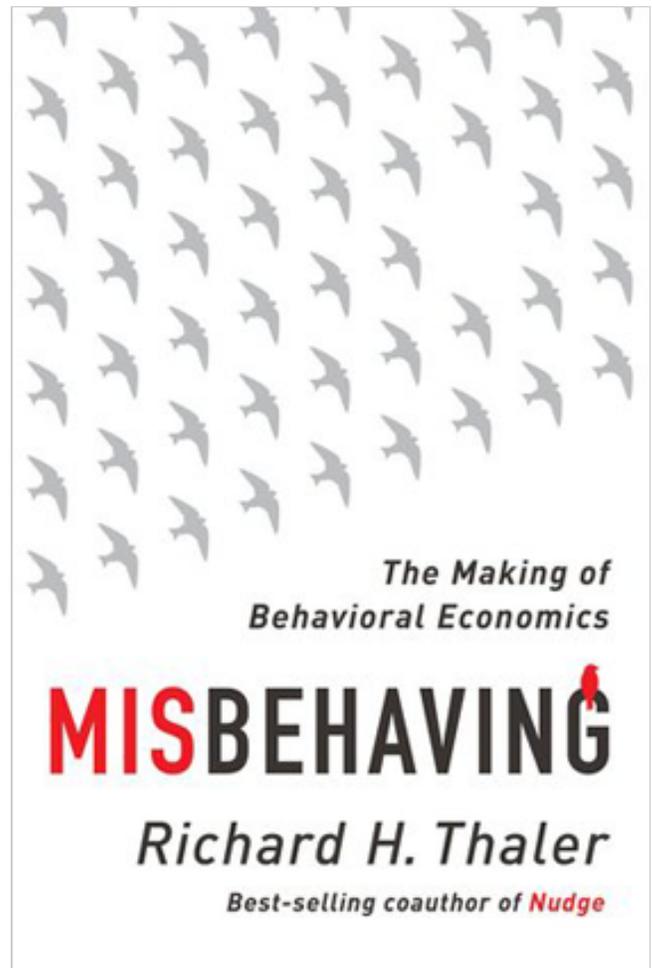


## Behavioral economics: Humans vs. Econs, a history of bringing traditional economics down to earth

*Misbehaving: The Making of Behavioral Economics.* By Richard H. Thaler. New York: W.W. Norton & Company, 2015, 415 pp., \$27.95 hardcover.

In recent years, a new paradigm of economics has emerged which challenges the traditional economic theories that have prevailed for over half a century. In his witty and insightful book, *Misbehaving*, Richard Thaler presents a real-life story of how a few insights from psychology and behavior found their way into the now-recognized field of behavioral economics. Not simply an exposé of the trials and travails of an upstart field, the book provides plenty of material in the best layperson terms possible about why behavior matters. Thaler compares what a “Human” does when faced with real-world choices with what an “Econ” does with choices based on theoretical principles. The former school of thought presents anomalies that have been neither sufficiently explained nor disproved by the leading luminaries of the latter school. In this narrative, readers soon discover the limits of specialized and mathematically based solutions that have reigned for so long in our academic, financial, and economic institutions.

The book is a lot of things: an introductory history of modern economics, a semiautobiographical narrative about Thaler’s academic career, detailed observations of real-life “games,” and clever (or lucky) comebacks to challenges from some of the most intelligent thinkers who have made their mark on the economics profession. It promises to entertain as well as inform, with plenty of concise examples and cases. However, casual readers might find it hard at



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first getting used to the explanations of the behavioral and traditional examples.

This review conveys some of the wide-ranging scope of Thaler's career, plus primary examples of behavioral economics and psychology. The book itself, however, isn't a polemic or a treatise. On the contrary, Thaler believes that there is a place for it within the mainstream: "Theories based on the assumption that everyone is an Econ should not be discarded. They remain useful as starting points for some realistic models."

Economic ideas are valuable not only in what they can explain, but also in what advice they offer for improving people's well-being. Economic theories illuminate, of course, what is *supposed* to happen (the "norm," or normative ideal outcomes), but also what *is happening* (the descriptive, or departures from the norm) and what *should* happen for the benefit of society (the prescriptive, or practical use of the theory). Traditionalists gained great status (including Nobel Prizes) developing normative "rational actor" theories while making important contributions to prescriptive policies; along the way, however, they overlooked key descriptive data by not basing theories on Human decisions. Traditionalists dismissed these anomalies as either one-off errors, special cases covered by existing theories, or quirks that at least didn't disprove their theories. Thaler sardonically terms such data "Supposedly Irrelevant Factors," or SIFs. He emphasizes that economic policies fail because the underlying assumptions about economic agents avoid or ignore the SIF behaviors and decisions that matter most.

Thaler starts with his early years in the 1970s as a graduate economics student at the University of Rochester. Next, he segues to Stanford University, where the psychology of economics became his definitive career path. With promising research directions plus networks of key researchers (Daniel Kahneman and Amos Tversky, among others), Thaler went to Cornell University in 1978. Then he spent about a year at the University of British Columbia in Vancouver during the early 1980s, to continue collaborating with Kahneman. Thaler returned to Cornell in 1985.

Insights into human economic behavior emerged or were already in place during Thaler's early years, and he spent his first 15 years in academia developing and defending those insights. For instance, *prospect theory* states that people's happiness increases as their wealth increases, but at a decreasing rate. This notion implies that people are risk averse: as their wealth increases incrementally under conditions of uncertainty, and as they face potential losses, they tend to have a greater preference for smaller, earlier gains instead of later, larger gains that come with a risk of loss. However, people also tend to seek risk in situations involving loss when the situations are framed or perceived as a chance to break even, even in the face of those losses. This idea encompasses the radical, yet commonsensical, notion that people are more sensitive to *changes* (potential gains and losses) in wealth rather than to absolute levels of wealth.

Related to prospect theory, the *endowment effect* is a SIF which states that people will more likely pay to preserve things they already own over paying for items that are available but that they do not yet own. As part of this effect, a kind of "mental accounting" takes place: in deciding what to choose, people tend to weigh the "out of pocket" expense of giving up items that they own (their endowment) more highly than the potentially greater value of alternative or competing choices. Mental accounting occurs widely in real life, as the book illustrates in many examples and paradigms. Conversely, the standard treatment in current theory considers funds to be completely fungible regardless of labels, accounting practices, budgets, or psychological balance sheets.

In another kind of mental accounting, a sunk cost (of efforts, money, time, emotions, etc.) is a one-time expenditure that cannot be recovered while the continuation of the activity or the consumption of the item in question results in negative utility (or disutility). Although Humans may understand, in principle, that they must ignore sunk costs, ignoring them is quite difficult in practice. When people realize that they can't fully benefit from an item right away, it is feared as a "loss" to be earned back with even further purchases or efforts. Moreover, to some, a sunk cost is an "investment" for future consumption. So, whether a one-time outlay (such as a fee) is personally felt as an investment or a sunk cost can influence a Human's preference for, say, a time share, a membership in a gym, or an expensive bottle of wine. In contrast, Econs never allow sunk costs to influence their decisions, because doing so introduces information that is irrelevant to optimizing solutions and is thus irrational.

Thaler describes two types of consumer utility. *Acquisition utility* resembles the consumer surplus in microeconomic theory, so, as the name implies, acquisition utility is the net amount of well-being a person obtains after subtracting the opportunity costs of a good. *Transaction utility* is the difference between the price actually paid for an item and the price one normally expected to pay, or the reference price. Transaction utility is about whether one received a bargain, got a fair price, or was gouged. Both utilities are observed in a wide array of common sales and price tactics. Thaler points out that sly sellers have an incentive to manipulate a reference price (e.g., "suggested retail price") to generate the illusion of a "deal," particularly when the item is relatively infrequently bought and its quality is hard to determine (e.g., automobiles, men's suits, mattresses). A broader implication is that "good deals" can lure people into making purchases of little value later on, resulting in disutility and sunk-cost problems.

With so many SIFs going on, Thaler's work started focusing on ways Humans choose between present-oriented consumption versus future consumption—in other words, the way Humans exert self-control. (Thaler's research on this topic would become one of his most important contributions to economics.) From the time of Adam Smith up to the 1930s, other economists (e.g., Jevons, Pigou, Fisher, and Keynes) wrote about the consumption behavior of households in terms of time preferences. However, "Econs began to creep in around the time of Fisher, as he started on the theory of how Econs should behave, but it fell to a twenty-two-year-old Paul Samuelson, then in graduate school, to finish the job." Prolific and brilliant, Samuelson established the mathematical rigor found in standard theories today, including the basic economic model of time-dependent, or intertemporal, choice.

The traditional model of consumption posits that Econs' consumption choices in each given period are well ordered and weighed (or discounted) consistently from higher utility (nearer in time) to lower utility (farther in time). Samuelson's simple formula of this time-consistent and smooth discounting of utility became the field's predominant workhorse, although, to be fair, Samuelson warned that his model might not be descriptively accurate. Even so, his intertemporal model became a vital part of macroeconomics, particularly the consumption function, which many well-known economists advanced with increasingly acceptable mathematical rigor.

To Thaler, the principle of time-consistent preferences is shortsighted: Humans, by nature, are time inconsistent. People change between mental accounts of what is preferred now or later on the basis of new information, novel situations, and changes in income. Modern macroeconomists, however, assume that economic agents exert the necessary self-control to plan and calculate their entire "life cycle" of incomes, savings rates, investments, and consumption, with rational expectations about the future. In reaction to this counterintuitive idea, Thaler and his

colleague Hersh Sheffrin proposed the “behavioral life-cycle hypothesis,” in which consumption depends both on one’s mental accounts and on one’s lifetime wealth.

The behavioral life-cycle hypothesis is rooted in the psychology of delayed gratification, or the ability to resist small, immediate rewards in order to receive larger rewards later. As a solution to the problem of some Humans having difficulty delaying gratification, people might create commitment strategies whereby they save for future consumption. Indeed, it is known that people and organizations sometimes use commitment mechanisms to delay, remove, or limit choices because not using those mechanisms gives in to the dangers of present-biased behaviors. Thaler also borrowed the principal–agent model from the theory of organizations to illustrate two types of proxies in a Human deciding to delay gratification: the Planner and the Doer. The Planner is altruistic and sets boundaries and rules to achieve higher goals; the Doer seeks to enjoy things right away and does not care about any future Doers. The Planner–Doer model highlights the tensions that arise in Humans in deciding when to consume, save, etc. The model is instructive in developing a better understanding of how people’s impulses can be directed.

The book’s second half starts approximately in the mid-1980s and includes Thaler’s stint at the University of Chicago from 1995 onward. The discussion gradually shifts to behavioral applications in the financial industry. Having spent his career up to the mid-1980s addressing Human-centric issues in self-control, risk, and preferences, Thaler then proceeded to delve into the flaws of traditional finance theories, notably the efficient market hypothesis, the equity premium puzzle, the capital asset pricing model, and stock price movements. The second half of the book treats these concerns. In characteristic fashion, Thaler examines cases of market theory inconsistencies, such as the 3Com–Palm merger and the pricing puzzles surrounding closed-end mutual funds. At the time, with behavioral and experimental approaches gaining popularity, the field of behavioral finance also was emerging as an alternative to conventional thinking.

Thaler’s efforts did not go unnoticed. During debates with behaviorists about deciding whether to take psychology and economics seriously, adherents of traditional economics were unable to provide conclusive data (or, indeed, any data at all) showing that financial markets behaved consistently, as those economists were wont to predict. Importantly, Thaler and his colleagues continued to successfully counter critics’ views that observed anomalies were one-off outliers which could not be replicated—and, in continuing to conduct surveys, examine real-world cases, and create tests, behaviorists were finding convincing arguments about Humans and markets that some mainstream theorists began to take seriously.

Some examples from which Thaler derived insights were the study of labor markets (e.g., the value of football draft picks), “fairness” (e.g., Uber’s high-peak pricing), narrow framing (e.g., the choice of shifts among New York City taxi drivers), prospect theory (e.g., television game shows), and extreme heuristic biases (e.g., a poorly designed and highly contentious procedure for selecting office space among faculty at the University of Chicago’s Booth School of Business). However, self-control and finance became a new fertile ground for the behavioral economics community. By the mid-1990s, a natural place to apply its theories was in ways to help people save for retirement.

According to Thaler, standard economic theory does a poor job of designing retirement savings programs: the only policy instrument in its toolbox is changes to after-tax returns on savings. One of the more notable aspects of this policy is the creation of tax-free savings accounts (e.g., the individual retirement account, or IRA). However, “there is a basic problem with the use of this policy tool—economic theory does not tell us how responsive savers will be

to such a change. In fact, we cannot even be sure that making saving tax-free will increase or decrease the total amount of money people put aside for retirement.”

Incorporating principles from psychology and economics, Thaler’s Save More Tomorrow™ program (known today as the SMarT program) was a prescriptive approach to raising savings rates. The proposals underlying the program overcame key Human-behavior problems that the tax code is unable to address: (1) inertia and procrastination in changing savings rates unless forced to, such as when one changes jobs, (2) perceiving a paycheck deduction as a loss rather than as a future gain (loss aversion), and (3) low self-control due to “present-bias”—that is, the difficulty of having to make an enrollment decision regarding the future compared with the relative ease of making a decision about today.

The Save More Tomorrow program features some simple solutions. Present-bias is mitigated by automatic enrollment in a retirement plan, rather than presenting the worker with opting out as the first and easiest decision. The program avoids loss aversion by tying savings increases to pay increases after workers choose their default pay deductions. It also allows workers to overcome inertia by leaving the plan in place unless the person opts out. Although the strategy wasn’t well received at first by investment companies, a series of well-timed circumstances eventually made it a feasible choice among both workers and employers. Today, the increasing adoption of “automatic enrollment” savings plans can trace its roots to Thaler’s insights.

One can be forgiven for deeming the Save More Tomorrow program to be the crowning achievement of Thaler’s storied career when perhaps his most important achievement is behavioral science’s continuous growth as a serious field for prescriptive solutions. One of the last chapters of the book relates how Thaler visited London at a time when the United Kingdom’s (U.K.’s) Tory party started to find interest in the behavioral sciences as a way of making government more efficient and effective. In 2010, the U.K.’s new government (a Tory–Liberal Democrats coalition) established a Behavioural Insights Team (BIT) “to achieve significant impact in at least two major areas of policy; to spread understanding of behavioral approaches across government; and to achieve at least a tenfold return on the cost of the unit.” Thaler had no small hand in BIT’s founding, particularly because Tory experts with an interest in his earlier book on behavioral prescriptions, *Nudge: Improving Decisions about Health, Wealth, and Happiness* (coauthored with Cass R. Sunstein; New York: Penguin Books, 2009), consulted him. As of 2014, projects or operations to incorporate some aspect of the behavioral sciences into public policy exist in some 136 countries. In the United States, the White House Social and Behavioral Sciences Team carries on the mission of ensuring that, in its own words, “government works best when it’s built for people.”