

Course Outline

Decision Theory and Behaviour - EC5070

Course Leader - Francesco Feri

Spring Term - 20 credits

Version - 1.0

AIMS

1. To deepen the students' knowledge of the rational decision making paradigm in economics, as well as its shortcomings identified over the last few decades.
2. To explore behavioural models, their formalization and scope, including applications to finance.
3. To familiarize students with both theoretical and experimental methods for research in decision theory and behavioural economics.

LEARNING OUTCOMES

By the end of this course, students should:

1. have an advanced-level understanding of the assumptions and usage of standard models of decision making.
2. have a thorough understanding of the challenges to such models, and of how non-standard (behavioural) models change their assumptions using psychological insights.
3. understand how to test and examine the scope of such models in situations of economic relevance, including applications to finance.
4. be able to apply independently the theoretical and experimental methods reviewed.

COURSE DELIVERY

The course will be delivered by one 2-hour lecture and one 1-hour seminar over a 10 week period.

Lecture notes (slides) will be provided. Most material will be included in the lecture notes, but several papers are recommended reading. Course material will be on moodle.

ASSESSMENT

Formative assessment:

- Students will receive feedback based on participation in lectures and formative problem sets.

Summative assessment:

- One 2-hour unseen written exam taken in the Summer Term, contributing 75% to the final mark.
- One 1-hour test contributing towards 25% of the final mark.

Deadlines and dates for tests will be confirmed in the Departmental Student Handbook and on the Economics website.

READING

Please note that the following *reading list* is only indicative and changes are possible

** means required reading, * means encouraged reading

Books:

* *The winner's curse: paradoxes and anomalies in economic life*, by Richard Thaler, Princeton, N.J.: Princeton University Press, 1994.

* *Choices, Values and Frames*, by Amos Tversky and Daniel Kahneman, Cambridge University Press, 2000

* N. Wilkinson, *An Introduction to Behavioral Economics*, Palgrave Macmillan.

SUPPLEMENTARY READINGS:

** S. Fredrick, G. Loewenstein and T. O'Donoghue, *Time Discounting and Time Preference: A Critical Review*, 2002, *Journal of Economic Literature*.

** U. Malmendier and S. DellaVigna, *Paying Not to Go to the Gym*, 2006, *American Economic Review*

** J. K. Goeree and C. A. Holt, *Ten Little Treasures of Game Theory and Ten Intuitive Contradictions*, 2001, *American Economic Review*

- ** Kahneman, Daniel and Amos Tversky. "Prospect Theory: An Analysis of Decision under Risk." In *Choices, Values and Frames*, Ch. 2, pp. 17–43.
- ** Camerer , Colin F. "Prospect Theory in the Wild: Evidence from the Field." In *Choices, Values and Frames*, Ch. 16, pp. 288–300.
- ** Kahneman, Daniel and Amos Tversky. "Choices, Values, and Frames." In *Choices, Values and Frames*, Ch. 1, pp. 1–16.
- ** Thaler, Richard. "Mental Accounting Matters." In *Choices, Values and Frames*, Ch. 14, pp. 241–268.
- ** Thaler, Richard. "The Endowment Effect, Loss Aversion, and Status Quo Bias." *The Winner's Curse*, Ch. 6, pp. 63–78.
- ** Bordalo, Pedro, Nicola Gennaioli, and Andrei Shleifer. "Salience theory of Choice Under Risk." *Quarterly Journal of Economics*, 2012.
- ** Laibson, David. " Golden Eggs and Hyperbolic Discounting ." *Quarterly Journal of Economics* , 112(2), May 1997, 443–77.
- ** Gabaix, Xavier and David Laibson. " Shrouded Attributes, Consumer Myopia, and Information Suppression in Competitive Markets " *Quarterly Journal of Economics* 121 (2), May 2006, pp. 505-540.
- ** Barberis, Nicholas, Andrei Shleifer, Robert Vishny, "A model of investor sentiment", *Journal of Financial Economics*, 48 (3), 307 – 343.1998
- * Camerer, Colin. "Individual Decision Making." In *Handbook of Experimental Economics* (Al Roth editor), Princeton University Press: Princeton , N. J., pp. 587–704.
- * Mullainathan, Sendhil and Richard Thaler. " Behavioral Economics ." NBER Working paper 7948, October 2000.
- * Kahneman, Daniel and Amos Tversky. "Loss Aversion in Riskless Choice: A Reference-Dependent Model." In *Choices, Values and Frames*, Ch. 7, pp. 143–158.
- * Rabin, Matthew. "Diminishing Marginal Utility of Wealth Cannot Explain Risk Aversion." In *Choices, Values and Frames*, Ch. 11, pp. 202–208.
- * Tversky, Amos and Daniel Kahneman . "Rational Choice and the Framing of Decisions." In *Choices, Values and Frames*, Ch. 12, pp. 209–223.
- * Choi, James, David Laibson, Brigitte C. Madrian, and Andrew Metrick, "For Better or For Worse: Default Effects and 401 (k) Savings," in *NBER Volume on Aging*, edited by David Wise.

- * Slovic, Paul and Tversky, Amos, "Who accepts Tversky's axiom?", Behavioral Science, vol 19 (6), November 1974
- * Tversky, Amos, Paul Slovic and Daniel Kahneman, "The causes of preference reversals", The American Economic Review, 80 (1), 1990
- * Thaler, Richard. " A Mean Reverting Walk Down Wall Street ," in The Winner's Curse, Ch. 12, pp. 151–167
- * Lakonishok, Josef, Andrei Shleifer, and Robert Vishny. "Contrarian investment, extrapolation, and risk," Journal of Finance 49:5 (1994), 1541–1578.
- * Benartzi, Shlomo and Richard Thaler. "Myopic Loss Aversion and the Equity Premium Puzzle," in Choices, Values and Frames, Ch. 17, pp. 301–316.
- * Shleifer, Andrei, "Inefficient markets: an introduction to behavioral finance" Clarendon Lectures, 2000. Chapter 3.
- * Loewenstein, George, "The Fall and Rise of Psychological Explanations in the Economics of Intertemporal Choice." In Choice Over Time , pp. 3–34.
- * Loewenstein, George and Dražen Prelec. " Anomalies in intertemporal choice: Evidence and an interpretation ." Quarterly Journal of Economics , May 1992, 573–597.
- * O'Donoghue, Ted and Matthew Rabin. " Doing it now or doing it later." American Economic Review, 89(1), 103–124, March 1999.
- * O'Donoghue, Ted and Matthew Rabin. " Incentives for Procrastinators ." Quarterly Journal of Economics , 114(3), 769–816, August 1999.
- * Thaler, Richard. "Intemporal Choice." In The Winner's Curse, Ch. 8, pp. 92–106.
- * Camerer, Colin, Linda Babcock, George Loewenstein, and Thaler, Richard. "Labor Supply of New York City Cab Drivers: One Day at a Time." In Choices, Values and Frames, Ch. 20, pp. 356–370.
- * Babcock, Linda, George Loewenstein, S. Issacharoff, and Colin Camerer. " Biased judgments of fairness in bargaining ." American Economic Review , December 1995, 85(5), 1337–1343.
- Rabin, Matthew, " Incorporating Fairness into Game Theory and Economics ." American Economic Review, 83 (5), 1281–1302, December 1993.
- * Levitt, Steven and John List, "What do laboratory experiments measuring social preferences reveal about the real world?", The Journal of Economic Perspectives, 21 (2), 2007

TIMETABLE

Please note that the following *planned* lecture schedule is only indicative and changes are possible. It may be the case that more (or less) time needs to be spent on certain topics, so the actual lectures may not be in complete correspondence with the plan. Therefore, coverage of topics may sometimes overflow from one session to the other.

Week 1: Individual decision making. Revealed preferences and ordinal utility. Cardinal utility and choice under risk.

Week 2: Expected utility theory. Attitudes towards risk.

Week 3: Empirical regularities in decision making. Deviations from the expected utility theory. The Allais paradoxes and probability distortions.

Week 4: Prospect Theory: reference points, loss aversion, probability weighing function. Framing and endowment effects.

Week 5: Preference Reversals and models of context dependent decision making.

Week 6: Intertemporal choice: exponential discounting.

Week 7: Intertemporal choice: hyperbolic discounting and procrastination.

Week 8: Biases in Probabilistic Judgment

Week 9: Departures from self-interest: models of social preferences.

Week 10: Behavioral game theory: main experimental anomalies in normal form games and sequential games. Models of bounded rationality.