

**Experimental Economics  
(Econ 219D)**

**Course Description**

**Contact information**

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**Location and time**

Dates: Fridays 08:00-10:00.

Location: 648 Evans.

**Course syllabus**

In combining theory and experiments, we should have two objectives in mind. The first objective is to confront the theory with some data to see whether the theory is at all consistent with the behavior exhibited in the laboratory. Clearly, there is much that can be learned about the theory from the data, quite apart from any notion of “testing” the theory. We hope to learn whether the theory is useful in interpreting the data, of course, but we also expect to find out what extensions of the theory are required to make it compatible with the data.

The second objective is to confront the data with the theory. A theoretical framework is needed for two reasons. First, the data set generated by experiments can be extremely rich and the behavior predicted by the theory is sometimes complex and subtle. Any attempt to explain rich datasets in purely “behavioral” terms would require a large number ad hoc assumptions, which would render the “explanation” rather uninformative. The second reason is that, without a theoretical framework, it is impossible to draw general conclusions that go beyond the particular setting of the experiment.

My part of the course will consist on two segments:

**I. Risk preferences**

Uncertainty is endemic in a wide variety of economic circumstances so models of decision making under uncertainty play a key role in every field of economics. The standard model of decisions under uncertainty is based on von Neumann and Morgenstern (1947) Expected Utility Theory (EUT), so it is natural that experimentalists should want to test the empirical validity of the Savage (1954) axioms on which EUT is based. Empirical violations of EUT provoke intriguing questions about the rationality of individual behavior and, at the same time, raise criticisms about the status of the Savage axioms as the touchstone of rationality. These criticisms have resulted in the development of various theoretical

alternatives to EUT, and the investigation of these theories has led to new empirical regularities in the laboratory. Developing appropriate methods for appropriately confronting the theory of choice under risk (known probabilities) and ambiguity (unknown probabilities) with experimental evidence will have implications in many areas of economic theory and policy.

#### Surveys

1. Camerer, C. (1995) "Individual Decision Making," in *Handbook of Experimental Economics*. J. Kagel and A. Roth, eds. Princeton U. Press.
2. Starmer, C. (2000) "Developments in Non-Expected Utility Theory: The Hunt for a descriptive Theory of Choice under Risk." *Journal of Economic Literature* **38**, pp. 332-382.

#### Papers

1. Ahn, D., S. Choi, D. Gale and S. Kariv (2013) "Estimating Ambiguity Aversion in a Portfolio Choice Experiment." Forthcoming *Quantitative Economics*.
2. Choi, S., R. Fisman, D. Gale and S. Kariv (2007) "Consistency and Heterogeneity of Individual Behavior under Uncertainty." *American Economic Review* **97**, pp. 1921-1938.
3. Choi S., S. Kariv, W. Müller and D. Silverman (2013) "Who Is (More) Rational?" Forthcoming *American Economic Review*.
4. Halevy, Y. (2007) "Ellsberg Revisited: An Experimental Study." *Econometrica* **75**, pp. 503-536.
5. Harless, D. and C. Camerer (1994) "The Predictive Utility of Generalized Expected Utility Theories." *Econometrica* **62**, pp. 1251-1289.
6. Hey, J. and C. Orme (1994) "Investigating Generalizations of Expected Utility Theory Using Experimental Data." *Econometrica* **62**, pp. 1291-1326.
7. Holt, C. and S. Laury (2002) "Risk Aversion and Incentive Effects." *American Economic Review* **92**, pp. 1644-1655.

## **II. Social preferences**

Many complex social and economic behaviors invoke social preferences. Obvious examples include charitable giving, negotiations, cooperation, taxation, neighborhood effects, social learning, social capital, development, and globalization, among others. In all of these cases, understanding behavior requires understanding the distributional preferences that lie behind it. A theoretical and empirical analysis of these preferences therefore has implications not just

for economic policy but also for policy in a host of other areas. Moreover, social preferences implicate many disciplines, ranging from economics, through philosophy, and even law. The techniques and intellectual frameworks of all these disciplines must be brought to bear in order properly to understand such preferences. Economic theory raises intriguing questions about the rationality of social preferences. Insofar as social preferences are rational, then the techniques of economic analysis may be brought to bear on modeling and predicting behavior governed by these preferences.

#### Surveys

1. Camerer, C. (2003) “Behavioral Game Theory: Experiments in Strategic Interaction.” Princeton University Press (Ch. 2).

#### Papers

1. Andreoni, J. and J. Miller (2002) “Giving According to GARP: An Experimental Test of the Consistency of Preferences for Altruism.” *Econometrica* **70**, pp. 737-753
2. Bolton, G. and A. Ockenfels (2000) “ERC: A Theory of Equity, Reciprocity, and Competition.” *American Economic Review* **90**, pp. 166-193.
3. Charness, G. and M. Rabin (2002) “Understanding Social Preferences with Simple Tests.” *Quarterly Journal of Economics* **117**, pp. 817-869.
4. Engelmann D. and M. Strobel (2004) “Inequality Aversion, Efficiency, and Maximin Preferences in Simple Distribution Experiments.” *American Economic Review* **94**, pp. 857-869.
5. Fehr, E. and K. Schmidt (1999) “A Theory of Fairness, Competition and Co-operation.” *Quarterly Journal of Economics* **114**, pp. 817-868.
6. Fisman, R., S. Kariv and D. Markovits (2007) “Individual Preferences for Giving.” *American Economic Review* **97**, pp. 1858-1876.