

## METHODOLOGICAL CONTRADICTIONS OF CONTEMPORARY SOCIOLOGY

In his essay "Cultural Contradictions of Contemporary Sociology," Irving Louis Horowitz paints a bleak picture of sociology. His finished rendering looks something like this: (1) sociology has lost its intellectual focus and rigor, letting other more applied fields (such as criminal justice) take over its place in discussions of social policy; (2) sociology has become a haven for political activists who often let their political ideology override their loyalty to scholarship; (3) in lining up with extremist liberal-Marxist ideologies, sociology has alienated itself from mainstream society and thus lost its legitimacy and credibility with the public.

To be fair, Horowitz is making some valid observations. There are some sociologists who are interested more in liberal ideologies than in understanding society. The influence of sociologists in policy circles is limited. There is also plenty of poorly executed sociological research that does not command respect from peer social science disciplines, or even from good scholars in sociology. The mere existence of these facts surely distresses anyone, including myself, whose profession is sociology.

However, I am a proud and committed sociologist. As an academic sociologist, I have always emphasized the importance of variability in my own teaching and research. This emphasis on variability can be traced back to Charles Darwin.<sup>1</sup> Indeed, one can make the argument that modern sociology should be primarily concerned with variability.<sup>2</sup> Social phenomena and human behaviors are so diverse that a careful empirical study of them almost always defies simplistic characterizations. The discipline itself is no less diverse. Indeed,

sociology is so heterogeneous in topic, method, and approach that any sweeping characterization is at best misleading. It is in this sense that Horowitz's characterization of sociology comes up short. A wholesale rejection of contemporary sociology as an ideology-based enterprise is a claim that is itself an ideology.

Now, let me take a look at three primary dimensions along which sociology varies. First, sociology covers a large number of specialty areas, and the differences across these fields are large. Today, there are forty-three sections in the American Sociological Association (ASA) and fifty-three research committees in the International Sociological Association (ISA). The diversity of sociology is evident in the titles of some of these sections and research committees: Animals and Society (ASA), Emotion (ASA), Population (ASA), Arts (ISA), Leisure (ISA), and Sports (ISA). While I am not an expert in most of these areas, I know enough about demography to appreciate that the methods and style of demographic research are very different from those of the other specialty areas listed above. Sociology is an overly broad discipline under which many sub-disciplines are located. Some subdisciplines are so different from each other that it is futile to search for common characterizations of them. We just need to learn how to live with—and take advantage of when possible—the intellectual diversity that has resulted from sociology's historical development.

Second, even within each specialty area, we find a large variation in the quality of scholarship. There has been excellent work produced by many first-rate sociologists, particularly in the areas of social demography, organizational behavior, social inequality, economic sociology, education, race, gender, and the family. However, it is also true that some published work in sociology is fairly poor. Horowitz seems to attribute this phenomenon to the problem that sociology is too occupied with liberal ideologies to maintain scholarly rigor. I do not know the extent to which this is true, but I doubt that the problem is universal, or even prevalent, in any major sociology department that emphasizes research. I offer an alternative explanation for the appearance of low-quality sociological work: many sociologists did not receive adequate training in research methodology and as a result sometimes find themselves in need of "stretching" empirical evidence to

support a particular line of plausible argument, which may or may not be politically based.

Finally, there is always large individual-level variation. Although sociologists may share the same title or even work in the same department, we may not share the same vision as to what constitutes the best sociology. The same sociologists may also change their own minds over time. Should this necessarily worry us? No. The history of humankind has seen many more bad ideas than good ones. As long as we exercise sound judgment in evaluating research, we can tolerate a diversity of published works, including some half-baked ones. In the long run, readers both in and outside of sociology will come to embrace good works and reject bad ones. Let us sociologists focus on what we can deliver in research and leave such judgment to others.

Horowitz is right that there are contradictions in sociology. However, cultural contradictions are widespread everywhere and are not unique to sociology. In my view, the most obvious and most consequential contradictions in sociology are methodological. Sociology is primarily divided by different methodological approaches. As Horowitz points out, there has been a backlash against "positivism" in sociology. But if one looks at how "positivism" is treated in those criticisms, a precise meaning of the term is completely missing. The anti-positivist sentiment can range all the way from distrust of numerical information and statistical methods to plain ignorance about contemporary quantitative sociology. John Goldthorpe, a British sociologist, puts it this way:

Attacks on [sociology as social science] by proponents of expressive and critical sociology have of course been alike focused on "positivism." However, significant differences show up in what "positivism" is taken to mean and why it is found objectionable, and one of the few common elements in such attacks is a rejection of quantitative methods in sociology, and, it seems, of any kind [of] systematic, reasoned and transparent procedures for data collection and analysis.<sup>3</sup>

The simple fact is that quantitative methodology is not perfect. Indeed, all methodologies ever devised for the study of society and social relationships have been found to have limitations. This shortcoming should not surprise a serious

scholar; rather he/she should take it as a challenge to our continuing efforts at understanding the social world. Unfortunately, many refuse to meet this challenge and instead fall back on a position of cynical relativism: all methods have relative merits and drawbacks so we should not privilege one style of methods over another. To see why this position is wrong, one needs to understand what quantitative sociology actually does.

More than anyone else, the late Otis Dudley Duncan (1921–2004) was responsible for today's quantitative sociology. Besides his exemplary research in social stratification, social demography, and statistical methodology, Duncan's influence has been most important in establishing a new intellectual tradition in sociology. While some early sociologists tried to model sociology after physical science, Duncan was openly disdainful of the search for supposedly universal laws of society that would mimic those of the physical sciences. The central tenet in Duncan's new paradigm for quantitative sociology is the primacy of empirical reality. Quantitative tools should not be used to discover universal laws that would describe or explain the behavior of all individuals. Rather, quantitative analysis summarizes empirical patterns of between-group differences, while temporarily ignoring within-group individual differences. Over time, social scientists can improve their understanding of the world by incrementally adding greater complexity to their analyses.

This new approach was in large part built on a longstanding tradition in demography: it is of foremost importance to document and understand empirical patterns in real populations. This "demographic turn" in quantitative sociology that was spearheaded by Duncan was highly successful. To fully appreciate the contributions of the Duncan paradigm, one only needs to consider factual information about contemporary societies. Much of what we know as "statistical facts" about American society, for instance, has been provided or studied by quantitative sociologists following the demographic approach. Examples include socioeconomic inequalities by race and gender, residential segregation by race, intergenerational social mobility, trends in divorce and cohabitation, consequences of single parenthood for children, rising income

inequality, and increasing economic returns of college education.<sup>4</sup>

Does quantitative sociology, in the modest style espoused by Duncan, have something to offer to public debates? The answer is a clear yes. To illustrate, let me present a concrete example, my own work with Kimberlee Shauman on women in science. This topic has recently drawn considerable public attention in the aftermath of a speech on women in science by Larry Summers, the current Harvard president, at a January 14 conference held at the National Bureau of Economic Research. Strong reactions to Summers's comments in the weeks that followed his speech reveal how politically sensitive the issues are.<sup>5</sup> In our book *Women in Science*, Shauman and I expressly bracketed our personal political views that favor a higher representation of women in science and instead focused the book on observed data that can be interpreted from different perspectives. Despite our desire not to offend feminist scholars, we did not hesitate to state at the outset that we did not accept the proposition that the underrepresentation of women in science simply resulted from sex discrimination on the part of male scientists.<sup>6</sup> Although the conclusions of our quantitative research were tentative and cautious, the work has been well received in the public debate. Note that we consciously avoided making concrete policy recommendations in the book because we were keenly aware that our methodologies were too limited to allow us to reach firm conclusions.

The kind of work we did for *Women in Science* falls squarely within Duncan's social demographic tradition and indeed was endorsed personally by Duncan himself. Skeptical of grandiose claims in social science, Duncan was the fiercest critic of quantitative sociology. To Duncan, quantification alone is not equivalent to scientific reasoning and in fact can be misleading. In his own words:

[W]e often find the syndrome that I have come to call statisticism: the notion that computing is synonymous with doing research, the naïve faith that statistics is a complete or sufficient basis for scientific methodology, the superstition that statistical formulas exist for evaluating such things as the relative merits of different substantive theories or the "importance" of the causes of a "dependent variable", and the

delusion that decomposing the covariations of some arbitrary and haphazardly assembled collection of variables can somehow justify not only a "causal model" but also, praise a mark, a "measurement model."<sup>7</sup>

What can be done to escape the trap of statisticism? Duncan suggested two possible paths: improvement of social measurement and an emphasis on the conceptualization of social processes and research designs that reveal such processes. Although we have not traveled very far down either path, quantitative sociology is a much stronger field today as a result of responding to Duncan's critiques.

With its faults, limitations, and imperfections, quantitative methodology remains the best solution for understanding societies and changes therein. In a Hegelian sense, what makes quantitative sociology unreliable and problematic is precisely what makes it imperative: the variability principle that Mayr rightfully extracted from Darwin. Variability is the essence of human society. Without a quantitative approach, it is simply not possible to characterize such variability. Other alternatives, such as speculation, introspection, personal experience, observation, and intuition, can and do advance our understanding. However, I venture to suggest that they supplement, but should not replace, quantitative methodology as the core of contemporary sociology.

## NOTES

<sup>1</sup> E. Mayr, "The philosophical foundations of Darwinism." *Proceedings of the American Philosophical Society* 145(4) (2001), 488-95.

<sup>2</sup> S. Lieberson and F. B. Lynn, "Barking Up the Wrong Branch: Scientific Alternatives to the Current Model of Sociological Science." *Annual Review of Sociology* 28 (2002), 1-19.

<sup>3</sup> J. H. Goldthorpe, "Sociology as Social Science and Cameral Sociology: Some Further Thoughts." Oxford University, Sociology Working Papers, Paper Number 2003-07, 2003, 23.

<sup>4</sup> Yu Xie, "Demography: past, present and future." *Journal of the American Statistical Association*, 95 (450) (2000), 670-73.

<sup>5</sup> A. Lawler, "Summers's Comments Draw Attention to Gender, Racial Gaps." *Science* 307 (2005), 492-93.

<sup>6</sup> Yu Xie and Kimberlee A. Shauman, *Women in Science: Career Processes and Outcomes* (Cambridge, MA: Harvard University Press, 2003), 2-6.

<sup>7</sup> O. D. Duncan, *Notes on Social Measurement, Historical and Critical* (New York: Russell Sage Foundation, 1984), 226.