

Applications of Psychology and Economics – Econ 219B
Spring 2007
Wednesday 12-3, 639 Evans Hall

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Office Hours:

Syllabus

Features of this course

This course is the continuation of the 219A class in *Psychology and Economics – Theory*, taught by Mathew Rabin. As in 219A, we will keep emphasizing the psychological evidence as the basis for sound economic analysis. This should surprise nobody, given the name by which the course (and the field) goes. We will also insist on the importance of neoclassical theory as a very successful benchmark that you are required to know. Finally, several topics of this course are designed to be the empirical counterpart of the theory covered in 219A. This is in particular true for the sections on Present Bias, Reference Dependent Preferences, and Social Preferences.

There are two main differences between 219A and 219B. First, this class has largely an empirical orientation, as opposed to the theoretical orientation of 219B. The emphasis on data just reflects the empirical status of economics. In particular, the success of the Psychology and Economics approach will depend on the empirical explanatory power of its theories. Can this approach explain evidence that the neoclassical model struggles with? Can it do so using parsimonious models? In 219B I will present empirical papers drawn from a variety of fields to try to address these questions. We will study papers in the fields of asset pricing, consumption, development economics, environmental economics, industrial organization, labor economics, political economy, public economics, and corporate finance.

The second main feature of the course will be its emphasis on dissertation writing. This will be apparent in the exposition of the topics. More often than not, we will note that the available empirical evidence barely scratches the surface. While this is a drawback for the field, it is a great opportunity for students planning to work in the area. In very few other fields there are so many important questions that still go unanswered. Throughout the course I will do my best to point out what seem to me like good directions for empirical research. In addition, as an incentive to get you started, one of the requirements of the course is a paper on an applied topic using field data.

Rules of the game

As a general rule, you should have taken the 219A course before you take this course. If you have not, but are interested in taking this course, please come and talk to me. The prerequisites of the 219A course, that is, an understanding of the economics of uncertainty and game theory at the level of 201B, apply to this course as well. In addition, it is important that you have had exposure to econometrics and empirical research. You should be familiar with OLS estimation, panel data models, and discrete choice models. For example, you should have no uncertainty as to what fixed effects do in a regression. Although it is not a requirement for this course, I recommend taking at least one labor economics, public economics, or applied econometrics course to anyone contemplating doing empirical research.

Throughout the course, I will assign a few required readings each week. The required readings are starred in the reading list below. The non-starred readings are optional, but I suggest that you at least read the abstract. So much of a paper is in the abstract (if the abstract is well-written).

There are four requirements for the course: three problem sets, a final exam, an empirical problem set, and an empirical paper. The last two requirements are either/or, that is, you can do either the empirical problem set or the paper. (Notice: The requirements have changed from the last time the class was taught, in Spring 2005)

I encourage everyone to try to write an empirical paper on a Psychology and Economics topic. This will help you to get started on your research, which is the real purpose of taking a PhD (as opposed to doing class-work). The paper can be written with up to two other students in the class. I encourage every one that is thinking about writing the paper to come and see me by February 18. You should feel free to either come during office hours or to schedule an appointment via email. A two-page written proposal is due by March 17. The final 10-15 page paper is due on May 22. The ideal paper contains a novel idea, the empirical strategy, and preliminary empirical results. However, I will accept significantly less as long as you show significant effort. Two things are key: (i) that you do at least some preliminary analysis with data, since one purpose of the requirement is to make sure that you learn to use Stata or another statistical package; (ii) that you use field data, as opposed to experimental data. (This is by no means meant as a negative on doing lab experiments. Laboratory experiments are great. However, this class focuses on field data) Replication of existing studies is perfectly fine, and encouraged. Replication, in fact, is a good way to start original research, and more and more replication data sets are available on the AER and JPE websites. Some of the papers prepared for this class in past year have turned into publishable papers and, in one case, even into a job market paper. I encourage you therefore to think of presenting the paper that comes out of this class in the Psychology and Economics Lunch.

In any case, you are strongly encouraged to attend the Psychology and Economics lunch (meeting most Fridays 1.30-2.30) if you are interested in making Psychology and Economics one of your fields. In addition, you should attend the Psychology and Economics Seminar (Tu 2-4) as much as you can. Spots to go for lunch with outside speakers are available for sign-up.

The alternative assignment is a one-time, significant empirical problem set that is meant to familiarize you with empirical research in Psychology and Economics. This year, the problem set will focus on earning announcements and the response of stock prices to the new information contained in the announcements. We may also have, in alternative, another empirical problem set on the effect of the media. You can work on the assignment in groups of up to three people, but

each one should hand in a solution. I will distribute the problem set at the beginning of March. The data will be in Stata format. I will assume that you have a working knowledge of Stata.

As for the other two requirements, the three problem sets will test your knowledge of modelling and of empirical specifications in some of the papers we cover. The problem sets this year will be on Present-Biased Preferences, on Reference Dependence, and on Menu Effects.

Finally, the exam will cover the material of the whole class and will be modeled on the type of questions that I ask in the problem sets.

The course webpage is an important instrument for this course (http://emlab.berkeley.edu/users/webfac/dellavigna/e219b_sp07/e219b_07.shtml is the address of this year's). On the website you will find updated lists of readings, the assignments, and the revised lecture notes in pdf format.

After class, I invite you to join me to chat about any favorite topic of yours in the Peixotto room during tea time.

Grading

The final grade will be an average with weight 30% on the three problem sets, 40% on the final exam, and the remaining 30% on either the paper or empirical problem set.

Tentative schedule of classes

The schedule will vary somewhat as the class unfolds. The syllabus will be updated on the web and will be available on the course webpage at http://emlab.berkeley.edu/users/webfac/dellavigna/e219b_sp07/e219b_07.shtml. (the course webpage)

Part I -- Non-Standard Preferences

January 17 – Lecture 1

- Introduction
- Psychology and Economics: The Methodology
- Psychology and Economics: The Fields
- Present-Biased Preferences, Part 1
- Problem Set 1 assigned

January 24 – No Lecture

January 31 – Lecture 2

- Present-Biased Preferences, Part 2
- Problem Set 1 due

February 7 – Lecture 3

- Present-Biased Preferences, Part 3
- Reference Dependence, Part 1
- Problem Set 2 assigned

February 14 – Lecture 4

- Reference Dependence, Part 2
- Effect of Experience
- Problem Set 2 due

February 21 – Lecture 5

- Reference Dependence, Part 3
- Risk Aversion

February 28 – Lecture 6

- Social Preferences

Part II -- Non-Standard Information Processing

March 7 – Lecture 7

- Limited Attention, Part 1

Introduction to Behavioral Asset Pricing

March 14 – No Lecture

March 21 – Lecture 8

- Financial Data Sets
- Empirical Problem Set Handed Out (Earnings Announcement)
- Limited Attention, Part 2
- Limited Memory
- Problem Set 3 assigned

March 28 – Spring Break – No Lecture

- Menu Effects
- 1/n Heuristic
- Choice Overload
- Problem Set 3 collected

April 4 – Lecture 9

- Persuasion
- Social Pressure

Part III -- Non-Standard Beliefs

April 11 – Lecture 10

- Overoptimism
- Overconfidence

April 18 – Lecture 11

- Projection Bias
- Mixed Topics: Emotions + Habits +...

Part IV – Market Response to Biases

April 25 – Lecture 12

- Market Reaction to Biases, Part 1

May 2 – Lecture 13

- Market Reaction to Biases, Part 2
- Choosing Topics for Dissertation
- Conclusion

- Final Exam

Readings

*designates required readings.

Some of the readings will be taken from the textbook used in the previous semester of 219A, that is, from *Choice, Values and Frames*:

*Kahneman and Tversky *Choices, values and frames*, (henceforth CVF).

The following paper in preparation for the *Journal of Economic Literature* will cover, in a dense manner, the topics covered in the class. It is still a preliminary version:

DellaVigna, Stefano, "Psychology and Economics: Evidence from the Field", mimeo, 2006.

For those of you who are looking for a background book in social psychology to complement the content of the Psychology and Economics sequence, I recommend:

L. Ross and R.E. Nisbett, *The Person and the Situation*, McGraw-Hill, 1991.

Introduction

1. Present-Biased Preferences

Theory overview

* O'Donoghue, Ted and Matthew Rabin. 2001. "Choice and Procrastination," *Quarterly Journal of Economics*, 121-160.

Ted O'Donoghue and Matthew Rabin. "Procrastination in Preparing for Retirement", in *Behavioral Dimensions of Retirement Economics*, Henry Aaron, editor, The Brookings Institution, 1999.

<http://elsa.berkeley.edu/~rabin/retire.pdf>

O'Donoghue, Ted and Matthew Rabin. 1999 "Doing It Now or Late," *American Economic Review*, 89(1), 103-124.

Gul, Faruk and Wolfgang Pesendorfer. 2001. "Temptation and Self-Control," *Econometrica*, 69(6): 1403-1435.

Laibson, David. 1997. "Golden Eggs and Hyperbolic Discounting." *Quarterly Journal of Economics*, 112: 443-477.

Overview of Experimental Evidence

Frederick, Shane., George Loewenstein, and Ted O'Donoghue. 2002. "Time discounting and time preference: a critical review." *Journal of Economic Literature*, 40: 351-401.

Loewenstein, George and David Prelec. 1992. "Anomalies in Intertemporal Choice: Evidence and an Interpretation." *Quarterly Journal of Economics*, 107(2): 573-597.

Status-Quo Bias in Financial Decisions

Samuelson, William and Zeckhauser, Richard, "Status-Quo Bias". *Journal of Risk and Uncertainty*, 1988.

* 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.

<http://mitpress.mit.edu/catalog/item/default.asp?ttype=6&tid=7463>

Choi, James J., David Laibson, Brigitte C. Madrian and Andrew Metrick. 2004. "For Better or For Worse: Default Effects and 401(k) Savings Behavior," in David Wise editor *Perspectives in the Economics of Aging*. Chicago, IL: University of Chicago Press, 2004, 81-121.

* Choi, James J. and David Laibson and Brigitte Madrian and Andrew Metrick. 2005. "Optimal Defaults and Active Decisions," NBER Working Papers.

http://post.economics.harvard.edu/faculty/laibson/papers/AD_Dec1.pdf

Consumer Behavior

*DellaVigna, Stefano and Malmendier, Ulrike. "Paying Not To Go To The Gym", *American Economic Review*, June 2006.

Wertenbroch, Klaus, "Consumption Self-Control by Rationing Purchase Quantities of Virtue and Vice," *Marketing Science*, 17 (4), 317-337

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

<http://www.ausubel.com/creditcard-papers/adverse.pdf>

Shui, Haiyan, and Ausubel, Lawrence. "Time Inconsistency in the Credit Card Market", mimeo.

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=586622

*Ariely, Dan and Wertenbroch, Klaus (2002), "Procrastination, Deadlines, and Performance: Self-Control by Precommitment, *Psychological Science*, 13 (May), 219-224

<http://web.mit.edu/ariely/www/papers/deadlines.pdf>

Miravete, Eugenio "Choosing the Wrong Calling Plan? Ignorance and Learning" *American Economic Review*, 93, pp. 297-310, 2002.

http://www.ssc.upenn.edu/~miravete/Papers/miravete_aer_2002.pdf

Miravete, Eugenio and Palacios-Huerta, Ignacio "Learning Time Preferences"

<http://www.econ.upenn.edu/~miravete/Papers/EJM-IPH.pdf>

Edward L. Glaeser, David M. Cutler and Jesse M. Shapiro "Why Have Americans Become More Obese?", *Journal of Economic Perspectives*, Summer 2003.

<http://post.economics.harvard.edu/hier/2003papers/HIER1994.pdf>

Payday effect

Shapiro, Jesse. "Is there a daily discount rate? Evidence from the food stamp nutrition cycle" *Journal of Public Economics*, forthcoming.

<http://www.people.fas.harvard.edu/~jmshapir/highfreq111703.pdf>

Barenstein and Huffman "Beer, Steak and Whisky: Evidence of a Payday Spending-Spree"

Melvin Stephens Jr. "Paycheck receipt and the timing of consumption." National Bureau of Economic Research Working Paper, 9356, November 2002.

Melvin Stephens Jr. "'3rd of the month': Do social security recipients smooth consumption between checks?" *American Economic Review*, 93(1):406—422, March 2003.

Labor Economics

DellaVigna, Stefano and M. Daniele Paserman. 2005. "Job Search and Impatience." *Journal of Labor Economics*, 23(3): 437-466.

http://emlab.berkeley.edu/users/sdellavi/wp/impatience_dec03.pdf

Paserman, M. Daniele. 2004. "Job Search and Hyperbolic Discounting: Structural Estimation and Policy Evaluation," IZA Discussion Papers 997, Institute for the Study of Labor (IZA).

Public Economics

Fang, Hanming and Dan Silverman. "On the Compassion of Time-limited Welfare Programs" July 2002, *Journal of Public Economics*.

<http://www.econ.lsa.umich.edu/~dansilv/compassion.pdf>

Fang, Hanming, and Dan Silverman. 2004. "Time-inconsistency and Welfare Program Participation: Evidence from NSLY." Cowles Foundation Discussion Papers No 1465.

<http://www.econ.lsa.umich.edu/~dansilv/tiwelf11.pdf>

Becker, Gary S., and Kevin Murphy (1988). "A Theory of Rational Addiction," *Journal of Political Economy*, 96, 675-700.

Gruber, Jonathan and Koszegi, Botond. "Is Addiction `Rational?' Theory and Evidence" *Quarterly Journal of Economics*, 2001, 116(4), pp. 1261-1305

<http://emlab.berkeley.edu/users/botond/addiction.pdf>

Gruber, Jonathan and Mullainathan, Sendhil. "Do Cigarette Taxes Make Smokers Happier" March 2002.

<http://econ-www.mit.edu/faculty/gruberj/files/happy81.pdf>

Life-Cycle Consumption

Laibson, D. "Golden eggs and hyperbolic discounting", *Quarterly Journal Of Economics*, Vol. 112 n2, May 1997, p.443-77.

* Angeletos, George-Marios, David Laibson, Jeremy Tobacman, and Stephen Weinberg. 2001. "The Hyperbolic Consumption Model: Calibration, Simulation, and Empirical Evaluation."

Journal of Economic Perspectives, 15(3).
<http://econ-www.mit.edu/faculty/angelet/papers.htm>

David Laibson, Andrea Repeto and Jeremy Tobacman, "Estimating Discount Functions from Lifecycle Consumption Choices" January 26, 2004.
<http://post.economics.harvard.edu/faculty/laibson/papers/msmpaper021004.pdf>

Karlan et al.

Corporate Finance

Baker, Malcolm, Joshua Coval, and Jeremy Stein. "[Corporate Financing Decision When Investors Take the Path of Least Resistance.](#)" NBER Working Paper Series, No. w10998, 2004.

Neural Evidence

*Samuel M. McClure, David Laibson, George Loewenstein and Jonathan D. Cohen) Separate Neural Systems Value Immediate and Delayed Monetary Rewards. *Science* 306, October 15 2004

Mixed Readings

Mischel, W., Y. Shoda, and M.L. Rodriguez (1992). "Delay of gratification in children" in "Choice over Time", Elster and Loewenstein ed., Russell Sage Foundation.