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John Gerring

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## Social Science Methodology

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A Unified Framework

Second edition

John Gerring's exceptional textbook has been thoroughly revised in this second edition. It offers a one-volume introduction to social science methodology relevant to the disciplines of anthropology, economics, history, political science, psychology, and sociology. This new edition has been extensively developed with the introduction of new material and a thorough treatment of essential elements such as conceptualization, measurement, causality, and research design. It is written for students, long-time practitioners, and methodologists, and covers both qualitative and quantitative methods. It synthesizes the vast and diverse field of methodology in a way that is clear, concise, and comprehensive. While offering a handy overview of the subject, the book is also an argument about how we should conceptualize methodological problems. Thinking about methodology through this lens provides a new framework for understanding work in the social sciences.

**John Gerring** is Professor of Political Science at Boston University, where he teaches courses on methodology and comparative politics. He has published several books including *Case Study Research: Principles and Practices* (Cambridge University Press, 2007), and *A Centripetal Theory of Democratic Governance* (Cambridge University Press, 2008). He served as a fellow of the School of Social Science at the Institute for Advanced Study (Princeton, NJ), as a member of the National Academy of Sciences' Committee on the Evaluation of USAID Programs to Support the Development of Democracy, as President of the American Political Science Association's Organized Section on Qualitative and Multimethod Research, and was the recipient of a grant from the National Science Foundation to collect historical data related to colonialism and long-term development. He is currently a fellow at the Kellogg Institute for International Affairs, University of Notre Dame (2011–12).

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There is no royal road to science, and only those who do not dread the fatiguing climb of its steep paths have a chance of gaining its luminous summits.

Karl Marx, "Preface to the French Edition," *Capital* (299),  
quoted in Levi (1999: 171)

To have mastered "method" and "theory" is to have become a self-conscious thinker, a man at work and aware of the assumptions and the implications of whatever he is about. To be mastered by "method" or "theory" is simply to be kept from working, from trying, that is, to find out about something that is going on in the world. Without insight into the way the craft is carried on, the results of study are infirm; without a determination that study shall come to significant results, all method is meaningless pretense.

C. Wright Mills, *The Sociological Imagination* (1959: 120–121)

Surely, in a world which stands upon the threshold of the chemistry of the atom, which is only beginning to fathom the mystery of interstellar space, in this poor world of ours which, however justifiably proud of its science, has created so little happiness for itself, the tedious minutiae of historical erudition, easily capable of consuming a whole lifetime, would deserve condemnation as an absurd waste of energy, bordering on the criminal, were they to end merely by coating one of our diversions with a thin veneer of truth. Either all minds capable of better employment must be dissuaded from the practice of history, or history must prove its legitimacy as a form of knowledge. But here a new question arises. What is it, exactly, that constitutes the legitimacy of an intellectual endeavor?

Marc Bloch, *The Historian's Craft* ([1941] 1953: 9)

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## Preface

The natural sciences talk about their results. The social sciences talk about their methods.

Henri Poincaré<sup>1</sup>

In a very crucial sense there is no methodology without logos, without thinking about thinking. And if a firm distinction is drawn – as it should be – between methodology and technique, the latter is no substitute for the former. One may be a wonderful researcher and manipulator of data, and yet remain an unconscious thinker . . . the profession as a whole is grievously impaired by methodological unawareness. The more we advance technically, the more we leave a vast, uncharted territory behind our backs.

Giovanni Sartori<sup>2</sup>

The field of social science methodology has been hyperactive over the past several decades. Methods, models, and paradigms have multiplied and transformed with dizzying speed, fostering a burst of interest in a heretofore moribund topic. One sign of the growing status of this field is the scholarly vituperation it inspires. Terms such as interpretivism, rational choice, post-structuralism, constructivism, randomization, positivism, and naturalism are not just labels for what we do; they are also fighting words.

Meanwhile, venerable debates over power, class, and status seem to have subsided. It is not that we no longer talk about these subjects, or care about them. Yet there appears to be greater consensus within the academy on normative political issues than there was, say, in the 1960s and 1970s. We are all social democrats now – for better, or for worse. Debates continue, especially over the role of race, gender, and identity. However, they do not seem to be accompanied by a great deal of rancor. Thus, over the past few decades methodological disagreements have largely displaced disagreements

<sup>1</sup> Attributed to Poincaré by Berelson and Steiner (1964: 14). See also Samuelson (1959: 189).

<sup>2</sup> Sartori (1970: 1033).

over substantive issues as points of conflict at conferences, at faculty meetings, and on editorial boards. Methodology, not ideology, seems to define the most important cleavages within the social sciences today.<sup>3</sup>

Readers disturbed by this development may feel that there is altogether too much methodology inhabiting the social sciences today – too much discussion about how to get there, and not enough about what’s there. They may be partial to C. Wright Mills’ admonition: “Methodologists, get to work!” This is consistent with the plea for a problem-centered social science, one directed toward solving problems of public concern rather than the application of particular methods.<sup>4</sup>

The question naturally arises, *how* is one to go to work? It is unlikely that this question is best answered in a purely inductive manner. V. O. Key points out, “Method without substance may be sterile, but substance without method is only fortuitously substantial.”<sup>5</sup> Arguably, the best way to ensure that social science remains problem-oriented is to cultivate a deep knowledge of methodology and a large toolkit of methods. Only in this fashion can one be sure that substantive problems of theoretical concern and everyday relevance are driving our agendas, rather than a search for venues to apply the method *du jour*.

The stakes in our current *Methodenstreit* are indeed high. At issue is not merely who will make it into the first-tier journals and who will make tenure, but also the shape and focus of the social sciences in the twenty-first century. The winners of our current methodological wars will determine the sort of training that is offered to students, the sort of advice that is offered to policy-makers, and the sort of guidance that is offered to the lay public. Social science matters – perhaps not as much as we might like, but a good deal nonetheless. And because of its prominent place in shaping the course of social science, methodology matters.

## The present volume

This book is a dramatically revised and expanded edition of a book that appeared a decade ago.<sup>6</sup> The overall argument remains intact. However,

<sup>3</sup> In 1958, V. O. Key admonished the members of the discipline of political science for having closed their minds “to problems of method and technique” (p. 967). The same could certainly not be said today.

<sup>4</sup> Mead (2010); Shapiro (2005); Smith (2003). See also discussion of *relevance* in Chapter 3.

<sup>5</sup> Key (1958: 967).

<sup>6</sup> Gerring (2001). This volume also draws on other manuscripts and publications written over the past decade, e.g., Gerring (1997, 1999, 2005, 2007, 2008, 2009, 2010); Gerring and Thomas (2011); Gerring and Yesnowitz (2006); Gerring and Barresi (2003).

I have reformulated the subtitle along with many of the lower-level arguments, added a great deal of new material, and re-written virtually every paragraph. All things considered, it probably deserves to be considered a new book. In any case, I hope that the reader of this book will find an improved rendition of *Social Science Methodology*.

Before entering the narrative, it may be worthwhile outlining a few general contrasts between this volume and others on the market.

First, I take social science as my primary unit of analysis. Social science, I believe, is not simply an offshoot of the natural sciences or the humanities. It is, rather, a distinctive realm of inquiry with a somewhat distinctive set of norms and practices. Thus, rather than focusing on a particular discipline, or on science at large, this book addresses all fields whose primary focus is on human action and social institutions. This includes anthropology, archaeology, business, communications, demography, economics, education, environmental design, geography, law, political science, psychology, public administration, public health, public policy, social work, sociology, and urban planning. From my perspective, the methodological issues faced by these fields are so remarkably similar that they deserve a unified treatment. Insofar as the book succeeds, it may help to restore a sense of common purpose to these often estranged fields.

Second, I attempt to speak across current methodological, epistemological, and ontological divides – interpretivist versus positivist versus realist, quantitative versus qualitative, and so forth. While recognizing the persistence of these cleavages I do not wish to reify them. Indeed, they are often difficult to define, and in this respect are uninformative.<sup>7</sup> For example, to say that a research design is “qualitative” or “quantitative” is to say very little, as most issues of methodological adequacy are not about sheer numbers of observations (Chapter 13). Here, as elsewhere, abstract, philosophical discussions often have the effect of obscuring methodological issues, which become clear only when framed in a highly specific, focused manner (and then do not always fit neatly within larger frameworks).

Third, the book approaches social science methodology through prose rather than through numbers. Although the topic pertains equally to qualitative and quantitative research, the *language* of the book is largely qualitative. A narrative approach has certain advantages insofar as one can cover a great

<sup>7</sup> The distinction between qualitative and quantitative methods is discussed in Brady and Collier (2004); Gerring and Thomas (2011); Glassner and Moreno (1989); Hammersley (1992); Mahoney and Goertz (2006); McLaughlin (1991); Shweder (1996); Snow ([1959] 1993); See also entry for “Qualitative” in the Glossary. Interpretivism is discussed in Gerring (2003).

deal of material in a relatively concise and comprehensible fashion. Moreover, many methodological issues are not mathematical in nature; they hinge on concepts, theories, research designs, and other matters that are best articulated with natural language. Even so, I make a point of referencing statistical procedures wherever relevant so as to facilitate the transit between the world of numbers and the world of prose. It is hoped that the book will be enjoyable and informative for those who are schooled in quantitative methods, as well as those more familiar with qualitative research.<sup>8</sup>

Fourth, the book aims to address the subject of social science methodology in ways that will be useful to practitioners. We should remind ourselves that there is little point in studying methodology if the discoveries of this field are shared only among methodologists. Rather than highlighting arguments with the literature I have sought to place these arguments in footnotes, in appendices, or have omitted them altogether. Chapters, sections, and tables are organized to facilitate easy access and reference. Specialized vocabulary is avoided wherever possible, and an extensive glossary is included to try to sort out the lexicon.

Finally, the book places the subject of social science methodology in a broad historical and intellectual context. It is helpful to remember that most of the questions we find ourselves grappling with today are iterations of classic methodological debates. Many were addressed as far back as 1843, when J. S. Mill published the first edition of his path-breaking, *System of Logic*. Some go back to Aristotle. Arguably, the introduction of new methods has had relatively little impact on the underlying logic of social science analysis. The same difficulties crop up in different circumstances. This may serve as cause for dismay or contentment, depending on one's orientation. From my perspective, it is another indication that there is something central to the social sciences that distinguishes our enterprise from others. We are defined, to a significant degree, by our methodological predicaments.

"God," note Charles Lave and James March, "has chosen to give the easy problems to the physicists."<sup>9</sup> What the authors mean by this provocative comment is not that it is easy to practice physics, but rather that it is fairly

<sup>8</sup> Although one hears a good deal of rhetoric nowadays about uniting qualitative and quantitative methodologies, this formidable task appears to be easier to recommend than to render. Hence, the general absence of texts that speak meaningfully to both audiences. But see Brady and Collier (2004); Firebaugh (2008); Goertz (2006); King, Keohane, and Verba (1994); Lieberman (1985); Ragin (1987, 2008); Shadish, Cook, and Campbell (2002). For further comments on the qualitative/quantitative divide see Chapter 13.

<sup>9</sup> Lave and March (1975: 2).

apparent when one has obtained a result in this field. The implications of this fact are far-reaching. The natural scientist can afford to cultivate a method, confident that his or her results, if significant, will be recognized. The social scientist, by contrast, must justify not only his or her findings but also his or her method.

Our blessing and our curse is to be implicated in the subjects that we study and to study subjects who are subjects, in the full Kantian sense. As a consequence, those working in the social sciences have harder problems, methodologically speaking. We disagree on more points, and on more basic points, and spend much more time debating these points than our cousins in the natural sciences. Indeed, methodology is central to the disciplines of the social sciences in a way that it is not to the natural sciences. (There is no field of “methodology” in physics or biology.) Clark Glymour observes, “Exactly in those fields where impressive and dominant results are difficult to obtain, methodological considerations are likely to be most explicit, and innovations in method are likely to occur most often.”<sup>10</sup>

In recent years data have become available on a wider range of topics and quantitative techniques have become ever more sophisticated and more accessible to lay researchers (via user-friendly data packages). However, the gap between what we do and what we mean to do has not diminished. “Methods” and “ontology” still lie far apart.<sup>11</sup>

I believe that to do good work in the social sciences requires more than mastering a set of techniques. It requires understanding why these techniques work, why one approach might be more appropriate for a given task than another, and how a given approach might be adapted to diverse research situations. Good work in the social sciences is necessarily creative work, and creative work requires broad grounding.<sup>12</sup>

The goal of this book, therefore, is to explore the logic of inquiry that guides work in the social sciences, as well as the pragmatic rationale that, I claim, underpins these norms. Methods are inseparable from methodology; we can hardly claim to understand one without delving into the other. This work is concerned, therefore, with what social scientists do, what they say they do, and what they ought to be doing. These three issues, together, constitute social science methodology.

<sup>10</sup> Glymour (1980: 291). <sup>11</sup> Hall (2003).

<sup>12</sup> “More than other scientists,” notes Milton Friedman ([1953] 1984: 236), “social scientists need to be self-conscious about their methodology.”

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