

Harvard University  
Spring 2019

# Psychology and Economics

## Economics 2030

Spring 2019

David Laibson    Andrei Shleifer

### Course Information

**Course Overview:** This course studies the ways that economic and psychological factors jointly influence behavior. We will analyze choices that economic actors make in the lab and in the field and we will explain these choices with economic models. We will enrich the standard economic model by incorporating psychological mechanisms, including limited rationality and limited self-control. Applications that we study will include salience, inference, strategic behavior, consumption, savings, and persuasion. This course is intended for students interested in research. The course will use the standard mathematical and empirical methods employed in economic research.

**Meeting time and location:** Wednesdays 3-5:45. Harvard Hall 103.

#### Instructors:

- David Laibson  
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- Andrei Shleifer  
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- Giorgio Saponaro  
Littauer G24, [giorgiosaponaro@g.harvard.edu](mailto:giorgiosaponaro@g.harvard.edu)  
Section:  
Office Hours: TBD

**Course web site:** <https://canvas.harvard.edu/courses/47477> Syllabus, problem sets, problem set solutions, readings, and handouts will be available on the course web site.

**Prerequisites:** graduate level coursework in statistics, game theory, microeconomic theory, dynamic optimization. Please talk to us if you have doubts about your background.

### **Collapsed Course Outline:**

January 30	Introduction and Methodology (David)
February 6	Prospect Theory (Andrei)
February 13	Saliency Theory (Andrei and Nicola Gennaioli)
February 20	Heuristics and Biases / Stereotypes (Andrei and Katie Coffman)
February 27	Errors in Probabilistic Reasoning and Judgment Biases (Daniel J. Benjamin)
March 6	Mental Accounting (Jesse Shapiro)
March 13	Advertising and Persuasion (Andrei and Josh Schwartzstein)
March 20	Spring Break
March 27	Intertemporal Choice Theory (David)
April 3	Modeling and Measuring Attention: From Micro to Macro (Xavier Gabaix)
April 10	Intertemporal Choice Empirics (David)
April 17	Household Finance and Choice Architecture (David) April
24	Behavioral Mechanism Design and Paternalism (David)
May 1	Biosocial Science: Neuroeconomics and Genoeconomics (David)

**Grading:** Grades will be calculated from two weighted components: problem sets (1/4), and final exam (3/4). Students who have taken 2010a/b and 2010c/d (or are currently taking these course) may also opt into a paper option that replaces the final exam. In this case, the paper deadline is set by you, but it may be no later than September 1. Tell Emily Sall this deadline by March 1.

**Problem Sets:** We will assign 6 problem sets over the course of the semester.

**Policy on Lateness:** Late problem sets will receive half credit.

**Student collaboration:** Students may collaborate on problem sets, but they should acknowledge their collaborators and describe the extent of their collaboration at the top of the relevant assignments. While collaboration is allowed, directly copying someone else's work is not. Problem sets may be discussed, but they should be written up independently. Copying someone else's work can result in a requirement to withdraw from the University.

**Recommended texts:** You should buy the texts that match your specific research interests. Take special note of the two-volume *Handbook of Behavioral Economics* edited by Bernheim, DellaVigna, and Laibson (2018, 2019), which is on sale at the COOP.

Baron. *Thinking and Deciding*, Cambridge University Press, 1994.

Bernheim BD, DellaVigna S, Laibson D. [Handbook of Behavioral Economics - Foundations and Applications 1 \(Volume 1\)](#). Elsevier; 2018. (Individual chapters are free on-line.)

Bernheim BD, DellaVigna S, Laibson D. [Handbook of Behavioral Economics - Foundations and Applications 2 \(Volume 2\)](#). Elsevier; 2019. (Individual chapters are free on-line.)

Cialdini. *Influence: The Psychology of Persuasion*, Quill, 1998.

Camerer, Loewenstein, and Rabin. *Advances in Behavioral Economics*

Congdon, Kling and Mullainathan, *Policy and Choice*.

Gilovich, Griffin, and Kahneman. *Heuristic and Biases: The Psychology of Intuitive Judgment*

Kagel, John and Alvin Roth. *Handbook of Experimental Economics*, Princeton, N.J.: Princeton University Press, 1995.

Kagel, John and Alvin Roth. *Handbook of Experimental Economics, Volume 2*. Princeton, N.J.: Princeton University Press, 2016.

Kahana, Michael. *Foundations of Human Memory*. Oxford University Press, 2012.

Kahneman, *Thinking, Fast and Slow*, Farrar, Straus, Giroux 2011.

Kahneman, Slovic, and Tversky, *Judgment under Uncertainty: Heuristics and Biases*

Kahneman, Daniel and Amos Tversky. *Choices, Values and Frames*, New York: Russell Sage Foundation; Cambridge, U.K.; New York: Cambridge University Press, 2000.

Loewenstein, Read, and Baumeister, *Time and Decision*, Russell Sage Foundation, 2003.

Nisbett and Ross, *The Person and Situation*, McGraw Hill, 1991.

Shleifer. *Inefficient Markets, Clarendon Lectures*, Oxford; New York: Oxford University Press, 2000.

Thaler, *Advances in Behavioral Finance*

Thaler. *The Winner's Curse: Paradoxes and Anomalies of Economic Life*, Princeton, N.J.: Princeton University Press, 1994.

Thaler and Sunstein, *Nudge*, 2008

Thaler, *Misbehaving: The Making of Behavioral Economics*, 2015.

**Readings:** The papers on the following pages are recommended readings that reflect what is discussed in class (or is good background reading for that lecture). You should also come to us if you are looking for additional suggestions on topics that particularly interest you. Starred readings (\*) are literature reviews, some with a point of view.

## **Course Outline:**

### **January 30**

#### **Introduction and Methodology (David)**

\*Bernheim BD, DellaVigna S, Laibson D. [Handbook of Behavioral Economics - Foundations and Applications 1 \(Volume 1\)](#). Elsevier; 2018. (Individual chapters are free on-line.)

\*Bernheim BD, DellaVigna S, Laibson D. [Handbook of Behavioral Economics - Foundations and Applications 2 \(Volume 2\)](#). Elsevier; 2019. (Individual chapters are free on-line.)

\*Card, David, Stefano DellaVigna, and Ulrike Malmendier (2011), "[The Role of Theory in Field Experiments](#)" *Journal of Economic Perspectives* 25(3): 39-62, Summer.

\*DellaVigna, Stefano. "[Structural behavioral economics](#)." No. w24797. National Bureau of Economic Research, 2018.

Gabaix, Xavier, and David Laibson. 2008. "[The Seven Properties of Good Models](#)." In eds Andrew Caplin and Andrew Schotter *The Methodologies of Modern Economics: Foundations of Positive and Normative Economics*, Oxford University Press.

\*Kagel, John and Alvin Roth. (Eds.) *Handbook of Experimental Economics*, Princeton, N.J.: Princeton University Press, 1995.

\*Kagel, J. H., & Roth, A. E. (Eds.). *The handbook of experimental economics, volume 2*. Princeton University Press, 2016.

Kahneman, *Thinking, Fast and Slow*, Farrar, Straus, Giroux 2011.

\*Nisbett and Ross, *The Person and Situation*, McGraw Hill, 1991.

\*Thaler. *The Winner's Curse: Paradoxes and Anomalies of Economic Life*, Princeton, N.J.: Princeton University Press, 1994.

## February 6

### Prospect Theory (Andrei)

Kahneman, Daniel, and Amos Tversky (1979). "[Prospect Theory: An Analysis of Decision under Risk](#)." *Econometrica*, XLVII, 263-291.

Benartzi, Shlomo, and Richard H. Thaler (1995). "[Myopic Loss Aversion and the Equity Premium Puzzle](#)." *Quarterly Journal of Economics*, 110(1): 73-92.

Kahneman, Daniel, Jack Knetsch, and Richard H. Thaler (1990). "[Experimental Tests of the Endowment Effect and the Coase Theorem](#)." *Journal of Political Economy*, vol. 98(6): 1325-48

Sydnor, Justin (2010). "[\(Over\)insuring Modest Risks](#)." *American Economic Journal: Applied Economics*, 2(4): 177-99

Allen, Eric J., Patricia M. Dechow, Devin G. Pope, and George Wu (2015). "[Reference-Dependent Preferences: Evidence from Marathon Runners](#)", *Management Science*.

## February 13

### Saliency Theory (Andrei and Nicola Gennaioli)

Bordalo, Pedro, Nicola Gennaioli, and Andrei Shleifer (2012), "[Saliency Theory of Choice Under Risk](#)", *Quarterly Journal of Economics* 127(3): 1243-1285

Bordalo, Pedro, Nicola Gennaioli, and Andrei Shleifer (2013), "[Saliency and Consumer Choice](#)", *Journal of Political Economy* 121(5): 803-843.

Bordalo, Pedro, Nicola Gennaioli, and Andrei Shleifer (2019), "Memory, Attention, and Choice", working paper.

Dertwinkel-Kalt, Markus, and Mats Köster (2019). "[Saliency and Skewness Preferences](#)". Working paper.

## February 20

### Heuristics and Biases / Stereotypes (Andrei and Katie Coffman)

Kahneman, *Thinking, Fast and Slow*, Farrar, Straus, Giroux 2011.

Kahneman, Daniel, and Amos Tversky (1974). “[Judgment Under Uncertainty: Heuristics and Biases](#),” *Science*, 185, 1124-1131.

Kahneman, Daniel, and Amos Tversky (1983). “[Extensional vs. Intuitive Reasoning: The Conjunction Fallacy in Probability Judgment](#),” *Psychological Review* 90(4): 293- 315.

Gennaioli, Nicola, and Andrei Shleifer (2010). “[What Comes to Mind](#),” *Quarterly Journal of Economics* 125(4): 1399-1433.

Chen, Daniel L., Tobias J. Moskowitz, and Kelly Shue (2016). “[Decision-Making Under the Gambler’s Fallacy: Evidence from Asylum Judges, Loan Officers, and Baseball Umpires](#)”, *Quarterly Journal of Economics* 131(3): 1181-1242.

Bordalo, Pedro, Katie Coffman, Nicola Gennaioli, and Andrei Shleifer (2016), “[Stereotypes](#)”, *Quarterly Journal of Economics* 131(4): 1753-1794.

Coffman, Katherine Baldiga (2014), “[Evidence on Self-Stereotyping and the Contribution of Ideas](#),” *Quarterly Journal of Economics* 129(4): 1625-1660.

Bordalo, Pedro, Katie Coffman, Nicola Gennaioli, and Andrei Shleifer (2019), “[Beliefs about Gender](#)”, *American Economic Review*, forthcoming.

## **February 27**

### **Errors in Probabilistic Reasoning and Judgment Biases (Daniel J. Benjamin)**

\*Benjamin, Daniel J. (forthcoming). “[Errors in Probabilistic Reasoning and Judgment Biases](#)”. Chapter for the *Handbook of Behavioral Economics – Foundations and Applications 2, Volume 2* (edited by Doug Bernheim, Stefano DellaVigna, and David Laibson). Elsevier Press.

## **March 6**

### **Mental Accounting (Jesse Shapiro)**

[Class preparation memo](#)

Heath, Chip, and Jack B. Soll (1996). “[Mental Budgeting and Consumer Decisions](#)”. *Journal of Consumer Research* 23(1): 40-52.

Hastings, Justine, and Jesse M. Shapiro (2013). “[Fungibility and Consumer Choice: Evidence from Commodity Price Shocks](#)”. *Quarterly Journal of Economics* 128(4): 1449-1498.

Hoynes, Hilary W., and Diane Whitmore Schanzenbach (2009). “[Consumption Responses to In-Kind Transfers: Evidence from the Introduction of the Food Stamp Program](#)”. *American Economic Journal: Applied Economics* 1(4): 109-139.

## **March 13**

### **Advertising and Persuasion (Andrei and Josh Schwartzstein)**

Sendhil Mullainathan, “[Thinking through categories](#),” mimeo.

Mullainathan, Sendhil, Joshua Schwartzstein, and Andrei Shleifer (2008). “[Coarse Thinking and Persuasion](#),” *Quarterly Journal of Economics* 123 (2):577–619.

Schwartzstein, Joshua, and Adi Sunderam (2018). “[Using Models to Persuade](#)”. Working paper.

## **March 20 - Spring Break**

**March 27**

**Intertemporal Choice Theory (David)**

Akerlof, George (1991). "[Procrastination and Obedience](#)," The Richard T. Ely Lecture, *American Economic Review, Papers and Proceedings*, 81(2): 1-19, May.

Carroll, Gabriel D., James Choi, David Laibson, Brigitte C. Madrian, and Andrew Metrick (2009). "[Optimal Defaults and Active Decisions](#)." *Quarterly Journal of Economics* 124(4): 1639-1674.

\*Cohen, Jonathan D., Keith Marzilli Ericson, David Laibson, and John Myles White. [Measuring time preferences](#). No. w22455. National Bureau of Economic Research, 2016.

DellaVigna, Stefano, and Ulrike Malmendier (2004), "[Contract Design and Self-Control: Theory and Evidence](#)." *Quarterly Journal of Economics*, 119(2): 353-402.

\*Ericson KM, Laibson D. [Intertemporal Choice](#). In: Bernheim D, Laibson D, DellaVigna S, Handbook of Behavioral Economics - Foundations and Applications 2. Elsevier; 2019

Gabaix, Xavier and David Laibson (2017) "[Myopia and Discounting](#)" working paper.

Harris, Christopher and David Laibson (2013). "[Instantaneous Gratification](#)." *Quarterly Journal of Economics* 128(1): 205-248.

Harris, Christopher, and David Laibson (2001). "[Dynamic choices of hyperbolic consumers](#)." *Econometrica* 69(4): 935-957.

Laibson, David and Leeat Yariv (2007), "[Safety in Markets: An Impossibility Theorem for Dutch Books](#)," working paper.

Laibson, David (2015). "[Why don't present-biased agents make commitments?](#)" *American Economic Review Papers and Proceedings* 105(5): 267-272.

Laibson, David (1997). "[Golden Eggs and Hyperbolic Discounting](#)." *Quarterly Journal of Economics*, 112(2): 443-77, May.

O'Donoghue, Ted and Matthew Rabin (1999). "[Doing It Now or Later](#)." *American Economic Review*, 89(1): 103-124, March.

O'Donoghue, Ted, and Matthew Rabin (2001). "[Choice and Procrastination](#)." *Quarterly Journal of Economics* 116(1): 121-160.

Phelps, E.S. and R.A. Pollak (1968). "[On Second-Best National Saving and Game-Equilibrium Growth](#)." *Review of Economic Studies*, 35(2): 185-199.

Schelling, Thomas C. (1992). "Self-Command: A New Discipline." *Choice Over Time*, George Loewenstein and Jon Elster eds., Ch. 7, pp. 167-176.

**April 3**

**Modelling and Measuring Attention: from micro to macro**

Chetty, Raj, Adam Looney, and Kory Kroft. "[Salience and Taxation: Theory and Evidence](#)," *American Economic Review* 99.4 (2009): 1145-1177.

Farhi, Emmanuel and Xavier Gabaix. "[Optimal Taxation with Behavioral Agents](#)." 2018.

Gabaix, X. and Laibson, D. "[Shrouded Attributes, Consumer Myopia, and Information Suppression in Competitive Markets](#)," QJE 2006.

Gabaix, Xavier (2014). "[A Sparsity-Based Model of Bounded Rationality](#)," *Quarterly Journal of Economics*, 129(4): 1661-1710.

\*Gabaix, X. "[Behavioral inattention](#)", *Handbook of Behavioral Economics* (edited by Douglas Bernheim, Stefano DellaVigna and David Laibson), 2019

Gabaix, Xavier (2017). "[Behavioral Macroeconomics Via Sparse Dynamic Programming](#)."

Gabaix, Xavier (2018). "[A Behavioral New Keynesian Model](#)."

Taubinsky, Dmitry and Alex Rees-Jones "[Attention Variation and Welfare: Theory and Evidence from a Tax Salience Experiment](#)" *Forthcoming at the Review of Economic Studies*

**April 10**

**Intertemporal Choice Empirics (David)**

- Andersen, Steffen, Glenn Harrison, Morten Lau and Elisabet Rutström, "[Eliciting Risk and Time Preferences](#)," *Econometrica*, 76(3), May 2008, 583-618.
- Andreoni, James and Charles Sprenger (2012). "[Estimating Time Preferences from Convex Budgets](#)," *American Economic Review* 102(7): 3333-3356.
- Andreoni, James and Charles Sprenger (2012). "[Risk Preferences Are Not Time Preferences](#)," *American Economic Review* 102(7): 3357-3376.
- Angeletos, George-Marios, David Laibson, Andrea Repetto, Jeremy Tobacman, and Stephen Weinberg (2001). "[The Hyperbolic Buffer Stock Model: Calibration, Simulation, and Empirical Evaluation](#)," *Journal of Economic Perspectives* 15(3): 47-68, Summer.
- Ariely, Dan and Klaus Wertenbroch (2002). "[Procrastination, Deadlines, and Performance: Self-Control by Precommitment](#)," *Psychological Science* 13(3): 219-224, May.
- Ashraf, Nava, Dean Karlan, and Wesley Yin (2006). "[Tying Odysseus to the Mast: Evidence from a Commitment Savings Product in the Philippines](#)," *Quarterly Journal of Economics* 121(2): 635-672.
- Augenblick, Ned, Muriel Niederle, and Charles Sprenger (2013). "[Working Over Time: Dynamic Inconsistency in Real Effort Tasks](#)," NBER Working Paper No. 18734.
- Beshears, John, James J. Choi, Christopher Harris, David Laibson, Brigitte C. Madrian, and Jung Sakong (2011). "[Self Control and Liquidity: How to Design a Commitment Contract](#)."
- Brown, Jeffrey R., and Alessandro Previtro (2014). "[Procrastination, Present-Biased Preferences, and Financial Behaviors](#)."
- Brown, Jennifer, Tanjim Hossain, and John Morgan (2010). "[Shrouded Attributes and Information Suppression: Evidence from the Field](#)" *Quarterly Journal of Economics* 125(2): 859-876.
- Chabris, Christopher F., David Laibson, Carrie L. Morris, Jonathon P. Schuldt, Dmitry Taubinsky (2008). "[Individual Laboratory-Measured Discount Rates Predict Field Behavior](#)," *Journal of Risk and Uncertainty* 37(2-3): 237-269.
- Choi, James, David Laibson, Brigitte C. Madrian, and Andrew Metrick (2002). "[Defined Contribution Pensions: Plan Rules, Participant Decisions, and the Path of Least Resistance](#)," *Tax Policy and the Economy*, 16: 67-113.

\*Cohen, Jonathan D., Keith Marzilli Ericson, David Laibson, and John Myles White. [Measuring time preferences](#). No. w22455. National Bureau of Economic Research, 2016.

DellaVigna, Stefano, and Ulrike Malmendier (2006). "[Paying Not to Go to the Gym](#)." *American Economic Review* 96(3): 694-719.

Duflo, Esther, Michael Kremer, and Jonathan Robinson (2011). "[Nudging Farmers to Use Fertilizer: Theory and Experimental Evidence from Kenya](#)." *American Economic Review* 101(6): 2350-2390.

\*Ericson KM, Laibson D. [Intertemporal Choice](#). In: Bernheim D, Laibson D, DellaVigna S, Handbook of Behavioral Economics - Foundations and Applications 2. Elsevier; 2019

Kaur, Supreet, Michael Kremer, and Sendhil Mullainathan (2010). "[Self-Control and the Development of Work Arrangements](#)," *American Economic Review* 100(2): 624-628, May.

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

Laibson, David, Andrea Repetto, and Jeremy Tobacman (2008). "[Estimating Discount Functions with Consumption Choices over the Lifecycle](#)." NBER Working Paper No. 13314.

Mischel, Walter, Yuichi Shoda, and Monica L. Rodriguez (1989). "[Delay of Gratification in Children](#)." *Science*, 244(4907): 933-938, May.

Read, Daniel, and Barbara van Leeuwen(1998). "[Predicting Hunger: The Effects of Appetite and Delay on Choice](#)." *Organizational Behavior and Human Decision Processes*, 76(2): 189-205, November.

Read, Daniel, George Loewenstein, and Shobana Kalyanaraman (1999). "[Mixing Virtue and Vice: Combining the Immediacy Effect and the Diversification Heuristic](#)." *Journal of Behavioral Decision Making* 12(4): 257-273.

Schilbach, Frank (2017). "[Alcohol and Self-Control: A Field Experiment in India](#)."

**April 17**

**Household Finance, Choice Architecture and Nudges (David)**

Allcott, Hunt (2011). "[Social Norms and Energy Conservation.](#)" *Journal of Public Economics*, Vol. 95, No 9-10 (October), pages 1982-1095.

Baicker et. al., "[Behavioral Hazard in Health Insurance](#)"

Bertrand, Karlan, Mullainathan, Shafir and Zinman, "[What's Advertising Content Worth? Evidence from a Consumer Credit Marketing Field Experiment.](#)" *Quarterly Journal of Economics*, 125(1), February 2010.

Benartzi, Shlomo and Richard H. Thaler. (February 2004). "[Save More Tomorrow: Using Behavioral Economics to Increase Employee Savings.](#)" *Journal of Political Economy*, Vol. 112.1, Part 2, pp. S164-S187.

\*Beshears J, J.Choi J, Laibson D, Madrian BC. [Behavioral Household Finance.](#) In: Bernheim D, Laibson D, DellaVigna S Handbook of Behavioral Economics - Foundations and Applications 1. Elsevier; 2018.

Beshears, John, James J. Choi, David Laibson, Brigitte C. Madrian, and Brian Weller. 2010. "[Public Policy and Saving for Retirement: The "Autosave" Features of the Pension Protection Act of 2006.](#)" John J. Siegfried, editor. *Better Living Through Economics.*

Beshears, John, James J. Choi, David Laibson, Brigitte C. Madrian, and William Skimmyhorn (2017), "[Borrowing to Save? The Impact of Automatic Enrollment on Debt.](#)" working paper.

Beshears J, J.Choi J, Laibson D, Madrian BC (2017). [Does Aggregated Returns Disclosure Increase Portfolio Risk-Taking?](#). *Review of Financial Studies* 30(6): 1971-2005.

Beshears J, J.Choi J, Laibson D, Madrian BC, Milkman KL (2015). [The Effect of Providing Peer Information on Retirement Savings Decisions.](#) *Journal of Finance* 70(3): 1161-1201.

Chetty, Raj, Adam Looney, and Kory Kroft (2009). "[Salience and Taxation: Theory and Evidence.](#)" *American Economic Review*, 99(4): 1145-77.

Choi, James, David Laibson, Brigitte Madrian. 2011. "[\\$100 Bills on the Sidewalk: Suboptimal Investment in 401\(k\) Plans.](#)" *Review of Economics and Statistics* 93(3):748-763.

Choi, James, David Laibson, Brigitte Madrian. 2010. "[Why Does the Law of One Price Fail? An Experiment on Index Mutual Funds.](#)" *Review of Financial Studies* 23(4): 1405-1432.

Choi, James J., David Laibson, Brigitte C. Madrian. 2009. "[Mental Accounting in Portfolio Choice: Evidence from a Flypaper Effect.](#)" *American Economic Review* 99(5): 2085-2095.

Choi, James, David Laibson, and Brigitte Madrian. 2009. "[Reducing the Complexity Costs of 401\(k\) Participation Through Quick Enrollment](#)." *Developments in the Economics of Aging*, David A. Wise, editor. [Click [here](#) for nicely typeset text]

Madrian, Brigitte and Dennis F. Shea (2001). "[The Power of Suggestion: Inertia in 401\(k\) Participation and Savings Behavior](#)" *Quarterly Journal of Economics* 116(4): 1149- 1187.

Milkman, Katherine L., John Beshears, James J. Choi, David Laibson, Brigitte C. Madrian. 2011. "[Using Implementation Intentions Prompts to Enhance Influenza Vaccination Rates](#)." *Proceedings of the National Academy of Sciences* 108(26): 10415-10420.

Taubinsky, Dmitry and Alex Rees-Jones (2018). "[Attention Variation and Welfare: Theory and Evidence from a Tax Salience Experiment](#)," NBER Working Paper No. 22545.

\*Thaler and Sunstein, *Nudge*, 2008.

Thaler, Richard H. and Cass R. Sunstein (2003). "[Libertarian Paternalism](#)." *American Economic Review* 93(2): 175-179.

**April 24**

**Behavioral Mechanism Design and Paternalism (David)**

Allcott, Hunt and Dmitry Taubinsky (2015). "[Evaluating Behaviorally Motivated Policy: Experimental Evidence from the Lightbulb Market](#)" *American Economic Review* 105(8): 2501-2538.

Allcott, Hunt, Christopher Knittel and Dmitry Taubinsky (2015). "[Tagging and Targeting of Energy Efficiency Subsidies](#)" *American Economic Review* 105(5): 187-191.

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

Bernheim, Douglas and Antonio Rangel (2009), "[Beyond Revealed Preference: Choice-Theoretic Foundations for Behavioral Welfare Economics](#)," *Quarterly Journal of Economics* 124(1): 51-104.

Beshears, John, James J. Choi, David Laibson, Brigitte C. Madrian (2008). "[How Are Preferences Revealed?](#)" *Journal of Public Economics* 92(8-9): 1787-1794.

Beshears, John, James J. Choi, Christopher Clayton, Christopher Harris, David Laibson, Brigitte C. Madrian, "Optimal Illiquidity" NBER Retirement Research Center Paper No. NB 14-05, 2019.

Beshears, John, James J. Choi, Christopher Harris, David Laibson, Brigitte C. Madrian, and Jung Sakong (2011). "[Self Control and Liquidity: How to Design a Commitment Contract](#)."

Carroll, Gabriel D., James Choi, David Laibson, Brigitte C. Madrian, and Andrew Metrick (2009). "[Optimal Defaults and Active Decisions](#)." *Quarterly Journal of Economics* 124(4): 1639-1674.

Camerer, Colin; Issacharoff, Samuel; Loewenstein, George; O'Donoghue, Ted; Rabin, Matthew (2003). "[Regulation for Conservatives: Behavioral Economics and the Case for 'Asymmetric Paternalism'](#)," *University of Pennsylvania Law Review* 151(3): 1211-1254.

Fadlon, Itzik and David Laibson. "[Paternalism and Pseudo-Rationality](#)" (with David Laibson), 2017, NBER Working Paper 23620.

Farhi, Emmanuel and Xavier Gabaix (2017), "[Optimal Taxation with Behavioral Agents](#)", working paper.

Laibson D. [Private Paternalism, the Commitment Puzzle, and Model-Free Equilibrium \(Richard T. Ely Lecture\)](#). *American Economic Review Papers and Proceedings* 2018;108:1-21.

Lockwood, Ben, (2016) "[Optimal Income Taxation with Present Bias](#)" working paper.

Moser, Christian and Pedro Olea de Souza e Silva. 2018. [Optimal Paternalistic Savings Policies](#), *Federal Reserve Bank of Minneapolis OIGI Working Paper 17*.

Mullainathan, Sendhil, Joshua Schwartzstein, and William J. Congdon (2012), "[A Reduced-Form Approach to Behavioral Public Finance](#)," *Annual Review of Economics* 4: 511-540.

O'Donoghue, Ted and Matthew Rabin (2006), "[Optimal Sin Taxes](#)," *Journal of Public Economics* 90(10-11): 1825-1849.

**May 1**

**Biosocial Science: Genoeconomics and Neuroeconomics (David)**

Albrecht, Konstanze, David I. Laibson, Matthias Sutter, Kirsten G. Volz, and D. Yves von Cramon (2011). "[What is for me is not for you: brain correlates of intertemporal choice for self and other.](#)" *Social Cognitive and Affective Neuroscience*, 6(2): 218-225.

Benjamin, Daniel J., Sebastian A. Brown, and Jesse M. Shapiro (2013). "[Who is 'Behavioral'? Cognitive Ability and Anomalous Preferences.](#)" *Journal of the European Economic Association* 11(6): 1231-1255.

\*Benjamin, Daniel J., Christopher F. Chabris, Edward L. Glaeser, Vilmundur Gudnason, Tamara B. Harris, David I. Laibson, Lenore Launer, and Shaun Purcell (2007). "[Genoeconomics.](#)" In Weinstein, Maxine, James W. Vaupel, and Kenneth W. Wachter (eds.), *Biosocial Surveys*. Committee on Population, Division of Behavioral and Social Sciences and Education. Washington, D.C.: The National Academies Press.

Benjamin, Daniel J., David Cesarini, Matthijs J.H.M. van der Loos, Christopher T. Dawes, Philipp D. Koellinger, Patrik K.E. Magnusson, Christopher F. Chabris, Dalton Conley, David I. Laibson, Magnus Johannesson, and Peter M. Visscher (2012). "[The Genetic Architecture of Economic and Political Preferences.](#)" *Proceedings of the National Academy of Sciences*. doi:10.1073/pnas.1120666109

\*Benjamin, Daniel, David Cesarini, Christopher F. Chabris, Edward L. Glaeser, David I. Laibson, Vilmundur Guðnason, Tamara B. Harris, Lenore J. Launer, Shaun Purcell, Albert Vernon Smith, Magnus Johannesson, Jonathan P. Beauchamp, Nicholas A. Christakis, Craig Atwood, Benjamin Hebert, Jeremy Freese, Robert M. Hauser, Taissa S. Hauser, Patrik Magnusson, Alexander Grankvist, Christina Hultman, Paul Lichtenstein (2012). "[The Promises and Pitfalls of Genoeconomics,](#)" *Annual Review of Economics*, 4: 627-662.

Bernheim, B. Douglas, and Antonio Rangel(2004). "[Addiction and Cue-Triggered Decision Processes.](#)" *American Economic Review*, 94(5): 1558-1590, December.

\*Camerer C, Cohen J, Fehr E, Glimcher P, Laibson D. "[Neuroeconomics.](#)" In: *Handbook of Experimental Economics*. 2016.

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