

## BOOK REVIEW/ COMPTE RENDU

**Becker, Howard.** *Evidence*. Chicago and London: The University of Chicago Press, 2017, pp. 223, \$20.00, paper, (9780226466378).

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**H**oward Becker's *Evidence* tackles central methodological issues in sociology. In particular, Becker considers the oft-unproductive divide between adherents of quantitative and qualitative methods and—perhaps unsurprisingly—recommends the use of both methodologies. The take-home message is thus that sociologists would be better off if they dropped parochial attitudes and embraced instead both quantitative and qualitative research approaches, as “it pays to use both as the circumstances dictate” (34). But as it becomes clear after Becker guides us through several decades of sociological literature, social scientists often resist working across distinct methodological camps.

Although Becker's conciliatory tone may at first strike the reader as a no-brainer, the question is a vexed one. For how could we ever justify the use of multiple research approaches? A rational researcher should favor the research approach that has the highest probability of attaining the researcher's goal—truth, empirical adequacy, fame, funding, or whatever else the researcher wishes to achieve. It would only be rational to distribute one's efforts and resources over multiple approaches if they all had the same probability of success. But it is unlikely that different approaches have the same probability of success. Given these simple assumptions, it is rational to favor a unique approach—the one with the highest probability of success. The challenge is thus to justify the reliance on different methods when it seems irrational to do so, as philosophers of science have repeatedly pointed out—for examples, see Kitcher (1990), Strevens (2003), and Weisberg and Muldoon (2009).

For better or worse, Becker ignores these complexities. For him, researchers should use quantitative and qualitative methods side by side simply because researchers in both traditions can and often do make mistakes. Herein lies perhaps one of the book's greatest strengths: Becker provides a litany of sloppy forms of reasoning that both quantitative and qualitative researches often engage in. And by identifying them, Becker paves the way for improvements.

On the quantitative side, Becker notes that social scientists tend to ignore the problem raised by erroneous data points. Instead of simply as-

*suming* that errors are random, researchers should check whether errors are *in fact* random (107). Becker also notes that every link in the long chain going from data collection to data analyses can affect the quality of the data (69). The problem is hardly unique to sociology. But Becker highlights how work situations and professional interests can interfere with the accuracy of the data. For example, “hired hands” paid to collect data may not be sufficiently committed to gathering accurate data (142). In surveys, the order in which questions are presented and the choice of the response set can bias the responses (pp. 155-7). Becker also reminds us of Campbell’s law: the more an indicator is used for social decision-making, the more likely it is to be subject to corruption pressures (127).

Perhaps due to his own biases, Becker confines the discussion of challenges to qualitative research to a few pages at the end of the book. Still, Becker mentions important issues—such as the difficulty of comparing qualitative datasets (1890), the reprehensible urge to overgeneralize on the basis of small samples (204), the bad habit of taking assumptions for granted (191-193), and the lazy tendency to disregard history with the consequence that conditions which could only become apparent over longer periods of time are ignored (190).

As reasonable as Becker’s considerations are when discussing the pitfalls of sociological research, some problems emerge in other portions of book. Becker presents two models of knowledge, which he traces back to Linnaeus and Buffon, respectively. On the Linnaean model, a researcher makes predictions about a phenomenon of interest on the basis of known causes. On the Buffonian model, the researcher aims to discover what causes are responsible for bringing about the phenomenon. Becker then identifies the Linnaean model with quantitative methods, and the Buffonian model with qualitative approaches.

Becker’s distinction between the Linnaean and the Buffonian models of knowledge is useful. However, assimilating this distinction to the quantitative-qualitative divide is hardly justifiable. In fact, it would be more accurate to describe the Linnaean model as hypothesis-driven research. This is the kind of research that aims at collecting data to assess whether existing hypotheses explain or predict a set of observations. In contrast, the Buffonian model is better understood as exploratory work, in which the goal is to generate hypotheses in the first place—hypotheses that could then be tested using the Linnean model. Although both types of work have their place in science, nothing qualitative or quantitative follows about them. This is again a case where practicing scientists would benefit by engaging with the philosophical literature, where the distinction between hypothesis-driven and exploratory research has often been made (Brandon, 1997; Franklin, 2005).

Another weakness in Becker's argumentation is the complete disregard for digital sources of data. Becker mentions Lieberman's (2000) study on the popularity of first names and notices approvingly that birth certificates can be a reliable source of data because human factors are unlikely to interfere with the collection of this type of data. In what reads like a side comment, Becker then remarks that it is unclear where else similarly accurate data could be found. He writes: "I don't know where you could find other such caches of detailed data on who did what when, but surely they exist" (162).

But Becker overlooks that social scientists can and often do analyze types of data with which human factors cannot easily interfere. In the emerging field of "culturomics" (Michel et al., 2011), it is common for social scientists to investigate cultural and social phenomena by mining large amounts of digitized text. Data from social media has also been used for similar purposes (Bakshy et al., 2015). Although these are recent studies, first ideas about text mining go as far back as the early 20<sup>th</sup> century (Woodward, 1934). Of course, this is not to say that issues of accuracy do not arise at all when analyzing digital data. And Becker is right to insist that social scientists should be attentive to these issues. However, certain types of digital data may be less susceptible to the biases in data production and collection with which Becker is concerned.

Overall, this is a great book that merits the attention of anyone who is interested in methodological issues in the social sciences. Perhaps the book's strongest component is its concluding remarks. Here, Becker gives easy-to-follow rules of thumb for sociologists to avoid mistakes in their research. First, don't make mistakes twice. Use what has been learned about potential sources of data to improve the accuracy of your data. Second, turn mistakes into research questions. Whenever possible, take previous mistakes and investigate why and how they could have arisen. These are lessons that any social scientist committed to honest and transparent research will take to heart.

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