

Syllabus for Experimental Economics (3 units)

Classroom and Time: Friday 2:20-5:20pm, at Social Science 5 (社科5教室)

Class website: http://homepage.ntu.edu.tw/~josephw/experimental_14S.htm

Instructor: Joseph Tao-yi Wang ([josephw "at" ntu.edu.tw](mailto:josephw@ntu.edu.tw)) Office: 研究大樓 425 室

Office Hours: Friday 5:20-6pm (after class) or by email appointment

This is an upper division and graduate level course on experimental economics. The purpose is to introduce experimental economics to students so they can start their own research in this field. You are expected to write individual research proposals and present them. Specific goals of this course include:

1. **Introduction to experimental economics:** After this class, students are expected to be able to name several experiments performed in each fields of economics, and describe how the results affirm (or differ from) economic theory and/or field data.
2. **Experimental design:** After this class, students are expected to understand how to design and run an experiment. Students will also write a research proposal that:
 - a. Describes a proposed experiment (with sample instructions for subjects),
 - b. Argues why should we care about this experiment and why the experiment is designed this way (compared to other possible designs), and,
 - c. Relate your experiment to existing literature (if any).
3. **Evaluate most current research:** After this class, students are expected to develop the ability to read recent journal articles in experimental economics, and evaluate the quality of the papers. During class, students are expected to read assigned journal articles and book chapters and present one book article and one chapter in class.

Textbooks:

1. Camerer (2003), *Behavioral Game Theory*, Princeton University Press (BGT).
2. Chen and Krakovsky (2010), *Secrets of the Moneylab: How Behavioral Economics Can Improve Your Business*, Portfolio Penguin (for classroom group presentation).

Recommended Reading:

3. Kagel and Roth, ed. (1995, 2012), *Handbook of Experimental Economics*, Vol.1 & 2, Princeton University Press (HEE). Vol.2 chapters available online.
4. Cassar and Friedman (2004), *Economics Lab: An Intensive Course in Experimental Economics*, Routledge (EL).
5. Holt (2007), *Markets, Games and Strategic Behavior*, Addison-Wesley.
6. Riley (2012), *Essential Microeconomics*, Cambridge University Press. (EM).

Assignments: Individual - Research proposal (<4 pages) (First draft 20%, final proposal 30%) and homework sets (From A to A+). Group - 20-minute oral presentation of book chapter and journal article (30%) and Feedback to others (20%).

Note: Homework problem sets will be distributed each week and collected the next week. Feedback for other presenters should be emailed to the GA (黃計唯) who will compile them anonymously and send them to the presenters. Consult the “[Oral Presentation Evaluation Criteria and Checklist](#)” for how to provide feedback, and Wei-jen Hsu’s [關於 presentation 的一些想法 \(How to Prepare a 20-minute Presentation\)](#) for how I expect you to prepare the presentations.

Course outline:

Introduction

1. Experimental Economics and Behavioral Game Theory (BGT Ch.1)
2. Risk and Time Preferences (Liu, Meng and Wang, 2014)
 - a. Basic Principles of Experimental Design (BGT A1.2)

Strategic Behavior

3. Mixed-Strategy Equilibrium and Quantal Response Equilibrium (BGT, Ch. 3, New Palgrave chapter and Ostling et al., 2011)
4. Dominant Solvable Games (BGT, Ch. 5)
5. Level-k Model (Crawford et al., JEL 2013)
6. Learning (BGT, Ch.6 and new Handbook chapter)
7. Coordination and Equilibrium Selection (BGT, Ch.7)
8. Auctions and Market Design (EL, Ch.9; new Handbook chapters)
9. Signaling and Reputation (BGT, 8)

Topics in Experimental Economics (Optional)

10. Cheap Talk Experiments (Wang et al., 2011; Lai et al., 2013)
11. Social Preferences (BGT, Ch.2, Oosterbeek/Engel reviews, new Handbook chapter)
12. Neuroeconomics: fMRI and Eyetracking ([Dean, mimeo 2012](#); Wang, chapter, 2011)
13. Bargaining (BGT, 4)
14. Field Experiments (Harrison and List, JEL 2004, new Handbook chapter)
15. Political Economy and Macroeconomics in the Lab (new Handbook chapters)
16. Prediction Markets (Holt, Ch.34) and Asset Bubbles (Smith et al., ECMA 1988)

Paper List:

1. (Preference and Utility) Choi, Kariv, Müller and Silverman (2014), “Who is (More) Rational?” *American Economic Review*, forthcoming. (朴寅暎、黃胤凱)
2. (Political Economy and QRE) Kuo and Wang (2013), “The Use of Strategy Methods in Experimental Pivotal-Voting Game,” accepted at *Pacific Economic Review*.

3. (Level-k) Ho and Su (2013), "[A Dynamic Level-k Model in Sequential Games](#)," *Management Science*, 59(2):452-469. (劉品吾、李依依)
 - (Review) Crawford, Costa-Gomes and Iriberry (2013), "[Structural Models of Nonequilibrium Strategic Thinking: Theory, Evidence, and Applications](#)," *Journal of Economic Literature*, 51, *in press*.
4. (Learning) Moulin, Östling and Wang (2013), "Learning by Imitation in Games: Theory, Field and Lab," *mimeo*.
5. (Coordination and Bargaining) Isoni, Poulsen, Sugden and Tsutsui (2014), "Efficiency, Equality and Labeling: An Experimental Investigation of Focal Points in Explicit Bargaining," *American Economic Review*, forthcoming. (王俞煊、巫宇安、吳柏賢)
6. (Auctions) Liu, Yang, Adamic and Chen (2013), "Crowdsourcing with All-pay Auctions: A Field Experiment on Taskcn," *mimeo*.
7. (Signaling and Reputation) Battaglini, Nunnari and Palfrey (2014), "Dynamic Free Riding with Irreversible Investments," *American Economic Review*, forthcoming. (施正祐、陳紅霓)
8. (Cheap Talk) Battaglini and Makarov (2014), "[Cheap Talk with Multiple Audiences: an Experimental Analysis](#)," *Games and Economic Behavior*, 83, 147-164. (陳由常、張博凱、郭克剛)
9. (Social Preferences) Iriberry and Rey-Biel (2013), "[Elicited beliefs and social information in modified dictator games: What do dictators believe other dictators do?](#)" *Quantitative Economics*, 4(3), 515–547. (Dictator Game Experiments)
 - Arifovica and Ledyard (2012), "[Individual evolutionary learning, other-regarding preferences, and the voluntary contributions mechanism](#)," *Journal of Public Economics*, 96 (9–10), 808–823. (Social Preference Theory) (吳泰霖、黎薇詩、陳力)
10. (Neuroeconomics) Krajbich, Oud and Fehr (2014), "Benefits of Neuroeconomic Modeling: New Policy Interventions and Predictors of Preference," *American Economic Review*, *in press*.
 - Chen, Huang and Wang (2013), "A Window of Cognition: Eyetracking the Reasoning Process in Spatial Beauty Contest Games," *mimeo*.
11. (Market Design) Chen and Kesten (2013), "[From Boston to Chinese Parallel to Deferred Acceptance: Theory and Experiments on a Family of School Choice Mechanisms](#)," *mimeo*.
 - Pathak and Sönmez (2013), "[School Admissions Reform in Chicago and England: Comparing Mechanisms by their Vulnerability to Manipulation](#)," *American Economic Review*, 103(1): 80-106.
 - (Review) Jackson (2013), "[Economic Engineering and the Design of Matching Markets: The Contributions of Alvin E. Roth](#)," *Scandinavian Journal of Economics*, 115(3), 619–639.

12. (Field Experiment) Allcott and Rogers (2014), “The Short-Run and Long-Run Effects of Behavioral Interventions: Experimental Evidence from Energy Conservation,” *American Economic Review*, forthcoming. (彭胤融、劉泓序、張耕齊)
13. (Macroeconomics) Duffy and Puzzello (2014), “Gift Exchange versus Monetary Exchange: Theory and Evidence,” *American Economic Review*, forthcoming. (鄭宇略、傅家楨、李偉聖)
14. (Prediction Markets) Deck, Lin and Porter (2013), “[Affecting Policy by Manipulating Prediction Markets: Experimental Evidence](#),” *Journal of Economic Behavior & Organization*, 85(1), 48-62. (陳亦凡、黃彥霖、左如田)
 - Tung, Chou, Lin and Lin (2011), “Comparing the Forecasting Accuracy of Prediction Markets and Polls for Taiwan's Presidential and Mayoral Elections,” *Journal of Prediction Markets*, 5(3), 1-26.

Articles in the Cheap Talk Literature:

1. Dickhaut et al. (ET 1995)
 - a. Crawford and Sobel (ECMA 1982)
2. Blume, De Jong, Neumann and Savin (JAEc-metrics 2002)
3. Gneezy (AER 2005)
4. Cai and Wang (GEB 2006)
 - a. Crawford (AER 2003)
5. Kawagoe and Takizawa (GEB 2009)
 - a. Kartik (REStud 2009)
6. Wang, Spezio and Camerer (AER 2010)
 - a. Costa-Gomes and Crawford (AER 2006)
7. Lai, Lim and Wang (mimeo 2014)
 - a. Battaglini (ECMA 2002)
 - b. Ambrus and Takahashi (TE 2008?)
8. Vespa and Wilson (mimeo 2012)
 - a. Gilligan and Krehbiel (APSR 1989)
 - b. Krishna and Morgan (AJPS 2001)
 - c. Krishna and Morgan (QJE 2001)
 - d. Krehbiel ([mimeo 2001](#))
9. Battaglini and Makarov (GEB 2014)
 - a. Farrell and Gibbons (1989)
 - b. Goltsman and Pavlov (2010)
10. Burchardi and Penczynski (GEB 2014)
11. Ruiz, Offerman and Onderstal (mimeo 2013)