Psychology in the Economic Wild:

How Psychology Shapes Real World Economic Phenomena

Spring 2014

Instructor: Danial Lashkari
E-mail: lashkari@fas.harvard.edu
Time: Monday-Wednesday 7-8:30PM
Location: Room M-15
Office Hours: TBD

Course Description:

Modern economics and psychology both intend to understand and explain human behavior but have traditionally employed very different approaches. Whereas economics has relied on normative, rational theories, psychology has instead employed positive, descriptive models. In the last three decades, the (re)marriage of psychological insights and economic analysis have revolutionized our understanding of many important economic phenomena. This tutorial provides an overview of the contributions of psychology to a wide variety of real-world economic problems. It focuses on specific and concrete applications of behavioral economics in different domains, from finance and economic development to labor and political economics, and demonstrates the versatility and applicability of psychological thinking in economic analysis.

The course is organized in five parts. In the first part, we briefly discuss the history of psychological thinking in economics and introduce a number of psychologically inspired models of preferences and choice. The aim of this short section is to lay the foundation of concepts and ideas that will be used in the remainder of the course. The next four parts involve case studies in four broad domains of economics: 1) household economics of consumption and savings, 2) capital markets and finance, 3) labor markets, and 4) public and political economics.

In each session, we review a specific economic problem where psychological models have made a significant contribution. Examples of cases covered include studies on New York City cab drivers’ labor supply decisions, on individuals’ beliefs about the value of education, on investor overconfidence and how it impacts stock market prices, on the design of retirement savings plans, on self-serving biases and pretrial bargaining impasse, and on many others. In each case, we will focus on why classical economic models do not fully explain the phenomenon under study, and how psychological models help resolve puzzles created by the classical theory. The majority of the cases covered in the tutorial involve applied work that utilizes real-world economic data.

Beyond the classification of above, which is based on the domain of economics involved, the structure of the tutorial further follows a number of conceptual psychological themes. We begin cases in investment and savings where issues of intertemporal decision making and self-control are the most relevant. We then move on to a number of cases where loss aversion and reference-dependent preferences play a major role. We then move on to cases in finance, corporate governance, labor markets,
and politics where individual beliefs about their environments are systematically biased. Finally, we review cases that involve social preferences and social psychology, and further touch on the issues of attention and salience.

In addition to being an introduction to applications of behavioral economics, the tutorial also aims to demonstrate the workings of applied economics. When covering each piece of applied work, we focus on how it utilizes economic models in combination with real world data. The tutorial further includes two sessions where participants discuss a specific, current puzzle in applied economics, and attempt to apply psychological reasoning to provide likely explanations for these puzzles.

**Prerequisites and Recommended Background:**

The tutorial assumes a strong command of the material covered in the following courses:

**Economics:** Ec 1010a/1011a and concurrent enrolment in 1010b/1011b.

**Statistics and Econometrics** Stat 100/104/110, AM101 or Math 154, and concurrent enrolment in Ec 1123/1126/1127.

**Requirements:**

*Readings:* For each class, we have some required in-depth reading material, which you are expected to closely read. These papers are identified on the reading list by a star sign (★) before them. You should also skim the un-starred papers on the list after reading the starred material. All the papers on the list for the same class are closely related to each other. Therefore, after a close reading of the starred papers, you will find it easier to briefly review the rest of the papers and identify their core contributions. During the first few sessions, we will dedicate some time to discussing a number of strategies for directed and effective skimming of academic papers in economics.

*Class preparation and participation (10%):* The tutorial aims to engage class participants in constructive and lively discussions of the materials. Therefore, it is important that everyone prepares the materials beforehand and participates in the discussions. Your contribution to class discussions will be evaluated in each class.

*Class Presentations (10%):* Twice during the course of the semester, each student will deliver a brief presentation on one of the assigned articles. You will sign up for your articles during our second week of the class meeting. In these presentations, you should aim to provide a brief overview of the main insights and arguments of the paper in the course of 15 minutes and pose some questions to the class as a starting point for the discussions.

*Short Responses (20%):* Starting on the fourth meeting of the class (February 12th), you will be expected to submit a two-paragraph long response to the readings before each class. The responses are due by noon on the day of the class via email. The first paragraph should provide the summary of the main idea of the paper in your own words, and the second paragraph should frame a number of questions for discussion. Please include “ECON970 - Short Response” in the subject line of your e-mail.

*Referee Report (5%) and Short Essay (10%):* early in the semester, you will submit a short referee report
(3-5 pages) on a paper of your choice (selected from the papers not covered by March 3). The aim of this first paper is to provide you with some practice for future writings in the course. Furthermore, you are expected to submit a short essay draft (4-6 pages) on the subject of one of the discussion sessions. Moreover, upon receiving your comments from the first draft, you will have to submit a revised second draft of your short essay that incorporates the comments. Final grade for the exercise will be based on both drafts combined.

**Final research (35%):** As the final project, you are expected to produce a piece of research related to the ideas covered in the tutorial. In this work, you should identify a real world economic phenomenon where we need psychological insights to explain the outcomes. Your work needs to include an empirical strategy that may provide evidence supporting your arguments. Ideally, your work should take steps toward implementing your empirical strategy as well. To fulfill the research requirement, you will 1) submit a prospectus (3-5 pages) proposing the subject of your research, 2) present your research to the class on the last two meetings of the class, and 3) write a final paper (14-18 pages without tables and figures). The paper should involve a review of the prior literature on the subject, outline your argument and empirical strategy, and present the results. The grade for the final research will be based on all three requirements combined.

**Due dates:**

- **February 11:** Sign up your articles of choice for class presentations.
- **March 3:** Referee report on paper of choice due via e-mail by 5pm.
- **March 11:** Short essay (first draft) due via e-mail by 5pm.
- **April 7:** Prospectus due via e-mail by 5pm.
- **April 13:** Short essay (second draft) due via e-mail by 5pm.
- **May 5:** Final research paper due via e-mail by 5pm. No exceptions!

**Policies:**

**Laptops:** You are allowed to bring your laptops to the class and take notes on them. However, please note that you are expected to participate and be engaged while in class and not surf the web or check your email. Remember that your class participation is evaluated in every class.

**Correspondence:** I will try to reply to your emails within 24 hours if you email me during the work week, and by the next Monday if you email me over the weekend. Please make sure to include “ECON970” in the subject line of any e-mails you send me. If your question cannot be answered in one brief paragraph, or requires a longer exchange, please arrange to discuss it with me in person instead.

**Formatting:** Double-spaced, 12 point Times New Roman font, one-inch margins for all assignments. Please submit all assignments via e-mail.

**Late assignments:** Missing the due date for each assignment results in losing half of the grade for the assignment. Please let me know in advance if serious or unforeseen circumstances arise.
Academic integrity: Please refer to Harvard University’s policy on academic dishonesty in the FAS Student Handbook. You are encouraged to discuss the material and assignments together, but any work you turn in must be your own. If you use any sources or outside help, whether from classmates, internet, or other published work, you must acknowledge them. Failure to follow this basic rule will have very serious consequences for you. If in doubt, always come and talk to me.
Schedule and Reading List:

Part 1. Psychology in Economics

1. Theory I: Utility Maximization and Psychology (Monday, February 3rd)

The first half of the class provides a general overview of the goals and logistics of the course. In the second half of the class, we go over the basic concept of utility maximization in economic models, and examine its premises in light of insights from psychology. I suggest that you briefly review the lectures from 1010a/1011a on consumer preferences and utility maximization before the class. The assigned sections from the review article by DellaVigna discuss work in behavioral economics that documents departures from the basic model of utility maximization. The review article by the Nobel laureate Daniel Kahneman gives you a flavor of psychological research that gave rise to the behavioral revolution in economics. Think about the implications of the psychological theories covered in his article for standard models of utility maximization.


   - Read sections 1 (pp. 315-317) and 4 (pp. 347-360).


2. Theory II: Intertemporal Choice and Social Preferences (Wednesday, February 5th)

In this class, we discuss two important sets of models in behavioral economics that both concern choice under certainty: models self-control in intertemporal choice and models of social preferences. These psychologically inspired models help explain a wide variety of economic phenomena, some of which we will cover in our readings in this tutorial.


   - Read sections 2.1 (pp. 318-324) and 2.3 (pp. 336-341).


   - Read sections 1 (pp. 351-352) and 3-5 (pp. 355-377).


   - Read sections 1 and 2 (pp. 392-396).

3. Theory III: Risk, Uncertainty, Beliefs, and References (Monday, February 10th)

In this class, we discuss behavioral models that concern decision making under uncertainty. We will focus on prospect theory, overconfidence, and cognitive dissonance.

- Read sections 2.2 (pp. 324-336) and 3.1 (pp. 341-344).


- Read section 3 (pp. 24-32).


4. Going Big Picture: History of Psychology in Economics (Wednesday, February 12th)

How have psychological ideas historically influenced economics? In this class, we step back to discuss the broader role of psychological thinking in the history of economic thought and how this framework contrasts with the rational, neoclassical economic theories. Start by reading Akerlof’s paper, focusing on the macroeconomic empirical regularities that he identifies as crucial for understanding the distinction between the two sets of theories. For each case, try to identify in your own words the psychological phenomena that allows us to explain the empirical regularity of interest. The Bruni article takes us even further back, drawing parallels between the debates around behavioral economics today with those in economics in late 19th and early 20th century. This reading is not starred but I strongly encourage you to spend some time on it even if skipping some of the details of the earlier debates. This piece will help you understand a crucial distinction between the approaches of neoclassical and behavioral economics to scientific discovery.


Bruni, L., Sugden, R., Jan. 2007. The road not taken: how psychology was removed from economics, and how it might be brought back. The Economic Journal 117 (516), 146–173 [28 pages]

5. Going Philosophical: What If People Make Mistakes? (Wednesday, February 19th)

What can we learn from observed choices made by individuals if they are likely to make mistakes or be biased? Are we allowed to use this knowledge to design systems in such a way that induces people to make certain choices? In this class, we review the policy implications of some of the major findings of behavioral economics. The papers by Camerer et al., and Thaler and Sunstein both provide an argument for policies that engineer people’s choices toward a specific direction. The article by Beshears et al. counts a number of criteria for when such policies could be arguably relevant. What challenges do you see for identifying and implementing such policies? Do you find the arguments convincing?


Part 2. Households Economics: Consumption, Savings, and Investment

6. Savings and Commitment (Monday, February 24th)

Individual savings decisions and how self-control problems create demand for commitment.


7. Psychology of Investment and Retirement Savings (Wednesday, February 26th)

We review the a number of behavioral biases that shape decisions regarding retirement savings behavior. Among these behavioral phenomena, we focus on peoples’ seeming inability to fully assess costs, fees, and charges associated with different financial products. Choi et al.’s paper provides an interesting demonstration of this empirical fact. regarding


8. Investment Decisions (Monday, March 3rd)

In this class we discuss some work that extends the insights from the psychology of savings to the case of investment in household-managed enterprises.


Part 3. Capital Markets and Finance

9. Stock Prices and Reference Dependence (Wednesday, March 5th)

We discuss how reference-dependent preferences may help us understand the equity premium puzzle in asset pricing. Our focus is on the the article by Benartzi but will discuss the main idea behind the Barberis et al. article without getting into the details of the mathematical formulation.


10. Trading and the Disposition Effect (Monday, March 10th)

This class focuses on understanding an empirical regularity in trading behavior named the disposition effect within the framework of reference-dependent preferences.


11. Discussion Session I: Heterogeneity in Rates of Returns in Developing Countries (Wednesday, March 12th)

We have an open discussion of ways in which behavioral insights we have learned so far may help us resolve an important puzzle in development economics: why many investment opportunities remain unexploited?


. Read section 2 (pp. 479-499) and section 4.6 (pp. 520-522).


12. Investors and Overconfidence (Monday, March 24th)

We discuss systematic biases in individuals' beliefs about own ability and how it shapes investment behavior in financial markets.


13. CEOs and Overconfidence (Wednesday, March 26th)

Does overconfidence characterize the decision making of experienced CEOs as well? In this class, we discuss this question and its broad implications for corporate governance.

★ Malmendier, U., Tate, G., 2005. CEO Overconfidence and Corporate Investment. Journal of Finance 60 (6), 2661–2700 [40 pages]

Part 4. Labor Markets

14. Investment in Education (Monday, March 31st)

In this class, we review empirical evidence regarding individual beliefs about economic returns to educational attainment, and how they shape investment in education. Both Jensen and Nguyen’s papers suggest that students hold biased beliefs about returns to education. In Bursztyn and Coffman’s paper, we are only interested in the discussion around the evidence reported in Table 2. What do we learn from their data?


• Nguyen, T., 2008. Information, Role Models and Perceived Returns to Education: Experimental Evidence from Madagascar [50 pages]


15. Back to References: Labor Supply of NYC Cab Drivers (Wednesday, April 2nd)

In this class we discuss the well-studied case of labor supply decisions of New York City cab driver. We review the debate around whether reference-dependent preferences shed light on some regularities in the data that are otherwise difficult to understand.


16. Social Psychology of Labor Relations (Monday, April 7th)

This class provides an overview of the evidence for negative reciprocity between employers and employees in labor markets.


17. Work Arrangements and Social Preferences (Wednesday, April 9th)

The paper for this class demonstrates how employee incentives are shaped by social preferences. This paper employs a field experiment. We will also discuss different aspects of this methodology for investigating economic behavior.
18. Discussion Session II: Adoption of Management Best Practices (Monday, April 14th)

Open discussion of ways in which behavioral insights we have learned so far may help us resolve an important puzzle in organizational economics: why many firms fail to adopt widely-known management best practices?


Part 5. Law, Public and Political Economics

19. Bargaining Impasse and Self-Serving Beliefs (Wednesday, April 16th)

Can self-serving biases prevent reaching agreements in pretrial bargaining?


20. Political Beliefs and Political Action (Monday, April 21st)

We discuss the impact of cognitive dissonance on how political beliefs are formed and how they translate into voting behavior.


21. Salience and Taxation (Wednesday, April 23rd)

In this class, we review the evidence in public economics that consumer response to taxation may critically depend on the salience of the tax.


22. Presentation Session I (Monday, April 28th)

23. Presentation Session II (Wednesday, April 30th)