Experimental economics is a grown, yet growing, field in economics and business administration. It provides a method to test theoretical predictions, to explore human behavior in specific economic environments, to help design institutions, to advise on policy and to search for patterns and regularities in economic wheeling and dealing. This course will link issues of applied game theory, decision theory, industrial organization, markets, institutional design and macroeconomics with behavioral and experimental economics and (tentatively) with the still-fresh hybrid called Neuro-economics.

We expect that this course will help students to think that economics can be an experimental science and provide the students with a working knowledge of techniques for conducting laboratory experiments. Therefore students will be guided through a selection of experimental and behavioral economics literature with the aim that students search for interesting economic, psychological and behavioral research questions, which they address to answer with a feasible and original experimental design. These experiments will be run in class and the motivation and results are summarized as in a professional paper. Students will also participate as subjects in various replications of experiments from the literature, as in the proverbial cannibal dinner.

The course will be divided in two parts:
I. In the first part, we, the instructors, will present selected topics on experimental economics while the students will discuss and criticize our presentations as well as the recommended reading material. In addition students will replicate one classical experiment. In this first part, we will discuss questions like:

- Do people exploit their bargaining power?
- Should we graft fairness into game theory?
- Yes, people seem to free ride. A lot?
- "I think that you think that I think etc.". Is this how people reason?
- Does the winner’s curse disappear with experience?
- How does actual decision making deviate from utility maximization?
- How can we model learning to describe observed behavior?
- What market arrangements facilitate market power?
- Does competitive theory predict well in double-auction markets?
- Is irrational exuberance in asset markets an experimental regularity?
- Is coordination easily efficient?
- What can those PET scans do for Economics?

II. During the second part of the course, every student (or a group of two) will design and run a novel experiment.

Course Requirements (see also detailed list of course requirement at the end)

- Reading list
- Replication and discussion of a classical experiment (in groups of two to four).
- Design, performance and presentation of an original experiment (alone or in groups of two)
- Paper (about 10-15 page).

The grade will be based on class participation (10%), performance as experimenter (10%), presentations (20%), and final paper (60%).
Course Outline – References

General Literature:
Camerer, C., Loewenstein, G. “Behavioral Economics: Past, Present, Future”

Introduction:

Individual decision making:
*1 The readings that are marked with “*” in the course outline are included into the course package.

Coordination:
*1 Camerer, C, Coordination, Behavioral Game Theory, Princeton University Press, 2003

Levels of reasoning
Bosch-Domènech, A., J. García-Montalvo, R. Nagel, A. Satorra (2002), One, Two, (Three), Infinity …: Newspaper and Lab Beauty-Contest Experiments, American Economic Review


Public Goods:


Bargaining:


Models of Fairness:


*Shaked A., A Brief Response by A. Shaked to Fehr & Schmidt’s Reply to Shaked’s Pamphlet (March 8, 2005) http://www.wiw.uni-bonn.de/shaked/rhetoric/BRF.pdf

Learning:


*Auctions:*


Relation between internet/field experiments and experimental economics


Market and Industrial Organization:


If you want to participate in an internet experiment related to market experiments see: http://eeps.caltech.edu/expt.html

Asset Markets

Macroeconomic Experiments

Cabrales, A. Nagel, R. and Jose Rodriguez-Mora, “It is Hobbes and not Rousseaux: An experiment on Social Insurance. MIMÉO


Neuro-economics


Detailed Course Requirements

I. Reading of papers in references, class discussion.
II. Replication of a classical experiment.
   • Choose an interesting experiment
   • Make necessary changes of the original experiment, keeping in mind your time constraint of 20 minutes, that the numbers of players that will be participating may be different, that you don’t run computer programs, etc.
   • Recruit your own subjects (from your friends, from your TA-classes). Your classmates have to participate.
   • Think of the incentives that you are going to be using to motivate your experimental subjects (be careful with prizes!).
   • Write the instructions extremely careful. Do not use economic jargon as “utility function” and make sure that you are not pushing the subjects in any direction. Yet you might like to use a real world situation to imbed your instructions.
   • Organize well your experiment. You might like to rehearse in advance all the moves, as in show biz. Make sure that you know where to seat each one of the subjects, whether you seat them at random or not, how to pick up or hand back decision sheets, etc. (see also Friedman and Sunder (1994), Experimental Methods.)

III. Experimental paper
1. Run your own experiment and present results in class.
   (Your own experiment can be based on the one you replicated.)
2. Present your results in class
   • Give motivation for your design.
   • Present the experiment and its results
   • Present the related literature
   • Present your results and compare them with the original data
   • Describe what went well and what went wrong in your experiment.
   • Take care of the presentation of your data. You want to be clear and convincing. Select the main results to be presented graphically; the table and figures should be readable (large font sizes) and clearly labeled; use colors.
3. Write a paper (about 10-15 page) as they are written in professional journals that you read for this course. The paper should contain:
   • Related literature
   • Motivation of design
   • Model and theoretic solution
   • Design of experiment
   • Results of experiments (summary statistic). Some statistical tests (proposal if you were to have enough data).
   • Descriptive model for your data. The model can be verbal.
   • Conclusion
   • References
   • Appendix with instructions and raw data
   • Tables and Figures
Make clear what is your own idea and what you take from the literature!!

Time schedule

Wednesday Thursday
Lecture/Experiments

Introduction

Individual decision Bosch Coordination

Games with iterated dominance
levels of reasoning

Public goods

Bargaining Models of fairness
Learning
Rationality vs. adaptive behavior

Auctions Bosch

Internet experiments, field experiments Markets and
Organization Bosch
Macro experiments Neuroeconomics
(own experiment) (own experiment)
(own experiments) (own experiment)

Explication: Bold/italics: Class with replication experiment.

To find software and run experiments from here to there and back, the best site may be: http://veconlab.econ.virginia.edu/admin.htm. We have run experiments with many subjects from LeeX using Charlie Holt’s site and the results have been impressive. A fast and reliable link.

If you link with the Economic Science Association (economicscience.org) you’ll find links to most of the main labs. Notice that the Association of economic experimenters is called “Economic Science” association, a very appropriate name.

Cheers from:
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