

# ADVANCED RESEARCH DESIGN & DATA COLLECTION

## ALLIEVI HONORS PROGRAMME

ACADEMIC YEAR 2022/23

**Coordinated by Krzysztof Krakowski**

### **Instructors**

Camilla Borgna, Diego Gambetta, Giovanna Invernizzi, Krzysztof Krakowski, Moreno Mancosu, Davide Morisi, Aron Szekely

### **Course Outline**

This course is meant for **second year Allievi students**. The course has two principal aims. The first aim of the course is to teach a series of *designs suitable for identifying causal relations* rather than correlations. The second aim of the course is to teach a series of techniques of *data collection*. The readings offer many applications of these techniques aimed at spurring students' imagination.

The reference texts for the course are:

- Firebaugh, G. (2007), *Seven Rules for Social Research*, Princeton: Princeton University Press.
- Dunning, T. (2012), *Natural experiments in the social sciences. A design-based approach*. Cambridge: Cambridge University Press.
- Schlotter, M., Schwerdt, G., & Woessmann, L. (2011). Econometric methods for causal evaluation of education policies and practices: a non-technical guide. *Education Economics*, 19(2), 109-137.

### **Schedule**

The course takes place on Wednesdays from 15:00 to 18:00, in Classroom 1 in the Collegio Carlo Alberto, and will run from Wednesday 28 September to Wednesday 7 December.

### **Classes and topics:**

- Week 0: Practical arrangements [21 Sept, 17:30-18:00, Krzysztof Krakowski]
- Week 1: Brief history of cause-seeking designs & problems of causal identification [28 Sept, Aron Szekely]
- Week 2: Natural and quasi experiments [5 Oct, Krzysztof Krakowski]
- Week 3: Survey experiments [12 Oct, Davide Morisi]
- Week 4: Laboratory experiments [19 Oct, Aron Szekel]
- Week 5: Field experiments [26 Oct, Camilla Borgna]
- Week 6: Designing surveys [9 Nov, Davide Morisi]
- Week 7: Unconventional data collection I: Social media, text analysis, web scraping [16 Nov, Moreno Mancosu]
- Week 8: Unconventional data collection II: GIS and archival data [23 Nov, Krzysztof Krakowski]
- Week 9: Integrating theoretical and empirical social science [30 Nov, Giovanna Invernizzi]
- Week 10: Mixed methods and implication analysis [7 Dec, Diego Gambetta]

## Assessment

Participants must complete the following requirements: In addition to attending regularly, students are required:

- 1) from Week 2 onward, to prepare **response papers** (1-2 pages long) on at least one of the mandatory 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. The students are encouraged to try to develop ideas on how a particular technique might help them in their own research. These comments should be submitted electronically to [federica.gai@carloalberto.org](mailto:federica.gai@carloalberto.org) by the Sunday preceding the class. The comments will be discussed in class.
- 2) to give two **class presentations** of empirical studies that apply the technique presented in each week's readings. The syllabus includes a list of applied studies the participants can choose from for each week's presentations. During Week 0, the students will be assigned presentations according to their preferences (within constraints).
- 3) to write a **final essay** of 2,500 words (references excluded), elaborating on one of the research ideas described in the response papers. The exact guidelines for this essay will be provided during the course.

Important: Students who present in the class in a given week need *not* submit a response paper commenting on the readings in this week. Only the final essay will be graded; the response papers and class presentations will be marked as pass or fail.

## SYLLABUS

**Week 1:** Brief history of cause-seeking designs and problems of causal identification (Aron Szekely)

- Mandatory readings:

- Morgan, Stephen L., and Christopher Winship. 2007. *Counterfactuals and Causal Inference: Methods and Principles for Social Research*. Cambridge University Press. Chapter 1 (Introduction) and Chapter 2 (the Counterfactual Model).
- Angrist, Joshua D., and Jörn-Steffen Pischke. 2009. *Mostly Harmless Econometrics: An Empiricist's Companion*. Princeton: Princeton University Press. Chapter 1 (Questions about Questions) and Chapter 2 (The Experimental Ideal)
- Elwert, Felix, and Christopher Winship. 2014. "Endogenous Selection Bias: The Problem of Conditioning on a Collider Variable." *Annual Review of Sociology* 40(1):31–53. doi: 10.1146/annurev-soc-071913-043455.

**Week 2:** Natural and quasi experiments (Krzysztof Krakowski)

- Mandatory readings:

- Druckman, J., & Green, D. P. (Eds.). (2021). *Advances in Experimental Political Science*. Cambridge University Press. Chapter 6.
- Dunning, T., Introduction [Natural experiments]
- Firebaugh, G. 2007, p. 153-158 [Instrumental variable]
- Schlotter, Martin, Guido Schwerdt, and Ludger Woessmann. 2011, sections 3 & 5 [Instrumental variable & difference-in-differences]

- Valentim, V., Núñez, A. R., & Dinas, E. (2021). Regression discontinuity designs: a hands-on guide for practice. *Italian Political Science Review/Rivista Italiana di Scienza Politica*, 1-19.
- Applied studies:
  - Kirk, D. 2009. A Natural Experiment on Residential Change and Recidivism: Lessons from Hurricane Katrina. *American Sociological Review* 74:484-505. [Natural experiment]
  - Conley, Dalton and Brian J. McCabe. 2012. Bribery or just desserts? Evidence on the influence of Congressional reproductive policy voting patterns on PAC contributions from exogenous variation in the sex mix of legislator offspring. *Social Science Research* 41:120-129. [Instrumental variable]
  - Valentim, Vicente, Parliamentary Representation and the Normalization of Radical Right Support (November 22, 2018). Available at SSRN: <https://ssrn.com/abstract=3289275> or <http://dx.doi.org/10.2139/ssrn.3289275> [Regression discontinuity]
  - Daniele, G., & Dipoppa, G. (2017). Mafia, elections and violence against politicians. *Journal of Public Economics*, 154, 10-33. [Difference-in differences]

### Week 3: Survey experiments (Davide Morisi)

- Mandatory readings:
  - Peterson, E., Westwood, S., & Iyengar, S. (2021). Beyond Attitudes: Incorporating Measures of Behavior in Survey Experiments. In J. Druckman & D. Green (Eds.), *Advances in Experimental Political Science* (pp. 239-254). Cambridge: Cambridge University Press. doi:10.1017/9781108777919.017
  - Gaines, B., Kuklinski, J., & Quirk, P. (2007). The Logic of the Survey Experiment Reexamined. *Political Analysis*, 15(1), 1-20.
  - Dafoe, A., Zhang, B., & Caughey, D. (2018). Information Equivalence in Survey Experiments. *Political Analysis*, 26(4), 399-416.
  - Coppock, A., Leeper, T. J., & Mullinix, K. J. (2018). "Generalizability of heterogeneous treatment effect estimates across samples." *Proceedings of the National Academy of Sciences*, 115 (49) 12441-12446
- Applied studies:
  - Druckman, James, Erik Peterson, and Rune Slothuus. (2013). "How Elite Partisan Polarization Affects Public Opinion Formation." *American Political Science Review*, 107(1), 57-79.
  - Barber, M., Gordon, D., Hill, R., & Price, J. (2017). "Status Quo Bias in Ballot Wording." *Journal of Experimental Political Science*, 4(2), 151-160.
  - Deryugina T, Shurchkov O (2016) "The Effect of Information Provision on Public Consensus about Climate Change." *PLOS ONE* 11(4): e0151469.
  - Hou, Y., & Quek, K. (2019). "Violence Exposure and Support for State Use of Force in a Non-Democracy." *Journal of Experimental Political Science*, 6(2), 120-130.
  - Masullo, J., & Morisi, D. (2021). "The Human Costs of the War on Drugs. Attitudes towards Militarization of Security in Mexico." Unpublished manuscript
  - Carpenter, C., Montgomery, A., & Nylén, A. (2021). Breaking Bad? How Survey Experiments Prime Americans for War Crimes. *Perspectives on Politics*, 19(3)

#### **Week 4: Laboratory experiments (Aron Szekely)**

##### - Mandatory readings:

- Falk, Armin, and James J. Heckman. 2009. "Lab Experiments Are a Major Source of Knowledge in the Social Sciences." *Science* 326(5952):535–38. doi: 10.1126/science.1168244.
- Fehr, Ernst, and Herbert Gintis. 2007. "Human Motivation and Social Cooperation: Experimental and Analytical Foundations." *Annual Review of Sociology* 33:43–64.

##### - Applied studies:

- Diekmann, Andreas, and Wojtek Przepiorka. 2016. "Take One for the Team! Individual Heterogeneity and the Emergence of Latent Norms in a Volunteer's Dilemma." *Social Forces* 94(3):1309–33. doi: 10.1093/sf/sov107.
- Bigoni, Maria, Stefania Bortolotti, Marco Casari, and Diego Gambetta. 2019. "At the Root of the North–South Cooperation Gap in Italy: Preferences or Beliefs?" *The Economic Journal* 129(619):1139–52. doi: 10.1111/eoj.12608.
- Barr, Abigail, Luis Miller, and Paloma Ubeda. 2016. "Moral Consequences of Becoming Unemployed." *Proceedings of the National Academy of Sciences* 113(17):4676–81. doi: 10.1073/pnas.1521250113.
- Bader, Felix, Bastian Baumeister, Roger Berger, and Marc Keuschnigg. 2019. "On the Transportability of Laboratory Results." *Sociological Methods & Research* 0049124119826151. doi: 10.1177/0049124119826151.

#### **Week 5: Field experiments (Camilla Borgna)**

##### - Mandatory readings:

- McDermott, Rose (2002). Experimental methods in political science. *Annual Review of Political Science*, 5(1), 31-61.
- Jackson, Michelle, and David R. Cox. (2013) "The principles of experimental design and their application in sociology." *Annual Review of Sociology* 39 (2013): 27-49.
- de Souza Leão, Luciana, Gil Eyal (2019). The rise of randomized controlled trials (RCTs) in international development in historical perspective. *Theory and Society*, 48(3), 383–418.
- Humphreys, Macartan, and Alexandra Scacco. (2021) "The aggregation challenge." *World Development* 127 (2020): 104806.

##### - Applied studies:

- Bandiera, Oriana, Niklas Buehren, Robin Burgess, Markus Goldstein, Selim Gulesci, Imran Rasul, and Munshi Sulaiman (2020). "Women's Empowerment in Action: Evidence from a Randomized Control Trial in Africa." *American Economic Journal: Applied Economics*, 12 (1): 210-59.
- Barone, Carlo, Denis Fougère, Clément Pin (2021) Social Origins, Shared Book Reading, and Language Skills in Early Childhood: Evidence from an Information Experiment, *European Sociological Review*, 37(1):18–31.
- Dias, Felipe A. (2020) "How skin color, class status, and gender intersect in the labor market: Evidence from a field experiment." *Research in Social Stratification and Mobility* 65: 100477.
- Finger, Claudia, Heike Solga, Martin Ehlert, & Alessandra Rusconi (2020). Gender differences in the choice of field of study and the relevance of income information. Insights from a field experiment. *Research in Social Stratification and Mobility*, 65, 100457.
- Pager, Devah (2003). "The mark of a criminal record." *American journal of*

*sociology* 108(5): 937-975.

- Scacco, Alexandra, & Warren, Shana S. (2018). Can Social Contact Reduce Prejudice and Discrimination? Evidence from a Field Experiment in Nigeria. *American Political Science Review*, 112(3), 654-677.
- Winter, Fabian, and Nan Zhang. (2018) "Social norm enforcement in ethnically diverse communities." *Proceedings of the National Academy of Sciences* 115, no. 11 (2018): 2722-2727.

## **Week 6: Designing surveys (Davide Morisi)**

### - Mandatory readings:

- Weisberg, Herb. (2018). "Total survey error." In Rae Atkeson, Lonna, and R. Michale Alvarez (eds.), *The Oxford Handbook of Polling and Survey Methods*, Oxford: Oxford University Press.
- Hillygus, D. Sunshine and Steven Snell. (2018). "Longitudinal Surveys: Issues and Opportunities." In Rae Atkeson, Lonna, and R. Michale Alvarez (eds.), *The Oxford Handbook of Polling and Survey Methods*, Oxford: Oxford University Press
- Smyth, Jolene D. (2016). "Designing Questions and Questionnaires." In Wolf, Christof, Dominique Joye, Tom E. C. Smith, and Yang-chih Fu (eds.), *The Sage Handbook of Survey Methodology*. London: SAGE

### - Applied studies:

- *Measuring trust*  
Bauer, Paul C., and Markus Freitag. 2018. "Measuring Trust." In *The Oxford Handbook of Social and Political Trust*, ed. Eric Uslaner. Cambridge, UK: Oxford University Press, 15–36.
- *Left-right ideology*  
Bauer, Paul C., Pablo Barberá, Kathrin Ackermann, and Aaron Venetz. 2016. "Is the Left-Right Scale a Valid Measure of Ideology?" *Political Behavior*: 1–31.
- *Vote buying*  
Chad P. Kiewiet De Jonge, Who Lies About Electoral Gifts? Experimental Evidence from Latin America, *Public Opinion Quarterly*, Volume 79, Issue 3, Fall 2015, Pages 710–739.
- *Racial prejudice*  
Payne, B. Keith, Jon A. Krosnick, Josh Pasek, Yphtach Lelkes, Omair Akhtar, Trevor Tompson. 2010. "Implicit and explicit prejudice in the 2008 American presidential election." *Journal of Experimental Social Psychology*, Volume 46, Issue 2, Pages 367-374.
- *Risk preferences*  
Dohmen, Thomas et al. 2011. "Individual Risk Attitudes: Measurement, Determinants, and Behavioral Consequences." *Journal of the European Economic Association* 9(3): 522–50.
- *Turnout*  
Eva Zeglovits, Sylvia Kritzing, New Attempts to Reduce Overreporting of Voter Turnout and Their Effects, *International Journal of Public Opinion Research*, Volume 26, Issue 2, Summer 2014, Pages 224–234.

**Week 7: Unconventional data collection I: Social media, text analysis, web scraping**  
(Moreno Mancosu)

- Mandatory readings:

- Peeters, Stijn and Hagen, Sal, The 4CAT Capture and Analysis Toolkit: A Modular Tool for Transparent and Traceable Social Media Research (August 31, 2021). Available at SSRN: <https://ssrn.com/abstract=3914892>
- Freelon, Deen (2018) Computational Research in the Post-API Age, *Political Communication*, 35:4, 665-668.
- Grimmer, J., & Stewart, B. M. (2013). Text as data: The promise and pitfalls of automatic content analysis methods for political texts. *Political analysis*, 21(3), 267-297.

- Applied studies:

- Barberá, P., Jost, J. T., Nagler, J., Tucker, J. A., & Bonneau, R. (2015). Tweeting from left to right: Is online political communication more than an echo chamber?. *Psychological science*, 26(10), 1531-1542.
- Mancosu, M., & Bobba, G. (2019). Using deep-learning algorithms to derive basic characteristics of social media users: The Brexit campaign as a case study. *PloS one*, 14(1).
- Eady, G., Nagler, J., Guess, A., Zilinsky, J., & Tucker, J. A. (2019). How many people live in political bubbles on social media? Evidence from linked survey and Twitter data. *Sage Open*, 9(1), 2158244019832705.
- Zollo, F., Bessi, A., Del Vicario, M., Scala, A., Caldarelli, G., Shekhtman, L., ... & Quattrociocchi, W. (2017). Debunking in a world of tribes. *PloS one*, 12(7).

**Week 8: Unconventional data collection II: GIS and archival data** (Krzysztof Krakowski)

- Mandatory readings:

- Cirone, A., & Spirling, A. (2021). Turning History into Data: Data Collection, Measurement, and Inference in HPE. *Journal of Historical Political Economy*, 1(1), 127-154. [Archival data]
- Balcells, L., & Sullivan, C. M. (2018). New findings from conflict archives: An introduction and methodological framework. [Archival data]
- Schaub, M. (2017). Second-order ethnic diversity: the spatial pattern of diversity, competition and cooperation in Africa. *Political Geography*, 59, 103-116. [GIS data]
- Hager, A., K. Krakowski, and M. Schaub (2019), "Ethnic Riots and Prosocial Behavior: Evidence from Kyrgyzstan." *American Political Science Review*, 113(4): 1029–1044 [GIS data]

- Applied studies:

- Hager, A. and K. Krakowski (2021), "Does State Repression Spark Protests? Evidence from Secret Police Surveillance in Communist Poland." Forthcoming, *American Political Science Review*.
- Becker, Sascha O., Yuan Hsiao, Steven Pfaff, and Jared Rubin (2020), Multiplex Network Ties and the Spatial Diffusion of Radical Innovations: Martin Luther's Leadership in the Early Reformation. *American Sociological Review* Vol. 85(5) 857–894.

- Charnysh, V. (2019). Diversity, institutions, and economic outcomes: Post WWII displacement in Poland. *American Political Science Review*, 113(2), 423-441.
- Choi, J. K., & Bowles, S. (2007). The coevolution of parochial altruism and war. *science*, 318(5850), 636-640.

**Week 9: Integrating theoretical and empirical social science (Giovanna Invernizzi)**

- Mandatory readings:

- Ashworth, S., Berry, C. R., & de Mesquita, E. B. (2021). *Theory and Credibility: Integrating Theoretical and Empirical Social Science*. Princeton University Press.

- Applied studies:

- See multiple examples in Ashworth et al. (2021)

**Week 10: Mixed methods and implication analysis (Diego Gambetta)**

- Mandatory readings:

- Lieberman, S. 2002. Barking up the wrong tree. *Scientific Alternatives to the Current Model of Sociological Research. Annual. Review of Sociology* 28:1– 19.
- Lieberman, S. and Horwich, J. 2008. Implications analysis: a pragmatic proposal for linking theory and data in the social sciences. *Sociological Methodology* 38(1): 1-50. [the article is discussed by several authors here: <http://onlinelibrary.wiley.com/doi/10.1111/some.2008.38.issue-1/issuetoc>]
- 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]
- 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>
  - <http://tompepinsky.com/2011/12/21/omfg-exogenous-variation-or-can-you-find-good-nails-when-you-find-an-indonesian-politics-hammer/>

- Applied studies:

- Ermisch J and D.Gambetta 2010. “Do strong family ties inhibit trust?” *Journal of Economic Behavior & Organization*, 75, 3, 365-376 [combining experiment with the panel]
- Gambetta, D., A.Szekely 2015. “Interpersonal violence and information”. Working paper [combining observational data and experiment]
- Gambetta, D., & Hertog, S. (2017). *Engineers of jihad*. Princeton University Press. [Chapters 1 – 3]