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## **EITM 2022**

# **Experiments for Evidence-based Political Science**

**July 4<sup>th</sup>-July 6<sup>th</sup>**

### **Course Description**

Experiments are a key methodology in evidence-based political science. In contrast to observational research, where nature or individuals or groups determine who is treated, experiments randomly assign units of analysis to treatment and control conditions. The course will first introduce students to the potential outcome framework of causal inference and the fundamental logic of randomized experiments. It will then discuss the actual design and statistical analysis of modern experiments as well as their methodological strengths and weaknesses in establishing valid causal inferences. Throughout the course, we will look at several classic and more recently published examples of field, survey, and online experiments in the study of political processes (mainly but not exclusively related to issues of globalization).

### **Course Logistics**

The course will be a mix of lectures and hands-on lab sessions and exercises. I will distribute readings, slides, and code. For statistical analysis we will rely on the free statistical programming language R. Classes will run from 9.30-12.00 and from 2.30-5.00. On Wednesday, class will run from 9.30-12.00. You can reach me at: [traunmueller@uni-mannheim.de](mailto:traunmueller@uni-mannheim.de).

### **Recommended Reading**

Gerber, A. S., & Green, D. P. (2012). *Field experiments: Design, analysis, and interpretation*. WW Norton.

Imbens, G. W., & Rubin, D. B. (2015). *Causal inference in statistics, social, and biomedical sciences*. Cambridge University Press.

Teele, D. L. (Ed.). (2014). *Field experiments and their critics: essays on the uses and abuses of experimentation in the social sciences*. Yale University Press.

### **Preliminary Course Plan**

#### **Day 1: Evidence-Based Political Science: Foundations of Causal Inference**

- The Potential Outcome Framework of Causal Inference
- Random Assignment Mechanisms
- The Illusion of Learning from Observational Studies

Gerber, A. S., & Green, D. P. (2012). *Field experiments: Design, analysis, and interpretation*. WW Norton.

Imbens, G. W., & Rubin, D. B. (2015). *Causal inference in statistics, social, and biomedical sciences*. Cambridge University Press.

Kosuke Imai, Gary King, and Elizabeth Stuart. (2008). Misunderstandings Among Experimentalists and Observationalists about Causal Inference. *Journal of the Royal Statistical Society, Series A*, 171(2):481–502.

## **Day 2: Design and Analysis of Experiments**

- Variations of Experimental Designs
- Statistical Analysis of Experiments
- Field, Survey and Online Experiments

Gerber, A. S., & Green, D. P. (2012). *Field experiments: Design, analysis, and interpretation*. WW Norton.

Hainmueller, Jens, Daniel J Hopkins and Teppei Yamamoto. (2014). Causal inference in conjoint analysis: Understanding multidimensional choices via stated preference experiments. *Political Analysis* 22(1):1-30.

Sniderman, Paul M. (2018). Some Advances in the Design of Survey Experiments. *Annual Review of Political Science* 2018 (1): 259-275.

## **Day 3: Practical Considerations, Applications and Limits of Experiments**

- Political Science Experiments for a Globalized World
- Experiments and their Critics

Teele, D. L. (Ed.). (2014). *Field experiments and their critics: essays on the uses and abuses of experimentation in the social sciences*. Yale University Press.

Wantchekon, L., (2003). Clientelism and voting behavior: Evidence from a field experiment in Benin. *World Politics* 55: 399-422.

Megumi Naoi and Ikuo Kume. (2011). Explaining Mass Support for Agricultural Protectionism: Evidence from a Survey Experiment During the Global Recession. *International Organization* 65: 771-795.

Bansak, K. et al. (2016). How economic, humanitarian, and religious concerns shape European attitudes toward asylum seekers. *Science* 354: 217-222.