Statistics: "To consult the statistician after an experiment is finished is often merely to ask him to conduct a post mortem examination. He can perhaps say what the experiment died of"

Sir Ronald A. Fisher, 1938

University of Turku INVEST Turku, Finland Last updated: October 21, 2024. Download last version here.

## General Overview

Instructor: Héctor Bahamonde, PhD, Docent.

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Office Hours: Schedule time with me here.

Place: Pub-368.

Fall 2024 Dates: 28.10, 04.11, 11.11, 18.11, 26.11, 03.12.

**Time**: Always from noon to 2pm.

Course websites: Moodle & Peppi (teacher only).

Program: Master program in 'Inequalities, Interventions and New Welfare State,' University of Turku.

## **Objectives**

This course is designed to provide students with a comprehensive understanding of experimental methods in the social sciences. By the end of this course, students will master the ability to conceptualize various types of experiments. They will develop strong analytical skills to interpret and analyze experimental data. Students will engage in critical discussions about the strengths and weaknesses of experimental approaches, and how these approaches contribute to broader scientific inquiries. Finally, students will enhance their communication skills, improving their ability to clearly articulate experimental findings through written reports, with a focus on discussing the implications of research results. This course aims to equip students with the tools needed to contribute to the growing field of experimental research in social sciences.

## Academic Integrity

I expect nothing but the best out of my students.

- o I expect students to do their reading *before* class.
- o Practical exercises should be turned it *before* class begins.

- o I do not answer emails during weekends.
- Plagiarism: Plagiarism will not be tolerated. Make sure you follow the University's rules and definitions of plagiarism. Also, make sure you know how to cite your work.
- Using AI: Familiarize yourself with the document "INVEST guidelines for the use of AI tools in studies."
- Late work: I won't accept late work.

#### **Evaluations**

- 1. Two Reaction Papers: You will submit two reaction papers in total during our class. You have to choose the week, i.e., the topic. Reaction papers are topical, i.e., they focus on themes rather than particular pieces. Also, reaction papers are critical assessments of the reading material, i.e., they are not summaries. Make sure you do all your readings before start writing. Reaction papers are due before my lecture and submitted in the course's respective Moodle assignment section (late papers and/or submissions via email will not be considered). Make sure the length of your paper is never below 1k words but never longer than 1.5k words (I'll stop reading beyond that limit). Also, be sure to support your claims citing what you think is relevant; bear in mind aspects of citation format, and please, be economical (quotes should not exceed two sentences).
  - The following questions are intended for guidance only, and are meant to inspire you in your critical assessment. Reaction papers usually focus on a grand question such as: What are the possible advantages/disadvantages of this particular methodology? How/where else would you apply this methodology? Is this methodology feasible in your particular area of research? Do you think this methodology posits ethical issues if applied in your area of research?
- 2. One Programming Take-Home Exercise: You can download the instructions here. The assignment is due on 26.11, before class begins, and should be submitted in the respective Moodle assignment section of the course.
- 3. One "Guided Tour" to the PCRC Decision-Making Lab: In the context of our Lab Experiments lecture on November 12th, we will visit the PCRC lab and participate in an ongoing study. Attendance and participation are mandatory. We will vote on the visit's date and time on the first day of class. Please cast your vote today here.

## Recommended Readings

- Angus Deaton (2009). "Instruments of Development: Randomization in The Tropics, and the Search for the Elusive Keys to Economic Development".
- ♦ Guido Imbens (2010). "Better LATE Than Nothing: Some Comments on Deaton (2009) and Heckman and Urzua (2009)." In: *Journal of Economic Literature* 48.2, pp. 399–423.
- ♦ Rebecca Morton and Kenneth Williams (2010). *Experimental Political Science and the Study of Causality:* From Nature to the Lab. Cambridge University Press.
- ♦ Journal of Experimental Political Science.

# Schedule and Required Readings

1. 28.10: Causal Inference in Social Science.

#### Overview:

- James Druckman (2022). "The Scientific Process and How to Think about Experiments." In: *Experimental Thinking: A Primer on Social Science Experiments*. Cambridge University Press, pp. 15–50.
- Stephen Morgan and Christopher Winship (2014). "Counterfactuals and the Potential Outcome Model." In: Counterfactuals and Causal Inference. Cambridge University Press, pp. 37

  76.
- David Freedman (1991). "Statistical Models and Shoe Leather." In: Sociological Methodology 21, pp. 291–313.
- ♦ Students cast their votes (CLICK HERE) and chose time/date for the "Guided Tour" to the PCRC Decision-Making Lab.
- 2. 04.11: Survey Experiments: Conjoint and List Designs.
  - ♦ Overview:
    - Brian Gaines, James Kuklinski, and Paul Quirk (2007). "The Logic of the Survey Experiment Reexamined." In: *Political Analysis* 15.1, pp. 1–20.
    - Kevin Mullinix et al. (2015). "The Generalizability of Survey Experiments." In: *Journal of Experimental Political Science* 2.2, pp. 109–138.
  - Application #1—conjoint experiments:
    - Jens Hainmueller, Daniel Hopkins, and Teppei Yamamoto (2014). "Causal Inference in Conjoint Analysis: Understanding Multidimensional Choices via Stated Preference Experiments." In: *Political Analysis* 22.1, pp. 1–30.
    - Thomas Leeper, Sara Hobolt, and James Tilley (2020). "Measuring Subgroup Preferences in Conjoint Experiments." In: *Political Analysis* 28.2, pp. 207–221.
  - Application #2—list experiments:
    - Graeme Blair and Kosuke Imai (2012). "Statistical Analysis of List Experiments." In: *Political Analysis* 20.1, pp. 47–77.
    - Héctor Bahamonde (2022). "Still for Sale: The Micro-Dynamics of Vote Selling in the United States, Evidence from a List Experiment." In: *Acta Politica* 57.1, pp. 73–95.
  - ♦ Give programming take-home exercise: Statistical Analysis of Conjoint Data in R. Homework is due on 26.11 *before* class begins.
- 3. 11.11: Lab Experiments.
  - ♦ Overview:
    - Damien Bol (2019). "Putting Politics in the Lab: A Review of Lab Experiments in Political Science." In: *Government and Opposition* 54.1, pp. 167–190.
  - Applications:
    - Vote buying: Hector Bahamonde and Andrea Canales (2022). "Electoral Risk and Vote Buying, Introducing Prospect Theory to the Experimental Study of Clientelism." In: *Electoral Studies* 80, p. 102497.
    - Political participation: John Duffy and Margit Tavits (2008). "Beliefs and Voting Decisions: A Test of the Pivotal Voter Model." In: *American Journal of Political Science* 52.3, pp. 603–618.

• Clientelism [Bonus! "Lab-in-the-Field" Experiments]: Jessica Gottlieb (2017). "Explaining Variation in Broker Strategies: A Lab-in-the-Field Experiment in Senegal." In: Comparative Political Studies 50.11, pp. 1556–1592.

## 4. 18.11: Natural Experiments.

- ♦ Overview:
  - Thad Dunning (2012). *Natural Experiments in the Social Sciences: A Design-Based Approach*. Cambridge University Press.
- Applications:
  - Elections: Hector Bahamonde and Outi Sarpila (2024). "Physical appearance and elections: An inequality perspective." In: *Political Psychology* 45.3, pp. 623–642.
  - Income redistribution: Daniel Doherty, Alan Gerber, and Donald Green (2006). "Personal Income and Attitudes Toward Redistribution: A Study of Lottery Winners." In: *Political Psychology* 27.3, pp. 441–458.
  - Origin of banking systems: Stephen Haber and Victor Menaldo (2011). "Do Natural Resources Fuel Authoritarianism? A Reappraisal of the Resource Curse." In: *American Political Science Review* 105.01, pp. 1–26.

#### 5. 26.11: Field Experiments.

- ♦ Overview:
  - Alan Gerber and Donald Green (2012). "Introduction." In: Field Experiments: Design, Analysis, and Interpretation. W.W. Norton. Chap. 1, pp. 1–19.
- Applications:
  - Turnout: Hirvonen2024.
  - Vote buying: Vicente2014.
  - Corruption: Alberto Chong et al. (2015). "Does Corruption Information Inspire the Fight or Quash the Hope? A Field Experiment in Mexico on Voter Turnout, Choice, and Party Identification." In: *The Journal of Politics* 77.1, pp. 55–71.
- ♦ Programming take-home exercise is due today *before* class begins.

## 6. 03.12: Ethics.

- ♦ Overview:
  - Rebecca Morton and Kenneth Williams (2012c). "History of Codes of Ethics and Human Subjects Research." In: *Experimental Political Science and the Study of Causality*. Cambridge University Press. Chap. 11, pp. 403–454.
  - Rebecca Morton and Kenneth Williams (2012b). "Ethical Decision Making and Political Science Experiments." In: Experimental Political Science and the Study of Causality. Chap. 12, pp. 455–499.
  - Rebecca Morton and Kenneth Williams (2012a). "Deception in Experiments." In: *Experimental Political Science and the Study of Causality*. Cambridge University Press. Chap. 13, pp. 500–522.

# References

Bahamonde, Héctor (2022). "Still for Sale: The Micro-Dynamics of Vote Selling in the United States, Evidence from a List Experiment." In: *Acta Politica* 57.1, pp. 73–95.

Bahamonde, Hector and Andrea Canales (2022). "Electoral Risk and Vote Buying, Introducing Prospect Theory to the Experimental Study of Clientelism." In: *Electoral Studies* 80, p. 102497.

Bahamonde, Hector and Outi Sarpila (2024). "Physical appearance and elections: An inequality perspective." In: *Political Psychology* 45.3, pp. 623–642.

Blair, Graeme and Kosuke Imai (2012). "Statistical Analysis of List Experiments." In: *Political Analysis* 20.1, pp. 47–77.

Bol, Damien (2019). "Putting Politics in the Lab: A Review of Lab Experiments in Political Science." In: *Government and Opposition* 54.1, pp. 167–190.

Chong, Alberto et al. (2015). "Does Corruption Information Inspire the Fight or Quash the Hope? A Field Experiment in Mexico on Voter Turnout, Choice, and Party Identification." In: *The Journal of Politics* 77.1, pp. 55–71.

Deaton, Angus (2009). "Instruments of Development: Randomization in The Tropics, and the Search for the Elusive Keys to Economic Development."

Doherty, Daniel, Alan Gerber, and Donald Green (2006). "Personal Income and Attitudes Toward Redistribution: A Study of Lottery Winners." In: *Political Psychology* 27.3, pp. 441–458.

Druckman, James (2022). "The Scientific Process and How to Think about Experiments." In: *Experimental Thinking: A Primer on Social Science Experiments*. Cambridge University Press, pp. 15–50.

Duffy, John and Margit Tavits (2008). "Beliefs and Voting Decisions: A Test of the Pivotal Voter Model." In: *American Journal of Political Science* 52.3, pp. 603–618.

Dunning, Thad (2012). *Natural Experiments in the Social Sciences: A Design-Based Approach*. Cambridge University Press.

Freedman, David (1991). "Statistical Models and Shoe Leather." In: Sociological Methodology 21, pp. 291–313.

Gaines, Brian, James Kuklinski, and Paul Quirk (2007). "The Logic of the Survey Experiment Reexamined." In: *Political Analysis* 15.1, pp. 1–20.

Gerber, Alan and Donald Green (2012). "Introduction." In: Field Experiments: Design, Analysis, and Interpretation. W.W. Norton. Chap. 1, pp. 1–19.

Gottlieb, Jessica (2017). "Explaining Variation in Broker Strategies: A Lab-in-the-Field Experiment in Senegal." In: *Comparative Political Studies* 50.11, pp. 1556–1592.

Haber, Stephen and Victor Menaldo (2011). "Do Natural Resources Fuel Authoritarianism? A Reappraisal of the Resource Curse." In: *American Political Science Review* 105.01, pp. 1–26.

Hainmueller, Jens, Daniel Hopkins, and Teppei Yamamoto (2014). "Causal Inference in Conjoint Analysis: Understanding Multidimensional Choices via Stated Preference Experiments." In: *Political Analysis* 22.1, pp. 1–30.

Imbens, Guido (2010). "Better LATE Than Nothing: Some Comments on Deaton (2009) and Heckman and Urzua (2009)." In: *Journal of Economic Literature* 48.2, pp. 399–423.

Leeper, Thomas, Sara Hobolt, and James Tilley (2020). "Measuring Subgroup Preferences in Conjoint Experiments." In: *Political Analysis* 28.2, pp. 207–221.

Morgan, Stephen and Christopher Winship (2014). "Counterfactuals and the Potential Outcome Model." In: *Counterfactuals and Causal Inference*. Cambridge University Press, pp. 37–76.

Morton, Rebecca and Kenneth Williams (2010). *Experimental Political Science and the Study of Causality: From Nature to the Lab.* Cambridge University Press.

- (2012a). "Deception in Experiments." In: *Experimental Political Science and the Study of Causality*. Cambridge University Press. Chap. 13, pp. 500–522.
- (2012b). "Ethical Decision Making and Political Science Experiments." In: Experimental Political Science and the Study of Causality. Chap. 12, pp. 455–499.

Morton, Rebecca and Kenneth Williams (2012c). "History of Codes of Ethics and Human Subjects Research." In: *Experimental Political Science and the Study of Causality*. Cambridge University Press. Chap. 11, pp. 403–454.

Mullinix, Kevin et al. (2015). "The Generalizability of Survey Experiments." In: *Journal of Experimental Political Science* 2.2, pp. 109–138.