

Behavioral Economics and Policy Analysis

Fall 2020

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Class meets: Mondays, 2-5pm.

Overview

Behavioral economics now has a long history of criticizing the fully rational actor model and providing some alternatives grounded in psychology. Say you have been persuaded by this literature. What now? How does this knowledge influence the way we approach economic problems?

In this course, I will be surveying the ways in which behavioral economics ideas are influencing economic analysis in different “applied micro” fields. A guiding focus of the course will be studying the role of behavioral economics when conducting welfare or policy analysis. The course will begin with a high-level overview of the common themes seen across all the fields we’ll discuss, and then we will proceed through a series of modules in which we examine the specifics in different applications. Over the course of the semester, we’ll dive into public finance, health economics, market design, labor economics, and industrial organization.

When covering so much ground it is impossible to be fully comprehensive, and that will not be the goal. Instead, I aim to communicate my own (admittedly subjective) assessment of the most impactful and promising research frontiers within the field. The focus of our readings will be papers written in the very recent past. While we will of course at least briefly discuss the history behind the ideas we consider, I’ll be relying on your prerequisites to have done the deep dives into that more distant literature.

My hope is that by the end of the class, students will have a good sense of the conceptual and empirical approaches that are currently used in successful behavioral economics research. In short, this course is meant to bring aspiring researchers up-to-speed on what it looks like to bring behavioral economics to bear on classic economic questions.

Prerequisites

The official prerequisite for this course is Econ 703 (with a B or better). If you have not satisfied that prerequisite but would like to take this course, you must communicate with me to discuss your background and whether it is ok for you to take the course.

Class Structure

Class will take a common format every week. I will lecture for approximately 1.5 hours on the topic of the day. This will typically include a period of relatively broad and high-level discussion of the topic, followed by deep dives into several leading papers. At the end of this syllabus, I provide lists of papers associated with each topic area.

To provide students with the opportunity to more deeply engage with a paper (and to practice presentation skills) every class will also contain a brief student presentation. The presenter will take approximately 30 minutes to teach the class one of the papers from the “additional readings” list. This will be followed by a period of approximately 10 minutes of Q and A, in which the presenter will moderate a class discussion of the paper in question.

Expectations Before Each Class

This course has very little formally assigned work. Don't let that fool you. To get the most out of this class, you will need to be working to read and understand a fair amount of research every week. Before every class I expect students to read and understand the ~3 papers I have listed for the day. The “additional papers” are optional, but you certainly should read them if you intend to work in that area.

Grading

Midterm: 30%

Final exam: 30%

There will be a relatively standard midterm and final. While there will be some technical elements to these exams, primarily they will be testing conceptual understanding of the ideas of the papers we discuss.

Presentation: 30%

As noted above, every class will have an approximately 30-minute presentation by a student, followed by a 10 minute Q&A. In this presentation, you will walk the class through the details of a paper from the day's additional readings. Your goal should be to come to deeply understand the paper in question and to teach the class what you have learned. You should also use this as a chance to practice presenting papers.

Your grade will be determined by two sub-components: 20% will be for the quality of the presentation itself. 10% will be for preparing the slides you use for the presentation. These must be emailed to me by 4pm the day before your presentation.

Class participation: 10%

You are expected to be an engaged and active participant in class. While it is not necessary for you to constantly have questions or comments to get a good grade, it is necessary for you to speak up every now and then. I value quality over quantity. You must additionally be attentive and respectful to other students' presentations (and ideally mine as well).

Academic Integrity

Each student in this course is expected to abide by the Penn Code of Conduct. You can find the full text of these policies at the following links:

<https://catalog.upenn.edu/pennbook/code-of-student-conduct/>

Any work submitted by a student in this course for academic credit will be the student's own work. You are encouraged to study together and to discuss information and concepts covered in lecture with other students. You can give "consulting" help to or receive "consulting" help from other students. This consulting should not occur during the tests in this course, however.

Penalty for violation of this Code can also be extended to include failure of the course and University disciplinary action. In addition to copying, please also be aware of two other prohibitions:

- Videotaping, photographing, audiotaping, or otherwise making any picture or sound recording of an instructor is not permitted without the instructor's written consent.
- Students are not authorized to buy or sell course materials; violations of the above constitute academic misconduct as described in the Code of Academic Integrity. This prohibition also applies to "derivative" materials, including your own class notes that are based on course materials.

Schedule for the Semester, with Readings

Behavioral Public Finance 1: Tax Salience

Chetty, Raj, Adam Looney, and Kory Kroft. 2013. "Salience and Taxation: Theory and Evidence." *American Economic Review*, 99 (4): 1145-1177.

Goldin, Jacob, and Tatiana Homonoff. 2013. "Smoke Gets in Your Eyes: Cigarette Tax Salience and Regressivity." *American Economic Journal: Economic Policy*, 5 (1): 302-36.

Taubinsky, Dmitry and Alex Rees-Jones. 2018. "Attention Variation and Welfare: Theory and Evidence from a Tax Salience Experiment." *Review of Economic Studies*, 85 (4): 2462-2496.

Additional papers:

Finkelstein, Amy. 2009. "E-ZTAX: Tax Salience and Tax Rates." *The Quarterly Journal of Economics*, 124 (3): 969–1010.

Goldin, Jacob. 2015. "Optimal Tax Salience." *Journal of Public Economics*, 131: 115–123.

Hoopes, Jeffrey, Daniel Reck, and Joel Slemrod. 2015. "Taxpayer Search for Information: Implications for Rational Attention." *American Economic Journal: Economic Policy*, 7: 177–208.

Behavioral Public Finance 2: Behavioral Economics and Tax Compliance

Engström, Per, Katarina Nordblom, Henry Ohlsson, and Annika Persson. 2015. "Tax Compliance and Loss Aversion." *American Economic Journal: Economic Policy*, 7 (4): 132-64.

Rees-Jones, A. 2018. "Quantifying Loss-Averse Tax Manipulation." *The Review of Economic Studies*, 85(2): 1251–1278.

Hallsworth, M., List, J., Metcalfe, R., and Vlaev, I. 2017. "The Behavioralist as Tax Collector: Using Natural Field Experiments to Enhance Tax Compliance." *Journal of Public Economics*, 148: 14-31.

Additional papers:

Perez-Truglia, Ricardo and Ugo Troiano. 2018. "Shaming Tax Delinquents." *Journal of Public Economics*, 167: 120-137.

Bhargava, Saurabh and Dayanand Manoli. 2015. "Psychological Frictions and the Incomplete Take-Up of Social Benefits: Evidence from an IRS Field Experiment." *American Economic Review*, 105: 3489–3529.

Benzarti, Youssef. 2017 "How Taxing Is Tax Filing? Using Revealed Preferences to Estimate Compliance Costs." NBER WP 23903.

Dhami, S. and Al Nowaihi, A. 2007. "Why Do People Pay Taxes? Prospect Theory versus Expected Utility Theory." *Journal of Economic Behavior & Organization*, 64: 171–192.

Behavioral Public Finance 3: Optimal Taxation with Behavioral Agents

Non-behavioral background:

Mirrlees, James A. 1971. "An Exploration in the Theory of Optimum Income Taxation." *The Review of Economic Studies*, 38 (2): 175–208.

Saez, Emmanuel. 2001. "Using Elasticities to Derive Optimal Income Tax Rates." *The Review of Economic Studies*, 68 (1): 205–229.

Behavioral papers:

Feldman, Naomi E., Peter Katuscak, and Laura Kawano. 2016. "Taxpayer Confusion: Evidence from the Child Tax Credit." *American Economic Review*, 106 (3): 807–835.

Farhi, Emmanuel and Xavier Gabaix. 2018. "Optimal Taxation with Behavioral Agents," NBER WP 21524.

Rees-Jones, Alex and Dmitry Taubinsky. 2019. "Measuring "Schmeduling,"" *Review of Economic Studies*, forthcoming.

Additional papers:

Fujii, Edwin T and Clifford Hawley. 1988. "On the Accuracy of Tax Perceptions." *The Review of Economics and Statistics*, 70 (2): 344–347.

de Bartolome, Charles A. M. 1995. "Which Tax Rate Do People Use: Average or Marginal?" *Journal of Public Economics*, 56 (1): 79–96.

Gerritsen, Aart. 2016. "Optimal Taxation When People Do Not Maximize Well-Being," *Journal of Public Economics*, 144: 122-139.

Behavioral Environmental/Energy Economics

Ito, Koichiro. 2014. "Do Consumers Respond to Marginal or Average Price? Evidence from Nonlinear Electricity Pricing." *American Economic Review*, 104 (2): 537-63.

Hunt Allcott. 2011. "Social Norms and Energy Conservation," *Journal of Public Economics*, 95: 1082-1095.

Allcott, Hunt, and Judd B. Kessler. 2019. "The Welfare Effects of Nudges: A Case Study of Energy Use Social Comparisons." *American Economic Journal: Applied Economics*, 11 (1): 236-76.

Allcott, Hunt, and Dmitry Taubinsky. 2015. "Evaluating Behaviorally Motivated Policy: Experimental Evidence from the Lightbulb Market." *American Economic Review*, 105 (8): 2501-38.

Additional papers:

Justine S. Hastings, Jesse M. Shapiro. 2013. "Fungibility and Consumer Choice: Evidence from Commodity Price Shocks." *The Quarterly Journal of Economics*, 128 (4): 1449–1498.

Hunt Allcott. 2015. "Site Selection Bias in Program Evaluation." *The Quarterly Journal of Economics*, 130 (3): 1117–1165

Hunt Allcott, Sendhil Mullainathan, Dmitry Taubinsky. 2014. "Energy Policy with Externalities and Internalities." *Journal of Public Economics*, 112: 72-88.

Behavioral Health Economics

Bhargava, Saurabh, George Loewenstein, and Justin Sydnor. 2017. "Choose to Lose: Health Plan Choices from a Menu with Dominated Options." *The Quarterly Journal of Economics*, 132 (3): 1319–1372.

Handel, Benjamin R. 2013. "Adverse Selection and Inertia in Health Insurance Markets: When Nudging Hurts." *The American Economic Review*, 103 (7), 2643–2682.

Milkman, K.L., J. Beshears, J.J. Choi, D. Laibson, and B.C. Madrian. 2011. "Using Implementation Intentions Prompts to Enhance Influenza Vaccination Rates." *Proceedings of the National Academy of Sciences*, 108: 10415-10420.

Volpp KG, John LK, Troxel AB, Norton L, Fassbender J, Loewenstein G. 2008. "Financial Incentive–Based Approaches for Weight Loss: A Randomized Trial." *JAMA*, 300(22):2631–2637.

Additional papers:

Mariana Carrera, Heather Royer, Mark Stehr, and Justin Sydnor. 2018. "Can Financial Incentives Help People Trying to Establish New Habits? Experimental Evidence with New Gym Members." *Journal of Health Economics*, 58: 202-214.

Milkman, K.L., J.A. Minson, and K.G.M. Volpp. 2014. "Holding the Hunger Games Hostage at the Gym: An Evaluation of Temptation Bundling." *Management Science*, 60(2): 283-299.

Loewenstein G, Brennan T, Volpp KG. 2007. "Asymmetric Paternalism to Improve Health Behaviors." *JAMA*, 298(20): 2415–2417.

Behavioral Market Design

Chen, Yan and Tayfun Sönmez. 2006. "School choice: an experimental study," *Journal of Economic Theory*, 127: 202–231.

Pathak, Parag and Tayfun Sönmez. 2008. "Leveling the Playing Field: Sincere and Sophisticated Players in the Boston Mechanism." *American Economic Review*, 98: 1636–52.

Rees-Jones, Alex and Samuel Skowronek. 2018. "An Experimental Investigation of Preference Misrepresentation in the Residency Match." *Proceedings of the National Academy of Sciences*, 115(45): 11471-11476.

Shorrer, Ran and Sandor Sóvágó. 2018. "Obvious Mistakes in a Strategically Simple College Admissions Environment: Causes and Consequences." SSRN WP 2993538.

Li, Shengwu. 2017. "Obviously Strategy-Proof Mechanisms." *American Economic Review*, 107: 3257– 87.

Additional papers:

Featherstone, Clayton. and Muriel Niederle. 2016. "Boston versus Deferred Acceptance in an Interim Setting: An Experimental Investigation." *Games and Economic Behavior*, 100: 353 – 375.

Basteck, Christian and Marco Mantovani. 2018. "Cognitive Ability and Games of School Choice." *Games and Economic Behavior*, 109: 156 – 183.

Hassidim, Avinatan, Assaf Romm, and Ran Shorrer. 2018. "'Strategic' Behavior in a Strategy-Proof Environment." SSRN WP 2784659.

Behavioral Labor Economics 1: Self Control in Job Search and Job Performance

DellaVigna, S., A. Lindner, B. Reizer, and J. Schmieder. 2017. "Reference-Dependent Job Search: Evidence from Hungary," *Quarterly Journal of Economics*, 132(4): 1969-2018.

Supreet Kaur, Michael Kremer, and Sendhil Mullainathan. 2015. "Self-Control at Work." *Journal of Political Economy*, 123 (6): 1227-1277.

Hossain, Tanjim, and John A List. 2012. "The behavioralist visits the factory: Increasing Productivity using Simple framing Manipulations." *Management Science*, 58(12): 2151-2167.

Additional Papers:

Stefano DellaVigna and M. Daniele Paserman. 2005. "Job Search and Impatience." *Journal of Labor Economics* 23 (3): 527-588.

Paserman, M. Daniele. 2008. "Job Search and Hyperbolic Discounting: Structural Estimation and Policy Evaluation." *The Economic Journal*, 118 (531): 1418–1452.

De Quidt, Jonathan. 2018. "Your Loss Is My Gain: A Recruitment Experiment with Framed Incentives," *Journal of the European Economic Association*, 16 (2): 522–559.

Fryer Jr., Roland, Steven Levitt, John List, and Sally Sadoff. 2012. "Enhancing the Efficacy of Teacher Incentives Through Framing: A Field Experiment." Working paper.

Behavioral Labor Economics 2: Labor Supply, Primarily of Taxi Drivers

Abeler, J., A. Falk, L. Goette, and D. Huffman. 2011. "Reference Points and Effort Provision." *American Economic Review*, 101(2): 470-492.

Camerer, C., L. Babcock, G. Loewenstein, and R. Thaler. 1997. "Labor Supply of New York City Cabdrivers: One Day at a Time." *Quarterly Journal of Economics*, 112: 407-443.

Farber, H. 2008. "Reference-Dependent Preferences and Labor Supply: The Case of New York City Taxi Drivers." *American Economic Review*, 98: 1069-1082.

Thakral, N. and L. Tô. 2018. "Daily Labor Supply and Adaptive Reference Points." working paper.

Additional papers:

Crawford, V. and J. Meng. 2011. "New York City Cabdrivers' Labor Supply Revisited: Reference-Dependent Preferences with Rational-Expectations Targets for Hours and Income." *American Economic Review*, 101: 1912-1932.

Farber, H. 2005. "Is Tomorrow Another Day? The Labor Supply of New York City Cab Drivers." *Journal of Political Economy*, 113: 46-82.

Farber, H. 2015. "Why You Can't Find a Taxi in the Rain and Other Labor Supply Lessons from Cab Drivers." *Quarterly Journal of Economics*, 130(4): 1975-2026.

Behavioral Labor Economics 3: Discrimination

Bertrand, Marianne, and Sendhil Mullainathan. 2004. "Are Emily and Greg More Employable Than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination." *American Economic Review*, 94 (4): 991-1013.

Bohren, Aislinn, Alex Imas, and Michael Rosenberg. "The Dynamics of Discrimination: Theory and Evidence." *American Economic Review*, forthcoming.

Sarsons, Heather. "Interpreting Signals in the Labor Market: Evidence from Medical Referrals" Working paper.

Katherine Baldiga Coffman. 2014. "Evidence on Self-Stereotyping and the Contribution of Ideas." *The Quarterly Journal of Economics*, 129 (4): 1625–1660.

Additional papers:

Milkman, K. L., Akinola, M., & Chugh, D. 2012. "Temporal Distance and Discrimination: An Audit Study in Academia." *Psychological Science*, 23(7): 710–717.

Edelman, Benjamin, Michael Luca, and Dan Svirsky. 2017. "Racial Discrimination in the Sharing Economy: Evidence from a Field Experiment." *American Economic Journal: Applied Economics*, 9 (2): 1-22.

Sarsons, Heather. "Gender Differences in Recognition for Group Work." *Journal of Political Economy*, Forthcoming.

Behavioral Industrial Organization

Heidhues, Paul and Botond Koszegi, "Behavioral Industrial Organization," in Handbook of Behavioral Economics – Foundations and Applications 1, B. Douglas Bernheim, Stefano DellaVigna, and David Laibson, eds., Elsevier, 2018.

Additional papers:

Heidhues, Paul, Botond Koszegi, and Takeshi Murooka. 2017. "Inferior Products and Profitable Deception." *Review of Economic Studies*, 84: 323–356.

Hossain, T. and Morgan, J. 2006. "...Plus Shipping and Handling: Revenue (Non) Equivalence in Field Experiments on eBay." *Advances in Economic Analysis and Policy*, 5, 1–30.

Gabaix X, Laibson D. 2006. "Shrouded Attributes, Consumer Myopia, and Information Suppression in Competitive Markets." *Quarterly Journal of Economics*, 121 (2): 505-540

Kőszegi, Botond and Paul Heidhues. 2008. "Competition and Price Variation When Consumers Are Loss Averse." *American Economic Review*, 98(4): 1245-1268.