



# THE TEACHING ECONOMIST

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## BEHAVE YOURSELF!

Behavioral scientists argue that we humans routinely overestimate what we know. Our preferences at times seem inconsistent. We are not very good at figuring out what we'll want in the future. And getting more or better information doesn't necessarily improve our decisions. In making choices, we often ignore facts at odds with our desires. We focus on irrelevant information, see patterns not there, and are swayed by passing but extraneous emotions. Even after we make a decision, we have trouble sticking with any choice that takes willpower. We value things that we have more than what we lack to a degree that seems odd. And we have an intense interest in "fairness," even at a personal cost. In short, behavioral scientists argue that we don't seem to be the rational, utility maximizing, economic decision makers that populate conventional economic theory.

Thomas Kuhn argued decades ago that scientific breakthroughs begin with anomalies. Only after a significant number of empirical anomalies have undermined the conventional theory, will that theory get modified or replaced. Richard Thaler, in his new book, *Misbehaving: The Making of Behavioral Economics* (Norton, 2015), takes us on his personal journey as he and his behavioral-economics colleagues chip away at assumptions and implications of conventional economic theory. Their professed goal is to modify rather than to replace that theory.

Thaler, a professor of behavioral science and economics at the University of Chicago, outlines two opposing descriptions of economic actors: *Econs*, the rational maximizers of conventional economic theory, and *Humans*, who, in Thaler's view, behave like real people. But to the extent that Humans do not act like Econs, they are misbehaving—hence, the book's title. A second take on the title may be that Thaler and other

behavioral economists are misbehaving by challenging conventional theory.

Thaler documents the many ways that Humans do not behave like Econs, largely because of bounded rationality, bounded willpower, an asymmetry between the effects of gains versus losses, and an inordinate interest in fairness. Whereas traditional economists view their models as descriptions of how the world works, behavioral economists view some traditional models more as descriptions of how the world *should* work—that is, as normative descriptions of behavior.

Financial economics takes the biggest knock in the book, especially the bedrock theory of that discipline, the efficient market hypothesis. For years the efficient market hypothesis (EMH) seemed unassailable as a description of how the stock market worked. According to the EMH, it's impossible to "beat the market" in any systematic way because share prices already capture all relevant information. Thus, stock price movements reflect a random walk. Thaler argues that the EMH boosted the stature of financial economists, moving them from a sleepy, backwater discipline, into a respected and highly paid one.

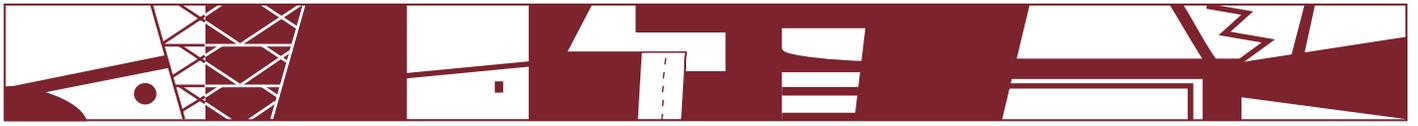
Thaler has fun poking holes in the EMH by reporting a number of contradictory anomalies. For example, even after adjusting for differences in risk, portfolios of small corporations outperform those of large ones, "cheap stocks" (based on price-earnings ratios) subsequently outperform "expensive stocks," and recent losers subsequently outperformed recent winners by a wide margin. These findings and others reflect a reversion to the mean, but this violates the random-walk predicted by the EMH. Even more fun for Thaler are the many disclaimers and qualifiers that financial economists have come up with in their efforts to shore up the EMH.

I could detail Thaler's long list of the ways that Humans misbehave, but

that would take our focus off teaching economics. You are here because of an interest in teaching. Although Thaler has little to say about teaching per se (teach, teacher, or teaching does not appear in the index), I'll underscore four primary tenets of behavioral economics then speculate how they could help us become more effective teachers.

**1. Bounded Rationality:** An economic theorist may toil for months to derive the optimal solution to some complex economic problem, but then easily assume that the agents in this model behave as if they are capable of solving that same problem. What's more, Econs are assumed to get smarter as the models get more sophisticated. Thaler quotes Kenneth Arrow as noting "We have the curious situation that scientific analysis imputes scientific behavior to its subjects" (p. 161). Of course conventional economists have ready answers for these challenges and others, a list that Thaler calls "the Gauntlet," such as that a theory should be judged not by the realism of its assumptions but by the accuracy of its predictions. Thaler says he usually must run that Gauntlet, countering such objections, whenever he presents his work.

**Teaching Implications:** *Not only are economic actors constrained by bounded rationality, so are our students. We can't simply add more complexity to a course and expect our students to absorb it. In this case, we can't simply pile behavioral economics atop conventional economic theory. I tend to agree with the 2002 Nobel Prize winner in Economics and behavioral scientist, Daniel Kahneman, who observed in Thinking Fast and Slow, "The basic concepts of economics are essential intellectual tools, which are not easy to grasp even with simplified and unrealistic assumptions about the nature of economic agents who interact in markets. Raising questions about the assumptions even as they are introduced would be confusing, and perhaps demoralizing. It is reasonable to put the priority on helping students acquire the*



basic tools of the discipline” (p. 286). To the extent behavioral issues are introduced at the introductory level, I believe they should become a natural extension of the discussion, not a jarring departure.

**2. Bounded Willpower:** Many humans eat and drink too much, exercise too little, and procrastinate in ways that would appear to make them worse off. Thaler argues that problems of bounded willpower and self-control, though ubiquitous in the real world, get little attention in conventional economic theory. Still, market and non-market mechanisms offer commitment strategies to help cope with self-control issues. For example, academics (including Thaler) commit themselves to present papers still in progress to boost incentives to finish them.

**Teaching Implication:** Think about the good intentions students may have about your course, and how you can introduce rules and enforcement mechanisms to “nudge” them in the right direction. Thaler lays out three criteria for fair and effective nudges, which I’ll adapt here for teaching: (1) instructors should have a good reason to believe that many students will benefit from the nudged behavior; (2) students must agree that a nudge is desirable; and (3) the policy is relatively easy for you to administer and is not especially onerous on students. Homework, quizzes, deadlines, contracts, reading assignments, asking students questions in class, even attendance policies, all can nudge student willpower in the course. As instructors, we want to influence students in a way that will make them better off, as judged by themselves.

**3. Asymmetry of Gains Versus Losses:** Because of the endowment effect, people feel any loss much more sharply than they enjoy a gain. Roughly speaking, losses hurt you about twice as much as gains make you feel good. According to Thaler, this has become the single most powerful finding in the behavioral economist’s arsenal. Thus, an incentive framed as avoiding a loss is more powerful than one framed as experiencing a gain.

**Teaching Implication:** How might the endowment effect be used to motivate students? How about giving each student a given number of “bonus points” at the beginning of the term? That bonus will carry to the end of the term as long as the student follows through with specified assignments—such as attendance, online assignments,

following through on a course contract, and the like. Based on the endowment effect, students will be more motivated to keep the bonus points they already have rather than work for extra points they do not yet have. I know, one sounds like the mirror image of the other, and any difference is an illusion. But go tell that to the teachers who responded much more to a cash bonus awarded at the beginning of the year, which then could be reduced based on performance, than did the teachers who worked towards a year-end bonus.

**4. Special Concern with Fairness:** Humans do not seem to pursue self-interest as single-mindedly as the conventional model assumes. People appear to have an inherent sense of fairness and are willing to exact revenge in response to unfairness, even if the personal cost of doing so seems irrationally high.

**Teaching Implication:** After decades of teaching, I believe that students have an intense regard for fairness in a course. As teachers, we should be scrupulously fair. If an injustice occurs, try to correct it. If you can’t, apologize for it and say you will try to do better. We should also do all we can to prevent cheating, as this is unfair to other students and undermines the integrity of your course.

Behavioral economics has taken hold, with articles in all the top journals. And specialty journals in the field proliferate, such as the *Journal of Behavioral Economics and Finance*, *Journal of Economic Behavior and Organization*, *International Journal of Applied Behavioral Economics*, *Review of Behavioral Economics*, *Journal of Risk and Uncertainty*, and *Games and Economic Behavior*. Behavioral economics has invaded other fields too with journals such as *Behavioral Science and Policy* and *Journal of Economic Psychology*. *The Oxford Handbook of Behavioral Economics and Law*, published last year, fills 840 pages.

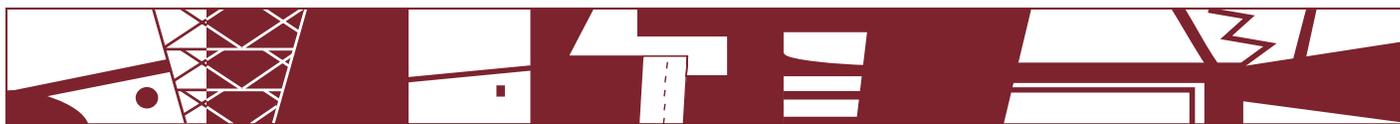
Behavioral economics has been working its way down the food chain into basic textbooks. I am most acquainted with my own principles book, *Economics: A Contemporary Introduction*, first published in 1988 and just now appearing in an 11th edition. Here are some behavioral topics I have introduced over the years in chronological order, beginning with my first edition: bounded rationality, animal spirits, behavioral

theories of the firm, principal-agent problems, sunk cost, winners curse, problems arising from asymmetric information, the lemons problem, moral hazard, adverse selection, efficiency wages, sticky wages and fairness, liar loans, bounded willpower, commitment strategies, the behavioral life-cycle hypothesis, and neuroeconomics.

Behavioral economists are held in high regard within the discipline and in the wider world. Sendhil Mullainathan, Matthew Rabin, and Colin Camerer have all won MacArthur Foundation “genius” grants. Several behavioral economists have also won the John Bates Clark Medal as the best U.S. economist under forty. Nobel Prizes in Economics have been won by Herbert Simon in 1978, Daniel Kahneman in 2002, and Robert Shiller in 2013. Kahneman’s book, *Thinking Fast and Slow* (discussed here in Issue 42), remains on the *New York Times* best-seller list today, four years after its initial publication. Thaler is the 2015 president of the American Economic Association. Robert Shiller becomes president in 2016.

Shiller, the author of *Irrational Exuberance* and the canary in the mineshaft chirping before the housing bubble burst, best reflects the posture of behavioral economists with respect to conventional theory. Three decades ago, Shiller wrote “I could teach the efficient market models to my students with much more relish if I could describe them as extreme special cases before moving to the more realistic models” (quoted by Thaler, p. 168).

In *Misbehaving: The Making of Behavioral Economics*, Thaler cleverly uses his own career as a narrative arc to describe the development of behavioral economics more broadly. Along the way, he lets the anomalies speak for themselves. I believe that both Econs and Humans will find his book engaging. But I have two tiny quibbles: Chip Case, of the Case-Shiller home-price index fame, spent his career at Wellesley, not Tufts. And I found it odd that Dan Ariely, of MIT and Duke, who since 2008 has authored three interesting and popular books in the field (discussed here in Issues 35, 40, and 43), warrants not a single mention in Thaler’s 415 page book. Why the snub? Did Ariely misbehave in some way?



## PAY THE PIPER

The *Chronicle of Higher Education's* reports that full professors at the University of Connecticut averaged \$140,652 in the 2013-14 academic year, ranking them among the top 2% of the 4,644 institutions reported at [data.chronicle.com/faculty-salaries/](http://data.chronicle.com/faculty-salaries/). The market for tenured faculty pay is, shall we say, less active than that for new tenure-track assistant professors. Some tenured faculty earn more than they could elsewhere, because part of their effort has become specialized to the institution, making that a less marketable input. Thus, they earn economic rent. And some tenured faculty earn less than they could elsewhere, because they prefer their situation and/or because entering the market involves too high a transaction cost and hassle (kids in school, not a good time to move given the local housing market, etc).

Broad market forces are perhaps best reflected by assistant professor pay, as institutions must dip into that market

annually. Here's my question: How did pay differ across academic departments, particularly among assistant professors? About half of the fifty states have sunshine laws that provide searchable databases of state employee pay. Connecticut has such a site at [transparency.ct.gov/html/searchPayroll.asp](http://transparency.ct.gov/html/searchPayroll.asp). I used that site to examine faculty pay at UConn within and across departments, particularly at the assistant professor level. I limited my pay search to departments with at least two tenure-track assistant professors at the main campus of UConn at Storrs. This yielded a total of 121 assistant professors across 30 departments. The median pay among departments was about \$81,000 in 2013-14.

The Finance Department had the highest pay, with five assistant professors averaging \$190,600. Marketing ranked second, with four averaging \$133,800. Management ranked third, with three averaging \$132,900. And Economics ranked fourth among the 30 departments, with its eight assistant professors averaging

\$107,500 (Economics, housed in the College of Liberal Arts & Sciences, ranked first among departments outside the Business School). The next four departments were engineering of one type or another. Departments ranked 8 through 16 were a mix of engineering, math, statistics and the sciences. The bottom four departments were Dramatic Arts, English, Philosophy, and Languages, with assistant professors in each department averaging in the low sixties.

At the same time market forces are grinding away to determine differences across departments, these forces must also work out differences within each department. For example, in Finance, the average pay for assistant professors exceeded the average for associate professors (and some assistant professors earned more than some full professors). With the current zeitgeist focusing on equality and fairness, it's something of a miracle that impersonal market forces can forge such differences across and within departments.

## THE GRAPEVINE

**Steven D. Levitt** of the University of Chicago and **Ming-Jen Lin** of National Taiwan University developed a simple algorithm for detecting cheating by students who copy from one another's exam. When this algorithm is applied in a general science course at a top American university, they find strong evidence that at least 10 percent of 242 students cheated on a midterm exam. Matching incorrect answers proves to be a stronger indicator of cheating than matching correct answers. Although some of the likely suspects confessed, the dean cancelled any action on the case because of pressure from parents. The authors say this lack of follow-through is one reason why there is so little effort to detect or punish cheating. When seating locations are randomly assigned, and monitoring is increased, cheating virtually disappears. See "Catching Cheating Students," NBER Working Paper 21628 (October 2015) at [www.nber.org/papers/w21628](http://www.nber.org/papers/w21628).

Because two researchers failed in 2003 to replicate several articles in the

*American Economic Review*, then-editor Ben Bernanke strengthened the journal's data and code availability policies. Some other top journals followed suit. **Andrew C. Chang** and **Phillip Li**, both at the Federal Reserve Board have now tried to use author-provided data and code files to replicate findings from papers published in 13 well-regarded general interest and macroeconomics journals between July 2008 and October 2013. After excluding papers that used confidential data and proprietary software, Chang and Li obtained data and code replication files for 83% of articles in journals that were required to provide such files as a condition of publication, but only 42% of articles in journals that were not required to provide data and code replication files. They were able to replicate the key qualitative results in 29 of 59 papers (49%) with assistance from the authors. Thus, they replicated fewer than half of the papers sampled even with help from the authors. See "Is Economic Research Replicable? Sixty Published Papers from

Thirteen Journals Say 'Not Usually,'" Finance and Economics Discussion Series (September 4, 2015), Federal Reserve Board at [www.federalreserve.gov/econresdata/feds/2015/files/2015083pap.pdf](http://www.federalreserve.gov/econresdata/feds/2015/files/2015083pap.pdf).

**Hai Zhong** of the Central University of Finance and Economics in Beijing uses the recent higher education expansion in China to examine the effects of higher education on health and health behaviors. Using discontinuity analysis, he finds no causal effect of a college education on smoking or drinking behaviors. For his selected measures of health, he finds no causal effect of a college education on better self-assessed health, less chance of having illness in the past three months, and keeping normal body weight. He does find, however, that a college education could significantly reduce the probability of having hypertension. See "Does a College Education Cause Better Health and Health Behaviors," *Applied Economics*, 47 (Issue 7, 2015): 639-653.

## ODDS AND ENDS

▼ In the Spring 2015 issue of *The Teaching Economist*, I ranked academic economists based on the number of followers on Twitter (“Twitter Top Twenty,” Issue 48). Now, nine months later, have the rankings changed much? All those in my top twenty increased their following between January 15, 2015 and October 15, 2015, with a median gain of 16%. The largest percentage gain was 138% by Joseph Stigler, moving him up from 15th to 7th in my rankings. Second was Robert Shiller, whose 55% gain moved him from 17th to 12th. Only two saw just single digit growth: Austan Goolsbee’s following grew 8.2%, dropping him from 12th to 17th. And Richard Florida’s following inched up just 1.9%, but because his base was so large last January, he slipped only one spot, from 4th to 5th. By the way, Richard Thaler kept his rank at 19th, despite a 29.2% growth in followers. Among January’s top ten, followers have since grown an average of 32,300, or 14%. Among the second ten, followers have since grown an average of 16,400, or 40%. The top ten is heavily weighted by first-ranked Paul Krugman, who with his *New York Times* megaphone had four times as many followers in January as second-ranked Nouriel Roubini. Since January, Krugman added 155,000 followers to his base of 1,294,000. Those ranked 2 through 10 gained an average of 18,600

followers, not many more than the second ten average of 16,400.

▼ The number of blogs about economics and the economy is growing. The “Economics Roundtable” at <http://www.rtable.net/index/rt/economics/recent/> links to 165 blogs, up from my count of about 120 in 2006. The site is hosted by William R. Parke of the University of North Carolina, Chapel Hill. But the site would benefit from some housecleaning; some links don’t work, and a few sites have not been active for months or even years.

▼ A friend of mine has a long list of published research in medical journals, nearly all with many coauthors, sometimes a dozen or more. Because he also has a full-time medical practice, I asked how he could find the time to publish so much. I also wondered how so many authors could influence the final product. He said his sole function with nearly all such studies was to contribute patient data to the sample population in question. He has to follow the protocol of the study, of course, but otherwise he had little or no responsibility for the overall product.

▼ “No one can become really educated without having pursued some study in which he took no interest—for it is a part of education to learn to interest ourselves in subjects for which we have no aptitude.”—*T.S. Eliot*

IDEAS FOR THE  
GRAPEVINE

If you have developed any attention-getting examples, ways to “sensationalize” economic ideas, useful online resources, or more generally, ways to teach just for the fun of it, please share these with colleagues in “The Grapevine” by sending them to:

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