Mixed-Methods Designs

Dr. Jason Seawright

May 30-June 1, 2016

9:00am – 4:30pm

Outline

Reflecting the rising popularity of research that combines qualitative and quantitative social science, this workshop systematically analyzes the task of designing multi-method research. We will argue that methods can be productively combined using the framework of integrative multi-method research, with one method used to carry out a final causal inference, and methods from other traditions to test the key assumptions involved in that causal inference. The workshop will consider a wide range of statistical tools, including regression, matching, natural experiments, and experiments. It will also discuss qualitative tools including process tracing, the use of causal-process observations, and comparative case-study research.

Combining regression and case studies for the purpose of improving causal inference has long been the central focus of research on multi-method design. The course begins by carefully analyzing this topic, developing appropriate qualitative and quantitative design components as well as case selection strategies to facilitate improved causal inference.

Schedule of Sessions and Reading List*

Day 1: Regression, Case Studies, and Causal Inference

There are two competing paradigms of multi-method research: triangulation and integration. Triangulation involves separate qualitative and quantitative research designs that ask and answer the same overarching question. Integration involves using one method to form a final causal inference and tools from the other methodological family to test or justify assumptions supporting that causal inference.

- Seawright, Jason, *Multi-Method Social Science: Combining Qualitative and Quantitative Tools* (Cambridge University Press 2016), Chapter 1.
- David A. Freedman, "On Types of Scientific Enquiry: The Role of Qualitative Reasoning." In Janet Box-Steffensemeir, Henry Brady, and David Collier, eds., *The Oxford Handbook of Political Methodology* (Oxford University Press, 2008), pp. 300-318.
- Evan Lieberman, "Nested Analysis as a Mixed-Method Strategy for Comparative Research," *American Political Science Review* 99 (August 2005): 435-452.

Multi-method research design is built around the idea that combining qualitative and quantitative research activities can produce stronger causal inferences than either mode of research can produce alone. To develop this idea for designs that combine regression and case studies, we need a clear idea of exactly what each kind of method actually contributes to causal inference.

- Seawright, *Multi-Method Social Science*, Chapter 2.
- Stephen L. Morgan and Christopher Winship, "Regression Estimators of Causal Effects." *Counterfactuals and Causal Inference: Methods and Principles for Social Research* (Cambridge University Press 2014): Chapter 6, pp.188-225.

Recommended:

- Bennett and Checkel 2015: Chapters 1, 5, 8, 10, and Appendix.

Several of the critical assumptions for regression-based causal inference can be at least partially tested with qualitative design components. We will discuss tests for confounding, for measurement problems, and for the existence of theoretically crucial causal pathways.

- Seawright, *Multi-Method Social Science*, Chapter 3.
- Evan Lieberman, "Nested Analysis as a Mixed-Method Strategy for Comparative Research," *American Political Science Review* 99 (August 2005): 435-452.

Recommended:

- Small, Mario Luis, 2011. "How to Conduct a Mixed Methods Study: Recent Trends in a Rapidly Growing Literature." Annual Review of Sociology 37: 57-86.
- Weller, Nicholas and Jeb Barnes, 2014. Finding Pathways: Mixed-Method Research for Studying Causal Mechanisms. Chapter 7.

Day 2: Multimethod Case Selection, Matching, and Natural Experiments

A key hurdle in multi-method research is figuring out how to make sure that the qualitative and quantitative design components are strongly interrelated. Statistically informed case selection can help establish this connection, and the right choices about case selection can increase the chances of causally relevant discoveries within the qualitative analysis.

- Seawright, *Multi-Method Social Science*, Chapter 4.
- Seawright, Jason and Gerring, John, 2008, "Case Selection Techniques in Case Study Research: A Menu of Qualitative and Quantitative Options." *Political Research Quarterly* 61 (June): 294-308. http://blogs.bu.edu/jgerring/files/2013/06/CaseSelection.pdf

Recommended:

- Herron, Michael C., Kevin M. Quinn. "A Careful Look at Modern Qualitative Case Selection Methods." Sociological Methods & Research (forthcoming).
- Dan Slater and Daniel Ziblatt. 2013. "The Enduring Indispensability of the Controlled Comparison." Comparative Political Studies 46 (Oct.): 1301-27.

While the regression-type causal inferences discussed in the first module remain widespread in the social sciences, more advanced tools for causal inference and for theory-building are increasingly mainstream. The popularity of natural experiments in the social sciences has grown alongside that of multi-method designs. While natural experiments are attractive because they rely on different assumptions than regression-type inferences, they still require strong assumptions. We will explore qualitative design components for testing the key assumptions in classic natural experiments, instrumental-variables natural experiments, and regression discontinuity designs.

- Seawright, *Multi-Method Social Science*, Chapter 6.
- Andrew Bennett and Jeffrey Checkel, eds., *Process Tracing: From Metaphor to Analytic Tool*, (Cambridge University Press, 2014): Chapter 8.

Recommended:

- Jeremy Ferwerda and Nicholas L. Miller, 2014, "Political Devolution and Resistance to Foreign Rule: A Natural Experiment." American Political Science Review 108 (Aug.): 642-60.
- Matthew Adam Kocher and Nuno P. Monteiro, 2015. "What's in a Line? Natural Experiments and the Line of Demarcation in WWII Occupied France." http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2555716

Matching methods rely on the same control variables strategy as regression, but make slightly different assumptions and allow for different multi-method designs. We will discuss these methods and the best ways of including qualitative evidence.

- Seawright, *Multi-Method Social Science*, Chapter 5.
- Richard A. Nielsen. 2014. "Case Selection via Matching." *Sociological Methods & Research*. DOI: 10.1177/0049124114547054

Day 3: Multimethod Experiments, Multimethod Case Studies, and Complexity

True randomized experiments require the fewest and simplest assumptions of any quantitative tool for causal inference, but they still make important assumptions. We will discuss case study designs to test SUTVA and experimental realism. We will also discuss designs using experiments or other quantitative tools as steps in a process-tracing argument.

- Seawright, *Multi-Method Social Science*, Chapters 7-8.

Recommended:

- Elizabeth Levy Paluck. 2010. "The Promising Integration of Qualitative Methods and Field Experiments." The Annals of the American Academy of Political and Social Science 628 (March): 59-71.

Multi-method designs can readily be built in which the final causal inference is based on case studies and case comparisons, and in which quantitative methods serve an auxiliary or assumption-testing purpose. We will explore methods for quantifying uncertainty in case-study contexts, for using quantitative design components as part of process tracing, and for setting up comparative analysis using quantitative causal inferences as the outcome to be explained.

- Seawright, *Multi-Method Social Science*, Chapter 8.
- Dafoe, Caughey, and Seawright. Forthcoming. "Global Tests of Complex Hypotheses: A Nonparametric Framework for Testing Elaborate Theories." *Journal of Politics*. http://caughey.mit.edu/sites/default/files/documents/NPC141120.pdf
- Diana Kapiszewski, Lauren M. MacLean and Benjamin L. Read, *Field Research in Political Science: Practices and Principles* (Cambridge University Press 2015): Chapters 8 and 9, pp. 266-331.

To date, most work on multi-method research has emphasized relatively simple causal questions about average treatment effects. Yet more complex causal models are common in the social sciences. We will explore multi-method strategies for discovering and testing complex theories (with multiple outcomes, interactivity, and/or nonlinearity).

- Leo Breiman, 2001. "Random Forests." *Machine Learning* 45 (1): 5-32.

Recommended:

- Ziona Austrian. 2000. "Cluster Case Studies: The Marriage of Quantitative and Qualitative Information for Action." Economic Development Quarterly 14 (Feb.): 97-110.
- Carsten Q. Schneider and Ingo Rohlfing. 2013. ``Combining QCA and Process Tracing in Set-Theoretic Multi-Method Research." Sociological Methods & Research 42 (Nov.): 559-597.

*If you are registered for credit, you can find these readings on course reserve: http://reserves.concordia.ca/
*If you are registered for non-credit and are unable to locate the readings, please contact us at wssr@concordia.ca