

# Behavioral Economics

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Behavioral economics has contributed to mainstream economic models by suggesting improvements to the psychological realism of the assumptions made about economic actors. This series of lectures will give a brief introduction to some of the findings, insights, and implications of behavioral economics, with an emphasis on formal modeling and empirical testing. The lectures will also review consequences for normative and policy analysis.

## Tentative Schedule of Lectures

The intended topics for the 12 hours of lectures are roughly as follows.

### **Topic 1: Introduction: perspectives & conceptual framework**

We will give a (very) brief introduction to the history and perspectives of behavioral economics, and the main approaches and topics studied (including an outline of some of the topics necessarily missing from the 12 hours of lectures).

### **Topic 2: New Theories of Preferences**

While behavioral economics is often associated with the introduction of bounded rationality into economics, many of the findings and approaches in fact emphasize the scope for better assumptions about preferences that can be embedded into rational-choice economics. (And some of the traditional debates, fading rapidly, involve behavioral economists interpreting behaviors as a relatively rational reflection of preferences while others interpret the same behavior as mistakes by agents with more classical preferences!) We will discuss “reference-dependent preferences” and loss aversion as first introduced in Kahneman and Tversky’s “prospect theory,” along with related topics in monetary choice under risk and uncertainty. Other types of preferences discussed include anticipatory utility and ego utility (concerns for self-image), elation and disappointment, all emphasizing the implications of these preferences for major topics in economics. We will also review some of the recent evidence (mostly from the laboratory) on “social preferences”—the ways that people depart from self-interest through such motivations as fairness and revenge.

### **Topic 3: Quasi-Utility Maximization**

Many types of behavior can be well understood in terms of people coherently maximizing utility that they anticipate, but failing to make rational choices because they either don't think "globally" about all of their choices, or systematically mispredict how they will feel in the future. We will explore some of the examples of limited attention, narrow framing, and mental accounting that lead people astray in the domain of risky choice (such as "myopic loss aversion" whereby people pay too much attention to short-term gains and losses when evaluating even long-term investments). We discuss some of the motivating evidence and implications of misprediction of future preferences, such as when people under-appreciate fluctuations in craving or tastes or underestimate the power of good and (especially) bad habits.

### **Topic 4: Present-Biased Preferences/Quasi-Hyperbolic Discounting**

One of the most pervasive and successful models within behavioral economics is that of "quasi-hyperbolic discounting". While people are relatively patient in the long-term—and invest in school, housing, etc.—most people have a time-inconsistent taste for immediate gratification—pursuing immediate pleasures and avoiding immediate pains. We will present the basic model of this form of discounting and ancillary assumptions about how sophisticated or naïve people are about their future tendency to pursue immediate gratification. Finally, we will discuss the potential neural foundations of such preferences.

### **Topic 5: Applications**

Many of the ideas introduced by behavioral economists have been applied to the analysis of economic behavior in the field. We will review some of this research, emphasizing the ways that psychological mechanisms affect both the behavior of individual agents and the characteristics of equilibria that arise when agents with different levels of sophistication interact in economic markets. We will discuss both theoretical models and empirical testing. We will discuss topics in public finance, asset pricing, industrial organization, marketing, and household consumption/investment behavior.

### **Topic 6: Normative and Policy Implications**

Many of the topics in our mini-course have intriguing implications for normative economics and ultimately for policymaking. If agents make mistakes, or choose self-defeating behaviors, policy-makers may want to intervene. However, such activist policies raise troubling questions about the appropriate scope of paternalism, the potential biases of the policy-makers themselves, and the challenge of separating revealed preferences from "true" consumer welfare. We review these issues and describe several ongoing debates in the normative and policy domains.

## Suggested Reading

A final and more detailed set of readings will be announced later, but to give a better sense for the background and intended topics, here we list a few relevant readings. Some of the best and most accessible readings are Richard Thaler's "Anomalies" column appearing over the years in the *Journal of Economic Perspectives*. Many of the earlier ones of these articles are collected in Thaler, Richard H. *The Winner's Curse: Paradoxes and Anomalies of Economic Life*, Princeton University Press, 1994. Two review articles closely related to the perspective and topics of these lectures are:

DellaVigna, Stefano, "Psychology and Economics: Evidence from the Field", *Journal of Economic Literature*, June 2009.

Rabin, Matthew, "Psychology and Economics," *Journal of Economic Literature*, March 1998.

## More Readings

The following is a far more extensive list of articles and books related to the lectures ("CVF" refers to the book Choices, Values and Frames listed at the end, but most of those readings can be found in accessible journals).

Benartzi, S. and Thaler, R., "Myopic Loss Aversion and the Equity Premium Puzzle," CVF Chapter 17

Charness, G. and Rabin, M. (2002), "Understanding Social Preferences with Simple Tests," *Quarterly Journal of Economics*, August.

Dellavigna, S. and Malmendier, U. (2004), "Contract Design and Self-Control: Theory and Evidence" *QUARTERLY JOURNAL OF ECONOMICS* 2004, VOL 119; PART 2, pages 353-402

Frederick, S., Loewenstein, G. and O'Donoghue, T. (2002), "Time discounting and time preference: A critical review," *Journal of Economic Literature* 40 (2): 351-401, June

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

540.

Kahneman, D., Knetsch, J. and R. Thaler, "Anomalies: The Endowment Effect, Loss Aversion, and Status Quo Bias" CVF Chapter 8

Kahneman, D., Knetsch, J. and R. Thaler, "Fairness as a Constraint on Profit Seeking: Entitlements in the Market," CVF Chapter 18.

Kahneman, Danny and Tversky, Amos, "Rational Choice and the Framing of Decisions, CVF Chapter 12.

Koszegi, B and Rabin, M. (2006), "A Model of Reference-Dependent Preferences," *Quarterly Journal of Economics*, 121(4), pp. 1133-1166.

Koszegi, B and Rabin, M. (2007), "Reference-Dependent Risk Preferences," *American Economic Review*, 97(4), pp. 1047-1073.

Laibson, D (1997) "[Golden Eggs and Hyperbolic Discounting](#)," *Quarterly Journal of Economics*, 62, May, pp. 443-77.

Laibson, D, Repetto, A., Tobacman, J. (2009) [Estimating Discount Functions with Consumption Choices over the Lifecycle](#). NBER Working Paper.

Loewenstein, G., O'Donoghue, T. and Rabin, M. (QJE, 2003) "Projection Bias in Predicting Future Preferences"

McClure, S. M., Laibson, D, Loewenstein, G. and Cohen, J. D. (2004), "[Separate Neural Systems Value Immediate and Delayed Monetary Rewards](#)" *Science* 306, October 15.

O'Donoghue, Ted and M. Rabin. "Doing it now or later." *American Economic Review*, 89(1), 103–124, March 1999.

Rabin, M. "Diminishing Marginal Utility of Wealth Cannot Explain Risk Aversion," CVF Chapter 11

Thaler, R. "Mental Accounting Matters," CVF Chapter 14

Tversky, A. and Kahneman, D. "Prospect Theory: An Analysis of Decision under Risk," CVF Chapter 2

Two volumes that collect some of the recent writings are:

Camerer, Colin, Loewenstein, George, and Rabin, Matthew (eds.), *Advances in Behavioral*

*Economics*, Russell Sage Foundation and Princeton University Press, 2003. A collection of mostly reprinted articles, with an emphasis on more recent research.

Kahneman, Daniel and Amos Tversky. CHOICES, VALUES AND FRAMES, New York: Russell Sage Foundation; Cambridge, U.K.; New York: Cambridge University Press, 2000. Awesome collection. Required for the course.