

**Behavioral Economics G6493-001**

**Fall 2017**

**Columbia University**

**Instructor: Mark Dean**

**Background**

The standard model of economic behavior describes a perfectly rational, self-interested utility maximizer with unlimited cognitive resources. In many cases, this provides a good approximation of the types of behavior that economists are interested in. However, over the past 30 years, experimental and behavioral economists have documented ways in which the standard model is not just wrong, but is wrong in ways that are important for economic outcomes. Understanding these behaviors, and their implications, is one of the most exciting areas of current economic inquiry.

**Course Overview**

The aim of this course is to introduce you to three key areas of Behavioral Economics:

- Bounded Rationality, which studies the way in which cognitive constraints and limitations can affect economic choice
- Temptation, which studies the behavior of economic agents who suffer from self-control problems due, for example, to addiction or impatience
- Reference Dependence, which studies the way in which decision makers assess the outcome of a choice by its contrast with a reference point rather than intrinsic taste for the outcome itself.

This is not an exhaustive list of behavioral economic topics – for example we will not cover topics in risk and uncertainty, or non-Bayesian learning, all of which were discussed in Pietro Ortoleva’s course last year. We will also not cover models of fairness, reciprocity etc, due to time constraints.

This course forms part of the Behavioral Economics field which will this year comprise of 2 courses. The second is G6494 “Computational Models of Perception and Choice” which will be taught by Mike Woodford in the spring. This course will model errors and biases in judgments in the domains of perception, statistical inference, and decision making using experimental evidence and theoretical analyses from economics, psychology, and computational neuroscience. You must take both of these courses in order to complete the Behavioral Economic field

For each of the three topic areas covered by the course, we will begin by discussing the evidence that the standard economic model is missing something important. We will then study the various models that have been used to fit this evidence, and how they can be tested. Finally we will look at the application of behavioral models to economic situations in order to understand their implications.

The course will draw on material from many areas related to behavioral economics. Experimental economics will provide us with much of the evidence that we discuss. Decision theory will allow us to

understand the observable implications of behavioral models, and so how to test them. Psychology will provide a lot of insight and enormous amounts of data regarding human behavior. Neuroscience will provide an understanding of some of the biological processes which underlie economic choice.

The course has four main aims.

1. Teach you the technical skills necessary to understand and begin research in behavioral economics
2. Provide an overview of the experimental evidence related to bounded rationality, temptation and reference dependent preferences, and give you the tools necessary to conduct experimental research into the validity of behavioral economic models
3. Describe the models that have been developed in these areas, and show how they can be applied to address broader economic problems
4. Give a guide to some of the open questions in the literature, where research may fruitfully undertaken

### **Assessment**

Assessment for the course will be based on two elements

1. **Presentations:** Most weeks, every member of the class will be required to prepare a 15 minute presentation on an assigned paper. One person will be selected at random to give the presentation in class.
2. **Exams:** There will be three take home exams (or problem sets) during the class, one in the for each of the topics

Each of the exams and the classroom presentations will carry roughly equal weight.

### **Prerequisites**

The course is primarily designed for graduate students who have taken the 1<sup>st</sup> year microeconomics sequence. It is also possible for others to take the course if they are keen, and have a decent technical background. However, such students take the course do so at their own risk.

### **Course Materials**

By and large, the course will be based on academic papers (which are available online) and lecture notes (which I will make available). There are a few books that you may find useful. The first is “Notes on the Theory of Choice” by David Kreps, which is a deceptively simple book that provides a fantastic introduction to classical decision theory. The second is “Elements of Information Theory” by Thomas Cover and Joy Thomas, which will be useful for those of you interested in the literature on rational Inattention. A third is “Neuroeconomics, Decision Making and the Brain” by Paul Glimcher and Ernst

*This version: 22<sup>nd</sup> August 2017*

Fehr (eds) which, as its name suggests, will be interesting to those of you who are more interested in the neuroeconomics side of things.

### **Administrative Details**

The class will meet on Wednesdays between 2.10 and 4.00 in room 1102 in the International Affairs Building.

Office hours will be Fridays 3.00pm- 6.00pm, though I will be available outside these times if you contact me in advance.

My contact details are as follow:

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Website: <http://www.columbia.edu/~md3405/>

### **Timetable**

Following an introductory lecture, the course will be split into three sections: Bounded rationality, temptation and self control, and reference dependent preferences. As is typical for second year topics courses, the material is constantly evolving, so the following plan may change over the course of the semester, as will the reading list. The latest version of the plan will be uploaded to the course website.

**6<sup>th</sup> September and 13<sup>th</sup> September. Lecture 1: Introduction.** As well as getting to know each other, we will have a refresher course on the behavioral implications of utility maximization. This will be handy because we will make use of some of the techniques later on. We will also discuss some of the classic failures of utility maximization which will motivate the section of the course on bounded rationality.

- *Key reading (s):* Unlike many other lectures in the course, this lecture will quickly cover material from a number of different papers, so there is no key readings as such. However, two excellent sources covering revealed preference and the testing of utility maximization are
  - “Notes on the Theory of Choice”, David Kreps, Chapter 1-3
  - Varian, Hal R. "Revealed preference." Samuelsonian economics and the twenty-first century (2006): 99-115.
- *Background Reading*
  - Choi, Syngjoo, et al. "Who is (more) rational?" The American Economic Review 104.6 (2014): 1518-1550
  - Echenique, Federico, Sangmok Lee, and Matthew Shum. "The money pump as a measure of revealed preference violations." Journal of Political Economy 119.6 (2011): 1201-1223.

- Beatty, Timothy KM, and Ian A. Crawford. "How demanding is the revealed preference approach to demand?" *The American Economic Review* 101.6 (2011): 2782-2795.
- Dean, Mark, and Daniel Martin. "Measuring rationality with the minimum cost of revealed preference violations." *Review of Economics and Statistics* 98.3 (2016): 524-534.
- "Revealed Preference, Rational Inattention, and Costly Information Acquisition" Andrew Caplin and Mark Dean, Mimeo, 2014 (note this is the working paper, not the AER article. You want to have a look at the experimental section)
- Apesteguia, Jose, and Miguel A. Ballester. "A measure of rationality and welfare." *Journal of Political Economy* 123.6 (2015): 1278-1310.
- Caplin, Andrew, Mark Dean, and Daniel Martin. "Search and satisficing." *The American Economic Review* (2011): 2899-2922. (Again, you want the experimental section)
- Abaluck, J., and J. Gruber. "Choice Inconsistencies Among the Elderly: Evidence from Plan Choice in the Medicare Part D Program." *The American economic review* 101.4 (2011): 1180-1210.
- Iyengar, Sheena S., and Mark R. Lepper. "When choice is demotivating: Can one desire too much of a good thing?." *Journal of personality and social psychology* 79.6 (2000): 995.
- Huber, Joel, John W. Payne, and Christopher Puto. "Adding asymmetrically dominated alternatives: Violations of regularity and the similarity hypothesis." *Journal of consumer research* (1982): 90-98.
- Simonson, Itamar. "Choice based on reasons: The case of attraction and compromise effects." *Journal of consumer research* (1989): 158-174.
- Bushong, Benjamin, et al. "Pavlovian processes in consumer choice: The physical presence of a good increases willingness-to-pay." *The American economic review* 100.4 (2010): 1556-1571.
- Chetty, Raj, Adam Looney, and Kory Kroft. "Salience and Taxation: Theory and Evidence." *The American Economic Review* 99.4 (2009): 1145.
- Tversky, Amos, and Daniel Kahneman. "The framing of decisions and the psychology of choice." *Science* 211.4481 (1981): 453-458.

**13<sup>th</sup> September and -20<sup>th</sup> September. Lecture 2: Bounded Rationality 1 - Consideration Sets and**

**Satisficing.** It has long been believed by marketers and retailers that people do not seriously consider all the possible alternatives when making a choice. Instead they form a 'consideration set' of alternatives from which they choose. In this lecture we will consider some of the recent models of consideration set formation that have appeared in the economics literature

- *Key reading (s):*
  - Caplin, Andrew, Mark Dean, and Daniel Martin. "Search and satisficing." *The American Economic Review* (2011): 2899-2922
- *Background Reading*

- De Clippel, Geoffroy, Kfir Eliaz, and Kareen Rozen. "Competing for consumer inattention." *Journal of Political Economy* 122.6 (2014): 1203-1234.
- Manzini, Paola, and Marco Mariotti. "Stochastic choice and consideration sets." *Econometrica* 82.3 (2014): 1153-1176.
- Masatlioglu, Yusufcan, Daisuke Nakajima, and Erkut Y. Ozbay. "Revealed attention." *The American Economic Review* (2012): 2183-2205.
- Lleras, Juan Sebastian, et al. "When more is less: Limited consideration." *Journal of Economic Theory* 170 (2017): 70-85.
- Caplin, Andrew, and Mark Dean. "Search, choice, and revealed preference." *Theoretical Economics* 6.1 (2011): 19-48.
- Ching, Andrew, Tülin Erdem, and Michael Keane. "The price consideration model of brand choice." *Journal of Applied Econometrics* 24.3 (2009): 393-420.
- Hauser, John R., and Birger Wernerfelt. "An evaluation cost model of consideration sets." *Journal of consumer research* (1990): 393-408.
- Roberts, John H., and James M. Lattin. "Development and testing of a model of consideration set composition." *Journal of Marketing Research* (1991): 429-440. "Testing models of consumer search using data on web browsing and purchasing behavior."
- De los Santos, Babur, Ali Hortaçsu, and Matthijs R. Wildenbeest. "Testing models of consumer search using data on web browsing and purchasing behavior." *The American Economic Review* 102.6 (2012): 2955-2980.
- Eliaz, Kfir, and Ran Spiegler. "Consideration sets and competitive marketing." *The Review of Economic Studies* 78.1 (2011): 235-262.
- Brown, Juanita J., and Albert R. Wildt. "Consideration set measurement." *Journal of the Academy of Marketing Science* 20.3 (1992): 235-243.
- Hoyer, Wayne D. "An examination of consumer decision making for a common repeat purchase product." *Journal of consumer research* (1984): 822-829.
- Brown, Meta, Christopher J. Flinn, and Andrew Schotter. "Real-time search in the laboratory and the market." *The American Economic Review* 101.2 (2011): 948-974.
- Honka, Elisabeth, and Pradeep Chintagunta. "Simultaneous or sequential? search strategies in the us auto insurance industry." *Marketing Science* 36.1 (2016): 21-42.
- Aguiar, Victor H., María José Boccardi, and Mark Dean. "Satisficing and stochastic choice." *Journal of Economic Theory* 166 (2016): 445-482.

**27<sup>th</sup> September- 4<sup>th</sup> October: Lecture 3: Bounded Rationality 2: Rational Inattention (1).** In this lecture we begin to study the class of 'rational inattention' models that have been used to try to understand the informational choices of cognitively constrained agents. To start with, we consider the case in which information costs are not known, but instead have to be inferred from choice

- *Key reading (s):*

- Caplin, Andrew, and Mark Dean. "Revealed preference, rational inattention, and costly information acquisition." *The American Economic Review* 105.7 (2015): 2183-2203.
- *Background Reading*
  - Caplin, Andrew, and Daniel Martin. "A testable theory of imperfect perception." *The Economic Journal* 125.582 (2015): 184-202.
  - Bartoš, Vojtěch, et al. "Attention Discrimination: Theory and Field Experiments with Monitoring Information Acquisition." *American Economic Review* 106.6 (2016): 1437-1475.
  - Oliveira, Henrique, et al. "Rationally inattentive preferences and hidden information costs." *Theoretical Economics* 12.2 (2017): 621-654.
  - Lu, Jay. "Random choice and private information." *Econometrica* 84.6 (2016): 1983-2027.
  - Boik, Andre, Shane Greenstein, and Jeffrey Prince. *The Empirical Economics of Online Attention*. No. w22427. National Bureau of Economic Research, 2016.
  - Steiner, Jakub, and Colin Stewart. "Perceiving prospects properly." *The American Economic Review* 106.7 (2016): 1601-1631.
  - Allcott, Hunt, and Dmitry Taubinsky. "Evaluating behaviorally motivated policy: experimental evidence from the lightbulb market." *The American Economic Review* 105.8 (2015): 2501-2538.
  - Robson, A., and Lorne A. Whitehead. "Rapidly adaptive hedonic utility." (2016).
  - Matějka, Filip, and Guido Tabellini. "Electoral competition with rationally inattentive voters." (2016).
  - Gabaix, Xavier. "A sparsity-based model of bounded rationality." *The Quarterly Journal of Economics* 129.4 (2014): 1661-1710.
  - Van Nieuwerburgh, Stijn, and Laura Veldkamp. "Information immobility and the home bias puzzle." *The Journal of Finance* 64.3 (2009): 1187-1215.
  - Gabaix, Xavier, et al. "Costly information acquisition: Experimental analysis of a boundedly rational model." *The American Economic Review* (2006): 1043-1068.

**4<sup>th</sup> October- 11<sup>th</sup> October: Lecture 4: Bounded Rationality 2: Rational Inattention (2).** We continue our discussion of models of rational inattention by considering the popular special case in which the cost of information are based on the concept of Shannon Mutual Information

- *Key reading (s):*
  - Matejka, Filip, and Alisdair McKay. "Rational inattention to discrete choices: A new foundation for the multinomial logit model." *American Economic Review* 105.1 (2015): 272-98.
  - Sims, Christopher A. "Implications of rational inattention." *Journal of monetary Economics* 50.3 (2003): 665-690.
- *Background Reading*

- Caplin, Andrew, Dean Mark and Leahy, John "Rationally Inattentive Behavior: Characterizing and Generalizing Shannon Entropy", Working Paper, 2017
- Yang, Ming. "Coordination with flexible information acquisition." *Journal of Economic Theory* (2014).
- Martin, Daniel. "Strategic pricing and rational inattention to quality." Available at SSRN 2393037 (2012).
- Cover, Thomas M., and Joy A. Thomas, Elements of Information Theory, New York: Wiley-Interscience, 2d ed., 2006, esp. chaps. 2, 7, 10.
- Caplin, Andrew, and Mark Dean. Behavioral implications of rational inattention with shannon entropy. No. w19318. National Bureau of Economic Research, 2013.
- Matejka, Filip, Jakub Steiner, and Colin Stewart. Rational Inattention Dynamics: Inertia and Delay in Decision-Making. No. 10720. CEPR Discussion Papers, 2015.
- Matejka, Filip, and Christopher A. Sims. "Discrete actions in information-constrained tracking problems." Princeton University manuscript (2010).
- Caplin, Andrew, Mark Dean, and John Leahy. Rational Inattention, Optimal consideration sets and stochastic choice. Working paper, 2016.
- Dean, Mark and Nathaniel Neligh, "Experimental Tests of Rational Inattention", Working Paper, 2017

**18<sup>st</sup> October Lecture 5: Temptation and Self Control 1: An introduction to modelling temptation and self control.** In this opening lecture we will discuss the intuitive evidence that there are temptation and self control problems are widespread, the importance of these issues, and the approaches that have been taken to modeling such behavior

- *Key reading (s):*
  - Gul, Faruk, and Wolfgang Pesendorfer. "Temptation and self-control." *Econometrica* (2001): 1403-1435.
  - Laibson, David. "Golden eggs and hyperbolic discounting." *The Quarterly Journal of Economics* (1997): 443-477
- *Background Reading*
  - Muraven, Mark, and Roy F. Baumeister. "Self-regulation and depletion of limited resources: Does self-control resemble a muscle?." *Psychological bulletin* 126.2 (2000): 247.
  - Hagger, Martin S., et al. "A multilab preregistered replication of the ego-depletion effect." *Perspectives on Psychological Science* 11.4 (2016): 546-573.
  - Moffitt, Terrie E., et al. "A gradient of childhood self-control predicts health, wealth, and public safety." *Proceedings of the National Academy of Sciences* 108.7 (2011): 2693-2698.
  - Ariely, Dan, and Klaus Wertenbroch. "Procrastination, deadlines, and performance: Self-control by precommitment." *Psychological science* 13.3 (2002): 219-224.

- Carvalho, Leandro S., Stephan Meier, and Stephanie W. Wang. "Poverty and economic decision-making: Evidence from changes in financial resources at payday." *The American Economic Review* 106.2 (2016): 260-284.
- Mani, Anandi, et al. "Poverty impedes cognitive function." *science* 341.6149 (2013): 976-980.
- Bénabou, Roland, and Jean Tirole. "Willpower and personal rules." *Journal of Political Economy* 112.4 (2004): 848-886.
- Freeman, David. "Revealing Sophistication and Naiveté from Procrastination." (2015).

**25th October Lecture 6: Temptation and Self Control 2: Models of Commitment:** In this second lecture we will discuss in more detail models in which temptation leads to a preference for commitment, or a desire for smaller choice sets.

- *Key reading (s):*
  - Lipman, Barton L., and Wolfgang Pesendorfer. Temptation. No. WP2010-021. Boston University-Department of Economics, 2010.
- *Background Reading*
  - Amador, Manuel, Iván Werning, and George-Marios Angeletos. "Commitment vs. flexibility." *Econometrica* 74.2 (2006): 365-396.
  - Fudenberg, Drew, and David K. Levine. "A dual-self model of impulse control." *The American Economic Review* (2006): 1449-1476.
  - Galperti, Simone. "Commitment, flexibility, and optimal screening of time inconsistency." *Econometrica* 83.4 (2015): 1425-1465.
  - Masatlioglu, Yusufcan, Daisuke Nakajima, and Emre Ozdenoren. Revealed Willpower. mimeo, 2011.
  - Dekel, Eddie, and Barton L. Lipman. "Costly Self-Control and Random Self-Indulgence." *Econometrica* 80.3 (2012): 1271-1302.
  - Bond, Philip, and Gustav Sigurdsson. "Commitment contracts." *The Review of Economic Studies* (2017): rdx041.
  - Galperti, Simone. "A Theory of Personal Budgeting." (2017).
  - O'Donoghue, Ted, and Matthew Rabin. "Optimal sin taxes." *Journal of Public Economics* 90.10 (2006): 1825-1849.

**1st November: Lecture 7: Temptation and Self Control 3: Models of Non-Exponential Discounting.** This lecture covers the relationship between temptation and non-exponential discounting, particular 'present bias'.

- *Key reading (s):*
  - Laibson, David. "Golden eggs and hyperbolic discounting." *The Quarterly Journal of Economics* (1997): 443-477.
  - Olea, José Luis Montiel, and Tomasz Strzalecki. "Axiomatization and measurement of quasi-hyperbolic discounting." *The Quarterly Journal of Economics* 129.3 (2014): 1449-1499.



- *Background Reading*
  - Ahn, David S., et al. "Behavioral Characterizations of Naiveté for Time-Inconsistent Preferences." (2016).
  - DellaVigna, Stefano, and Ulrike Malmendier. "Contract design and self-control: Theory and evidence." *The Quarterly Journal of Economics* (2004): 353-402.
  - Blow, Laura, Martin Browning, and Ian Crawford. Never mind the hyperbolics: nonparametric analysis of time-inconsistent preferences. No. W14/17. IFS Working Papers, 2014.
  - Harris, Christopher, and David Laibson. "Dynamic choices of hyperbolic consumers." *Econometrica* 69.4 (2001): 935-957.
  - Halevy, Yoram. "Strotz meets Allais: Diminishing impatience and the certainty effect." *The American Economic Review* (2008): 1145-1162.
  - Saito, Federico Echenique Taisuke Imai Kota. "Testable Implications of Models of Intertemporal Choice: Exponential Discounting and Its Generalizations." (2015).
  - Barro, Robert J. "Ramsey meets Laibson in the neoclassical growth model." *Quarterly Journal of Economics* (1999): 1125-1152.
  - Jackson, Matthew O., and Leeat Yariv. "Collective dynamic choice: the necessity of time inconsistency." *American Economic Journal: Microeconomics* 7.4 (2015):
  - Eliaz, Kfir, and Ran Spiegler. "Contracting with diversely naive agents." *The Review of Economic Studies* 73.3 (2006): 689-714.

**8<sup>th</sup> November: Lecture 8: Temptation and Self Control 4: Evidence** Here we will look at the evidence for preference for commitment, present bias, and the link between the two

- *Key reading (s):*
  - Augenblick, Ned, Muriel Niederle, and Charles Sprenger. "Working Over Time: Dynamic Inconsistency in Real Effort Tasks\*." *The Quarterly Journal of Economics* (2015): qjv020.
  - Kaur, Supreet, Michael Kremer, and Sendhil Mullainathan. "Self-control at work." *Journal of Political Economy* 123.6 (2015): 1227-1277
- *Background Reading*
  - Ashraf, Nava, Dean Karlan, and Wesley Yin. "Tying Odysseus to the mast: Evidence from a commitment savings product in the Philippines." *The Quarterly Journal of Economics* (2006): 635-672.
  - John, Anett. When Commitment Fails-Evidence from a Regular Saver Product in the Philippines. No. 055. Suntory and Toyota International Centres for Economics and Related Disciplines, LSE, 2014..
  - Laibson, David. "Why don't present-biased agents make commitments?." *The American economic review* 105.5 (2015): 267-272.
  - Bryan, Gharad, Dean Karlan, and Scott Nelson. "Commitment devices." *Annu. Rev. Econ.* 2.1 (2010): 671-698.
  - DellaVigna, Stefano, and Ulrike Malmendier. "Paying not to go to the gym." *The American Economic Review* (2006): 694-719.

- Toussaert, Séverine. Eliciting temptation and self-control through menu choices: a lab experiment. Working Paper, 2015.
- Andersen, Steffen, et al. "Eliciting risk and time preferences." *Econometrica* 76.3 (2008): 583-618.
- Dean, Mark, and Anja Sautmann. "Credit constraints and the measurement of time preferences." Available at SSRN 2423951 (2014).
- Andreoni, James, and Charles Sprenger. "Estimating Time Preferences from Convex Budgets." *The American Economic Review* (2012): 3333-3356.
- Toussaert, Séverine. Connecting commitment to self-control problems: Evidence from a weight loss challenge. Working paper, 2016.
- Andreoni, James, and Charles Sprenger. "Risk preferences are not time preferences." *The American Economic Review* 102.7 (2012): 3357-3376.
- Dean, Mark, and John McNeill. Preference for Flexibility and Random Choice: an Experimental Analysis. No. 2014-10. 2014.
- Halevy, Yoram. "Time consistency: Stationarity and time invariance." *Econometrica* 83.1 (2015): 335-352.
- Cohen, Jonathan D., et al. Measuring time preferences. No. w22455. National Bureau of Economic Research, 2016.

**15<sup>th</sup> November: Lecture 9: Reference Dependent Preferences** We start by focusing on the experimental evidence which demonstrate the need for models of reference dependence effects

- *Key reading (s):*
  - Kahneman, Daniel, Jack L. Knetsch, and Richard H. Thaler. "Anomalies: The endowment effect, loss aversion, and status quo bias." *The journal of economic perspectives* (1991): 193-206.
- *Background Reading*
  - Zeiler, Kathryn, and Charles R. Plott. "The willingness to pay/willingness to accept gap, the endowment effect, subject misconceptions and experimental procedures for eliciting valuations." *American Economic Review* (2004).
  - Ladner, Peter, Graham Loomes, and Robert Sugden. "The willingness to pay—willingness to accept gap, the “endowment effect,” subject misconceptions, and experimental procedures for eliciting valuations: Comment." *The American Economic Review* 101.2 (2011): 991-1011.
  - Camerer, Colin F. "Prospect theory in the wild: Evidence from the field." Colin F. Camerer, George Loewenstein, and Matthew. Rabin, eds., *Advances in Behavioral Economics* (2004): 148-161.
  - Ert, Eyal, and Ido Erev. "On the descriptive value of loss aversion in decisions under risk: Six clarifications." *Judgment and Decision Making* 8.3 (2013): 214-235.
  - Rees-Jones, Alex. "Loss aversion motivates tax sheltering: Evidence from US tax returns." Available at SSRN 2330980 (2014).

- Von Gaudecker, Hans-Martin, Arthur Van Soest, and Erik Wengström. "Heterogeneity in risky choice behavior in a broad population." *The American Economic Review* (2011): 664-694.
- Camerer, Colin, et al. "Labor supply of New York City cabdrivers: One day at a time." *The Quarterly Journal of Economics* (1997): 407-441.
- Crawford, Vincent P., and Juanjuan Meng. "New york city cab drivers' labor supply revisited: Reference-dependent preferences with rationalexpectations targets for hours and income." *The American Economic Review* 101.5 (2011): 1912-1932.
- Madrian, Brigitte C., and Dennis F. Shea. The power of suggestion: Inertia in 401 (k) participation and savings behavior. No. w7682. National bureau of economic research, 2000.
- Chapman, Jonathan, et al. Willingness-To-Pay and Willingness-To-Accept are Probably Less Correlated than You Think. No. 6492. CESifo Group Munich, 2017.

### **29<sup>th</sup> November: Lecture 10: Reference Dependent Preferences 2 Models of Reference Dependent**

**Preferences:** Reference dependence is the most heavily studied model of context effects in behavioral economics, and here we discuss classic models of reference dependent behavior.

- *Key reading (s):*
  - Kőszegi, Botond, and Matthew Rabin. "A model of reference-dependent preferences." *The Quarterly Journal of Economics* (2006): 1133-1165.
  - Kahneman, Daniel, and Amos Tversky. "Prospect theory: An analysis of decision under risk." *Econometrica: Journal of the Econometric Society* (1979): 263-291.
- *Class presentation (to be prepared for the following week)*
- *Background Reading*
  - Masatlioglu, Yusufcan, and Efe A. Ok. "Rational choice with status quo bias." *Journal of Economic Theory* 121.1 (2005): 1-29.
  - Tversky, Amos, and Daniel Kahneman. "Advances in prospect theory: Cumulative representation of uncertainty." *Journal of Risk and uncertainty* 5.4 (1992): 297-323.
  - Tversky, Amos, and Daniel Kahneman. "Loss aversion in riskless choice: A reference-dependent model." *The quarterly journal of economics* (1991): 1039-1061.
  - Barberis, N., & Xiong, W. (2009). What Drives the Disposition Effect? An Analysis of a Long-Standing Preference-Based Explanation. *the Journal of Finance*, 64(2), 751-784.
  - Masatlioglu, Yusufcan, and Collin Raymond. "Stochastic Reference Points, Loss Aversion and Choice under Risk." (2013).
  - Masatlioglu, Yusufcan, and Efe A. Ok. "A canonical model of choice with initial endowments." *The Review of Economic Studies* (2013): rdt037.
  - Kőszegi, Botond, and Matthew Rabin. "Reference-dependent risk attitudes." *The American Economic Review* (2007): 1047-1073.

- Kamenica, Emir. "Contextual inference in markets: On the informational content of product lines." *The American Economic Review* 98.5 (2008): 2127-2149.
- Dean, Mark, Özgür Kibris, and Yusufcan Masatlioglu. "Limited attention and status quo bias." *Journal of Economic Theory* 169 (2017): 93-127.
- Carroll, Gabriel D., et al. "Optimal Defaults and Active Decisions." *The Quarterly Journal of Economics* 124.4 (2009): 1639-1674.
- Dean, Mark. "Status quo bias in large and small choice sets." Unpublished working paper (2008).
- Falk, A., Goette, L., & Huffman, D. (2011). Reference points and effort provision. *The American Economic Review*, 101(2), 470-492.
- Ok, Efe A., Pietro Ortoleva, and Gil Riella. "Revealed (p) reference theory." *The American Economic Review* 105.1 (2014): 299-321.

**6<sup>th</sup> December Lecture 11: Further models of information demand**, We will finish the course by considering models of information demand which step outside the rational inattention paradigm discussed in previous lectures. On the one hand we will consider costs to information acquisition which arise from reference dependent preferences. On the other we will consider non-instrumental demand for information – for example due to a preference for the early resolution of uncertainty

- *Key reading (s):*
  - Masatlioglu, Yusufcan, A. Yesim Orhun, and Collin Raymond. Preferences for Non-Instrumental Information and Skewness. Mimeo, 2016.
- *Background Reading*
  - Andries, Marianne, and Valentin Haddad. "Information aversion." *Society for Economic Dynamics 2014 Meeting Paper*. Vol. 1091. 2014.
  - Benartzi, Shlomo, and Richard H. Thaler. "Myopic loss aversion and the equity premium puzzle." *The quarterly journal of Economics* 110.1 (1995): 73-92.
  - Pagel, Michaela. "A news-utility theory for inattention and delegation in portfolio choice." *Working Paper* (2016).
  - Kreps, David M., and Evan L. Porteus. "Temporal resolution of uncertainty and dynamic choice theory." *Econometrica: journal of the Econometric Society* (1978): 185-200.
  - Caplin, Andrew, and John Leahy. "Psychological expected utility theory and anticipatory feelings." *The Quarterly Journal of Economics* 116.1 (2001): 55-79.
  - Caplin, Andrew, and Kfir Eliaz. "Aids policy and psychology: A mechanism-design approach." *RAND Journal of Economics* (2003): 631-646.
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