

Economics and Psychology

Econ 490

Class Syllabus and Policies

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BOOKS

Recommended Books

- Advances in Behavioral Economics, (2004) by Colin Camerer, George Loewenstein, and Matthew Rabin 2004.
- Rational Choice in an Uncertain World: The Psychology of Judgment and Decision Making (2001) by Reid Hastie and Robyn M. Dawes
- Psychology of Judgment and Decision Making (1993) by Scott Plous
- Behavioral Game Theory (2003) by Colin Camerer,
- Choices, Values, and Frames (2000) by Daniel Kahneman and Amos Tversky
- Handbook of Experimental Economics (1997), by John Kagel and Al Roth.
- Behavioral Law and Economics (2000), by Cass Sunstein
- Advances in Behavioral Finance (2005), by Richard Thaler,

COURSE DESCRIPTION

Behavioral decision making is the study of how people make decisions. At present, it is quite an active field, drawing together people from psychology, economics, political science, and management, among other fields. In economics, the original interest was in "normative" decision making (*how best to?*; "reflection"). That is why standard economic theory is based on the idea that economic agents are rational. Empirical research revealed discrepancies between derived "optimal" strategies, and the actual behavior of everyday folk making decisions. This approach is termed "descriptive" or "behavioral" decision making (*how do we?*; "observation"). So behavioral

economics questions the assumption of perfect rationality and uses insights from psychology to improve theoretical insights and empirical predictions of standard economic theory. The main objective of the proposed behavioral economics course is to introduce students to this rapidly emerging and important field.

To accomplish its goals behavioral economics does not start from scratch, but typically builds on standard economic theory by changing some of the assumptions of standard economic models to obtain more realism. Behavioral economics uses insights from psychology to decide which assumptions need to be revised and how to best revise them to make the models more realistic. The course that we are proposing follows this tradition. We will first introduce the standard theory, point out its shortcomings, and then we will introduce behavioral models that use insights from psychology.

Next we provide a brief outline of the course. The planned course is going to have three main parts. The first part deals with choice and preference, the second part deals with strategic interactions and the third part deals with applications.

Part I

Choice and preference itself is divided into two: static choice and intertemporal choice. The proposed course starts with an investigation of static choice without uncertainty. We first discuss concepts such as endowment effect, status-quo bias and mental accounting. Then we introduce uncertainty. The standard model of decision making under uncertainty is the expected utility model. We then go on to describe experimental work from both economics and psychology to illustrate violations of the expected utility model. There are several models put forward to explain these violations. We will introduce these models. The most influential is prospect theory model of Kahneman and Tversky (1979). This model introduces concepts of reference-dependence and loss-aversion. We also talk about Allais (1953) and Ellsberg (1961) paradoxes and introduce the maxmin expected utility model to explain the latter paradox.

Next, we discuss intertemporal choice. The standard model of intertemporal choice in economics is the discounted utility model. After introducing the basic model, we again go on to describe experimental violations of the basic model. To account for these violations we introduce and discuss the hyperbolic discounting model.

Part II

Standard economic theory is based on the idea that agents care only about consequences of actions taken by themselves and other agents; in particular they do not care about the process that leads to a particular consequence. Another simplifying assumption that is built into standard theory is that agents care only about their own payoffs. A recent body of experiments illustrate that agents care about both the process that leads to a consequence and the perceived fairness of it. To study these issues, we need to have a theory of how agents interact strategically. The standard tool in economic theory to study strategic interactions is game theory. Next, we make a brief introduction to game theory. In particular, we describe the concept of Nash equilibrium. Following a similar structure, we then introduce experiments that question basic assumptions of game theory. Then we introduce fairness and behavioral game theory.

TENTATIVE COURSE SCHEDULE

Our class time will include lecture, group work, discussion, and some in-class activities. Any changes to this outline will be announced in class. Additional readings may be assigned as the semester proceeds.

Week One

INTRODUCTION

Behavioral Economics: Past, Present, Future by Colin F. Camerer and George Loewenstein

Week Two and Three

REFERENCE-DEPENDENT PREFERENCES

- Endowment Effect
- Status quo Bias
- Loss Aversion
- Attraction Effect
- Application: Labor Supply of New York City Cab Drivers

Loss Aversion in Riskless Choice: A Reference-dependent Model by Tversky and Kahneman

Labor Supply of New York City Cab Drivers: One Day at a Time by Colin F. Camerer, Linda Babcock, George Loewenstein, and Richard H. Thaler

Rational Choice with Status Quo Bias by Masatlioglu and Ok

Week Four and Five

PREFERENCES OVER RISKY AND UNCERTAIN OUTCOMES

- Risk Aversion: St. Petersburg Paradox
- Certainty Effect: Allais Paradox
- Risk seeking towards losses
- Prospect Theory
- Application: the Equity Premium Puzzle
- Disappointment Aversion

Developments in Nonexpected-Utility Theory: The Hunt for a Descriptive Theory of Choice under Risk by Chris Starmer

Prospect Theory in the Wild: Evidence from the Field by Colin F. Camerer

Myopic Loss-Aversion and the Equity Premium Puzzle by Shlomo Benartzi and Richard H. Thaler

A Theory of Disappointment Aversion by Faruk Gul

Do Investors Trade Too Much? by Terrance Odean

Week Six

PREFERENCES OVER UNCERTAIN OUTCOMES

- Elsberg Paradox
- Risk versus Ambiguity

Ambiguity Aversion and Comparative Ignorance by Craig Fox and Amos Tversky

Week Seven

Review Class

Midterm Exam

Week Eight and Nine

INTERTEMPORAL CHOICE

- Samuelson's exponential-discounting model.
- Self-control problems and hyperbolic discounting

Time Discounting and Time Preference: A Critical Review by Shane Frederick, George Loewenstein, and Ted O'Donoghue

Doing It Now or Later by Ted O'Donoghue and Matthew Rabin

Mental Accounting, Saving, and Self-Control by Hersh M. Shefrin and Richard H. Thaler

Golden Eggs and Hyperbolic Discounting by David Laibson

A theory of Relative Discounting by Efe Ok and Yusufcan Masatlioglu

Week Ten, Eleven and Twelve

FAIRNESS AND SOCIAL PREFERENCES

- Selfishness
- Altruism
- Reciprocity and intentionality

Fairness as a Constraint on Profit Seeking: Entitlements in the Market by Daniel Kahneman, Jack L. Knetsch, and Richard H. Thaler

A Theory of Fairness, Competition, and Cooperation by Ernst Fehr and Klaus M. Schmidt

Incorporating Fairness into Game Theory and Economics by Matthew Rabin

Understanding Social Preferences with Simple Tests by Gary Charness and Matthew Rabin,

Incentives, Punishment, and Behavior by Uri Gneezy and Aldo Rustichini

Week Thirteen and Fourteen

BEHAVIORAL GAME THEORY

- Beauty Contest
- Traveler's Dilemma
- Hide and Seek Game
- Cognitive Hierarchy Model

Theory and Experiment in the Analysis of Strategic Interaction by Vincent P. Crawford

Behavioral Game Theory: Predicting Human Behavior in Strategic Situations by Colin F. Camerer

Week Twelve

Review Class

Week Fifteen

Final Exam

GRADING SYSTEM

Your grade for the course is based upon your weighted performance in several areas. These areas and the corresponding weights are indicated below in tabular form.

Task	Percentage of Course Grade
Attendance and Course Participation	20
Midterm	30
Final	50

ATTENDANCE and COURSE PARTICIPATION

Students are expected to attend classes regularly. Members of athletic teams must present to each instructor, prior to each absence because of the membership on athletic teams, a written statement signed by the appropriate authority specifying the exact date of any such proposed absence.

In addition, I will sometimes give a couple of questions in the beginning of the class either to prepare you for the next topic or remind you earlier concepts. We will also play games either in class or sections. The purpose of these games is to help you see some of the concepts in action and see the strengths as well as limitations of game theory. There will be **no direct grading** from these.

COURSE EXPECTATIONS

You will get much more out of the class if you read the material before it is covered in class. Participation in class discussion and activities is encouraged. I suspect that most successful students spend a significant amount of time reading, studying, and working through examples outside of class. Consistent attendance greatly improves the likelihood of success in this course.

MISSED WORK POLICY

Please make every effort to attend exams. If you anticipate a problem and you have one of the acceptable excuses listed below, please contact me as soon as possible so that alternative arrangements can be made.

Excused absences generally consist of the following: illness of the student or a member of the student's immediate family; death of a member of the student's immediate family; University sanctioned trips and activities; and major religious holidays. In each case, **written verification** will be required and permission to miss an exam must be secured before the scheduled exam time unless the cause of the absence is unforeseen.

ACADEMIC CONDUCT

A word about conduct in class. Appropriate class conduct means coming to each class, **on time (not five minutes late)**. It means not walking out of the classroom while we are in session. It also means turning off your cell phone during lecture, and not having a private conversation with the person nearby. **Late arrivals, early departures, ringing phones and private conversations are very disruptive to the quality of the learning environment in the classroom and disrespectful to the other people. They result in repetition of the same issues already covered; hence, I discourage these strongly.**