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The Promise of Medical Anthropology: An Invited Commentary

Although I have never practiced medical anthropology in a formal sense, my work in human biology has always bordered on medicine and medical sciences. I have worked on infant growth and development, neonatal behavioral status, and the role of nursing in the suppression of gonadal function, among other biomedical subjects. I decided to go to medical school in mid-career for a variety of reasons, including these research interests. I have completed requirements for the M.D. degree but have not pursued, and do not immediately expect to pursue, further clinical training. I am thus in the position of having been exposed to a broad spectrum of clinical settings and of having been processed through a major portion of medical training without completing that process. I believe that this in-between position, awkward though it may be, gives me an unusual perspective on the social and behavioral aspects of medicine (cf. Konner 1987). I will return to my view of medical anthropology from this perspective, but first I wish to talk as a biological anthropologist.

It seems to me that medical anthropology has been underappreciated as an aid to the understanding of human evolution, including the evolution of human behavior and social systems (Dunn 1968; Inhorn and Brown 1990). There is no anthropological setting on record, and indeed no historical setting until the 19th century, in which infectious disease is not a major source of mortality. Even other major sources, such as war and famine, have often worked through infection as the final common pathway of mortality. It is inconceivable that human biology, behavior, and culture can have evolved without responding either deliberately or inadvertently to such pressures.

Yet theories of human evolution, both biological and cultural, give little attention to the role of disease. Elaborate theories are constructed around such environmental demands as hunting effort, optimal foraging strategy, land tenure, alliance, and so on. I do not mean to belittle such theories, just to point out the relative lack of attention to disease processes that may be the most important forces in a human group's adaptation. For example, given the high level of infant mortality in all human groups until recently, it is likely that a major determinant of the close prolonged human mother-infant bond has been the need to deliver regular doses of macrophage- and antibody-containing breast milk. Other theories that have been advanced—including laying the foundation of emotional life (Freud), transmitting culture (Mead), or avoiding predation (Bowlby)—probably have some validity, but it does seem extraordinary that the need to protect the immunologically weak infant from microbes and parasites has been given so little attention.

To take another example, it seems inconceivable that human marriage rules and sexual mores could have evolved without being in some degree a response to

the burden of sexually transmitted diseases. The AIDS threat has heightened all our sensibilities regarding the dangers of casual sex, but it should also heighten the perception of anthropologists regarding the possible role of similar episodes in shaping cultural and perhaps deeper psychological attitudes toward sexual intimacy and bonding in the human past.

One does not need to imagine an AIDS-like deadly epidemic. Infertility resulting from pelvic inflammatory disease caused by gonorrhea or chlamydia is as devastating from the viewpoint of reproductive success (and, consequently, natural selection) as death. Except for breast-feeding (which along with microbes also delivers antibodies), sexual intercourse is the only natural human activity in which a substantial quantity of bodily fluid is transferred from one individual to another. A collection of semen in the vagina or other body cavity provides something close to an ideal culture medium for some microbes, and many enterprising microorganisms of the past must have enhanced their own evolution by taking advantage of it, just as HIV and HSV-I and II are doing now. Correspondingly, the evolutionary fortunes of the humans these organisms preyed on must have depended to some extent on humans' ability to regulate opportunities for sexual contact. In a setting of endemic or epidemic deadly or infertility-causing venereal disease, the reproductive advantages of sexual diffidence at the psychological level or restriction at the social level would be great. Yet sex and reproduction somehow had to be carried forward.

As in the case of protection of infants by breast-feeding, the protection of fertility by regulation of sex must have had both general and specific consequences. That is, such processes should be relevant to the understanding of basic and universal human tendencies, but also perhaps of cultural variation. Given the centrality of the mother-infant bond and of sexual relations in human psychological, social, and cultural life, it is possible that many aspects of culture could be epiphenomena of adaptations developed in these primary social relationships in response to microbes.

Medical anthropologists are ideally situated to contribute to the understanding of such processes. Probably the best understood of already studied cases is that of adaptation to malaria. We know that the distribution of hemoglobin abnormalities can be explained in part by reference to balanced polymorphisms in adaptation to this parasite. But as Peter Brown (1986) has shown, there are in addition cultural causes and consequences of the burden of malarial parasites in a given region. There can also be exaggerations of the role played by disease in culture, as in the attempt to use malaria to account for the whole of underdevelopment in some societies. The point is that careful anthropological analysis can elucidate the role disease plays in the shaping of social reality. Such analysis could be applied much more widely than it has been, with great theoretical benefits for anthropology as a whole.

Finally, these benefits need not be limited to the type of anthropology usually thought of as objective, materialistic, or nomothetic. It would be interesting to see what theoretical consequences might follow from the assumption that disease played a central role in the evolution of human ritual, religious belief, and symbol. Among the !Kung San of Botswana beliefs about illness and healing are literally inseparable from and virtually isomorphic with religious beliefs, and the central religious ritual is a healing ceremony. Such overlap exists in many cultures

to one extent or another. Is it possible that specific religious beliefs or roles (shamanism or witchcraft, for example) can have been conditioned in part by the particular disease history of a society?

I don't think we have the information to answer this question, but medical anthropologists are in a good position to explore it. To go considerably further, disease has been so important in human experience that it is not inconceivable that some central features of the human mind and human emotional life are adaptations to the challenge provided by disease to human understanding. Ideas about purity and danger, the struggle between gods and human agency, reward and punishment, xenophobia, and natural dichotomies all come to mind as, in part, possible consequences of this challenge. Last but not least, the human rational faculty may have evolved in part in an attempt to ward off the ravages of disease. That is, advantages could have accrued to individuals who either seem to or actually do reduce the threat of disease to themselves and others, whether by rational or irrational means. Symbolic and cognitive anthropologists could probably profit greatly from the contributions of medical anthropologists to theory in this area, which seems so far to have been insufficiently explored.

In short, both realities and perceptions of disease have a potentially central role to play in the interpretation of human adaptation, whether biological or cultural. Responses to disease at all levels of adaptation may be important or even central to the formation of human psychological tendencies and abilities, on the one hand, and social and cultural systems, on the other. Theory in both biological and cultural anthropology has developed without sufficient attention to these possibilities. Medical anthropologists are well situated to help remediate this inadequacy in anthropological theory.

From the perspective of someone who has gone through medical training, however, it is my impression that some work in medical anthropology suffers from two problems of bias that need correction. The first is a bias in favor of alternative, heterodox, or non-Western forms of medicine. The second is a separate bias against Western forms.

It seems to devolve on medical anthropology to assess "primitive" and other non-Western conceptions of health and illness and forms of health care. Medical anthropologists study such systems, and even if their goal is to understand the psychological, cultural, or symbolic aspects rather than their medical validity or lack thereof (I know that these two aspects are not completely separable), they are often thrust into the position of defending or seeming to defend them. This is not necessarily bad, because most Western physicians are biased against such systems and need to be informed about their possible contributions to health.

However, if medical anthropologists allow themselves to be seen as insufficiently critical in their acceptance of primitive or heterodox medical treatments, they quickly lose all credibility with any but a small coterie of colleagues and students and risk the more serious censure that is associated with quackery. There seems to be a popular tendency, which medical anthropologists must strongly counter, to assume that a description of a non-Western medical practice is a defense of the practice, unless it is explicitly stated to be something else.

Of course, there are instances in which non-Western practices have proven efficacious and been adapted for use in scientific medicine. Some new ideas about medicine are likely to continue to arise from non-Western settings, and medical

anthropologists may indeed be sources for some such ideas. However, standards for acceptance of such practices must be as rigorous as those for acceptance of new treatments arising from within scientific medicine.

The other bias in much of the writing in medical anthropology which I wish to speak about is against biomedicine itself. Criticism of medicine has become a major academic and publishing industry, and to a certain extent this is healthy. There is a lot that is wrong with medicine, and nonphysicians have much to contribute to solving its problems, particularly when one realizes that some of the problems have been caused by nonphysicians. But I notice in some writings in medical anthropology a carping, negative tone that I think is counterproductive. Modern medicine is not a conspiracy against humanitarianism, cost efficiency, comprehensible language, patient compliance, patient autonomy, cultural differences, folk beliefs about health, or any of the other nonmedical dimensions that it handles less than perfectly.

Least of all is it a capitalist plot more properly called "bourgeois medicine" rather than scientific or modern medicine. (It is fascinating how similar Soviet medicine at its best is to American "bourgeois" medicine, and how eager physicians in Peking and Havana are to adopt much, if not most, of it.) This does not mean that corporate and private greed play no role in it, or that health services are equitably distributed. It simply means that such problems—like excessive reliance on technology or inadequate appreciation of cultural beliefs, for example, may be correctable without a complete condemnation of the system.

I have worked closely with many physicians, and most of them have been to one extent or another anguished about these problems—in spite of the fact that they do their jobs within its given confines pretty well. When nonphysicians who have not tried to do those jobs offer high-minded criticism with no evidence of sympathy for the doctor's plight (and limited understanding of the patient's), doctors become resentful and defensive. Many of them appreciate the expertise of nonphysicians, such as anthropologists, so long as it is offered in a helpful spirit. The approach of Thomas Johnson (1985; Johnson and Sargent 1990) to the role of medical anthropology in the hospital setting comes close to being an ideal application of this spirit in the day-to-day clinical situation.

At the systemic level, anthropological studies of medicine's common failings will be most useful if they are really analytical rather than accusatory in tone—a change already on the rise. That means trying to understand the forces that make physicians ignore psychocultural factors in illness in some settings, practice legally defensive medicine in others, and rely excessively on technology in still others. If third party payers prefer to pay for expensive hospital care of the dying rather than dignified hospice or home care, that is not the fault of physicians. If society lacks compassion for the ill poor, making the doctor-patient encounter intolerably brief, stressful, and inadequate for both, it is neither fair nor analytically satisfying to blame the doctor or to rail against "bourgeois" medicine.

Most of the physicians with whom I have worked—including medical school deans, chiefs of service, and other leaders—are saddened and angered by poverty, world hunger, war, and inequality, and most have made at least some personal sacrifice to contribute to a solution to those human problems. They know that many health advances of the past and future derive from improvements in those

conditions rather than from medical treatment. Most, however, do not see the solution of such problems as their primary professional responsibility. Several thousand who do view their priorities in that way work for agencies like the World Health Organization or the Centers for Disease Control. There, relying on the best (that is, the most enlightened, in social-science as well as natural-science terms) strategies of "modern" or "scientific" or "bourgeois" medicine, they do a great deal more to alleviate the physical ills of humankind than do armchair social theorists. Medical anthropologists can and should sympathize with and help them. I would venture to predict that the influence of future medical anthropology—including "critical" medical anthropology—on medicine will be proportional to its sympathy for the situations in which physicians, epidemiologists, and medical scientists ply their trade.

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