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BY JAMES GUSZCZA

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# The importance of Misbehaving

A conversation with Richard Thaler

BY JAMES GUSZCZA  
> PHOTOGRAPHY BY OLIVER LUDLOW

**F**or decades, Richard Thaler has been on a mission to return economics to its traditional roots in psychology and what Adam Smith, the discipline's founding father, called "moral sentiments." As he describes in his intellectual memoir *Misbehaving*, the field he entered as a graduate student in the 1970s was founded on a number of strong idealizations: Economic actors apply unbounded computational abilities to all available information in order to make optimal decisions based on stable sets of preferences; considerations of fairness do not come into play in economic decisions; and inertia and short-term distractions never compromise the pursuit of long-term goals. In the vernacular, the idealized actors of classical economics are characterized by unbounded rationality, self-interest, and self-control. They have more in common with *Star Trek's* perfectly rational Mr. Spock than with actual humans.

Early on, Thaler maintained a list of departures from perfect economic rationality that can be observed in everyday life—cases of ordinary human behavior that are considered “misbehaving” as judged by the norms of classical economics. He initially assumed it would be impossible to publish these observations, assuming that no respectable economics journal would accept a paper called “Dumb stuff people do.” But a fortunate tip led Thaler to a paper by the young psychologists Daniel Kahneman and Amos Tversky. Kahneman and Tversky provided evidence that people’s departures from economic rationality are not just random “dumb stuff people do”, but the result of systematic—and therefore predictable—features of human psychology. Thaler recounts that as he read the Kahneman-Tversky paper, his “heart started pounding the way it might during the final minutes of a close game. The paper took me thirty minutes to read from start to finish, but my life had changed forever.”

One of the implications of standard economic theory is that there would have been no opportunity for Billy Beane because everybody would have already done it. After all, Bill James had been writing about this stuff for 20 years before Billy Beane came along and tried to implement it.

Much the same could be said about the economics profession itself, as well as swaths of business strategy, finance, HR and business administration, and public policy that have traditionally been shaped by assumptions (sometimes explicit, but often tacit) of unbounded rationality, self-interest, and self-control.

In the conversation that follows, Thaler discusses some of the lessons of human psychology for business and public affairs. In a world of perfectly rational economic actors, markets would be correspondingly efficient: “no free lunch”, as the slogan has it. But the actual world, run as it is by Humans rather than Econs, is replete with market and business process inefficiencies. Therefore there exists greater scope for using scientific experimentation and data analytics to “play Moneyball” than classical economics would anticipate. Because their customers are Humans rather than Econs, smart companies concerned with their long-term reputations must account

for fairness, not just optimality, in their pricing and marketing strategies. And because human rationality and self-control are far from perfect, choice architecture (the science of “nudge” design thinking) can be used to help people make decisions more consistent with their long-term goals. The discussion ends with a policy idea about data ownership which, if widely embraced, could have a transformative effect on markets.

### THE PSYCHOLOGY OF ECONOMICS

**James Guszcza:** A major theme of *Misbehaving* is the distinction between what you call Econs and Humans. Why has this been so controversial in the economics profession?

**Richard Thaler:** Economists assume that the people they study, so called *homo economicus*, or what I call Econs, are really smart. They know as much economics as the best economist. They make perfect forecasts, have no self-control problems and are complete jerks. They’ll steal your money if they can and get away with it.

Most of the people I meet don’t have any of those qualities. They have trouble balancing their checkbook without a spreadsheet. They eat too much and save too little. But nevertheless they’ll leave a tip at a restaurant even if they don’t plan to go back. So for the last four decades I’ve been pleading with economists that we should be studying Humans, not these mythical Econ creatures. *Misbehaving* is the story of that fight and how we got from there to here.

**JG:** If you asked just about any person on the street, or as you described in your book, your colleagues in the psychology department, they’ll reply that everything you just said is complete common sense. Why did these strong ideas about Econs take root in economics and become so hard to battle?

**RT:** I think the reason why they took root is that sometime after World War II economics went through a process of becoming more rigorous mathematically, more formal. And the easiest models to write down are ones of rational choice. Anybody with a high school calculus course can really do the math required for that. Writing down models of anything more complicated and rich where we get distracted or when the amount of food we buy when we go to the grocery store to buy food for a week depends on how hungry we are when we are shopping, is more complicated and more difficult. So economists solved the models they could, and they resisted calls for making things more realistic. I’ve argued somewhat tongue-in-cheek that getting a Ph.D. in economics teaches you a lot of tools about economics

but removes some amount of common sense; so what seems like common sense to everybody else is radical if you're an economist.

At some point economists just started believing these models. You know, I think when economists first started writing them down they were an attempt to just make formal the arguments that had always existed. And those models still are extremely useful as benchmarks. The only time we get into trouble is if we start to think they're true.

**JG:** At the beginning of your book, there is a quote from Vilfredo Pareto: "The foundation of political economy and in general of every social science is evidently psychology." That seems completely at odds with the approach of building mathematical models of utility maximizers. Do you see this as an historical aberration or was it more of a necessary step along the way?

**RT:** I think going down the mathematical path was essential and important, and then we got carried away with it. And now, you know, many young economists who are smarter and more energetic than me are doing all kinds of great stuff. Behavioral economics is really no longer controversial for economists under 40. It's some of the people that are my age who are still stubbornly resisting it.

#### **BOUNDED RATIONALITY, INEFFICIENT MARKETS, AND PLAYING MONEYBALL**

**JG:** Behavioral economics has had a major impact on our understanding of how and why markets diverge from the high degree of efficiency that is often assumed. In finance, this is stated as the efficient market hypothesis. You break the efficient market hypothesis into two pieces. Could you say a few words about that?

**RT:** The efficient market hypothesis has two components that I call the "no free lunch" component and the "price is right." The no-free-lunch component says you can't beat the market. And I would say that component of the hypothesis is at least approximately true. Most active managers fail to beat their passive benchmarks. The active management industry as a whole doesn't really provide much in the way of value. I say that as a principal in an active money management firm where we do think we provide value. But the industry we belong to as a whole doesn't seem to. So I think that part is reasonably true. And nobody's ever really been hurt by assuming that they can't beat the market. Certainly individual investors would probably be better off if they believed that.

The more important part is the "price is right" component, which is saying that asset prices are equal to the true intrinsic value. Now financial economists for many

years lived with the comforting reassurance that that part of the hypothesis was untestable. There are parts of it that are untestable—nobody can tell you for sure whether Apple [Inc.] is correctly priced or not, or the S&P 500. But there are these little cases where we can see “misbehaving” up close and personal.

Here’s a current one involving a closed-end mutual fund. I should say a closed-end mutual fund is a kind of mutual fund where the managers collect a pot of money and invest it and then the shares in the fund are traded and the prices of the fund can diverge from the value of the assets that they own. This in and of itself is embarrassing to the “price is right” hypothesis, but the story I’m going to tell is way more embarrassing. One of these closed-end funds happens to have the ticker sym-

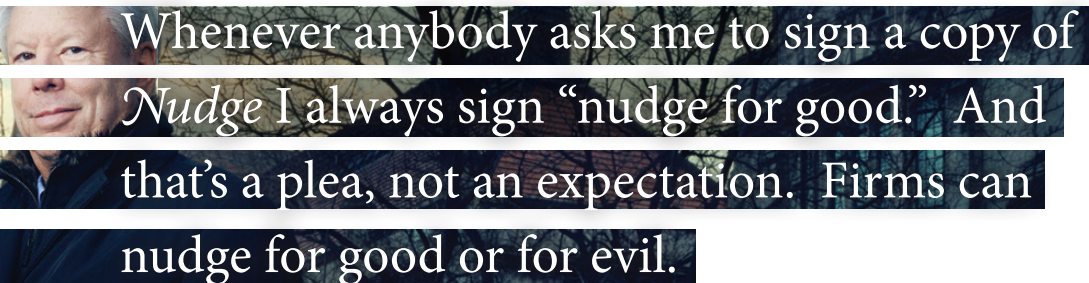
I predict that data-driven HR practices will become increasingly important in the coming years. And firms that really figure this out, either on their own or with the help of consulting firms, can have a big competitive advantage.

bol CUBA. Now, in spite of having the CUBA ticker symbol, it of course has never invested in Cuba, which would be illegal. And even if it weren’t illegal, there are no securities to buy. So it really has nothing to do with Cuba. For years it was selling for about a 10 or 15 percent discount. The day that President Obama announced his intention to relax relations with Cuba, it went to a 70 percent premium. And it’s now selling for about a 40 percent premium. If anybody can explain to me why that’s rational and what it would have to do with the possible relaxation of relations with Cuba, let me know. Send me an email right away.

**JG:** Let’s relate efficient markets to data analytics. In the past you’ve written about the *Moneyball* story. And in *Misbehaving* you describe research with Cade Massey about the market for talent in American football, which has similar implications. In these stories, the price is clearly not right, because the player’s salary doesn’t reflect all the available information about the player. But isn’t there a kind of “free lunch” suggested by these examples? Billy Beane was able to, in Michael Lewis’s

words, “win in an unfair game” by applying data analysis. So would it be fair to say that in some markets outside the financial markets maybe there are “free lunches”?

**RT:** Yeah, I absolutely think so. And one of the implications of standard economic theory is that there would have been no opportunity for Billy Beane because everybody would have already done it. After all, Bill James had been writing about this stuff for 20 years before Billy Beane came along and tried to implement it. And it’s still true in baseball that they have “closers” who are pitchers that only seem to be good for pitching in innings that are called “ninth innings.” How that can make any sense is a mystery to me.



Whenever anybody asks me to sign a copy of *Nudge* I always sign “nudge for good.” And that’s a plea, not an expectation. Firms can nudge for good or for evil.

**JG:** There’s a huge irony here because *Moneyball* has become a poster child for data-driven decision making. Yet it seems that hiring and performance evaluation decisions are an area where people still resist using data to make better decisions.

**RT:** And it’s not just sports. Take the fact that no one is willing to hire anybody without a job interview. There’s lots of evidence that the usual job interviews are almost completely worthless in predicting any aspect of employee performance. I can tell you that [American] football teams still do interviews even though they’ve got tapes of this player playing the game for as many years of college football as he played. But then they talk to the guy and they think they learn something from that. And there’s no evidence that they actually learn anything because they certainly spend a lot of high draft picks on guys that turn out to be complete losers in every possible way. It’s no different in the business world. I don’t think that the way companies hire senior managers from the outside is any better. In fact I argue that if anything we should expect the market for football players to be more efficient than the market for CEOs. Because you get to watch football players doing the thing that you’re hiring them to do. Whereas if you hire a CEO who has been working at some other firm almost everything he or she has done has been invisible.

**JG:** Couldn’t you use a data-driven approach for junior people as well?



**RT:** Absolutely. I predict that data-driven HR practices will become increasingly important in the coming years. And firms that really figure this out, either on their own or with the help of consulting firms, can have a big competitive advantage.

**JG:** Do you perceive any other glaringly inefficient markets in the business world that could be better rationalized with more data-driven decision making?

**RT:** Firms are very reluctant to run experiments. I've had lots of colleagues that have tried to run experiments with firms. The firms are reluctant to have a control condition, which means that you can't learn anything. And at the first sign that one of the conditions seems to be the best, managers want to abandon the experiment and implement the apparently best option. It's just like the football example of teams still not willing to go for it more on fourth down, in spite of clear evidence that this is a mistake. Firms just have ways of doing things that they stick with.

**JG:** So we need to do more experiments and randomized controlled trials.

**RT:** Yes. You do see lots of experiments being run by firms like Amazon and Google. They are interacting with their consumers all the time, and they've got millions of consumers. For example, the price of my book changes daily in ways that are completely mysterious to me. And the books that they show you when you log on obviously suggest they're experimenting with that all the time, and doing all kinds of other things. So that sector of the economy is running experiments.

But just because a firm runs experiments in one part of the company does not mean that experiments are used in other domains. One exception to this is Google, which seems to be at the forefront of the analytical approach to human resources. The recent book *Work Rules!* documents their use of experiments in hiring.<sup>1</sup>

### **BOUNDED SELF-INTEREST, FAIRNESS, AND FOCUSING ON THE LONG RUN**

**JG:** We've talked a lot about one of the three bounds: bounded rationality. Let's spend a few minutes talking about bounded self-interest. Your University of Chicago colleague the late Milton Friedman famously wrote that "there is one and only one social responsibility of business—to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception or fraud."<sup>2</sup> Some of your work with Daniel Kahneman, described in *Misbehaving*, explored the importance of fairness in people's economic decision making. My question is

pretty open-ended. Do you think that behavioral economics has much to say about issues like sustainability and corporate social responsibility?

**RT:** It seems clear to me that firms have lots of social responsibilities that are perfectly consistent with profit maximization if they care about the long run. The fairness research that Kahneman and I did with Jack Knetsch 30 years ago still resonates today. Here's an example: In that study, one of the questions we asked was: The morning after a blizzard, a hardware store that has been selling snow shovels for \$15 raises the price to \$20. Is that fair? People hate it. Now I asked my MBA students that question and most of them thought it was just fine. After all, that was the correct answer in a different course, right? In their microeconomics class, they would say there's a fixed supply, demand shifts to the right, and the price goes up. Now what do real firms do? Well, after a hurricane the cheapest place to buy plywood will be at [for example] Home Depot in the regions where the hurricane hit. Now there will also be guys who rent a truck in Atlanta, fill it up with plywood, drive down to South Florida, and sell plywood off the back of the truck for whatever the market will bear. Notice that both kinds of firms are profit maximizing. The guy with the truck is a one-off—he's got no reputation at stake. Home Depot . . . whoever else is doing this, they want to be around for the long run. And if they double the price of plywood the day after a hurricane, good luck getting people to come in and buy all the stuff they're going to need to remodel their house. So firms that act responsibly are going to have loyal customers over the long run. And that just makes sense. And so maximize profits, sure, but make sure you're maximizing profits over the long run, not over a week.

**JG:** In your terms, the customers are not Econs, they're Humans. So they value fairness, and that will show up over time.

**RT:** Right. If your customers were all my MBA students, then you know you could charge what the market will bear. But if you have to deal with Humans, then you'd better treat them like Humans.

### **BOUNDED SELF-CONTROL AND NUDGING FOR GOOD**

**JG:** Let's turn to the last of the three bounds: bounded self-control. This is where choice architecture, nudges, and design thinking come in.

**RT:** Probably the domain in which behavioral economics has had its biggest impact is in the design of 401(k) plans and defined contribution savings plans all over the

world. There have been three big changes where behavioral economics played a role. One is the introduction of automatic enrollment, which is simply changing the default option. It used to be you had to fill out a pile of forms to enroll in the plan. Now you have to fill out a form *not* to enroll. That's basically solved the enrollment problem, since opt-out rates are generally quite low, about 10 percent.

But there's a problem, which is they auto-enroll at too low a [savings] rate, like 3 percent. To solve this problem, Shlomo Benartzi and I created something we call Save More Tomorrow, where you ask people if they'd like to sign up for a program to increase their contribution rates once a year, or every time they get a raise. That has proved to be remarkably successful in getting people to save more because everybody has more self-control for the future than for right now. For example, many of us plan diets, but not tonight, or this weekend. Maybe in a few months, yeah, that would be a good idea.

**Firms that act responsibly are going to have loyal customers over the long run. . . . So maximize profits, sure, but make sure you're maximizing profits over the long run, not over a week.**

And then the third innovation has been the creation of sensible default investment strategies. These are almost a byproduct of automatic enrollment, because if you have automatic enrollment you have to have some default investment vehicle for those who just passively join.

**JG:** Nudge thinking has been influential in public policy. Do you see more room for it in the business world as well? For example, insurance companies can set smart defaults with bundles of products, coverages, limits and deductibles, and so on. It's a kind of people-centric design.

**RT:** Yes, but yes with a big caveat. Let's talk about the positive opportunities. In the book *Nudge* we coined the term "choice architecture." The idea is you can design the environment in which people choose to help them make better decisions. To illustrate the fact that you can make money off of good design, you need to look no further than Apple [Inc.]. It has become the most valuable company in the world by designing products that don't need instruction manuals, and computers that

don't require you to press Control Alt Delete, incorporating the radical idea of an "on" button. So yes, it's obvious that people are willing to pay for good design and for ease of use.

Now, that said, whenever anybody asks me to sign a copy of *Nudge* I always write "nudge for good." And that's a plea, not an expectation. Firms can nudge for good or for evil. I'll give you an example of a nudge that I don't like. We were talking about automatic enrollment, which is a great idea for getting people to save more. But setting the defaults is not always done to make the consumer better off. An example is paywalls for newspapers and magazines. It's not that I have anything against paywalls. Publications need to make money, and I am happy to pay for online access to publications I read regularly. But I had the following experience: The first review of *Misbehaving* came out in a British publication, and I got an ex-

**My rule is if the firm is tracking the data, then they should be willing to share it with their customers. That seems like a reasonable principle.**

cited email from my editor with a link. When I clicked on the link, I could only read the first paragraph and then hit the paywall. I was offered the opportunity to have a one-month trial subscription for £1. Now you know, I wrote the book *Nudge*, so I read the fine print when I see things like that. And it says you will be automatically subscribed at £27 a month after that month. I expected as much but what I was curious about was how difficult it would be to unsubscribe. Here is where things get ugly. To cancel your subscription you have to give 15 days' notice, so the "one month" trial subscription is actually just two weeks. Worse yet, you cancel online; you have to call during London business hours and not on a toll-free line. That's kind of like raising the price of snow shovels after a blizzard. Because yes, the publication will succeed in getting people to subscribe, and probably collect £27 a month for a few months, but many people will belatedly notice this £27 bill on their credit card, will eventually get through to cancel, and will be so angry that they will have lost a potential reader for life.

So I think firms need to tread carefully about how they treat the privacy of their consumers and the transparency of their defaults. All defaults should be switchable with one click. In *Nudge*, we refer to this as "one-click paternalism." If you're suggesting people enroll in the pension plan because you think that's what they would

do if they had thought about it—and they can get out of it by one mouse click—then we think little harm done. But if I have to make three phone calls and then walk across campus to find the office where I have to fill out some form to undo something, then that’s imposing a much higher cost. And that’s the equivalent of having to spend an hour figuring out how to undo some default setting in my software that’s allowing somebody to track everything I do.

**JG:** It seems that this relates to what you said earlier about bounded self-interest and how customers value fairness. So there’s hopefully a long-term incentive for organizations to use choice architecture to “nudge for good” rather than try to profit off of people’s frailties.

**RT:** Right. And “think long term” is the advice I give to firms and to my students.

#### DATA OWNERSHIP, SMART DISCLOSURE, AND CHOICE ENGINES

**JG:** My second follow-up question brings us back to the data theme. Your comments just now reminded me of what you’ve written more recently about people’s ownership of data. Would you mind saying a few words about that?

**RT:** “Mydata” is the term that we use in the United Kingdom; in the United States it’s called “Smart Disclosure.” The idea is that in many cases we can help consumers simply by making their own usage data available in machine readable format. Here’s an example: You’re searching for a new calling plan for a smartphone. What you’d like to have is access to all the ways in which you’ve used your smartphone. And you’d like that in a machine readable format. Suppose you could get that. That would create a business opportunity for online services that I call “choice engines.” Think of them as similar to travel websites, where with one click you could upload all of your usage data from your calling plan. And then the choice engine would say, well all right, if that’s the way you continue to use this device then you should consider one of these plans that suit your needs.

The point is that we can help people make smarter decisions just by giving them access to the data. If we do this, I think we can create a whole new industry of choice engines. I’ve been calling for us to do this with mortgages. Right now if you get a mortgage you get 80 pages of forms with information that no one has ever read. Instead of that useless disclosure, I would prefer they hand you a memory stick or send you a link where every detail of that mortgage is available, again in a machine readable format that some choice engine, say mortgagehelper.com, could pore through and say: No, you don’t want that one because hidden in the fine print

is something you won't like; and if that's the sort of mortgage you want then here are three others that don't have that nasty feature.

**JG:** So it's an analogy to TripAdvisor or something.

**RT:** Exactly. And [they] exist because all the airline fares are available online to them. Another example is GPS, which we all have on our phones now. The only reason that we have GPS is that the government has data from satellites that they made available free to the public. And then firms created Google Maps and so on. And I think we can create the equivalent of GPS for all kinds of complicated decisions if we just give people access to their data. There's some progress in the United States: I think people are going to be able to get access to their Social Security data in a machine readable format, which would help them make better decisions about when to start claiming Social Security benefits. And another domain where we really should fix this is the student loan forms that are a nightmare to fill out—and unnecessarily so, because all the information that they need the government already has because it's on tax returns.

**Firms are just very reluctant to run experiments. . . . They're reluctant to have a control condition, which means that you can't learn anything.**

**JG:** What about precision medicine? If people owned their electronic medical records, and their self-tracking device data, and their data about how much they watch TV from their TV subscription, and all their electronic supermarket scanner data, it would create a pretty detailed portrait of their behaviors and their medical history. They could presumably use it at their discretion for insights about health outcomes.

**RT:** Absolutely. Believe it or not, a pioneer in the medical records is the Veterans [Hospitals] Administration. The VA has something called Blue Button that gives veterans access to their medical information. But yeah, we should have all of this. For example, you should be able to get access to all the stuff you buy at your regular supermarket, because if they have a shopper's club they know everything you've bought. And suppose you have a kid with a peanut allergy: You could download

your shopping data, upload it to [nopeanuts.com](http://nopeanuts.com), and they'd send you a list—stop buying these brands, switch to those. There are privacy concerns, but those are not insurmountable. And in fact, the firms already have the data. All we're talking about doing is making that data available to the customers. My rule is if the firm is tracking the data, then they should be willing to share it with their customers. That seems like a reasonable principle.

**JG:** Do you think there's a realistic chance that could actually happen in the United States or the United Kingdom?

**RT:** In the United Kingdom, there is now a law on the books that I helped amend. It used to say that if a firm is tracking your usage data, you can ask for it and get it in an “intelligible” format—which firms interpreted as a 200-page PDF file. That law was amended to replace *intelligible* with *machine readable*. So the law is there. The first industry where it is being implemented is in the market for energy, which has been privatized in Britain. Homeowners will get a utility bill that includes a QR code that if captured with a smartphone will give the user access to all their usage data. It will be interesting to watch how this market evolves under the new regime.

**JG:** This would presumably make a lot of markets much more efficient, right?

**RT:** Exactly. Keep in mind that I am still an economist at heart. I would like markets to be more efficient. I would like people to save as if they were Econs. I'm a believer in rational behavior as a goal. I just don't think people are very good at it on their own, so we should help if we can. **DR**

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*James Guszcza is the US chief data scientist for Deloitte Consulting LLP.*

#### Endnotes

1. Laszlo Bock, *Work Rules!: Insights from Inside Google That Will Transform How You Live and Lead* (New York: Hachette, 2015).
2. See Milton Friedman, “The social responsibility of business is to increase its profits,” *New York Times Magazine*, September 13, 1970, <http://umich.edu/~thecore/doc/Friedman.pdf>.