

Translational Sociology

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Abstract

Translational sociology is an emerging style of sociology that applies sociological theory to addressing real-world problems using established scientific methods. Translational sociology is distinguished by working in collaboration with other disciplines and professions, including policymakers, consumers, and other community stakeholders in multidisciplinary teams. It is a method intended to increase the value of sociological scholarship by creating equitable problem-solving groups between sociologists and practitioners and policymakers. A key characteristic of translational sociology is that it develops strategies to address and resolve social problems through evidence-based interventions. This essay describes the emergence of translational sociology as a concept with a focus on my collaborative experience in the definition, practice, implementation, and evaluation of federally funded translational research in community and clinical settings.

TRANSLATIONAL SOCIOLOGY

Translational sociology is an emerging style of sociology that applies sociological theory to addressing real-world problems using established scientific methods. Translational sociology is distinguished by working in collaboration with other disciplines and professions, including policymakers, consumers, and other community stakeholders in multidisciplinary teams. Although it may be broadly classified as a type of *public sociology* (Burawoy, 2005), translational sociology more clearly shares features with *applied sociology* (Nyden, Hossfeld, & Nyden, 2012). It is a method intended to increase the value of sociological scholarship by creating equitable problem-solving groups between sociologists and practitioners and policymakers. A key characteristic of translational sociology is that it develops strategies to address and resolve social problems through evidence-based interventions. Translational sociology is a rigorous effort, a type of scientific sociology described by Turner (2005): “a systematic effort to use theoretical principles and models of social processes to intervene in a problematic situation It is about building something useful or tearing something down which is not

useful" (Turner, 2005, p. 41).

In this essay, I describe the emergence of translational sociology as a concept. I draw from my collaborative experience in the definition, practice, implementation, and evaluation of federally funded translational research in community and clinical settings where I have been involved as a sociologist contributing to multidisciplinary research teams working with community practitioners and local policymakers. I briefly review the definition of *translational research* in the medical literature, from which translational sociology has developed. The term *translational sociology* has appeared in relatively few sociological works (Krause, 2009; Nyden *et al.*, 2012; Pescosolido, 2011); however, its appearance in recent years is an important development.

TRANSLATIONAL RESEARCH

An impetus of the contemporary translational research movement was a report by the Institute of Medicine Committee on Quality of Health Care in America (2001). This report documented the slow pace in which scientific findings have been applied to develop effective treatments for disease and general public benefit in the United States despite considerable government investment in biomedical research.

Translational research was first defined by the National Institutes of Health (NIH) as the application of scientific discoveries from basic science to treatment and prevention of human disease. Former NIH Director Elias Zerhouni (2003) proposed two types of translational research. He defined Translation 1 (T1) as the application of basic scientific discoveries to developing innovative clinical applications; Translation 2 (T2) is research intended to speed up the application of the new evidence to improving human health. This two-part definition appears in the goals for the NIH Clinical and Translational Science Centers initiative. These centers are expected to promote both T1 and T2 research, engage researchers across multiple disciplines (e.g., medicine, public health, nursing, social work, and basic science), and develop ways to use findings from T2 research to inform priorities for basic research.

One key elaboration of the NIH definition is that translational research should have an impact not only on clinical practice but also on health decision making at many different levels, including clinicians and other health care professionals, the health care delivery system, industry, insurance companies, research participation, and consumers of health care among the general public (Sung *et al.*, 2003). Using this more complex definition, T2 could range from research examining effectiveness of treatments in different social groups, barriers to the implementation of health interventions by clinicians and communities, variations in health practice across geographical regions, dissemination of health innovations, and health policy. T2 could

be construed as including integration of diverse disciplinary perspectives from the medical, behavioral, and social sciences, solving problems that emerge when implementing evidence-based programs in more diverse communities, and disseminating new evidence-based programs to health care professionals (Pescosolido, 2011; Wethington & Dunifon, 2012; Woolf, 2008).

Activities described as T2 are in the purview of medical and other areas of sociology, as well as health and community psychology, health economics, and public policy science (Sung *et al.*, 2003; Woolf, 2008). The NIH has formally recognized the potential for social and behavioral disciplines, including sociology, to contribute to advances in human health research (e.g., Office of Behavioral and Social Sciences Research, 2007) and in a series of requests for proposals and program announcements.

ORIGINS OF TRANSLATIONAL SOCIOLOGY

Translational methods, however, have a longer history in research on health, notably in research on cancer and HIV prevention (Perlstadt, 2009), well before the IOM report. According to a comprehensive review by Perlstadt (2009), social and behavioral scientists engaged in translational research before the institution of translational research in the NIH Roadmap. Sociologists and other social scientists served as project leaders and investigators in NIH-funded translational mental health and aging research centers. More broadly, sociological research on crime prevention, educational reform, and service delivery, which long predates the NIH Roadmap, can also be categorized as translational research (at least in retrospect).

Documentation of sociologists engaged in multidisciplinary translational research on health before the NIH Roadmap appears in a special issue of *The Gerontologist*, flagship journal of the Gerontological Society of America. This issue featured key findings from the National Institute on Aging's Edward R. Roybal Centers (Pillemer, Czaja, Schulz, & Stahl, 2003). The Roybal Centers were established in 1993 to facilitate the translation of theory and basic research from the social and behavioral sciences into applied research, interventions, and programs to improve quality of life, productivity, and health of older people. In 2003, the Roybal Centers were explicitly refocused on "translational research on aging" to emphasize connection to the NIH Roadmap. A number of the Roybal Centers have been directed or codirected by social and behavioral scientists (Perlstadt, 2009), including psychologists, sociologists, and economists. In the previously noted issue of *The Gerontologist*, Pillemer, Czaja, *et al.* (2003) portrayed the translational research process as an application of social and behavioral science theory to intervention design and program development with the findings from the intervention then "translating back" for the development of better theory and—even more

importantly—research more informed by the public and of demonstrated public health impact (Pillemer, Suito, & Wethington, 2003, p. 20).

One of the long-standing Roybal Centers (1993–present) is the Cornell Institute for Translational Research on Aging (CITRA); CITRA’s mission was to disseminate and implement scientific sociological research into programs to improve the health and well-being of older people. CITRA also aimed to speed up the translation of relevant research where there were critical needs in health and social service settings (Pillemer, Suito *et al.*, 2003). In 2003, it developed a researcher–community practitioner partnership to facilitate translation of research on social integration to address the concerns of front-line staff and directors of agencies and centers that provide services to older people living in New York City.

The major methods of translation used by CITRA were (i) a community-wide set of research priorities developed in partnership with representatives and leaders from New York’s aging services; (ii) a pilot study program that conducted studies directly addressing those community research priorities; and (iii) outreach programs with front-line practitioners to increase their interest in collaborating with researchers. To achieve these translational goals, the CITRA investigators established an investigator development program to train researchers in the methods of translational research (intervention development, implementation, and dissemination); an infrastructure of senior investigators and staff to support researchers in the field; regular educational and capacity-building events for practitioners to enhance their ability to collaborate as equal partners with researchers; and methods for dissemination of evidence-based practices through existing practitioner networks. These steps are enumerated in more detail in Wethington and Dunifon (2012). Examples of the 40 studies conducted to this date by CITRA include the first study in New York of older adults’ satisfaction with home-delivered meals and changes in delivery methods; development of a tool to identify older adults prone to self-neglect; oral health care needs of low-income older adults; and small-scale preliminary randomized controlled trials of exercise programs for low-income older women and culturally tailored pain self-management programs through senior centers serving minority populations.

THE OPPORTUNITIES AND CHALLENGES OF TRANSLATIONAL SOCIOLOGY

Although many groups of researchers are currently translating scientific findings to community settings, including projects in education, public health, and medicine, there are major gaps in the literature on the steps that researchers must take to successfully implement their projects and the

structures that they establish to support research translation. There are many opportunities for sociologists to make important contributions not only to the translation projects themselves but also to the science of understanding how research is translated.

The practice of translational sociology has four distinguishing characteristics that facilitate translation to community settings and promote greater understanding of the process of translation. First, translational sociology engages other disciplines and embraces multidisciplinary integration. It is team science (Wuchty, Jones, & Uzzi, 2007) with other disciplines, a trend evident across many scientific disciplines, and which is associated with increasing impact of research in both academic and policy arenas. Second, it employs the scientific method in order to engage other disciplines. The scientific method is a bridge that engages biomedical and other behavioral sciences concerned with the application of theory to real-world problems and policy. Third, translational sociology engages social problems and issues that are identified as important by consumers, policymakers, and the general public. It promotes social and behavioral scientific literacy among consumers of the research, service agencies, and ultimately the public. Fourth, translational sociology is designed to accomplish new and innovative research, not just communicate with the public, although communicating effectively with public audiences is a cornerstone of translational sociology. Although it uses participatory techniques that are associated with community-based participatory research and other types of sociological practice (Nyden *et al.*, 2012), the aim of translational sociology is to accomplish research.

Along with other sociologists who have commented on the evolution of the translational research movement and opportunities for engaging social and behavioral scientists in research directed at real-world problems (e.g., see Pescosolido, 2011), I believe that sociologists can play a vital role in translational research. Theories of scientific communication, organizational sociology, and diffusion of innovation through networks are highly relevant to understanding how scientific communities can organize themselves to promote the application of basic scientific findings. Social and behavioral intervention science (Pillemer, Czaja, *et al.*, 2003) and implementation science (e.g., Fixsen, Naoom, Blase, Friedman, & Wallace, 2005) can be applied to design intervention trials and organizing and promoting diffusion to practitioners (e.g., Bradley *et al.*, 2009). Application of theories of behavioral change and sociological theory can be utilized to assure that human intervention trials have an impact on individual behavior and subsequently lead to evidence that will promote implementation into services. Community partnership approaches (e.g., Israel, Schulz, Parker, & Becker, 1998) can be used in order to test the effectiveness of evidence-based interventions in

diverse community groups (Warnecke *et al.*, 2008). The methods of epidemiology, demography, and policy analysis can be used to assess population impact and determine need for interventions. Translational sociology is also a way to foster interaction between universities and communities, to bring research to bear on large social problems, such as understanding and mitigating health inequalities, while also using the strongest scientific methods, such as randomized controlled trials, which will demonstrate the scientific rigor of the discipline (Turner, 2005).

In sum, I argue that there are many opportunities for sociologists to inform and take part in the process of research translation. Sociologists should embrace the process. Although I have focused on examples from my research areas in medical sociology and the sociology of aging, the reach of translational sociology is much wider. A broader view of the continuum of translation from basic scientific discovery to impact on human health and well-being is a set of translational processes, in which sociology can be included among the basic sciences that generate translational strategies based on empirical evidence.

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