Syllabus (preliminary)

Behavioral Economics

- **Instructor:** Marc Kaufmann; Office: 402, Nador 13; Email: KaufmannM@ceu.edu

- **Credits:** 4 CEU / 8 ECTS

- **Term:** Fall 2017-2018

- **Course level:** PhD and MA/MSc (but see Prerequisites)

- **Prerequisites:** A graduate course in microeconomics (email/talk to me otherwise)

- **Class Times:** Monday and Wednesday, 15:30-17:10

- **Location:** TBD

Course description

This course will explore ways to integrate insights from psychology into economics by formalizing these insights by extending existing economic models. We will look at two types to enrich classical economic models. First, we will look at a richer set of preferences that people have, such as loss aversion, news utility, and social preferences. Second, we will consider ways in which people misperceive or misoptimize when making decisions – such as narrow bracketing, projection bias, and focusing effects, as well as statistical mistakes people make.

The emphasis of this course is, first and foremost, on how to formalize psychological insights. As such, this course can only be taken for credit for students who have taken (at least) a graduate course in microeconomics (although anyone is welcome to audit the course and participate actively in the classes).

The second goal of the course is to show how these formal models can be applied, the predictions the models make, and the implications they have in important economic settings, ranging from retirement savings and addiction to labor supply and consumption decisions.

This class is aimed at students interested in doing research – whether applied theory (with a strong focus on empirical implementability) or theoretically influenced empirics.

Learning outcomes

During this course you will:

1. learn how to extend the classical economic framework by formally modeling insights from psychology;

2. learn how to apply these models to specific contexts to draw out new implications and make precise predictions;

3. be exposed to a (small subset) of the frontier of research in behavioral economics;

4. gather research ideas; and

5. improve how you communicate these ideas by writing short research proposals.

Assessment: Problem Sets (50%) and Exam (30%)

- Problem set 1 (15%, present bias, intro reference dependence):

    o Distributed October 2nd 2017;

    o Deadline problem 0: October 15th 2017;

    o Deadline full problem set: October 22nd 2017;

- Problem set 2 (15%, reference dependence, social preferences, narrow bracketing):

    o Distributed October 23rd 2017;

    o Deadline problem 0: November 5th 2017;

    o Deadline problem set: November 12th 2017;

- In-class exam (30%, provisionally Monday November 20th 2017)

- Problem set 3 (20%) (all topics covered so far with focus on focusing):

    o Distributed (presumably) November 21st 2017;

    o Deadline problem 0: December 3rd 2017;

    o Deadline problem set: December 10th 2017;

Assessment: Research Proposals and Ideas (20%)

Submit 5 research ideas by every Sunday night, 23:59 via Moodle – essentially 5 tweets. See examples in lecture 1.

Research proposals are 1 page long and answer the following questions:

- What is the research question? (1-2 sentences)

- What (if any) are some relevant papers?

- What domain does this apply to? What is a concrete (ideally real-life) example that fits the description? (2-4 sentences)

- Describe what you plan on doing. For laboratory or field experiments, explain how you think you could identify the main parameter (and what that parameter is!); for theory, explain the simplest interesting setting you can think of working out.

- Why do you care (and why should other economists care)? (2 sentences. Don't bullshit, tell me why you really care, not what you think will impress me.)

Assessment: Required Readings (5% bonus points)

I will have quizzes during class on the required readings (marked with *). This means that you should read the abstract and introduction. If you are interested in research, you really, really should read more than that, but given the workload of the class otherwise, I feel that this will detract from the main goal of the class if required of everyone.

Note on working with others on problem sets: You are encouraged to work together on the problem sets, but you are not allowed to read others' answers from past or present problem sets, and should hand in solutions separately that reflect your own understanding. You should acknowledge collaborators and describe the extent of collaboration at the top of the relevant assignments. While collaboration is allowed, directly copying someone else's work is not, and will be considered a violation of the university's code of ethics.

Note on working with others on research proposals: For research proposals, feel free to have each other proof-read the proposals to improve them as much as you want. You can submit joint research proposals twice (with up to two other people), since working with other people is part and parcel of research.

What if you perform poorly on a problem set or exam? Assuming that you (i) submitted "How to approach the problem set" a week before the deadline and (ii) properly attempted the question, you can get half the points towards 80% back. Thus, if you scored 40% on a problem, you can get 60% of the score (halfway towards 80%).

1. You identify the mistake.

2. You identify why you think you made that mistake (What made you think that was the right answer? Or did you know it wasn't the right answer, but didn't know what else to do?)

3. You solve a similar and simpler sub-problem (that focuses on what you got wrong) or come up with a question that tests for this mistake – and where you therefore would have made the same mistake.

The reason for this allowing this is that the point of the course is not to measure what you may already know, but to teach you how to model. Making mistakes is not the problem. Making the same mistakes again and again is.

Office Hours (Room 402, Nádor 13) and Emails

You are very welcome to come and talk to me, especially to get help with the problem sets and to talk about research ideas. **I strongly encourage you to drop by at least once in the first few weeks – you do not need to have any pressing questions.**

Drop-in Office Hours: These are open office hours, which means they are open to multiple students at once; if fellow students are in my office, please join in (although make sure to knock first in case there is a reason to wait outside). Feel free to show up in groups. I will hold regular office hours from 15:30-17:00 every Tuesday, as well as at the purposefully irregular times noted below – so that every one should be able to attend some drop-in office hour.

Here are the irregular drop-in office hours (I will update them depending on feedback and usefulness):

<div align="center">

Thursday 27th September, 14:00-15:00
Thursday 5th October, 11:00-12:00
Friday 13th October, 13:30-14:30
Thursday 19th October, 16:00-16:55
Tuesday 24th October, 11:00-12:00
Friday 3rd November, 13:30-14:30
Tuesday 7th November, 14:30-15:30
Thursday 16th November, 11:00-12:00
Thursday 30th November, 11:00-12:00
Wednesday 6th December, 10:00-11:00
Friday 8th December, 14:00-16:00

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Scheduled Office Hours: If either the times of the drop-in office hours don't work for you, or you want individual office hours for whatever reason, feel free to sign up for scheduled office hours (link to be added soon). If none of the offered times work for you, email me (KaufmannM@ceu.edu) and I will try to find another time that works.

Note that office hours end sharply on time, so make sure you arrive with enough time to ask the question you have.

Emails: Feel free to email me, especially if you feel something was unclear or if you have a quick question that can be answered well by email. If I feel that it is too difficult to answer by email, I may ask you to come to office hours.

Course schedule and Readings (preliminary)

Starred papers (*) are readings for which you are required to read the abstract and introduction – meaning there will be quizzes about them.

I recommend all other papers on the list.

Note: I will provide a separate and more comprehensive reading list for the topics covered in this course for those who want to go further. At this stage, you should be independent enough to identify your research interests and delve deeper into those areas that interest you.

Introduction (~ ½ lecture)

*This syllabus

**DellaVigna, Stefano. 2009. "Psychology and Economics: Evidence from the Field." Journal of Economic Literature 47(2): 315-372.

Thaler, Richard. "Toward a positive theory of consumer choice." *Journal of Economic Behavior & Organization* 1.1 (1980): 39-60.

Rabin, Matthew. (2013): "An Approach to Incorporating Psychology into Economics." American Economic Review Papers and Proceedings, 103(3): 617-622.

Spiegler, Ran (2017): "Behavioral Economics and the Atheoretical Style," working paper.

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.

Chetty, Raj (2015), "Behavioral Economics and Public Policy: A Pragmatic Perspective," Richard T. Ely Lecture, American Economic Review: Papers & Proceedings 2015, 105(5): 1–33.

1. Non-classical preferences

Present Bias (~ 5 lectures)

Wednesday September 20th

*O'Donoghue, Ted, and Matthew Rabin. 1999. "Doing It Now or Later." The American Economic Review 89 (1): 103–24.

O'Donoghue, Ted, and Matthew Rabin. 2001. "Choice and Procrastination." The Quarterly Journal of Economics 116 (1): 121–60.

Monday September 25th

* Madrian, Brigitte C., 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.

Chetty, Raj, John N. Friedman, Soren Leth-Petersen, Torben Heien Nielsen, and Tore Olsen. 2014. "Active vs. Passive Decisions and Crowd-Out in Retirement Savings Accounts." Quarterly Journal of Economics 129(3): 1141-1219.

Wednesday September 27th

Gul, F. and W. Pesendorfer (2001): "Temptation and Self-Control," Econometrica.

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

Monday October 2nd

*Augenblick, Ned and Matthew Rabin. 2017. "An Experiment on Time Preference and Misprediction in Unpleasant Tasks." Review of Economic Studies, forthcoming.

Augenblick, Ned (2017): "Short-Term Discounting in Unpleasant Tasks", working paper

Wednesday October 4th

Lockwood, Ben. "Optimal Taxation with Present Bias", Working Paper.

Ausubel, Lawrence. "Adverse Selection in the Credit Card Market", Working Paper, University of Maryland, June 1999.

Reference Dependence (~ 5 lectures)

Kahneman, Daniel, and Amos Tversky. 1979. "Prospect Theory: An Analysis of Decision under Risk." Econometrica 47 (2): 263–91. doi:10.2307/1914185.

Justin Sydnor. 2010. "(Over)insuring Modest Risks." American Economic Journal: Applied Economics, 2(4): 177–99.

DellaVigna, Stefano; Attila Lindner, Balazs Reizer, and Johannes Schmieder. "Reference Dependent Job Search: Evidence from Hungary"

*Rabin, M. "Diminishing Marginal Utility of Wealth Cannot Explain Risk Aversion," (Link: http://escholarship.org/uc/item/61d7b4pg)

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

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

*Camerer, Colin, et al. "Labor supply of New York City cabdrivers: One day at a time." *The Quarterly Journal of Economics* 112.2 (1997): 407-441.

Farber, H. S. (2005). Is Tomorrow Another Day? The Labor Supply of New York City Cabdrivers. Journal of Political Economy, 113(1). 1391.

Farber, H. S. (2008). Reference-dependent preferences and labor supply: The case of New York City taxi drivers. The American Economic Review, 98(3), 1069-1082.

Crawford, V. P., and Meng, J. (2011). New york city cab drivers' labor supply revisited: Reference-dependent preferences with rational-expectations targets for hours and income. The American Economic Review, 101(5), 1912-1932.

*Kőszegi, Botond and Matthew Rabin. (2009): "Reference-Dependent Consumption Plans," American Economic Review, 99(3): 909-936.

*Thakral, Neil, and Linh To (2016), "Behavior in Daily Labor-Supply Decisions." Working paper.

Social Preferences (~ 2 lectures)

Rao, G., 2013. Familiarity does not breed contempt: Diversity, discrimination and generosity in Delhi schools. Working paper.

Hjort, J., 2014. Ethnic Divisions and Production in Firms. The Quarterly Journal of Economics, 129(4), pp.1899-1946.

*DellaVigna, Stefano, John A. List, and Ulrike Malmendier. "Testing for altruism and social pressure in charitable giving." The Quarterly Journal of Economics (2012).

Kahneman, Daniel, Jack L. Knetsch, and Richard Thaler. "Fairness as a constraint on profit seeking: Entitlements in the market." *The American economic review* (1986): 728-741.

*Charness, G. and Rabin, M. (2002): "Understanding Social Preferences with Simple Tests," Quarterly Journal of Economics, 117 (3): 817-869.

*Dana, J., R. Weber, and J. Kuang. (2007): "Exploiting moral wriggle room: experiments demonstrating an illusory preference for fairness." Economic Theory, 33, 67–80.

2. Limited Rationality

**Rabin, Matthew. (2013): "Incorporating Limited Rationality into Economics," Journal of Economic Literature, 51(2): 528-543

Narrow Bracketing and Mental Accounting (~ 2 lectures)

*Rabin, Matthew, and Georg Weizsäcker. "Narrow bracketing and dominated choices." The American economic review 99.4 (2009): 1508-1543.

Tversky, Amos, and Daniel Kahneman. "Rational choice and the framing of decisions." *Journal of business* (1986): S251-S278.

Thaler, Richard H. "Mental accounting matters." *Journal of Behavioral decision making* 12.3 (1999): 183.

*Benartzi, Shlomo, and Richard H. Thaler. "Myopic loss aversion and the equity premium puzzle." *The quarterly journal of Economics* 110.1 (1995): 73-92.

Read, D., G. Loewenstein, and M. Rabin, "Choice Bracketing," Journal of Risk and Uncertainty, 19 (1-3): 171-197.

Kahneman, Daniel and Amos Tversky. "Introduction." In Judgment Under Uncertainty: Heuristics and Biases, Ch. 1, 3–22.

Mispredictions and misperceptions (~ 3 lectures)

*Loewenstein, G., O'Donoghue, T. and Rabin, M., 2003. Projection Bias in Predicting Future Utility. The Quarterly Journal of Economics, 118(4), pp.1209-1248.

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.

Busse, M., D. Pope, J. Pope, J. Silva-Risso. (2015): "The Psychological Effect of Weather on Car Purchases." Quarterly Journal of Economics 130(1), 371-414.

Madarasz, Kristof. (2012): "Information Projection: Model and Applications," Review of Economic Studies, 79 (3): 961-985.

*Eyster, Erik, and Matthew Rabin. (2005): "Cursed Equilibrium." Econometrica, 73(5): 1623-1672.

*Bushong, Benjamin, and Tristan Gagnon-Bartsch. "Learning with Misattribution of Reference Dependence." Working Paper, 2016.

Focusing, choice-set dependence etc (~ 4 lectures)

*Kőszegi, Botond, and Adam Szeidl. "A model of focusing in economic choice." The Quarterly Journal of Economics 128.1 (2013): 53-104.

Bushong, Ben, Matthew Rabin, and Josh Schwartzstein (2017), "A Model of Relative Thinking," working paper.

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

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

Statistical Biases (the remaining lectures, if any are left; hence no */)**

Benjamin, D., M. Rabin, and C. Raymond. (2015): "A Model of Non-Belief in the Law of Large Numbers," forthcoming, Journal of the European Economics Association.

Benjamin, Dan, Aaron Bodoh-Creed, and Matthew Rabin. (2013): "The Dynamics of Base- Rate Neglect," Non-Existent Working Paper, UC Berkeley.

Benjamin, Dan, Don Moore, and Matthew Rabin. (2013): "Misconceptions of Chance: Evidence from an Integrated Experiment." Working Paper, UC Berkeley.

Rabin, Matthew (2002): "Inference by Believers in the Law of Small Numbers," *Quarterly Journal of Economics* 117(3), August 2002, 775-816.

Rabin, Matthew, Joel Schrag. (1999): "First Impressions Matter: A Model of Confirmatory Bias," Quarterly Journal of Economics 114(1), 37-82, February 1999.

Jehiel, P. (2005): "Analogy-Based Expectation Equilibrium," Journal of Economic Theory.

Bordalo, Pedro, Katherine Coffman, Nicola Gennaioli, and Andrei Shleifer (2016). "Stereotypes." The Quarterly Journal of Economics, forthcoming.