

Bowdoin College, Department of Economics
ECON 3533: Behavioral Economics
Spring 2020

"I can calculate the motion of heavenly bodies but not the madness of people." — Isaac Newton

"We are all behavioral economists now." — Joel Sobel

Time & Class Location: T,Th 1:15-2:40, VAC 303

Professor: Dan Stone

Email: dstone@bowdoin.edu (feel free to email questions as appropriate)

Office & Drop-in Hours: Hubbard 108; M, W 2:15-3:45. If you'd like to meet and can't make it at those times, don't hesitate to email to set up an appointment.

Prerequisites: Intermediate micro (Econ 2555) and statistics (Econ 2557) or equivalent. (Note students can take this course or Econ 3355 (Behavioral Economic Theory) but not both.)

Course description and learning goals: This course will cover models of the main topics of behavioral economics—the study of violations of the standard economic assumptions that individuals optimize stable and purely self-interested objective functions—and selected applications. Diamond and Vartiainen provided a good description of behavioral economics over 10 years ago (in 2007) that is still applicable: *"In the last decade or so, behavioral economics has fundamentally changed the way economists conceptualize the world. Behavioral economics is an umbrella of approaches that seek to extend the standard economics framework to account for relevant features of behavior that are absent in the standard economics framework. Typically, this calls for borrowing from the neighboring social sciences, in particular from psychology and sociology. The emphasis is on well-documented empirical findings: at the core of behavioral economics is the conviction that making our model of an economic man more accurate will improve our understanding of economics, thereby making the discipline more useful."* (http://www.mv.helsinki.fi/home/hvartiai/PUP_Intro+TOC.pdf)

That is: behavioral econ involves multiple approaches (not a single method), motivated by the goal of better understanding behavior for the sake of making economics more useful. BE grew considerably and had large impacts on economics overall in the late 90s and early 2000s – and the growth and impacts of BE have continued since then. Another important point noted is that behavioral econ is an extension (not a repudiation – or at least not *just* a repudiation) of standard econ. Behavioral econ offers tools for understanding behavior that are used increasingly often by economists who do not primarily consider themselves "behavioral" (as alluded to by the second epigraph quote above).

It is worth noting here also that even primarily behavioral economists should (and typically do) strive to take a critical and nuanced view toward evidence that on the surface appears "behavioral"--and we'll follow this approach in this class. While it is often intuitive to interpret observed behavior as being "behavioral," meaning driven by either non-rational factors or unselfish motives—when examined more carefully the behavior can be seen to actually effectively be driven by self-interest at a deeper level. In this class we will typically first try to understand if and how various behaviors can be rationalized in this way, reviewing the standard economic theory you have learned in the last four years, and essentially imposing the burden of proof on the behavioral side. This will give us a better understanding of behavior in general (since we will be leaning against *our* bias, or at least the bias of many people who study and think about these topics, to label behavior as irrational) and allow us to be more confident that the types of behavior

that do not pass this test (i.e. cannot be rationalized) are truly inconsistent with the more traditional economic approach.

Our course will consequently also provide a useful review and complement to the other econ courses you have taken, and, hopefully, serve as a good capstone course for the major. Last but not least, another goal of the class is to help you better understand behavior you encounter in everyday life—why people act in seemingly puzzling ways—and to help you better understand, and improve, your own judgment and decision-making. That means to sometimes make more rational decisions in the traditional sense—and to sometimes be more rational in a broader, less direct sense. Finally, I hope that this class will improve both your oral and written communication skills.

Format: The main assignment for this course is a research paper (approximately 10 pages), which will be due at the end of the semester, and a presentation on your research. In a nut-shell, you will do an in-depth study of a specific topic of your choice, in which you apply and expand on material we've learned throughout the term and material you've learned in other economics classes. Relevant deadlines are on the course schedule below, and more details TBA.

Prior to the paper, we'll cover the major topics in behavioral economics via a combination of readings, discussion, lecture, and modeling to clarify abstract concepts. Since this is a seminar class, you will be expected to participate in class discussions on a regular basis. This will enhance your class experience and learning – the more you participate, the more engaged and focused you'll be; you'll learn more, and you'll help others (and me) learn more. There will also be three in-class quizzes to assess, and incentivize, how well you're keeping up.

The schedule of readings is below – you should refer to this throughout the term to know what to read for each class. If I have to change the schedule I'll do my best to give you ample notice. I recommend writing down any particular comments or questions that occur to you while doing the reading that might be worth sharing with the class. I will sometimes give you discussion questions to consider in advance. Class participation will constitute a substantial portion of your class grade. If you miss class, try to email me or the entire class comments on the reading before class starts. There is also one behavioral economics seminar scheduled for outside of class that I'd like you to attend (see class schedule below).

Grading and communication/feedback: Your course numeric grade will be calculated as a weighted average as follows:

Participation – pre-spring break	10%
Participation – post-spring break	10%
3 Quizzes	15% (each)
Paper outline	5%
Presentation	5%
Paper	25%

I use a 10 point scale for letter grades with 3 point increments for 'half-grades' ($\geq 93.0 = A$; ≥ 90.0 and $< 93 = A-$, ≥ 87.0 and $< 90 = B+$, etc) with the potential for some grades being curved upward. The participation grade is broken into first half/second half, so you get feedback on how you're doing in that area. Feedback on quizzes should be clear. Don't hesitate to come to my office hours or set up an appointment any time you'd like to discuss anything. If you have questions on how you are doing grade-wise at any point during the semester, let me know. All course documents and grades will be posted to blackboard or emailed to you.

Books:

Thinking, Fast and Slow, Daniel Kahneman, 2011 (2002 Econ Nobel laureate)

Misbehaving, Richard Thaler, 2015 (2017 Econ Nobel laureate)

Selections (that I will provide) from Animal Spirits and Phishing for Phools (both by Akerlof and Shiller, 2001 and 2013 Econ Nobel winners, respectively).

Articles (PDFs or links on blackboard or distributed by email):

Barberis, N. "Thirty Years of Prospect Theory in Economics: A Review and Assessment." *Journal of Economic Perspectives*, 2013. <http://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.27.1.173>

Bénabou, R. and Jean Tirole "Mindful Economics: The Production, Consumption, and Value of Beliefs." *Journal of Economic Perspectives*, 2016.

Bikhchandani, S., Hirshleifer, D. and Welch, I. "Learning from the Behavior of Others." *Journal of Economic Literature*, 1998.

Bursztyrn, L. and Jensen, R. "Social Image and Economic Behavior in the Field: Identifying, Understanding, and Shaping Social Pressure." *Annual Review of Economics*, 2017.

Crawford et al. "Structural Models of Nonequilibrium Strategic Thinking: Theory, Evidence, and Applications." *Journal of Economic Literature*, 2013.

Fehr and Schmidt. "The Economics of Fairness, Reciprocity and Altruism – Experimental Evidence and New Theories." <http://epub.ub.uni-muenchen.de/13484/1/66.pdf>

Frederick, Loewenstein and O'Donoghue. "Time Discounting and Time Preference: A Critical Review." *Journal of Economic Literature*, 2002.

Mailath, G. "Do People Play Nash Equilibrium? Lessons From Evolutionary Game Theory." *Journal of Economic Literature*, 1998.

Nussbaum, E. "What Tina Fey Would Do for a SoyJoy", *New York*, 10-3-2008.

<http://nymag.com/news/features/51014/>

Rabin and Thaler. "Anomalies: Risk Aversion." *Journal of Economic Perspectives*, 2001.

Surowiecki, J. "Later: What does procrastination tell us about ourselves?" *The New Yorker*, 2010.

Tabarrok, A. "A phool and his money." <http://newramblerreview.com/book-reviews/economics/a-phool-and-his-money>.

Sunstein and Thaler, "THE TWO FRIENDS WHO CHANGED HOW WE THINK ABOUT HOW WE THINK," *The New Yorker*, Dec 7, 2016.

A few other references worth noting:

Academic surveys: Rabin (JEL, 1998); DellaVigna, (JEL, 2009); Handbook of Behavioral Economics (2018), edited by Bernheim, DellaVigna, Laibson.

Quasi-academic books (based on research (mostly) but written for general audience): classics - Nudge, Sunstein/Thaler; Irrational Exuberance, Shiller; personal history of Kahneman/Tversky - The Undoing Project, Michael Lewis; 'quasi-rational' theory of very behavioral-seeming phenomena – Elephant in the Brain, Simler and Hanson; belief formation – Superforecasting, Tetlock, Thinking in Bets, Annie Duke; people as animals - Behave, Sapolsky; how to write from cognitive psych perspective - The Sense of Style, Pinker

Good newish website on multi-disciplinary behavioral writing for popular audiences:

<http://behavioralscientist.org/>. New books I haven't gotten to (or haven't been released!) yet: Power of Bad (Tierney and Baumeister), The Hot Hand (Cohen), Noise (Kahneman, Sunstein, someone else ☺)

Course schedule and readings (subject to change; events to note in **bold**)

21-Jan Syllabus; brief history and definition of behavioral econ

Part I: Non-standard belief formation

23-Jan Two systems ('Psych 101') (Kahneman, Introduction, Chs 1-4)

28-Jan Hot hand/gambler's fallacy/ law of small numbers (Kahneman, Chs. 6-10)

30-Jan Biases ctd: Anchoring, availability, representativeness (Kahneman, Chs 11-14)

4-Feb Biases continued: conj fallacy, reg to mean, causal stories (Kahneman, Chs 15-18)

6-Feb Overconfidence (Kahneman, Chs 19-22)

11-Feb Overconfidence ctd (Kahneman, Chs 23-24, Benabou and Tirole, JEP 2016, up to "Portable Paradigm")

13-Feb **Quiz 1**

Part II: Non-standard decision-making

18-Feb Loss aversion/endowment effect (Kahneman, Part IV, Chs 25-28)

20-Feb Implications of EU and prospect theory (Rabin and Thaler, 2001 JEP; Barberis 2013 JEP)

25-Feb Probability weighting/risk (Kahneman, Chs 29-31)

27-Feb Mental accounting/(narrow) framing (Kahneman, Chs 32-34)

3-Mar Thaler's take (Thaler Preface and Chs 1-10)

5-Mar **Quiz 2**

Spring break (!)

24-Mar Game theory (Mailath, 1998, sections 1, 2; Crawford et al, 2013, p.5-7 + sect 2.4)

26-Mar Games ctd (Nussbaum) and time inconsistency (hyperbolic discounting, self-control problems) (Frederick

et al, JEL, 2002 sections 1, 2, start of 3 (until 3.1), 4-4.1

31-Mar Time continued (Thaler, Chs 11-12; Surowiecki)

Part III: Social influence

2-Apr Social pressure (Bikhchandani et al, JEP, 1998; Bursztyn and Jensen, 2017; Elephant selections?)

7-Apr Social preferences - (Fehr and Schmidt introduction; Thaler, p.125-6 + chs 14-15)

9-Apr Social preferences continued (Akerlof and Shiller, Animal Spirits ch(s) provided)

April 10, 5pm: deadline for paper topic approval

14-Apr Big picture: happiness/utility/equilibrium mkt failure (Kahneman, Chs 35-38)

16-Apr Synthesis (review recent 'unification of BE' work, e.g. Zinman et al, Gabaix)/critiques/responses/new directions/policy (Thaler Chs 31-33 and Conclusion, conclusion; Akerlof and Shiller, Phishing chapter(s), Basu, JEL).

April 17, 5pm: paper outline due

21-Apr **Quiz 3**

23-Apr ... Thaler/Sunstein review of Undoing Project; Student presentations

May 5 (extensions available, details TBD): **final paper due**