Think of the rational actor model used by conventional economists as incorporating reflective thinking and behavioral theories as perceiving people whose decision-making tends toward the automatic and instinctive.

Just as they bring contrasting psychological systems together, the authors do a good job of bringing together two other terms that many would assume to be contradictory with their theory of "libertarian paternalism." (Libertarianism—citizens should be free to choose. Paternalism—citizens should be controlled for their own good.) "Libertarian paternalism is a relatively weak, soft and nonintrusive type of paternalism because choices are not blocked, fenced off, or significantly burdened" (p. 5), they write. But it also "tries to influence choices in a way that will make choosers better off, *as judged by themselves*."

A gentle elbow to the ribs

The authors show numerous examples of how governments can easily give soft pushes to society without stepping on people's liberty. Hence their title: *Nudge*.

As mentioned earlier, behaviorists have classified several areas where people have biases. To help overcome these biases, *Nudge* provides a framework for "choice architects" to think about choices or options and design measures that will nudge people toward better decisions. This framework includes the default option, the framing of the options, the anchoring of the option, the number of options presented and the order of options. (Sunstein, in fact, is rather likely to be a "choice architect"; in September, he became administrator of the Office of Information and Regulatory Affairs, an influential position in the Office of Management and Budget.)

The first part of the book lays out situations where people face conflicts between the human and econ systems. People have a hard time resisting temptation, for instance, or will follow the herd off a cliff because of biases and blunder.

To counteract some of these conflicts, the authors suggest a choice architecture that encourages good choices by making the most sensible solution the default option. People can choose a nondefault option if they wish, but given the natural human bias toward the status quo, many will go with the default.

The second part of the book, which deals with money issues, gives a good example. The authors suggest that people be provided a better default option in saving—automatically save a progressively higher percentage of income over time. This nudges people past the human preference for con-

sumption here and now. Also, default options that select an optimal investment mix may help people make better decisions.

Another example: Since people are affected by anchoring, credit card companies show the minimum amount due as the default payment—for the company, that generates maximum interest on the balance. The authors suggest that the default option should instead be an automatic payment of the full balance—a route that will minimize interest payments by cardholders. They offer simple nudges for mortgages and student loans as well.

The third part of the book deals with health choices. "Libertarian paternalists see countless opportunities for improving people's health. Social influences could obviously be enlisted: if most people think that most people are starting to avoid unhealthy foods, or to exercise, more people will avoid unhealthy food and will exercise. … Framing matters: people are more likely to engage in self-examinations for skin and breast cancer if they are told not about the reduced risk if they do so but about the increased risk if they fail to do so" (p. 157). Another suggested nudge for the health sector is that people be required to "opt out" of being an organ donor rather than to "opt in."

The book continues with consideration of freedom to choose schools, medical care and marriage and provides a gaggle of nudges that may help people in everyday life. One particularly interesting nudge is the "automatic tax return." Under this scheme, the government will send individuals their tax return with everything filled out. People can either approve it as is or modify the return based on the information the government does not have.

I found it really refreshing that this mass market book addresses potential objections to the theory of libertarian paternalism. The most common objection: the slippery slope argument. If government can control these choices, it will continue to move in a more and more paternalistic direction. Other arguments against the theory are evil nudges, the right to be wrong and neutrality. The authors offer sensible counterarguments to these objections. They also warn against too much paternalism at the expense of libertarianism.

Nudge vs. *Animal Spirits*

For over 30 years, behavioral economics has been growing as a research field. Most of that research has been conducted through experiments in the classroom. Now the field is attempting to form theories and public policies as a result of what has been learned in these experiments.

Nudge argues for a functional and productive approach to making simple policy changes to improve society. *Animal Spirits* suggests that emotional behavior has a significant impact on the macroeconomic world. Both books make significant, though divergent, contributions to the expansion of behavioral economics into the realm of policymaking. Whether they will actually shape policy remains to be seen. R