Conclusion: Lessons for the Dialogue between Theory and Data

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In the introduction, we categorized research designs along two dimensions. One dimension classifies them according to the focus of research as factor-centric or outcome-centric; on the other dimension, we distinguished large-n and small-n research designs according to the number of observations. Yet we also claimed that, no matter which research design we use, we all face the same set of core research design issues: Defining the research question and problem, specifying concepts and theory, operationalizing and measuring them, selecting cases and observations, controlling for alternative explanations, and drawing theoretical conclusions from the empirical analysis. Each of the preceding chapters then took on one of these issues and explicated the challenges, and also provided some hands-on advice on how to deal with these challenges.

What are the lessons to be learned from comparing the challenges across all types of research design? The results here seem to be unequivocally clear. It does not matter whether you care about outcomes or causal factors nor whether you can leverage a few or many observations. We do in fact share the very same research design problems. We can identify a set of questions which help to increase the relevance of our research both in the scientific community and beyond (Lehnert, Miller and Wonka, Chapter 2). If your theoretical concepts are fuzzy, your research cannot yield valid inferences – no matter how many observations you can leverage on or the type of inferences in which you are primarily interested (Wonka, Chapter 3). Moreover, measurement as a process of attributing ‘values to observations according to pre-defined rules’ (Miller, Chapter 5, p. 84) is a challenge irrespective of the number
of observations you measure and whether your main theoretical focus is on an independent or a dependent variable. Whether you select a few or many observations, selection bias is always looming large (Thiem, Chapter 7; Leuffen, Chapter 8; Geddes, 1990). Likewise, the decision as to which variables to include in a quest for explanation, and which to control for is tricky in any type of research design (Sieberer, Chapter 9; Dür, Chapter 10). Finally, a potential reformulation of the theory which started a dialogue with the data is an issue in every empirical research process (De Bièvre, Chapter 10).

While all types of research face the same problems and challenges, to what extent do they also lend themselves to common solutions? The answer from comparing the guidelines that are offered in each chapter seems to suggest that we should not expect to find a cookie-cutter approach ‘out there’ to solve all research design problems for us in the same mechanical way. Surely this does not come as a big surprise. Otherwise our distinction of research designs along two different dimensions would be just one more attempt to clutter the literature with yet another piece of jargon. Rather, the preceding chapters play variations of a common theme: Different research designs offer and require different solutions to the very same challenges, each of which produces specific trade-offs. The evaluation of these trade-offs should ideally determine the research design you choose. This fact, we think, has not been appreciated enough in the discussion about unified logics and common standards of good research design.

Relevance

The only exception may be seen at the very beginning of the research process. For one, the social or theoretical relevance of the research question does not appear to be systematically related to the number of observations or factor- versus outcome-centric designs. A single case study can be just as (ir)relevant as a global survey. Both knowledge of the causal effects of a single factor and knowledge of the multiple determinants of a specific outcome can or cannot meet the standards of relevance. At first sight, outcome-centric research – for example, on the conditions of wars, effective institutional reform, or electoral success – may seem more relevant. However, we do not see why this should not be the case for factor-centric research on the causal effects of peacekeeping activities, constitutional designs, or electoral systems.