Applications of Psychology and Economics – Econ 219B Spring 2013 Wednesday 12-3, 648 Evans Hall

Instructor: Stefano DellaVigna, 515 Evans Hall sdellavi@econ.berkeley.edu

Syllabus

Features of this course

This course is the continuation of the 219A class in *Psychology and Economics – Theory*, taught by Josh Schwartzstein. As in 219A, we will keep emphasizing the psychological evidence as the basis for sound economic analysis. We will also insist on the importance of neoclassical theory as a 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.

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. I will present empirical papers drawn from a variety of fields: asset pricing, consumption, development economics, environmental economics, industrial organization, labor economics, political economy, public economics, and corporate finance. As such, the class is also meant for applied students that do not intend to make Psychology and Economics one of their main fields, but want to apply some of the behavioral ideas to their field of interest.

The second main feature of the course will be its emphasis on dissertation writing. 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.

The 219B course also covers a set of 11 Methodological Topics, including some of the how-to-do list for empirical behavioral research. These include (i) practical topics such as approval from Human Subjects and how to run field experiments, (ii) conceptual issues such as the difference between lab and field experiments and mis-application of present-bias models; and (iii) econometric issues such as clustering of standard errors. These topics are integrated with the other research topics.

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 two to four 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 introduction. So much of a paper is in the introduction (if the introduction is well-written).

There are four requirements for the course: 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.

Problem Sets. The problem sets will test your knowledge of modeling and of empirical specifications. The problem sets will be on Present-Biased Preferences, on Reference Dependence, and on Behavioral IO, with a possible fourth one.

Exam. The in-class 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.

Empirical Paper. 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 of course is the ultimate purpose of taking a PhD. The paper can be written with up to two other students in the class. I encourage everyone to come and see me by March 2. You should schedule an appointment via email. A two-page written proposal is due by April 2. The final 10-15 page paper is due on May 13.

The *ideal* paper contains a novel idea, the empirical strategy, and preliminary empirical results. Realistically, you can do 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 non-Lunch.

In any case, you are strongly encouraged to attend the Psychology and Economics non-lunch (meeting about on most Fridays 1.30-3) if you are interested in making Psychology and Economics one of your fields. In addition, you should attend the Psychology and Economics Seminar (Tu 2-3.30) as much as you can. Spots to go for lunch with outside speakers are available for sign-up.

Empirical Problem Set. The alternative assignment is a one-time, significant empirical problem set that is meant to familiarize you with empirical research in Psychology and Economics. The problem set will focus on earning announcements and the response of stock prices to the new information contained in the announcements. 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.

The course webpage is an important instrument for this course (you can find the link from my webpage). 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 problem sets, 40% on the final (in-class) exam, and the remaining 30% on either the paper or empirical problem set.

Meeting. The best way to meet is to send me an email to schedule – in fact, you are supposed to email me so we can talk about your paper project!

Tentative schedule of classes

The schedule will vary somewhat as the class unfolds. It is possible that one of the classes will be cancelled; notice in any case that the class covers about 40 hours of material instead of the Berkeley traditional 28 hours. The syllabus will be updated periodically on course webpage.

Part I -- Non-Standard Preferences

January 23 – Lecture 1 Introduction Psychology and Economics: The Methodologies Psychology and Economics: The Fields Present-Biased Preferences, Part 1 Status-Quo in Financial Decisions I <u>Methodological Topic</u>: Reading the Psychology Journals *Problem Set 1 on Present-Biased Preferences assigned*

January 30 – Lecture 2 Present-Biased Preferences, Part 2 Status-Quo in Financial Decisions II Consumption Choices

Problem Set 1 on Present-Biased Preferences due

February 6 – Lecture 3

Present-Biased Preferences, Part 3

 Life-Cycle Savings
 Summary of the Applications

 <u>Methodological Topic</u>: Commitment Field Experiment Designs

 <u>Methodological Topic</u>: Common Errors in Applying Present-Biased Preferences
 Problem Set 2 on Reference Dependence assigned

February 13 – Lecture 4 Reference Dependence, Part 1 Housing Market Insurance Choices

February 20 – Lecture 5

Reference Dependence, Part 2 Daily Labor Supply Financial Decisions Workplace Decisions Problem Set 2 on Reference Dependence due

February 27 – Lecture 6 Social Preferences, Part 1 Field Evidence of Gift Exchange Workplace Relations Charitable Giving <u>Methodological Topic</u>: Running a Field Experiment *Meeting Stefano to Discuss Paper Topic*

March 6 – No lecture

Part II -- Non-Standard Beliefs

March 13 – Lecture 7 Social Preferences, Part 2 Charitable Giving Social Pressure Overconfidence Law of Small Numbers Projection Bias <u>Methodological Topic</u>: The Role of Theory in Experiments

March 20 – No lecture March 27 – Spring Break – No Lecture

2-page Paper proposals due

Part III -- Non-Standard Decision-Making

April 5 – Lecture 8, Part 2 Limited Attention eBay Auctions Consumer Behavior Framing

April 10 – Lecture 9

Limited Attention, Part 2 Financial Market Evidence <u>Methodological Topic</u>: Portfolio Methodology Menu Effects, Part 1 Excess Diversification Choice Avoidance <u>Methodological Topic</u>: Clustering Standard Errors *Problem Set 3, Assigned*

April 17 – Lecture 10 Menu Effects, Part 2 Preference for Familiar Preference for Salient Confusion Persuasion

April 24 – Lecture 11

Emotions: Mood Emotions: Arousal <u>Methodological Topic</u>: Do Markets Eliminate Biases? <u>Methodological Topic</u>: Lab and Field Experiments <u>Methodological Topic</u>: Human Subjects Approval Behavioral IO Behavioral IO Behavioral Corporate Finance *Empirical Problem Set Handed Out Problem Set 3 due*

Part IV - Market Response to Biases

May 1 – Lecture 12 Market Reaction to Biases Behavioral Labor Behavioral Finance Behavioral Political Economy Behavioral Welfare Economics Other non-standard features Empirical Methodologies in Psychology and Economics <u>Methodological Topic:</u> Five Ways to Write a Psychology and Economics Paper Conclusion

In-Class Exam, May 8, 12-3

Sunday May 12 (midnight) – Due date for Paper and Empirical Problem Set

Readings

*designates required readings.

The following paper will cover, in a dense manner, the topics covered in the class: * DellaVigna, Stefano, "Psychology and Economics: Evidence from the Field", *Journal of Economic Literature*, June 2009, Vol. 47, pp. 315-372.

The following articles provide partial overviews of the field of Psychology and Economics:

Rabin, Matthew. 1998. "Psychology and Economics." *Journal of Economic Literature*, 36(1): 11-46.

An early classic, emphasizes the psychology and its application to economics

Camerer, Colin. 2005. "Behavioral Economics" World Congress of the Econometric Society, London, 18-24. Not comprehensive, but interesting ideas on the field

Mullainathan, Sendhil and Richard H. Thaler. 2001. "Behavioral Economics" in *International Encyclopedia of Social Sciences*, Pergamon Press, 1094-1100. *Classifies most P&E into Bounded Self-Control, Bounded Rationality, and Bounded Self-Interest*

For those looking for a background book in social psychology to complement the content of the Psychology and Economics sequence, I <u>highly</u> recommend:

L. Ross and R.E. Nisbett, *The Person and the Situation*, McGraw-Hill, 1991. A primer into a number of important social psychology findings, a wonderful classic, just recently was re-printed.

Daniel Kahneman, Paul Slovic, and Amos Tversky. *Judgment Under Uncertainty: Heuristics and Biases*, Cambridge University Press, 1982. *A classic of the cognitive psychology literature*.

Part I -- Non-Standard Preferences

January 19 – Lecture 1

Six Examples of Psychology and Economics (We will read these papers later) * Sydnor, Justin. "(Over)Insuring Modest Risks." *AEJ: Applied*, forthcoming.

* Gneezy, Uri, and John List. 2006. "Putting Behavioral Economics To Work: Testing For Gift Exchange In Labor Markets Using Field Experiments", *Econometrica*, Vol. 74(5), pp. 1365-1384.

* Huberman, Gur, and Tomer Regev. 2001."Contagious Speculation and a Cure for Cancer: A Nonevent that Made Stock Prices Soar." *Journal of Finance*, 56(1): 387-396.

Iyengar, Sheena S., Gur Huberman, and Wei Jiang. 2004. "How Much Choice Is Too Much? Contributions to 401(k) Retirement Plans,"in Pension Design and Structure: New Lessons from Behavioral Finance, ed. by O. S. Mitchell, and S. P. Utkus, chap. 5. Oxford University Press.

* Conlin, Michael, Ted O'Donoghue, and Timothy J. Vogelsang. Forthcoming. "Projection Bias in Catalog Orders." *American Economic Review*, 97(4), 2007, 1217-1249.

* DellaVigna, Stefano and Ulrike Malmendier. 2004. "Contract Design and Self-Control: Theory and Evidence." *Quarterly Journal of Economics*, 119: 353-402.

<u>Present-Biased Preferences: Status-Quo Bias in Financial Decisions I</u> * 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.

* Choi, James J., David Laibson, Brigitte C. Madrian and Andrew Metrick. 2006. "Saving for Retirement on The Path of Least Resistance," in Ed McCaffrey and Joel Slemrod, eds., *Behavioral Public Finance: Toward a New Agenda* New York: Russell Sage Foundation, pp. 304-351.

January 26 – Lecture 2

<u>Present-Biased Preferences: Status-Quo Bias in Financial Decisions II</u> * O'Donoghue, Ted and Matthew Rabin. 2001. "Choice and Procrastination," *Quarterly Journal* of Economics, 121-160.

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

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

* Carroll, Gabriel D.; Choi, James J. and David Laibson and Brigitte Madrian and Andrew Metrick." Optimal Defaults and Active Decisions," *Quarterly Journal of Economics*, 2009.

Cronqvist, Henrik, and Richard H. Thaler. 2004 "Design Choices in Privatized Social-Security Systems: Learning from the Swedish Experience." *American Economic Review Papers and Proceedings*, Vol. 94(2), pp. 424-428.

Abadie, Alberto, and Sebastien Gay. 2006. "The Impact of Presumed Consent Legislation on Cadaveric Organ Donation: A Cross-Country Study" *Journal of Health Economics*, 25(4): 599-620.

Comparison to Effect of Financial Education

Duflo, Esther and Emmanuel Saez. 2003. "The Role Of Information And Social Interactions In Retirement Plan Decisions: Evidence From A Randomized Experiment." *Quarterly Journal of Economics*, 118(3): 815-842.

* Choi, James J., David Laibson, Brigitte C. Madrian and Andrew Metrick. 2006. "Saving for Retirement on The Path of Least Resistance," in Ed McCaffrey and Joel Slemrod, eds., *Behavioral Public Finance: Toward a New Agenda* New York: Russell Sage Foundation, pp. 304-351.

Present-Biased Preferences: Consumer Behavior I (Investment Goods)

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

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

February 2 – Lecture 3

Present-Biased Preferences: Consumer Behavior II (Leisure Goods)

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

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

<u>Present-Biased Preferences: Life-Cycle Consumption and Savings Decisions I</u> * David Laibson, Andrea Repetto and Jeremy Tobacman, "Estimating Discount Functions from Lifecycle Consumption Choices" 2007.

Laibson, David. 1997. "Golden eggs and hyperbolic discounting", *Quarterly Journal Of Economics*, Vol. 112(2), pp. 443-77.

* Ashraf, Nava, Dean Karlan, and Wesley Yin. 2006. "Tying Odysseus to the Mast: Evidence from a Commitment Savings Product in the Philippines." *Quarterly Journal of Economics* 121, no. 2.

Methodology: Design of Commitment Field Experiments

Giné, Xavier, Dean Karlan, and Jonathan Zinman. 2010. "Put Your Money Where Your Butt Is: A Commitment Contract for Smoking Cessation." *American Economic Journal: Applied Economics*, 2(4): 213–35.

Royer, Heather, Mark Stehr, and Justin Sydnor "The Effectiveness of Financial Incentives and Commitment Devices for Gym Usage in the Workplace" Working paper.

Vinci Chow. 2011. "Demand for a Commitment Device in Online Gaming" Working paper.

Present-Biased Preferences: Seven More Applications

Duflo, Esther, Michael Kremer, and Jonathan Robinson. 2009. "Nudging Farmers to use Fertilizer: Evidence from Kenya" Working Paper.

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

Fang, Hanming, and Dan Silverman. "Time-inconsistency and Welfare Program Participation: Evidence from NSLY." *International Economic Review* 50(4), 2009, 1043-1077.

February 9 – Lecture 4

Reference Dependence and the Endowment Effect

* Kahneman, Daniel, Jack L. Knetsch, and Richard Thaler. 1990. "Experimental Tests of the Endowment Effect and the Coase Theorem." *Journal of Political Economy*, 98: 1325-48.

Plott, Charlie R., and Zeiler, Kathryn. 2005 "The Willingness to Pay/Willingness to Accept Gap, the "Endowment Effect," Subject Misconceptions and Experimental Procedures for Eliciting Valuations", *American Economic Review*, 95: 530-545.

Plott, Charlie R., and Zeiler, Kathryn. 2005 "Exchange Asymmetries Incorrectly Interpreted as Evidence of Endowment Effect Theory and Prospect Theory?" *American Economic Review*.

* List, John A. 2003. "Does Market Experience Eliminate Market Anomalies?" *Quarterly Journal of Economics*, 118(1): 41-71.

List, John A. "Neoclassical Theory Versus Prospect Theory: Evidence from the Marketplace," *Econometrica* (2004), 72(2): pp. 615-625.

Methodology: Effect of Experience

Palacios-Huerta, Ignacio and Oscar Volji. 2008. "Experientia Docet: Professionals Play Minimax in Laboratory Experiments" *Econometrica*, 76, 71-115

Steven Levitt, List, John, and David Reiley. 2010. "What Happens in the Lab Stays in the Lab" *Econometrica*, Volume 78(4), pages 1413–1434.

Palacios-Huerta, Ignacio and Oscar Volji. 2009. "Field Centipedes", *American Economic Review*, 99, 1619-1635.

Haigh, Michael, and John A. List. 2004. "Do Professional Traders Exhibit Myopic Loss Aversion? An Experimental Analysis," *Journal of Finance*, 60(1), 523-534.

Reference Dependence and Housing Markets

* Genesove, David and Christopher Mayer. 2001. "Loss Aversion and Seller Behavior: Evidence from the Housing Market," *Quarterly Journal of Economics*, 116(4), 1233-1260.

Reference Dependence and Mergers

Baker, Malcolm, Xin Pan, and Jeffrey Wurgler. "A Reference Point Theory of Mergers and Acquisitions." NBER Working Paper Series, No. 15551, December 2009.

Reference Dependence and Insurance Choices

Cicchetti, Charles J and Jeffrey A. Dubin. 1994. "A Microeconometric Analysis of Risk Aversion and the Decision to Self-Insure." *The Journal of Political Economy*, 102(1): 169-186.

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

February 16 – Lecture 5

Reference Dependence and Labor supply

* Camerer, Colin, Babcock, Linda, Loewenstein, George, and Thaler, Richard. "Labor supply of New York City Cabdrivers: One day at a time", 1997, *Quarterly Journal Of Economics*, pp. 407-42. (CVF 20)

* Farber, Henry S. 2005. "Is Tomorrow Another Day? The Labor Supply of New York City Cab Drivers", *Journal of Political Economy*.

Farber, Henry S. "Reference-Dependent Preferences and Labor Supply: The Case of New York City Taxi Drivers" *American Economic Review*, Volume 98, Number 3, June 2008, pp. 1069-1082(14).

* Fehr, Ernst and Lorenz Goette. 2007. "Do Workers Work More if Wages are High? Evidence from a Randomized Field Experiment." *American Economic Review*, 97(1).

Crawford, Vincent and Meng, JuanJuan. 2011. "New York City Cabdrivers' Labor Supply Revisited: Reference-Dependent Utility with Targets for Hours and Income." *American Economic Review*,.

Oettinger, Gerald S. 1999. "An Empirical Analysis of the Daily Labor Supply of Stadium Vendors," *Journal of Political Economy*, 107(2): 360-392.

Reference Dependence and Asset Pricing

* Odean, Terry. 1998. "Are Investors Reluctant to Realize Their Losses?", *Journal of Finance*, pp. 1775-1798. (CVF 21)

Ivkovich, Zoran, James Poterba and Scott Weisbenner. 2005 "Tax-Motivated Trading by Individual Investors." *American Economic Review*, 95(5): 1605–1630.

* Barberis, Nicholas and Wei Xiong.."What Drives the Disposition Effect? An Analysis of a Long-Standing Preference-Based Explanation." *Journal of Finance*, Volume 64, Issue 2, pages 751–784, April 2009.

Karlsson, Niklas, George Loewenstein, and Duane Seppi. 2009. "The 'Ostrich' Effect: Selective Attention to Information about Investments" *Journal of Risk and Uncertainty*. Volume 38, Number 2, 95-115.

Benartzi, Shlomo and Thaler, Richard. 1995. "Myopic loss aversion and the equity premium puzzle", *Quarterly Journal of Economics*, 110, pp.73-92. (CVF 17)

Barberis, Nicholas, Ming Huang and Tano Santos. 2001. "Prospect Theory and Asset Prices", *Quarterly Journal of Economics*, 116(1): 1-53.

Barberis, Nicholas and Huang, Ming. "Mental Accounting, Los Aversion, and Individual Stock Returns" *Journal of Finance*, 56, 2001, pp.1247-92.

Reference Dependence and Domestic Violence

Card, David and Gordon Dahl. 2011. "Family Violence and Football: The Effect of Unexpected Emotional Cues on Violent Behavior" *Quarterly Journal of Economics*.

Reference Dependence and Pay-Setting

* Mas, Alexander. 2006. "Pay, Reference Points, And Police Performance", *Quarterly Journal of Economics*.

February 23 – Lecture 6

Social Preferences: Gift Exchange in The Field

* Fehr, Kirchsteiger, and Riedl. 1993. "Does Fairness Prevent Market Clearing? An Experimental Investigation" *Quarterly Journal of Economics*, 108, pp. 437-459.

Falk, Armin. "Gift Exchange in the Field", *Econometrica*, Volume 75, Issue 5, pages 1501–1511, September 2007.

* Gneezy, Uri, and John List. 2006. "Putting Behavioral Economics To Work: Testing For Gift Exchange In Labor Markets Using Field Experiments", *Econometrica*, Vol. 74(5), pp. 1365--1384.

Sebastian Kube, Michel André Maréchal and Clemens Puppe. "Do Wage Cuts Damage Work Morale: Evidence From a Natural Field Experiment". 2009.

Sebastian Kube, Michel André Maréchal and Clemens Puppe. "The Currency of Reciprocity: Gift-Exchange in the Workplace". 2010.

* List, John. 2006. "The Behavioralist Meets the Market: Measuring Social Preferences and Reputation Effects in Actual Transactions", *Journal of Political Economy*, Vol. 114(1): 1-37.

Social Preferences: Evidence in The Workplace

Krueger, Alan and Alexandre Mas. 2004. "Strikes, Scabs and Tire Separations: Labor Strife and the Production of Defective Bridgestone/Firestone Tires," *Journal of Political Economy*, 112(2): 253-89.

* Bandiera, Oriana, Iwan Barankay and Imran Rasul. 2005. "Social Preferences and the Response to Incentives: Evidence from Personnel Data." *Quarterly Journal of Economics*, 120(3): 917--962.

Social Preferences: Charitable Giving

Jim Andreoni, "The Economics of Philanthropy." in N. Smeltser, P. Baltes, eds., *International Encyclopedia of Social and Behavioral Sciences*, Elsevier: Oxford, 2001, 11369-11376.

John A. List and David Lucking-Reiley, "The Effects of Seed Money and Refunds on Charitable Giving: Experimental Evidence from a University Capital Campaign." *Journal of Political Economy*, February 2002, vol. 110, no. 8, pp. 215-233.

Craig E. Landry, Andreas Lange, John A. List, Michael K. Price, Nicholas G. Rupp. "Toward an Understanding of the Economics of Charity: Evidence from a Field Experiment" *Quarterly Journal of Economics*, May 2006, Vol. 121, No. 2, Pages 747-782.

Methodology: Running a Field Experiment

Harrison, Glenn and John List. "Field Experiments". Journal of Economic Literature

* Esther Duflo, Rachel Glennerster, and Michael Kremer. 2007. "Using Randomization in Development Economics Research: A Toolkit". *Handbook of Development Economics* Volume 4, Pages 3895-3962.

March 2 – Lecture 7

Social Preferences: Charitable Giving II

* DellaVigna, Stefano, John A. List and Ulrike Malmendier. "Testing for altruism and social pressure in charitable giving" 2010. Working paper.

Methodology: Theory and Field Experiments

* David Card, Stefano DellaVigna, and Ulrike Mamelndier. 2011. "The Role of Theory in Field Experiments" in preparation for *Journal of Economic Perspectives*.

Part II -- Non-Standard Beliefs

Overconfidence

Camerer, Colin, and D. Lovallo (1999) "Overconfidence and Excess Entry: An Experimental Approach," *American Economic Review*, 89:1 (March), 306-318. CVF 23

* Malmendier, Ulrike, and Geoffrey Tate. "Who Makes Acquisitions? CEO Overconfidence and the Market's Reaction," *Journal of Financial Economics* Volume 89, Issue 1, July 2008, Pages 20-43.

Malmendier, Ulrike, and Geoffrey Tate. 2005. "CEO Overconfidence and Corporate Investment." *Journal of Finance*, 60 (6): 2661-2700.

* Odean, Terrance. 1999. "Do investors trade too much?" *American Economic Review*, 89: 1279—1298.

Odean, T. "Boys will be Boys: Gender, Overconfidence, and Common Stock Investment" with Brad Barber, *Quarterly Journal of Economics*, February 2001, Vol. 116, No. 1, 261-292.

Daniel, Kent D., David Hirshleifer, and Avanidhar Subrahmanyam. 1998. "Investor psychology and security market under- and over-reactions", *Journal of Finance*, 53: 1839--1886.

Law of Small Numbers

Terrell, Dek. 1994. "A Test of the Gambler's Fallacy -- Evidence from Pari-Mutuel Games," *Journal of Risk and Uncertainty*, 8(3): 309-317.

* Benartzi, Shlomo. 2001. "Excessive Extrapolation and the Allocation of 401(k) Accounts to Company Stock" *Journal of Finance*, 56(5):1747-1764.

Barberis, Nicholas, Andrei Shleifer and Robert Vishny. 1998. "A model of investor sentiment", *Journal of Financial Economics*, 49: 307-345.

March 9 – Lecture 8, Part 1 Projection Bias * Conlin, Michael, Ted O'Donoghue, and Timothy J. Vogelsang. Forthcoming. "Projection Bias in Catalog Orders." *American Economic Review*.

Levy, Matthew. 2009. "An Empirical Analysis of Biases in Cigarette Addiction" Working paper.

Acland, Dan and Matthew Levy. 2010. "Habit Formation, Naivete, and Projection Bias in Gym Attendance (with Dan Acland)" Working paper.

Part III -- Non-Standard Decision-Making

March 9 – Lecture 8, Part 2

Limited Attention: Consumption Behavior * Chetty, Raj, Looney, Adam, and Kroft, Kory. 2007. "Salience and Taxation: Theory and Evidence from a Field Experiment".

Lacetera, Nicola, Devin Pope, Justin Sydnor. 2010. "Heuristic Thinking and Limited Attention in the Car Market" Working paper.

Limited Attention: eBay Auctions

Lee, Hanh and Ulrike Malmendier. 2006 "The Bidder's Curse", Working Paper.

* Hossain, Tanjim and John Morgan. 2006. "...Plus Shipping and Handling: Revenue (Non) Equivalence in Field Experiments on eBay," *Advances in Economic Analysis & Policy*, 6(2): 1429-1429.

Hossain, Tanjim and John Morgan. 2009. "Shrouded Attributes and Information Suppression: Evidence from Field Experiments" *Quarterly Journal of Economics*.

Limited Attention: Financial Market Evidence

Huberman, Gur, and Tomer Regev. 2001."Contagious Speculation and a Cure for Cancer: A Nonevent that Made Stock Prices Soar." *Journal of Finance*, 56(1): 387-396.

* Cohen, Lauren, and Andrea Frazzini. Forthcoming. "Economic Links and Predictable Returns", *Journal of Finance*, 63, no. 4 (August 2008).

DellaVigna, Stefano and Joshua Pollet. 2007. "Demographics and Industry Returns" *American Economic Review*, 97: 1167-1702.

DellaVigna, Stefano and Joshua Pollet. 2009. "Investor Inattention and Friday Earnings Announcements" *Journal of Finance*, April 2009, Vol. 64, pp. 709-749.

Hirshleifer, David A., Sonya S. Lim, and Siew Hong Teoh. 2009. "Driven to Distraction: Extraneous Events and Underreaction to Earnings News" *Journal of Finance*.

March 16 – Lecture 9

Menu Effects: Excess Diversification

* Benartzi, Shlomo and Richard H. Thaler. 2001. "Naive Diversification Strategies in Defined Contribution Saving Plans." *American Economic Review*, 91(1): 79-98.

* Huberman, Gur, and Wei Jiang. 2006. "Choices in 401(k) Plans: Equity Exposure and Number of Funds." *Journal of Finance*, 61(2): 763-801.

Menu Effects: Choice Avoidance

Iyengar, Sheena and Mark Lepper. 2000. "When Choice is Demotivating: Can One Desire Too Much of a Good Thing?" *Journal of Personality and Social Psychology*, 79(6): 995-1006.

* Choi, James J., David Laibson, and Brigitte C. Madrian. 2006. "Reducing The Complexity Costs of 401(k) Participation Through Quick Enrollment" NBER Working Paper No. 11979.

Iyengar, Sheena S., Gur Huberman, and Wei Jiang. 2004. "How Much Choice Is Too Much? Contributions to 401(k) Retirement Plans,"in Pension Design and Structure: New Lessons from Behavioral Finance, ed. by O. S. Mitchell, and S. P. Utkus, chap. 5. Oxford University Press.

* Bertrand, Marianne, Dean Karlan, Sendhil Mullainathan, Eldar Shafir, and Jonathan Zinman. 2006. "What's Psychology Worth? A Field Experiment in the Consumer Credit Market." Working paper.

Simonson, Itamar and Tversky, Amos. Choice in Context: Tradeoff Contrast and Extremeness Aversion, *Journal of Marketing Research*, Vol. XXIX, 1992

Menu Effects: Preference for Familiar

French, Kenneth R. and Poterba, James M. 1991. "Investor Diversification and International Equity Markets" *American Economic Review*, 81: 222-226.

Huberman, Gur. 2001. "Familiarity Breeds Investment," *Review of Financial Studies*, 14(3): 659-680.

* Benartzi, Shlomo. 2001. "Excessive Extrapolation and the Allocation of 401(k) Accounts to Company Stock" *Journal of Finance*, 56(5):1747-1764.

Menu Effects: Preference for Salient

*Ho, Daniel E., and Kosuke Imai. ``The Impact of Partisan Electoral Regulation: Ballot Effects from the California Alphabet Lottery, 1978-2002.", 2004.

* Barber, Brad and Odean, Terry. "All that Glitters: The Effect of Attention and News on the Buying Behavior of Individual and Institutional Investors", April 2002.

March 23 and 30 – No Lecture

April 6 – Lecture 10

Menu Effects: Confusion

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