

The social production of health: Critical contributions from evolutionary, biological, and cultural anthropology

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Papers in Memory of Arthur J. Rubel
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Abstract

In 1946, the newly formed World Health Organization boldly sought to conceptualize “health” as wellbeing in the positive sense, “not merely the absence of disease or infirmity.” Yet nearly six decades later, researchers are still principally concerned with pathology and its characteristics and consequences. This special issue is the result of an effort to broaden the focus. Anthropologists working from evolutionary, biological and sociocultural perspectives and in diverse geographic regions were asked to examine meanings associated with health and/or to identify social conditions and practices that have contributed to positive physiological and psychological states in particular cultures, times, or across time. Most notable, perhaps, was discovering how difficult it is for Western social scientists to move beyond pathology-based thinking; most authors represented here regard health primarily as the absence of disease. Still, these papers articulate and address questions key to understanding health in and of itself, including: How is health conceptualized? What kinds of social conditions lead to health? And, how do social inequalities affect health? This introduction critically discusses previous work on the subject to contextualize the original research papers offered here. © 2004 Published by Elsevier Ltd.

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When in 1946 the World Health Organization officially defined health as “a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity” (WHO, 1946), their objective was to move thinking beyond mainstream medicine’s paramount emphasis on disease and its eradication. Yet nearly 60 years later, little has changed, and research in the “health” sciences remains principally concerned with the characteristics and consequences of pathology.

With the objective of seeking to more sharply focus attention on understanding health in a positive sense, we were invited by the Executive Program Committee for

the 2000 Annual Meeting of the American Anthropological Association to organize a Presidential Panel. To include a comprehensive range of anthropological sub-disciplines, we invited colleagues working from evolutionary, biological and sociocultural perspectives and in diverse geographic regions. The articles by George Armelagos, Peter Brown and Bethany Turner; Jim Kim, Aaron Shakow, Kedar Mate, Chris Vanderwarker, Rajesh Gupta and Paul Farmer; Thomas Leatherman and Alan Goodman, Juliet McMullin, and Carol Worthman and Brandon Kohrt, were originally prepared for the Presidential Panel (then titled: “Struggling for Health in the Face of Disease and Danger: Analytic and Policy Perspectives”). When invited by the editors of *Social Science and Medicine*

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to develop the presentations into papers for a special theme issue, we also asked Kevin Groark, Carolina Izquierdo, Megan Crowley-Matoka and Rebecca Martinez to develop papers based on their ethnographic research elucidating reciprocal interactions among social, political and cultural processes, and health.

Seeking to problematize rather than assume universality of understandings and experiences, we asked panelists to examine meanings associated with health and well-being cross culturally and/or to identify social conditions and practices that have contributed to positive physiological and psychological states in particular cultures, times, or across time. We sought to draw critical attention to the fact that structural inequalities create situations in which conditions enhance health and well-being for some social sectors, but, at the same time, cause more sickness for others.

Yet, in trying to advance this intellectual agenda, we ourselves discovered how difficult it can be to move beyond a pathology-based way of thinking and were struck by the difficulty authors experienced in trying to focus on the subject of health, rather than the absence of disease. Although each was asked to relate to health in the positive sense, as defined by the WHO, all but Kevin Groark primarily discuss health in terms of the absence of disease. Nevertheless, the papers in this theme issue clearly articulate and address questions key to understanding notions of health in the positive sense: How is health conceptualized? What kinds of social conditions lead to health? How do social inequalities affect health?

The concept of health

Although anthropologists take for granted that conceptions of good health vary cross-culturally, there has been little empirical work on what, in fact, these variations actually entail. Similarly, in anthropological research, links between health and moral behavior are more often assumed than explicated in detail. We know that for adults, being healthy usually involves the ability to fulfill basic social role expectations, and particularly, the ability to work or engage in subsistence activities. Also, that concepts of health in many societies have spiritual components as well. But efforts to conceptualize health cross-culturally are often limited to theories about the nature, function and structure of the human body and the laws governing bodily processes.

International public health advocates (no less than clinicians in industrialized countries) continue to conceptualize health as the absence of disease and infirmity (Larson, 1991), and as a kind of “default” condition that inheres when an individual manifests neither symptoms nor clinically measurable abnormalities (Engle, 1977). However, a number of studies have documented that lay people in Western industrial

societies have a broader view of health (Blaxter, 1997). For example, as part of a recent study, Joseph and Shweder asked a convenience sample drawn from members of seven Chicago ethnic groups what they thought was meant by the word “health.” They got back a laundry list of ideas and images including: health is energy reserve or potential, the absence of unpleasant symptoms, the ability to carry on the activities and responsibilities of daily life, autonomy, an objective standard of physical fitness, the absence of statistical risk factors, diet in the sense of “you are what you eat,” the hardiness of one’s inherited stock, freedom from disease, a fragile state of equilibrium, and the control and management of emotions (Shweder, n.d.). While the past few decades have seen many in public health talk about “health promotion,” most researchers and practitioners still tend to conceptualize “health promotion” most often as “disease prevention” and focus primarily on changing individual behavior to reduce the risk of disease instead of seeking to understand and strengthen the factors that create physical, psychological and social health (Stokols, 2000).

A few groups of researchers and practitioners have sought to develop tools to think about health as more than the absence of disease. Practitioners of “alternative” or “complementary” healing modalities promote “holistic” health models that include physical, mental and social, along with spiritual dimensions, and “wellness models” that emphasize an individual’s subjective experiences, including a sense of well-being, self-integration or optimal experience (Larson, 1991; Csikszentmihalyi, 1991). Yet, while differing in breadth from biomedical conceptualizations, the locus of health still resides primarily with the individual.

Focusing beyond the individual toward more macro-focus frameworks, critical medical anthropologists have developed neo-Marxian perspectives and defined health as “access to and control over the basic material and nonmaterial resources that sustain and promote life at a high level of satisfaction” (Baer, Singer, & Susser, 1997 p. 5). Public health researchers have developed a new focus on “population health” in which the group itself, broadly defined, is the unit of analysis, and can include not only “geographic regions such as nations or communities” but unique segments of societies such as “employees, ethnic groups, disabled persons or prisoners” (Kindig & Stoddart, 2003, p. 381). Others have shown the importance of regarding health not as a static condition but rather, as a characteristic of a dynamic system, “a process” or “a means rather than an end” that provides the resources necessary to achieve a population’s goals (McDowell, Spasoff, & Kristjansson, 2004, pp. 388–389).

Papers in this theme issue cast new and needed light on how health is conceptualized in different settings. Indeed, some prompt questions as to whether thinking

of health as a single entity may in fact obscure cross-cultural variation in conceptualizations. Groark and Izquierdo, working with widely separated indigenous Latin American groups, find no single domain coterminous with the western notion of “health.” Both also observe that ideas about what constitutes a healthy body are deeply entwined with broader core ideological conceptions, principally those associated with harmony, balance and normatively positive behavior, particularly the ability to be economically productive. If, then, some languages have no single word for health, does that mean that health itself is not universally partitioned as a discrete domain? And if so, might the very concept of health be “culture-bound”?

At the same time, members of all cultures have concerns about many of the same issues we, in Western societies, label as health. For example, working among a group of highland Maya-speaking Indians, Groark finds elaborate understandings of physical health expressed, in part, through idioms associated with “vital warmth” and what he describes as an involved set of practices for its preservation and augmentation.

As discussed below, different conceptualizations of what constitutes good health can lead to different judgments about the relationship between changing social conditions and health outcomes. Izquierdo’s work in the Amazon demonstrates that material improvements in the health of a group of indigenous Amazon dwellers over the past generation, measured in biomedical terms, have also been accompanied by a marked decline in perceptions of well-being. Martinez reveals a different kind of incongruity in her descriptions of a group of urban working class Venezuelan women who think of themselves as healthy despite the biomedically defined cervical abnormalities their test results reveal.

What, then, are the causes and consequences of such inconsistencies? Like Izquierdo in the Amazon, McMullin found the Hawaiians she studied also perceived the past as a “Golden Era,” with less sickness and disease than the present. Such findings in diverse areas lead us to wonder how concepts of health are used by social groups. In particular, although biomedicine defines health as pertaining to individuals, each of these authors describe societies that do not clearly differentiate between the health of individuals and that of larger groups. That leads us to further inquire, under what conditions are concepts of health meaningfully applied to social groups and when are they limited only to individuals?

Social determinants of health

The role of social factors in patterning disease and illness has long been recognized, although far less attention has been paid to the patterning of health in

the positive sense. One hundred and fifty years ago, French and German physicians and scholars already understood that sickness was caused by more than individual physical weakness, and that social and economic conditions played major contributory roles. Indeed, in 1848, Rudolf Virchow, who helped establish the first anthropological society (Baer et al., 1997) proclaimed, “Medicine is a social science and politics nothing more than medicine on a grand scale.” (Rosen, 1979, p. 29). From the beginnings of modern medical anthropology in the 1960s and 1970s, researchers have applied evolutionary ecological models to elucidate how interactions between biological and cultural factors have affected macro-level patterns of mortality and morbidity from prehistory to present day, and the particular health consequences of cultural practices for members of specific groups (Alland, 1970; McElroy & Townsend, 1996). Political economic analyses have also been used to explicate institutional, national and global contexts of patterns of illness and disease (Baer et al., 1997). Although a few of these studies have looked at adaptive practices that promote health, most have dealt primarily with the forces that undermine health and lead to disease.

Anthropologists have a long history of interest in the ways people from diverse cultures think about sickness and what they do when someone falls ill. Anthropological work documenting cultural beliefs about the causes of illness date back to at least 1915 and Rivers’ classic work, *Medicine, Magic and Religion* published in 1924 (Sargent & Johnson, 1996). Since then, anthropologists have studied many other aspects of ethnomedicine including beliefs about the body’s structure and function and the internal logic of ethnomedical systems (Fabrega, 1974; Kleinman, Eisenberg, & Good, 1978; McElroy & Jezewski, 2000; Rubel & Hass, 1996). Increasingly, such topics are also studied from a “critical-interpretive” perspective (Lock & Scheper-Hughes, 1996) as dynamically produced within specific social environments and political contexts and informed both by physical sensations and “local biologies,” i.e. local categories of knowledge and experience (Lock, 2001, pp. 483–4). Although most ethnomedical and critical-interpretive studies concentrate on illness and distress, a growing number consider factors that lead to health in the positive sense (c.f. Alter, 1999; Adelson, 2000).

This collection accords major focus to the social determinants of health, further revealing interrelationships and co-dependencies between manifestations of health and both macro and micro-level social conditions. Some papers focus on how notions of health are shaped by culturally informed perceptions of the individual’s bodily experiences. Applying concepts derived from ecology to examine bio-social interfaces, others analyze relationships between local biologies and evolutionary trends expounding on variations through

space and time. Still others focus almost exclusively on the broad-based effects of social forces as determinants of health. Examining the social production of notions of health, several papers describe societies where the health of the group is thought to be determined by the behavior of both individuals and broader social processes. Groark, Izquierdo, and McMullin, for example, each illuminate how mundane daily experiences and intentional efforts to prevent pathology and promote well-being are bound up with ideas about what constitutes good health. Crowley-Matoka, who describes socially constructed beliefs about health after organ transplant, illustrates variations in patient understandings of the meaning of “health” (or “normality”) at different points in time.

Papers by Kim et al., Worthman and Kohrt, Leatherman and Goodman, and Izquierdo show how political factors and ideologies, and the distribution of economic resources help determine what foods and medical resources are available, who has access to them, and the resultant effects on health from a biomedical perspective. Kim et al. critically examine global health policies that restrict the availability of treatment for multiple drug resistant tuberculosis and demonstrate how poor policy decisions arose from inadequate attention to the social, political, economic, epidemiological and pathophysiological factors involved. Building on recent work in biological anthropology, [Worthman and Kohrt \(2005\)](#) argue that the social production of health can best be understood through analysis of “local biologies” and “the person–environment interface,” that is, the factors that lead to an individual’s exposure to nutrients, stressors, medicines and the like, which in turn affect susceptibility to infections and other forms of pathology.

A number of our authors discuss evolutions in the perception of health over time. Leatherman and Goodman examine changes in diet following the growth of tourism in the Yucatan and describe a phenomenon they call “coca-colonization”—the growing dietary dependence on purchased goods which are calorie dense but nutrient poor—leading to growth stunting in children and obesity in adults. At a different level of analysis, Armelagos, Brown and Turner trace changes in patterns of health and disease from the Paleolithic through the Neolithic and Industrialization periods. Armelagos et al., and [Worthman and Kohrt \(2005\)](#) offer both evolutionary and biological frameworks showing that even as certain segments of human society are getting healthier, devastating “new” diseases continue to appear, while older ones once thought to have been eradicated are re-emerging, and certain previously ignored conditions, such as mental illness, comprise an increasing share of health concerns.

As noted, both Izquierdo and McMullin write about recollections of a past “Golden Age” of good health, now no longer possible because of changes in social

conditions and behavior. Izquierdo is, in fact, the one researcher in this volume who directly compares and contrasts the health perceptions of members of a group she studied with biomedical assessments of their health and offers an interpretation of this divergence precipitated by changing political, cultural and social conditions.

Social inequalities and health

In addition to asking our authors to examine ways in which social factors shape the health of a society’s members in the aggregate, we asked them to pay particular attention to the ways in which social inequalities produce variations in the health of specific social groups. Study of the effects of social conditions on the health of populations has a long history within the social sciences. The rise of industrialization in Europe and the United States saw surveys documenting relationships among living conditions, occupations and diet, and regional patterns of disease. In the late 1820s, Villermé demonstrated clear links between mortality rates and poverty ([Rosen, 1979](#)). However, until relatively recently, anthropologists paid little attention to the subject of inequalities and health.

But the past few decades have seen increasing anthropological interest in examining ways that power differential, including those based on gender, race and class, affect illness and health. The Feminist Movement, the growth of Women’s Studies as an academic discipline, and growing numbers of women anthropologists in the 1970s marked the start of a new research trajectory focusing on issues associated with women, power, health and health care in Western and non-Western settings ([Browner & Sargent, in press](#)). The late 1970s also marked the birth of “critical medical” anthropology, which applied the tools of political economy to the study of biomedicine and the effects of capitalism on patterns of health and illness. As increasing numbers of anthropologists began to find employment in medical settings and set forth to examine health problems in the US and other complex societies, and especially after dozens, then hundreds of anthropologists started working on AIDS related issues, attention to the health implications of inequalities has grown dramatically. Critical medical anthropologists interested in inequalities have been probing cultural explanations of disease, illness and other ethnomedical notions by asking: “whose social realities and interests (e.g., which social class, gender or ethnic group) do particular cultural conceptions express, and under what set of historic conditions do they arise?” ([Baer et al., 1997, p. 23](#)). The study of globalization, structural violence and health has been a primary topic of inquiry ([Farmer, 1997](#); [Kim, Millen, Irwin, & Gershman, 2000](#); [Nguyen & Peschard, 2003](#)). However, virtually all research into the

effects of inequalities on health has looked at the dynamics of disadvantage for those with less power, with little study of the ways in which those with more resources use them to achieve better health.

Authors in this theme issue use diverse analytical perspectives to examine the consequences of social inequalities for health and illness. Groark explores the gendered use of steam baths in a Mexican community. Crowley-Matoka reveals how gender ideologies determine who is seen as entitled to be an organ recipient and an organ donor in Guadalajara, Mexico. Going beyond gender, Martinez focuses on class as she confronts the issue of “how popular and ‘expert’ conceptions of differences among bodies affect health” and finds that some Venezuelan physicians use the idiom “lack of culture” (i.e., ignorance) to explain why they refrain from communicating important medical information to their working class patients. Others, such as Kim and his collaborators show how negative attitudes about socially disadvantaged groups can effectively limit their access to medical treatments.

While using broadly diverse analytical perspectives, most papers, notably those by Crowley-Matoka, Leatherman and Goodman, Kim et al., Armelagos et al., and Worthman and Kohrt show how class and other structural social divisions materially impact access to power and resources to promote or protect health. In part, as discussed by Kim et al., the patterns observed reflect fundamental links between state power and the health of diverse sections of populations. Variations in health can also result from many other factors such as nutritional differences discussed by Leatherman and Goodman, and McMullin. As Worthman and Kohrt (2005) report, it remains “difficult to discern whether it is the lack of resources themselves, their unequal distribution or the perception of unfairness that mediates the impact of disparities on health.”

At the same time, comparable conditions and perceptions of objective differences may not have the same effects on all who experience them. Worthman and Kohrt (2005) offer a wealth of data to show that vulnerability and resilience vary among individuals as well as groups; that not everyone is affected in the same way by poverty, for instance, or by an epidemic. They argue convincingly that “[r]esilience ... is not merely the flip side or statistical residuum of risk, for different active forces can be involved that generate health or resilience and are relatively independent of (though they may interact with) risk-generating processes.”

Conclusions

That patterns of illness, sickness and disease have powerful social determinants, has become the conventional wisdom. The papers in this collection reflect

efforts to take a different tack in a quest to discover what is revealed when we focus instead, on the factors that determine health. In 1946, as the framers of the Constitution for the World Health Organization promulgated their now famous definition, they also asserted: “The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social conditions” (WHO, 1946). Whether health is defined broadly, in the positive sense, or narrowly, simply as the absence of disease, the papers in this volume unequivocally demonstrate that social inequities continue to produce stark inequalities in health and health care for wide ranging groups and populations. We sincerely hope these data and analysis will help advance efforts to promote social justice and health for all, in every sense of the word.

Acknowledgements

We dedicate this theme issue on The Social Production of Health to the memory of Arthur J. Rubel. Students trained by Art wrote several of these papers; others of us were influenced indirectly. Art’s teaching and research invariably exemplified the elusive blending of methodological rigor and profound compassion also reflected in the work here offered.

References

- Adelson, N. (2000). *Being alive well: health and the politics of Cree well-being*. Toronto: University of Toronto.
- Alland, A. (1970). *Adaptation in cultural evolution: an approach to medical anthropology*. New York: Columbia.
- Alter, J. S. (1999). Heaps of health, metaphysical fitness: ayurveda and the ontology of good health in medical anthropology. *Current Anthropology*, 40, S43–S66.
- Baer, H. A., Singer, M., & Susser, I. (1997). *Medical anthropology and the world system: a critical perspective*. Westport, CT: Bergin & Garvey.
- Blaxter, M. (1997). Who fault is it? People’s own conceptions of the reasons for health inequalities. *Social Science & Medicine*, 44(6), 747–756.
- Browner, C. H., & Sargent, C. F. Donner un genre à l’anthropologie médicale (Engendering Medical Anthropology). In F. Saillant, & S. Genest (Eds.), *Anthropologie de la sante et de la maladie perspectives internationales et enjeux contemporains*. Quebec: Universite Laval, in press.
- Csikszentmihalyi, M. (1991). *Flow: the psychology of optimal experience*. New York: HarperPerennial.
- Engle, G. L. (1977). The need for a new medical model. *Science*, 196, 129–134.
- Fabrega, H. (1974). *Disease and social behavior: an interdisciplinary perspective*. Cambridge, MA: MIT.

- Farmer, P. (1997). On suffering and structural violence: a view from below. In A. Kleinman, V. Das, & M. Lock (Eds.), *Social suffering*. Berkeley, CA: University of California.
- Kim, J. Y., Millen, J. V., Irwin, A., & Gershman, J. (2000). *Dying for growth: global inequity and the health of the poor*. Monroe, ME: Common Courage.
- Kindig, D., & Stoddart, G. L. (2003). What is population health? *American Journal of Public Health*, 93, 383–388.
- Kleinman, A. M., Eisenberg, L., & Good, B. J. (1978). Culture illness and care: clinical lessons from anthropologic and cross-cultural research. *Annals of Internal Medicine*, 88, 251–258.
- Larson, J. S. (1991). *The measurement of health: concepts and indicators*. Westport, CT: Greenwood.
- Lock, M. (2001). The tempering of medical anthropology: troubling natural categories. *Medical Anthropology Quarterly*, 15(4), 478–492.
- Lock, M., & Scheper-Hughes, N. (1996). A critical-interpretive approach in medical anthropology: rituals, and routines of discipline and dissent. In C. F. Sargent, & T. M. Johnson (Eds.), *Medical anthropology: contemporary theory and method* (revised ed., pp. 41–70). Westport, CT: Praeger.
- McDowell, I., Spasoff, R. A., & Kristjansson, B. (2004). On the classification of population health measurements. *American Journal of Public Health*, 94(3), 388–393.
- McElroy, A., & Jezewski, M. A. (2000). Cultural variation in the experience of health and illness. In G. L. Albrecht, & S. Scrimshaw (Eds.), *The Handbook of Social Studies in Health and Medicine*. Thousand Oaks, CA: Sage.
- McElroy, A., & Townsend, P. K. (1996). *Medical anthropology in ecological perspective*. Boulder, CO: Westview.
- Nguyen, V.-K., & Peschard, K. (2003). Anthropology, inequality, and disease: a review. *Annual Review of Anthropology*, 32, 447–474.
- Rosen, G. (1979). The evolution of social medicine. In H. E. Freeman, S. Levine, & L. G. Reeder (Eds.), *Handbook of medical anthropology*, (3rd ed). Englewood Cliffs, NJ: Prentice-Hall.
- Rubel, A. J., & Hass, M. R., (1996). In C. F. Sargent, & T. M. Johnson (Eds.), *Medical anthropology: contemporary theory and method* (revised ed., pp. 113–130). Westport, CT: Praeger.
- Sargent, C. F., & Johnson, T. M. (1996). *Medical anthropology: contemporary theory and method* (revised ed.). Westport, CT: Praeger.
- Shweder, R. A. (n.d.). The cultural psychology of suffering: the many meanings of health in Orissa, India and elsewhere. In C. Mattingly, & N. Lutkehaus (Eds.), *Cultural psychology meets anthropology: Jerome Bruner and his inspiration*.
- Stokols, D. (2000). The social ecological paradigm. In M. S. Jammner, & D. Stokols (Eds.), *Promoting human wellness* (pp. 21–37). Berkeley: University of California.
- World Health Organization (1946). Preamble to the Constitution of the World Health Organization. *Official Records of the World Health Organization*, no. 2 (p. 100).
- Worthman, C. M., & Kohrt, B. (2005). Receding horizons of health: Biocultural approaches to public health paradoxes. *Social Science and Medicine*, doi:10.1016/j.socscimed.2004.08.052.

Further reading

- Browner, C. H., & Sargent, C. F. (1996). Anthropology and studies of human reproduction. In C. F. Sargent, & T. M. Johnson (Eds.), *Medical anthropology: contemporary theory and method* (revised ed., pp. 219–234). Westport, CT: Praeger.