Advanced research design

Fabrizio Bernardi and Diego Gambetta

First term seminar 2014-2015
(20 credits)

Tuesdays 17:00-19:00 – Seminar room 3

Please register with adele.battistini@eui.eu

This course is for second year researchers, especially those who have developed causal hypotheses in their proposal and want to learn about some of the ways to put them to the test. The course touches on a series of designs suitable for identifying causal relations, from the queen technique—experiments—to second best options—natural experiments, discontinuity, panel studies, etc. The readings offer many applications of these techniques aimed at spurring participants’ imagination.

The reference texts for the seminar are:

- Thad Dunning, Natural experiments in the social sciences. A design based approach. CUP 2012 http://biblio.eui.eu/record=b1759366~S5

Classes and topics:

- Week 1: brief history of cause-seeking designs & practical arrangements [7 Oct]
- Week 2: problems of causal identification [14 Oct]

reading week
- Week 3: lab (and lab-in-the-field) experiments [28 Oct]
- Week 4: natural and field experiments [4 Nov]
- Week 5: instrumental variables [11 Nov]
- Week 6: difference in difference [18 Nov]
- Week 7: regression discontinuity [25 Nov]
- Week 8: panel and fixed effects [2 Dec]
- Week 9: twins and siblings [9 Dec]
- Week 10: concluding session [16 Dec]

In order to obtain the 20 credits participants, in addition to attending, are required:

1) to give a class presentation EITHER on their own research design if this employs one of the techniques discussed in the course, OR on one of these techniques as described in the readings; in the latter case, the researchers should try to develop ideas on how a particular technique might help them in their own research.

2) from Week 3 onward, to prepare brief comments on at least two of the recommended readings for each session. These comments should contain participants’ suggestions for further applications of the technique presented in each week’s readings to different research questions. These comments should be posted on the course folder before 8.00 p.m. the night before the class. A selection of these comments will be discussed in class.
**Week 1: brief history of cause-seeking designs and organisation of the course**


Durkheim E. 1897. *Suicide*. [The whole book is a great read. It relies on implications which Durkheim derives from various conjectures on what might be causes of suicide; read especially chapter 4, on Imitation] [In the original French the book can be found here [http://www.gutenberg.org/ebooks/40489](http://www.gutenberg.org/ebooks/40489); in English here [http://archive.org/details/suicidestudyinso00durk](http://archive.org/details/suicidestudyinso00durk)]
Week 2: Problems of causal identification


[the above article is discussed by several authors here: http://onlinelibrary.wiley.com/doi/10.1111/some.2008.38.issue-1/issuetoc]

Laitin David, Joachim Moortgatb, and Amanda Lea Robinson, 2012. Geographic axes and the persistence of cultural diversity, PNAS, 109, 26


*Beware of being driven by data availability! See these two blogs:*

http://themonkeycage.org/2013/06/14/is-theory-getting-lost-in-the-identification-revolution

Week 3: Lab and Lab-in-the-field experiments (Stefania Bortolotti, University of Bologna, to lead the class)

Required readings

Morton, Rebecca B., and Kenneth C. Williams. 2010. *Experimental Political Science and the Study of Causality: From Nature to the Lab*. Cambridge: Cambridge University Press [sections 1.3.2 and 1.5; and chapter 2]


Other readings


Cesarini et al (2008) Heritability of cooperative behavior in the trust game *PNAS*, 105 (10) 37213726


Gneezy and Fessler Conflict, sticks and carrots: war increases prosocial punishments and rewards. *PROCEEDINGS OF THE ROYAL SOCIETY B: BIOLOGICAL SCIENCES*

Week 4: Natural experiments and field experiments

Natural

Legewie, J. unpublished, Terrorist events and attitudes toward immigrants: A Natural Experiment [link](http://www.columbia.edu/~jpl2136/files/Legewie-2012-Terrorist%20Events,%20and%20Attitudes%20towards%20Immigrants.pdf)


*Field*


*Other readings*


Week 5: Instrumental variables


Other readings


Not to forget a cartoon:
http://www.manucartoons.com/manucartoons/%22Irrational_agents%22_series/Pages/Genes_is_of_War,_Part_I_%28HeloMag.,_February_2010%29.html#26
Week 6: Difference in difference


Elisabetta Olivieri, Salvatore Sberna “‘Set the night on fire!’ Mafia Violence and Election in Italy” [working paper]


**Week 7: Regression discontinuity**


Meyersson E. "Islamic Rule and the Empowerment of the Poor and pious" (forthcoming, *Econometrica*)

**Other readings**


Week 8: Panel and fixed effects


Other readings

Week 9: twins and siblings

For an overview: Firembaugh, G. 131-145


Other readings


Freese, J. 2008. Genetics and the social science explanation of individual outcomes, American Journal of Sociology. 114: S1-S35

Additional readings
