

Econs vs. Humans: An Introduction to Behavioral Economics

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Can teachers promote true economic understanding among students by adding a dose of psychology? Fans of behavioral economics, with its unique blend of psychology and economics, think so. Blending a bit of behavioral economics into social studies lessons provides answers to the ever-present questions that permeate every classroom, “What does this have to do with me?” and “When will I ever use this?” Teachers can help students understand behavior in the world that surrounds us by moving them from a rote understanding of economic theory to a richer approach that brings in elements of psychology.

Students exposed to behavioral economics find it appealing because it allows them to go beyond traditional economic models. In the traditional economic approach, frequently referred to as rational choice theory, basic assumptions about human behavior are used to simplify the model of how an economy works. In contrast, behavioral economics uses assumptions that are more closely aligned with how people actually behave. The authenticity of behavioral economics resonates well with the current generation and helps students see how economic analysis, augmented with psychological insights, can provide genuine solutions to real world problems.

What is Behavioral Economics?

The field of economics traces its roots to Adam Smith’s seminal work from 1776, *An Inquiry into the Nature and Causes of the Wealth of Nations*.¹ In contrast, the field of behavioral economics dates back only about 50 years. In Michael Lewis’ 2017 book, *The Undoing Project*, Israeli-born psychologists Daniel Kahneman and Amos Tversky

are credited with originating behavioral economics with human behavior studies in the 1960s.² Their work over the next 30 years helped lead to a field that has directly or indirectly produced six recent Nobel Prizes in economic science, including the 2002 prize to Kahneman and the 2017 award to Richard Thaler, the author of the popular book *Nudge*.³ In his Nobel Laureate address Thaler stated, “In order to do good economics, you have to keep in mind that people are human.” This quotation helps explain the insights that can be gleaned from this field of economic study.

Frequently relying on experiments, behavioral economics points out that humans are not always perfectly rational decision makers. While the field of economics has always understood this fact, the discipline does rest on the idea that people can accurately weigh costs and benefits to make decisions that maximize their own welfare.⁴ Even if people make mistakes in the process, economists point out that models based on rationality have nonetheless yielded accurate and useful results.⁵ Behavioral

economics, however, takes investigation into human nature further and focuses on areas in which they are particularly challenged in making good decisions. The results of these experiments have led to a number of real-world insights into public policy, business, education, healthcare and many other aspects of life.

Econs vs. Humans

One simple way to think about behavioral economics is to consider how actual people differ from those modeled in a standard economics textbook. One might argue that the field of economics looks at people as “econs”—that is, they assume we carefully weigh costs and benefits of alternatives before making decisions. Econs, therefore, could be described as being analytical, reflective, effortful, deliberate and patient. To be fully rational, an econ would also need to be well-versed in probability theory and rational optimization. Thus an econ would always make the best choice given a set of alternatives. Does this sound like most people you know or interact with? Behavioral economists don’t think so either. They instead think of humans as using costs and benefits, but also being influenced by other factors when making decisions. Humans might sometimes be described as emotional, reflexive, effortless, impulsive, and short-sighted. If behavioral economists are right, they can improve on the predictive ability of the models based on standard economic

assumptions. Therefore, behavioral economists have focused on areas that humans find especially difficult when trying to make good decisions.

Cognitive Biases: Common Mistakes Humans Make

Imagine the following activity—referred to as The Ultimatum Game—taking place in your classroom.⁶ In this activity, half of the students in the class are assigned to be “proposers” and the other half are assigned as “responders.” Each proposer has to decide how to split \$100 with a randomly assigned responder. The proposer may offer an even split or any other combination. But if the responder rejects the offer, both the proposer and their responder get nothing.

This game has been replicated by many researchers using diverse samples of people, and the results tend to be consistent.⁷ The most common offer is a 50/50 split and both parties get \$50. A more aggressive proposer might say to a responder, “I get \$60 and you get \$40.” About 20 percent of such low offers to the responders (offers of less than a 50/50 split) are rejected. These rejections are surprising to rational choice economists. Why? The answer is that rejecting \$40, or any offer above zero, seems irrational. The responders are essentially choosing to punish themselves by not taking free money. Why would they do this? The conclusion of most researchers is that people seem to care about fairness, even when it may not be strictly rational.

Interestingly, this same sense of fairness seems to also exist among animals. Experiments have been done with capuchin monkeys, as well as with other animals, in which they are asked to do a simple task in exchange for a piece of food.⁸ Monkeys that are in cages next to each other will do the task over and over again for the reward of a piece of cucumber. However, if one of the monkeys gets a grape (which monkeys prefer to cucumbers) for the task, the animal that continues to get a cucumber will revolt and actually throw the cucumber back at

the experimenter. Again, this seems irrational as the monkeys had been perfectly happy with cucumbers, but now they are overcome by a sense of unfairness when their neighbor gets a better reward. Even a monkey will punish itself—throw away food it likes—to make its point.

Anchoring Effect

A preference for fairness can push people away from completely rational choices based on self-interest. Another such cognitive bias is the anchoring effect, sometimes referred to as the “framing effect.” With anchoring effects in play, people’s decision-making is influenced heavily by the first piece of information offered or the most familiar piece of information. Thaler and Sunstein provide an example of Chicago residents who were asked to guess the size of Milwaukee, Wisconsin.⁹ Because their subconscious anchor is the city they know well, Chicago, they will tend to guess too high—guessing about one-third the size of Chicago, or about 1 million residents. People from Green Bay, Wisconsin, do the same thing, but use what they know, Green Bay, as their anchor. They are likely to guess about three times bigger than their hometown or about 300,000 inhabitants. It turns out the correct answer is between the two; about 580,000 people reside in Milwaukee.

Well-known behavioral economist Dan Ariely shows an anchoring effect in pricing using *The Economist* magazine in his book *Predictably Irrational*.¹⁰ Examine Visual 1, above right. You can get access to all of the web content for \$59, a subscription to the print edition for \$125, or a combined print and web subscription which is also priced at \$125. Intuitively, the offer of the print-alone option seems absurd. Nobody would rationally choose to forgo web access when it costs nothing extra, so why even list it? Why not just say that the print subscription also includes access to the web archives?

Visual 2 helps to demonstrate the answer. Predictably, when all three options were available, nobody chose

the print subscription alone; 84 percent opted for the combination deal and 16 percent picked the web subscription. However, then Ariely repeated the poll without offering the unpopular print-only alternative. After all, nobody was choosing it, so what difference could it make to leave it out? In this second time around, 32 percent wanted the print



Visual 1



Visual 2

subscription, while 68 percent preferred to go web-only. It appears that the presence of the clearly inferior option altered the decision process by making the combined web and print subscription seem like a better deal. Print only became an anchor as the most familiar piece of pricing available and people concluded they might as well buy the combination of print and web access because it was such a great deal. Even so, this anchoring effect drove consumers toward choosing the much more expensive option.

Loss Aversion

In the book and movie *Moneyball*, Oakland A’s General Manager Billy Beane stated, “I hate losing more than I even wanna win.”¹¹ While he may not

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have known it, this quip illustrates the concept of loss aversion. Loss aversion is the notion that losses have a bigger psychological impact than gains do. That is, losing \$5 feels worse than the good feeling from gaining \$5. Loss aversion

can be a difficult problem for humans to overcome; however, recognizing how it can affect decision-making may help people avoid situations where it can be a detriment. Here are some classic examples of loss aversion:

- Not selling a stock that is below the price paid simply to avoid taking a loss or not being able to weather losses in the stock market because the loss hurts more than gains.¹²
- The unwillingness to sell a home below the price that was paid for it.
- Making a decision based on the mistaken logic (or fear) that you might miss out on it, particularly when

the potential loss is emphasized as it often is in retail advertising that focuses on trigger words like “last chance” or “Don’t miss out! Act now!”

- Firms offering free trial periods. Once a consumer has the product, they become much less willing to give up something they are used to having.
- When airlines increased the amount of money offered to passengers in order to encourage more of them to voluntarily give up their seats on flights, consumers instead chose to retain their seats at an even greater rate than before since they wanted

10 Popular Press Books for Your Class

Nudge: Improving Decisions about Health, Wealth, and Happiness, by Richard H. Thaler and Cass R. Sunstein, is essential for understanding behavioral economics, applying it to influencing policy, and the philosophical debate about how behavioral economics is used.

The Undoing Project: A Friendship that Changed Our Minds, by Michael Lewis, chronicles the collaboration between Daniel Kahneman and Amos Tversky and their original research which changed our thoughts about how decision-making happens.

Thinking, Fast and Slow, by Daniel Kahneman, dives deeper into his research in how the brain functions in two different systems, each with quirks and flaws, with insight into how choices are made and which system we should rely on.

Predictably Irrational: The Hidden Forces that Shape Our Decisions, by Dan Ariely, explains how our subconscious behavior undermines our best interest and that we are at the mercy of these hidden mechanisms if we do not become aware of them.

Why Smart People Make Big Money Mistakes and How to Correct Them: Lessons from the Life-Changing Science of Behavioral Economics, by Gary Belsky and Thomas Gilovich, considers how decision-making and behavioral psychology play a role in why people make foolish decisions with their personal finances.

The Invisible Gorilla: How Our Intuitions Deceive Us, by Christopher Chabris and Daniel Simons, focuses on research in social science

that highlights how our eyes can deceive us since our brain often overrides our reality. In particular, understanding this shortcoming is important to acknowledge our hidden biases.

The Person and the Situation: Perspectives of Social Psychology, by Lee Ross and Richard Nisbett, is an introduction into how the environment around us influences our decisions, even if we think we are not taking it into account.

Misbehaving: The Making of Behavioral Economics, by Richard H. Thaler, is the personal story of Thaler’s career in developing behavioral economics, highlighting his research and anecdotal stories that challenged traditional economic thinking.

The Paradox of Choice: Why More is Less, by Barry Schwartz, describes in depth the idea of consumers’ “Fear of Missing Out” (FOMO) and how too many choices often result in greater depression and unhappiness due to the perceived losses of the abundant foregone choices. While freedom of choice is important, in this case it comes with a cost and a given decision-maker might be marginally happier with a limited range of options.

The Art of Choosing, by Sheena Iyengar, is a psychologist’s perspective of the impact of choice on our lives and highlights an interdisciplinary approach that combines the impact of biology, sociology, economics, and political science on the day-to-day choices we make.

to minimize their greater perceived losses.¹³

- When energy bills include usage comparisons for a neighborhood, a heavy-use customer will decrease consumption slightly. However, if this comparison also includes a frowny-face, highlighting “losing” vs. neighbors, energy use will decrease by an even greater degree in order to avoid the loss.¹⁴

Status Quo (or Default) Bias

People tend to prefer the status quo, even when more attractive options are presented to them. Why do companies do free, limited time offers for things like magazine or cable TV channels? Probably because they understand the status quo bias and that most people, once they have something, won't extend the energy to cancel it (even if they are not using it) due to inertia. If a state chooses to opt people into a program that allows their organs to be used in case of a tragic accident, then most of those states' residents will be in the program. If a state requires that you opt yourself in, much lower percentages of residents will be in the program.

Nudges: Using Behavioral Economics in the Real World

Behavioral economics has the potential to influence public policy and improve human decision-making. The government of the United Kingdom took this work so seriously that it created a behavioral insights team nicknamed “The Nudge Unit” after Thaler's well-known book.¹⁵ The most famous example of the use of behavioral economics to improve decision-making is in the area of retirement contributions. Behavioral economists were interested in why so many Americans typically chose not to sign up for their 401(k) plan—even when it included a “free” employer match of some kind. They surmised that the reason was a form of status quo bias. People had to actually fill out some forms and opt into the program. If instead the process was



An example of the anchoring effect is that when New York City taxi cabs changed from allowing the rider to choose a tip to offering options like 15 percent, 20 percent and 25 percent, their tips rose, on average, by 8.7 percent. (August 1, 2018, AP Photo/Mary Altaffer)

reversed, and people were automatically opted in but had to opt out if they did not want to participate, more would join and take advantage of the employee benefit.

It turns out that the behavioral economists were right. Before automatic enrollment about 37 percent of employees participated in these programs and after automatic enrollment, almost 86 percent did. This experiment led to changes in law and regulation that now allow firms to opt their employees into their retirement plans (with an opt-out available). Automatic opt-in is an example of a nudge—a small change that pushes people in a direction that will ideally make them better off.

Is there a downside to nudges? Some are concerned that this type of reliance on behavioral economics to manipulate seemingly small decisions leads to government intrusions into private decision-making. A key aspect of a true “nudge” is that it leaves courses of action open. Someone who truly does not want to opt into a retirement plan still has that choice under automatic opt-in. When a seemingly innocent choice becomes mandatory, the nudge turns into a shove. Even so, well-placed nudges may improve public policy outcomes while still leav-

ing options open and freedom to choose.

Beyond government policies, the anchoring effect is prevalent in our daily lives. It explains why charities tend to give you some suggested dollar options for giving—they hope that the lowest option anchors your mind that you certainly shouldn't give less than this. In addition, when New York City taxi cabs changed from simply allowing the rider to choose a tip to instead offering options like 15 percent, 20 percent and 25 percent, their tips rose, on average, by 8.7 percent. Again, people's minds were anchored to the idea that the lowest option is the bottom and that they needed to choose this or something higher, whereas their prior anchor may have been not to tip at all.

If you pay close attention to marketing and advertising, you are likely to be confronted with the idea of loss aversion. Rather than highlighting the features of a new fast-cooking oven, the manufacturer might focus on the *loss* of time if you don't buy it. Banks might focus on the *loss* in fees if you don't switch to their new no-fee checking account. You might *lose* your mobility if you don't buy this wheelchair or walker, rather than gaining new independence.

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Richard Thaler’s research is full of interesting “nudges” like these. The most fun example might be the actions of the Amsterdam airport. When the facility tired of excessive spillage around the urinals in their men’s bathrooms, they chose to make a small change. They inserted a very real looking image of a fly in each urinal and spillage declined dramatically. Apparently a little nudge—something to aim at—made a huge difference.¹⁶

Conclusion

These examples highlight the wide range of insight that behavioral economics offers into everyday human behavior. Many more applications are possible. For example,

recent research in education policy focused on using simplified, low-cost mailers to inform low-income, high achieving students about their options for college. This implementation of nudging is being used to help expand college opportunities to those who might benefit the most from investing in their human capital.¹⁷ Additionally, automation of text messaging for important reminders relies primarily on the use of nudges. Reminders have been shown to increase persistence in overcoming the status quo for missing deadlines—we see this use daily in education, healthcare, retail, and even by politicians to encourage desired outcomes.

On a lighter note, long-time fans of *The Simpsons* will find an interesting and humorous analysis on the spectrum of irrational behaviors exhibited by all of the Simpson family members, particularly Homer Simpson who, like many of us, is consistently bad at making good choices.¹⁸ Sports fans will discover even more real-life examples of persistent decision-making bias and flawed reasoning layered within the book and film *Moneyball* and see how acknowledging and address-

Lessons for the Classroom

Behavioral Economics Lesson Four—Why Are We So Impatient? highlights the one inherent flaw in assuming that people are perfectly rational decision-makers by showing what happens when we compare costs vs. benefits that occur in the future. This classroom demonstration illustrates why we are impatient and choose what benefits us immediately, especially when costs are realized in the future. www.econedlink.org/resources/behavioral-economics-lesson-four-why-are-we-so-impatient/

Behavioral Economics Lesson Five—Other Things Matter demonstrates how you can play the Ultimatum Game with your students to prompt a discussion of decision-making for Humans vs. Econs and how other factors influence economic behavior (www.econedlink.org/resources/behavioral-economics-lesson-five-other-things-matter/). Download all of the Behavioral Economics lessons from the Council for Economic Education www.econedlink.org/resources/how-to-use-the-behavioral-economics-lessons/.

ing these flaws, with the help of an economist, allowed them to build a competitive team.¹⁹ Most recently, behavioral economics was featured prominently in the hit 2018 movie, *Crazy Rich Asians*, which focused on two characters' strategies navigating family dynamics and focused on the powerful influence of loss aversion.²⁰

As the fields of psychology and economics become more deeply intertwined and continue to adapt and learn from each other, even more relevant and active uses of behavioral economics are in our near future. Students, teachers, parents and policymakers can all benefit from the insights of behavioral economics and leverage its power. Integrating these brief lessons and facilitating an open and active discussion will help spark curiosity into this emerging area of study and improve the relevance of economics for your students. ●

Notes

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