



## Book review: *Epidemiology and Culture*

Reviewed by Dannie Ritchie

James A. Trostle (2005), *Epidemiology and Culture*, Cambridge University Press, New York, N.Y.

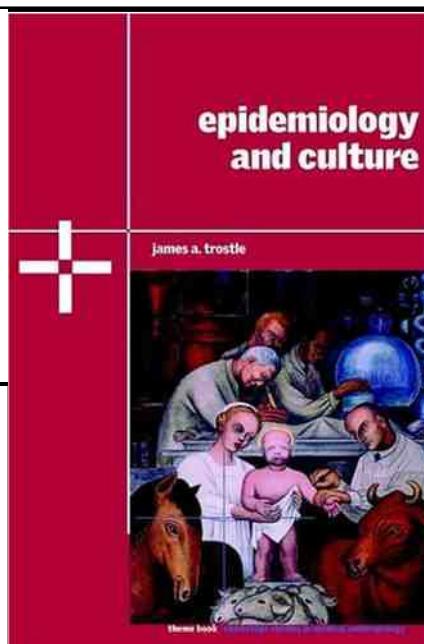
When James A. Trostle, author of *Epidemiology and Culture* (Cambridge, 2005), was a doctoral student in medical anthropology at U.C. Berkley and getting his Masters in Public Health, he started to work on how to better combine the methods of the field of epidemiology with those of anthropology. At the time, Trostle challenged Leonard Symes, his epidemiology professor, arguing that epidemiology was not paying enough attention to the concepts of anthropology. He believed that epidemiologists and anthropologists needed to find a way to work together more so that both could

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be more effective in their work. Symes was intrigued by Trostle's theory but concerned about the practical challenges of combining two fields that he thought had very different experimental and scientific approaches; however, despite his initial apprehensions, he has been waiting for this book ever since. Symes has stated that Trostle's book is an important contribution and I agree. It is a significant analysis of methods and multidisciplinary approaches between epidemiology and anthropology and will be an important companion for those of us who work in social medicine, multidisciplinary fields, and cross-institutional areas of health and social science.

Rudolf Virchow, a physician, was among the first to link epidemiological fieldwork closely to theories about the role of society in the causation of disease. Virchow, a pathologist and practitioner of public health, believed that medicine is a social science. This implores all health practitioners to incorporate the social sciences



into our understanding of the causes of disease. Virchow understood that epidemics marked cultural change and that political systems create the conditions in which we live and therefore are connected to many diseases. It is the purpose of the social sciences such as anthropology and epidemiology to look for patterns – in anthropology it is the patterns of culture and epidemiology the patterns of disease – to more effectively contribute to human welfare. For those of us who have insisted on the incorporation of culture, social structures, and interdisciplinary methods in the fundamental determinants of disease, *Epidemiology and Culture* lays out the history, contributions, integrated approaches and principles necessary for future collaboration of the fields to

better understand disease causation, treatment, enhance health and prevent disease.

*Epidemiology and Culture* discusses themes ranging from the historical rise of both disciplines, limitations in methodologies, and examples of contrasts and collaboration in the study of health and disease including work to improve community health.

Of note, Trostle does well to examine how we look at disease patterns in epidemiology across person place, and time; the variables used to measure these and most importantly their limitations. He looks at various aspects of the culture of science; which categories are chosen and which are left out. Trostle reveals the assumptions underlying how person, place and time are measured, and what is not measured by current methods. Trostle argues that anthropological qualitative methods can increase conceptual clarity and analytic quality.

Much of the book is devoted to anthropological and epidemiological collaborations to improve health of communities. Trostle notes that as epidemiologists become more focused on measuring health risk they are increasingly involved in designing programs to reduce those risks. As they become involved in health interventions to change health practices of an entire community, they confront new and unfamiliar challenges. Here, though anthropology tends to take differences across cultures as a phenomenon to be explained

rather than changed, because they and other social scientists focus on links between individual and group, between knowledge and practice, they can participate more effectively in community interventions.

An ambitious effort, *Epidemiology and Culture* reminds us of the limitations that epidemiologists, and researchers in general, face in communicating their findings to the general public when they remain insular and exclusionary. Trostle asserts the dimensions gained in utilizing methods from other disciplines to develop on and address the complexity of cultural and social structures. He reminds us that society and culture are fixed at the very center of epidemiologic categories of person, place, and time (though fluid in themselves and their complexity). He reminds us that diseases have natural and socio-cultural histories, which must be interwoven if we are to use the origins of disease as clues to treatment and prevention.

A couple of points that I found problematic in the book are found in the concluding chapter. Trostle describes the statistical calculations of probability – the likelihood of getting the same results if an experiment or investigation were it to be repeated and assuming confounding is controlled – as being due to chance. This is a frequently repeated misinterpretation.

Additionally, I was concerned by his description of the US public's desire for epidemi-

ology to establish clear proof. Does this reflect the public's requirements of U.S. industry or rather those of government regulatory agencies operating at the behest of industry? While there is a great effort in the book to demonstrate the cultural construction of measurements, I think a discussion of the use of the precautionary principle – that the burden of proof is on an industry to prove that a product is safe or does no harm, used in many European countries— would have provided an excellent opportunity to demonstrate different standards within the same discipline in countries that appear to have the same scientific groundings but with different cultural influences often not recognized. Though these are not small issues that could have used more development, they cannot overshadow the overall value and accomplishment of this book, which is grand and long overdue. *Epidemiology and Culture* is a great contribution to multidisciplinary social scientists, especially those that continue to dedicate themselves to the use of anthropological methodologies, and anthropology in general, to understand the complex interaction between culture, social structure, and health.

