
Health Interventions: A Focus for Applied Medical Anthropology Theory

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Abstract: Health promotion and intervention programs are biological, cultural, social and political undertakings. Frequently, they are based on epidemiological research, and do not work because they rely solely on quantitative measurements of risk. While this approach can demonstrate cause and effect between risk factors and disease, it lacks the understanding of lay rationality, and the social, political, and economic influences which make individuals vulnerable to disease - a vital component to the development of successful interventions. It is in this area that medical anthropology can make a critical difference to health intervention planning, with its qualitative methodology and theoretical perspectives. This paper reviews the theoretical debate currently taking place within the discipline, and proposes an applied critical medical anthropology approach which *engages*, rather than challenges the system, and responds to the needs of intervention issues. By collaborating with colleagues in other areas of health, and forming closer alliances, medical anthropology can target a challenging, exciting and critical focus for praxis, and make important contributions to health intervention planning.

Introduction

The design of workable health interventions is a problem of considerable urgency and importance. In spite of an overwhelming amount of knowledge about what causes and prevents disease, interventions developed using only this knowledge do not seem to work. People still smoke, overeat, and maintain sedentary lifestyles in spite of warnings about cancer and heart disease. People still risk becoming infected with HIV/AIDS when they know that condom use can protect them. Frustrated health promotion and prevention experts provide increasing amounts of educational information, but this has little effect on people's behaviour. Why is this? The answer is complicated, but an understanding of the theoretical underpinnings of epidemiology, and how this differs from lay rationality provides some insight into the problem. An exploration of how this understanding affects ideas about risk reveals an exciting and important opportunity for medical anthropology

praxis in the area of intervention design, implementation and evaluation. However, within medical anthropology, an acrimonious debate over a number of theoretical approaches is currently taking place. Each of these perspectives has its strengths and drawbacks, and this paper will suggest an action-oriented focus for the discussion which will contribute to the problem of designing workable health interventions. First, the central tenets involved with the debated theories, as well as the criticisms they have engendered, is helpful before discussing a possible synthesis of perspectives.

Current Theory in Medical Anthropology

While medical anthropology has been criticized for being devoid of theory, the theoretical and analytical perspectives which inform medical anthropology are actually many and varied (Lindenbaum and Lock 1993; Becker 1995). They include biocultural, biological, cognitive, symbolic, interpretive, experimental, critical, neo-Marxist, clinical, and applied approaches. The recent divisive debate has been predominantly between the adaptationist medical anthropologists, at the biological/environmental end of the spectrum, and the critical medical anthropologists at the political/socio-cultural end. Central issues in the debate concern the degree of biomedical influence on anthropological understandings, the acceptability of genetic evolutionary concepts, and the primary influences on health and disease – whether these are social, political, economic, biological or environmental. Biocultural models have been suggested, which attempt to bridge the two radically opposing positions.

The Ecological Approach

An ecological approach was first proposed for medical anthropology in the area of biological and cultural evolution, as a unifying, central position between the biological and sociocultural perspectives (Alland 1970; 1977). Based on evolutionary theory, it looked at health and disease in the context of human ecology. Specifically, this approach attempted to show the biological adaptability, or value, of various culture traits in a given environment which influence disease and resistance to disease organisms. Based in epidemiology, it was used successfully with infectious disease, defining the relationship between host, pathogen and the environment, for example, sickle cell anaemia, malaria and agriculture. It also used a variety of cultural and biological variables, and mortality and fertility patterns in populations to demonstrate selective effects.

However, this theoretical model has been criticized on several fronts. As in the above example, an ecological perspective may be able to demonstrate an environmental/biological relationship, but the theory's limited focus does not allow for explanations of how or why certain political and economic factors influence the environment, and contribute to disease causation. Critical medical anthropologists argue that by not questioning the underlying social relations, economic and political factors which cause or contribute to disease, these may be legitimated as natural phenomena (Singer 1989). Critics also consider the theory to be reductionist,

focussing too narrowly on ecological variables instead of looking at the dynamic relationship between the environment, biology and culture (Singer 1992). Another controversial point which has been raised is whether culture functions as an adaptive mechanism, or is part of the environment to which people must adapt. Still other critics feel that the theory suffers from problems with ambiguous definitions of adaptation, environment and health (Wiley 1992), and is unable to satisfactorily explain the problem that culture is not genetic, and hence is not subject to evolutionary laws.

In an attempt to respond to these perceived deficiencies, a "biocultural" approach emerged, which elaborated the ecological perspective.

Biocultural approach (also known as Medical ecology)

A biocultural approach aims to measure, describe and interpret how constraining factors in the environment affect the body (Wiley 1992). It combines concepts from physical anthropology with those from cultural anthropology to explain "the ability of the individual to adapt to the environment by biological or behavioural means" (Wiley 1992:222). This approach expands the concept of the environment to include social factors, and while political and economic influences are considered determinants of health, they are not explored as an explicit goal of the theory. The model follows a Western scientific paradigm, using biomedical categories and biological indicators (for example, anthropomorphic indices, blood pressure measurements) to assess constraining factors on health. The individual is considered to be a biological entity, shaped by evolution and social factors that influence its biology through its decision making. Health is defined in biological terms as an individual's ability to adapt by biological or behavioural means. For example, people are infected by HIV and develop AIDS because their behaviours expose them to the causative virus. Interventions aimed at prevention would focus on education, using Western ideas of causation and prevention aimed at changing behaviour.

The theory's main proponent advocates retaining an evolutionary perspective because it provides pre-historic and historic perspective (Wiley 1992). Adaptation is considered to be an essential concept which reflects a dynamic relationship between individuals and their environment.

Cultural anthropologists have criticized this approach because it relies on a western biomedical model and is not applicable to the study of non-western situations (Armelagos *et al.* 1992). As with the ecological approach, critical medical anthropologists object to the fact that a biocultural perspective does not emphasize the social, political, and economic factors that underlie and influence health (Singer 1989). When the causes of disease are seen as genetic, environmental, or due to cultural practices (i.e. lifestyle) which place groups at risk, the result is to blame groups or individuals (Armelagos *et al.* 1992). Since health is concerned with successful adaptation, disease, then, is a failure to adapt.

Lynn Morgan (1993) also points out that Wiley, a researcher involved with genetics, does not discuss the political factors that affect how research is funded and executed, or how the knowledge that is produced might be interpreted by others.

Wiley's (1992:200) lack of insight is apparent by her comment, "social equality is a goal worth striving for, but it is entirely separate from the study of genetic diversity among humans." She fails to acknowledge that historically, genetic research - biological "truths" - have long been used to support discriminatory activities. While biological and ecological approaches may provide valuable scientific understandings relating to health and disease, there is a certain scientific responsibility implicit in genetic research that requires researchers to be vigilant about the political implications of their work.

Some scholars have attempted to modify the adaptationist perspective in response to growing criticism and an awareness of the importance of non-biologic influences on health. McElroy and Townsend (1989) have expanded and clarified the definition of adaptation (a problem with the ecological approach) by establishing four categories for describing adaptive mechanisms, which include genetic, cultural, physiological/developmental adjustments, and individual coping processes over shorter and longer time frames.

Armélagos *et al.* (1992), have suggested the synthesis of an ethnomedical perspective with biological anthropology's epidemiological approach. This approach attempts to overcome the limited success other models have had in integrating cultural and biological perspectives. With this new framework, Armélagos and colleagues consider Western biomedicine to be one of many ethnomedicines. Their model is more inclusive of culture, and considers the impact of political-economic factors. It adopts a behavioural approach, and looks at populations, communities, classes, and individuals as "agents" within the system that has a cultural and historical context. "Our model considers [individuals], the constraints placed on them, and the choices they make" (Armélagos *et al.* 1992:37). It is also reflexive, and has a goal of improving people's social and biological well-being. While the approach differs from the ecological/adaptationist perspectives in several ways, it is still passive and evolutionary. Adaptation is seen as the production and reproduction of behaviours and strategies people use when they deal with limited resources and assess biosocial consequences of illness. However, the implications for change which this model contains are useful: it posits that change occurs through collective action; and, health prevention programs need to maintain existing community coping strategies. While this theory has received some support from critical medical anthropologists, it does not yet seem to be widely accepted because it still includes adaptative features.

With any of the biocultural approaches, the basic problem of genetics and adaptation remain controversial and unacceptable to critical medical anthropologists. By focusing on biological explanations, the investigation of genetic components of disease shifts responsibility away from social determinants and back to individuals, where many forces are beyond their control. Critical medical anthropology's "caution about genetic determinist arguments and related research stems not from a lack of awareness of genetic variability, but from a historic awareness of the social functions of eugenic ideology" (Singer 1993).

Critical Medical Anthropology (CMA)

Critical medical anthropology and biocultural approaches have different assumptions and perspectives on health, and the origins of disease and illness. While both see disease as due to multiple causes, the central foci of analysis in CMA are imbalances in power relations and differential access to health. The primary objective of CMA is the transformation of social relations. Critical medical anthropology "emphasizes the importance of political and economic forces, including the exercise of power, in shaping health, disease, illness experience and health care" (Singer and Baer 1995:5). It looks "toward a more holistic understanding of the causes of sickness, the classist, racist and sexist characteristics of biomedicine as a hegemonic system, the interrelationship of medical systems with political structures, the contested character of provider-patient relations and the localization of sufferer experience and action within their encompassing political-economic contexts" (Singer and Baer 1995:6). CMA is concerned with the phenomenology of illness and pain, and the social construction of the individual. The body is considered to be a passive, socially constructed organism, whose relationship with the environment is an aspect of social relations. The environment is a social, rather than physical one. Health is also considered to be socially constructed, rather than organic, and is defined as "access to and control over the basic material and non-material resources that sustain and promote life at a high level of satisfaction" (Baer *et al.* 1986:95).

Critics of CMA, the most outspoken of which is Wiley (1992), say it is "unscientific", does not consider the biological aspects of disease, confuses genetic diversity with social inequality, is only concerned with the recent historic past, and is perhaps irrelevant in the field because of its focus on macro-level restructuring. Singer responds convincingly to each of these criticisms in his 1993 reply to Wiley. He argues that failure to address the macro, higher-level origins of disease, in the guise of a more scientific approach, "reflects a political agenda...[and] that science masks the direct and indirect noxious effects of class, race, gender, or other oppression" (Singer 1993:188). In not identifying higher level causes, victims will be blamed for events beyond their control, contributing further to their victimization and oppression. In reference to Wiley's claim to scientific objectivity, he points out that science is a social process, influenced by social forces from which no scientist is immune. He responds to her criticism that CMA is unscientific by asserting that critical medical anthropologists may be explicit about their values (values influencing where a researcher looks), but this does not mean they are unduly biased (biases shaping what is found). Further, he emphasizes that while CMA may stress the social origin of many diseases, it does recognize that they have a biological origin which is worthy of study. Singer also repeats CMA's concern that socially determined individual differences have been frequently attributed to genetic group characteristics. Regarding the criticism that CMA is not concerned with historical aspects, Singer indicates that CMA has concentrated its study on contemporary issues, but does not limit itself to this historical boundary, and acknowledges the importance of human biological evolution for the current state of the species.

Finding middle ground - Political economy of health, and critical biological anthropology

In trying to find a middle ground, Leatherman *et al.* (1993:202) say that it is important to have a political-economic perspective when:

the penetration of world capitalism has led to widespread environmental degradation, disruption of the fabric of social life, and manifold constraints on biobehavioural responses. Yet to dismiss the importance of biobehavioural responses and the reciprocal effects that such responses have with social relations and the environment, seriously diminishes the scope of anthropological interpretation.

They call for a more critical perspective in biological anthropology, so that findings on the biological dimensions of poverty and inequality in populations will be interpreted using the theoretical lens of political economy. They also consider modifying the adaptation concept, which most cultural anthropologists want eliminated, to de-emphasize the selective processes.

In line with this thinking, the most promising directions for integrating political-economic and adaptability perspectives seem to be the "political economy of health" and the "critical biological anthropology" paths. The former aligns itself with critical medical anthropology, establishing as a starting point for research the social, political, and economic forces affecting health and health systems, rather than the biophysical environment. Critical biological anthropology is a reflexive and explicitly political-economic perspective, which aims to "expose and analyze the underlying assumptions and ideological dimensions of [their] work and the sociopolitical and economic use of ideology in biological anthropology" (Blakey, 1992 in Leatherman *et al.* 1993:205). A re-thinking of the adaptationist perspective is being considered because it fails to look at processes which cause, perpetuate and exacerbate the adverse conditions to which humans must adapt.

Today, biocultural anthropologists are being challenged to abandon adaptationist perspectives and develop an approach which sees nature and political economy as indivisible (Singer 1996). It remains to be seen whether critical medical anthropologists can gain insight from the biocultural approaches, but Singer (1993) sees a nexus between critical biology and critical medical anthropology. Baer (1996) feels that both groups will benefit from the work of political ecologists, as more environmentally induced diseases emerge due to the world's capitalist, productivist ethic. He sees that both critical medical anthropologists and political ecologists share a "commitment to merge theory and social action" (Baer 1996:453).

Grounding the Debate in Practical Application

After considering the underlying concepts of the various theoretical perspectives, and why each embraces its particular viewpoint, what seems to be missing from the debate is any real discussion of these theories in practice. Medical anthropol-

ogy is an applied discipline where "medical anthropologists straddle two worlds: theory and praxis" (Becker 1995), but much of the theoretical debate is void of praxis and action. Recently, Singer (1995) has argued for an applied critical medical anthropology which would work to reveal sources of social inequality and ill health; what he calls a "system-challenging praxis". However admirable the intentions of critical medical anthropology are, the rhetoric of the perspective is potentially alienating and self-defeating, and anthropologists who are trying to engage the medical system are likely to generate antagonism and resistance from future collaborators. Pflanz (1975) has also expressed this concern.

Perhaps a system-engaging praxis or system-influencing praxis would be more readily accepted by those with whom medical anthropologists hope to work. As Suzanne Heurtin-Roberts (1995:111) points out, "there is legitimate power and oppressive power.... [T]he problem is how to extricate power in service of healing from power in service of domination" (1995:111). She continues (1995:112), "In the end, it matters little to the beneficiaries of our work whether a 'critical' or 'conventional' medical anthropologist has helped to solve a health problem; what matters is whether there has been any solution at all." While this viewpoint overlooks the value of a theoretically informed practice, and the potential for generating theory from the field, the voices and experiences of those in practice will ground the debate. The theoretical polarization just described among medical anthropologists is disturbing because it goes against the holistic perspective that is central to anthropology. Perhaps praxis can temper this debate by taking it to the field.

A number of anthropologists are writing about their attempts to work out this theoretical dilemma in practice. In *Knowledge, Power and Practice*, Shirley Lindenbaum and Margaret Lock (1993:x) observe that fieldwork in medical anthropology is "often confronted with human affliction, suffering and distress, [which] challenges the traditional dichotomies of theory and practice, thought and action, objectivity and subjectivity.... [T]he very nature of the subject matter forces the researcher to seek out a position of informed compromise from which it is possible to act."

The works in this book express a concern for ideology and a commitment to practice, and attempt to ground critical medical anthropology in just this manner. "When topics like health, illness and affliction become key issues for investigation, the disciplinary division between human biology and cultural anthropology is eroded" (Lindenbaum and Lock 1993:ix). Contributions solicited for the book from field workers and academics, link three usually separate areas of anthropological inquiry – human biology, the cultural construction of knowledge and relations of power. The approach recognizes various competing theoretical interpretations, but the writers separate themselves from those "who accept biological and biomedical data as an assemblage of incontestable natural facts" (Lindenbaum and Lock 1993:x). The authors situate themselves as anthropologists - not solely medical anthropologists - looking at health, illness, the human body and medical systems, as they would any other comparative study. They agree that their subject matter is "neither simply medicine as an institutional body of knowledge

(biomedicine), nor an unproblematic product of nature, but...the study of the creation, representation, legitimization and application of knowledge about the body in both health and illness" (Lindenbaum and Lock 1993:x). They look to discover the "imprint of social forces[,]...the meaning attributed to symptoms[,]...[document] resistance to ideologies of bodily control and [learn] how different practices change modes of knowing and conceptions of self" (Lindenbaum and Lock 1993:xiv). The result is a medical anthropology whose goal is "an identification of the processes by which dominant voices and institutional forms come to exercise their control," (Lindenbaum and Lock 1993:xi) and a rich, thought provoking, and informative body of work.

A chapter by Kaufert and O'Neill, "Analysis of a Dialogue on Risks in Childbirth: Clinicians, Epidemiologists, and Inuit Women", serves to illustrate the approach in action. It describes a meeting between health professionals, administrators, and Inuit women discussing problems relating to a government policy of flying Inuit women out of their isolated northern communities to give birth in a distant urban hospital. The dialogue reveals three different perspectives on the risk of childbirth, and shows how each of these languages vividly expresses feelings of vulnerability and responsibility, and supports or challenges existing relations of power. The government fly-out policy was instituted as an intervention in response to epidemiological data, which indicated elevated maternal/infant mortality rates among Inuit women. The clinician present at the meeting argued in favour of retaining the policy, based on his personal epidemiology of risk with a number of patients who hemorrhaged, and he substantiated his opinion with the scientific epidemiological data. The nurse-midwife articulated her fear of being responsible for potential perinatal problems and used similar ideas about risk to supported the policy. She recounted the fact that many mothers would delay their departure until it was too late to leave, and considered them non-compliant and irresponsible for perhaps harming themselves and their babies – a label which could have implications for accessing future care. A mother, representative of others in the community, told how important it was to give birth in the community for her status as a woman, and her personal satisfaction. In arguing for the right to deliver at the community health centre, she offered a lay epidemiology, saying she had never seen anyone die in the community from childbirth, and judged the risks as being relative to the risks she incurred through daily living in such a hostile environment. Her dialogue was one of resistance to both the situational aspects of control, and the larger historical relations of colonial power with the government.

This one ethnography demonstrates how ideas about risk can be politically and morally constructed and manipulated to serve a variety of ends. It also illustrates the importance of having a theoretical approach which allows for historical, political, economic, medical and meaning-centred analysis. While there is a place for the "hard", objective epidemiological forms of knowledge, the inclusion of the "soft", subjective, anthropological kinds of knowing are critical to understanding the social and political implications behind interventions.

The approach to critical praxis, as used by the authors in this book, provides a synthesis of theory which can be discussed in relation to health interventions – an area of praxis which is eminently suited to the grounded application of critical medical

anthropological theory.

Applied Critical Medical Anthropological Theory and Health Interventions

Health interventions, which are usually based on epidemiological estimations of risk and causality, usually fail to achieve their desired outcomes. Why should this be so? We are continually deluged in the media by reports about dangers to our health, and how these can be avoided. Why do we continue to eat french fries, smoke, and not exercise when we know the consequences? And why does the woman in Uganda not have her child immunized, or ask her sexual partner to wear a condom? Sometimes, this is due to health promotion messages which do not "make sense" because they are incompatible with the recipient's world-view. But even when messages are culturally appropriate, people often continue "risky" behaviours and ignore health promotion information (Douglas 1992). "The public definitely does not see risks in the same way as the experts" (Douglas 1992:11). Clearly, interventions are missing something.

In addressing preventable health issues, experts are limited by the lens of the theories that inform them (Webb n.d.). The epidemiological theoretical lens is that of scientific, empirical, mathematical truth and reality. Epidemiological data, such as disease incidence, risk factors, and population descriptors, are selected and measured for a variety of purposes: as a way of observing a population for prevention of disease or determination of the success of interventions; as a means of predicting care; and as a means for the allocation of resources for care. This data is generated by methodology which adheres to rules of the scientific method. Epidemiologists are rigorous about explaining that they have kept these rules, and show explicitly how the data are acquired and analyzed. However, in the pursuit of objectivity, epidemiologists "decontextualize their data, objectify their subjects and ignore questions of meaning" (Kaufert and O'Neil 1993:34) - the individual in the equation is studied outside his or her personal experience and social influences.

This is far removed from the climate in which the individual makes decisions. Emotions such as fear, anger, and hope are part of most decisions; so are factors such as the individual's social world and lived reality. "To invoke...probabilities of a particular dangerous event makes surprisingly little difference to the understanding of choice. This is not because the public does not understand the sums, but because many other objectives which it cares about have been left out of the risk calculation" (Douglas 1992:40). "A risk is not only the probability of an event but also the probable magnitude of its outcome, and everything depends on the value that is set on the outcome. The evaluation is a political, aesthetic and moral matter" (Douglas 1992:30). Individuals construct their own personal theory about life and misfortune - a situational logic which involves many emotional, spiritual and practical factors (MacCormack 1994). From this they measure risk and define their ideas of health and well-being and, based on this, they make decisions.

Now we approach the dilemma. Epidemiologists and biologically oriented anthropologists can clearly state the linear, cause-and-effect relationship between risk factors and disease (as defined by the Western biomedical system). Individuals are told how to avoid the disease, and are expected to do so, based on this information; it is their moral responsibility. When individuals do not follow recommendations (because these do not consider the lived reality of the individual), people are blamed for their irresponsibility and incompetence (Douglas 1992). "Despite the sophisticated scientific understanding underlying conceptions of disease in the late 20th century, we still seek explanations based on behaviour, ethnicity, or social stereotypes" (Nelkin and Gilman 1988:378). The problem is compounded by the fact that medical practice is heavily influenced by the epidemiological language of risk – which justifies medical intervention – and it is the medical system which influences health public policy. Clearly, epidemiological ideas of risk are heavily political.

The politics of this approach can be seen by looking at who sets priorities, which problems are identified, which groups in the population have been targeted for responsibility, and who is left out when priorities are set (Frankenberg 1993). "The risk approach in epidemiology thus poses for its practitioners two initial choices: which outcomes to focus upon and which risk factors ought to be given priority. Like all choices, these are surrounded by culturally defined moral problems in which power relations always have a central position" (Frankenberg 1993:236). We can gain insight into a society's power structure by looking at what it labels as risk (Frankenberg 1993).

While the practitioners might have choices, the recipients of their expertise often do not. Risks may be communicated as individual choices, but policy, regulations and personal risk situations may prevent action and take away choice. Control is demanded of individuals, but they often lack this power over other aspects of life (Franzkowiak and Wenzel 1994). Clearly, interventions cannot work if the balance of power remains unbalanced.

Health promotion and intervention programs are biological, cultural, social and political undertakings. They must consider a complex range of behaviours which are influenced by a variety of biological, psychological and sociocultural factors (Willms *et al.* 1990). The theory which drives their design, implementation and evaluation must encompass these realities. Epidemiological approaches, while continuing to be based in scientific rationality, have expanded to include the behavioural and cognitive theories, such as social influence and learning theory, rational choice theory, locus of control, and health belief models. These still place the individual at the forefront, and set responsibility (and blame) squarely on the powerless. Understanding lay rationality, and the social, cultural and political influences which make individuals vulnerable to disease is a vital component in the development of workable health intervention programs.

The theoretical underpinnings of critical medical anthropology can provide comprehensive support and enlightenment to intervention programming, with its focus

on political economy, the social relations of health and disease, and commitment to social action. Singer (1995) indicates an awareness of the need for collaboration and coalition building within health movements, but there is no reason for partnerships to end there. Trostle (1986:35) states that "the relationship between epidemiology and anthropology remains largely unexplored," and this could be a rich area for future research and praxis. Critical medical anthropological theory would have considerable impact on epidemiological approaches, and could provide insight into vulnerabilities that epidemiologists have not yet observed. In order to understand the forces which encourage vulnerability to disease, a grounded, meaning-centred theory and method is needed; that is, a theory that is based in the everyday socially-influenced realities of people's lives, and a qualitative methodology which allows these to be elaborated. Epidemiological methods can answer questions of how many and how much, but how and why questions require qualitative methodology (Goering and Streiner 1996). "Both types together will provide a better basis for planning strategies for prevention" (Goering and Streiner 1996:496). Qualitative methodology, inherent in the anthropological approach, can define areas of potentially important inquiry; elicit beliefs about causation, health, well-being, disease symptomatology, and treatment; and elaborate the social, political and economic realities of individuals and communities. Agencies such as UNDP, World Bank, and WHO are increasingly open to ethnographic methods and analyses. There is recognition that other factors affect the success of interventions, and funders no longer want to fund unproductive, purely epidemiologic studies. A comprehensive approach is needed which includes not just the scientific and medical perspectives, but also the social, relational and cultural (Willms *et al.* 1990).

Applied critical medical anthropological theory can bring a variety of attributes to critical praxis: cultural relativism; concern with insider perspective; support for self-determination; a desire to work with communities to respond to their felt needs; an appreciation of research as a "potent weapon in social struggle" (Singer 1995:99); holistic orientation and understanding of local customs; recognition that culture shapes and is shaped by social relations and human behaviour; an awareness of the social origin of disease, and the ideological aspects of science and medicine; and an orientation to "consciousness raising and empowerment through the unmasking of the structural roots of suffering and ill health" (Singer 1995:99).

While the theoretical debate within medical anthropology continues, a search for relevance grows among practitioners and those in the field who are trying to make a difference. "The urgency in achieving integrated perspectives is foreshadowed by the seriousness of problems of environmental quality, human health, and social justice that we are likely to face in the forthcoming century" (Leatherman *et al.* 1992:206). Closer alliances and collaboration are needed with colleagues in other areas of health, who are also working to help the suffering. Medical anthropology, informed by a powerfully reconceptualized theory and a system-engaging praxis, can make a critical difference. Our methodology and theoretical perspective has an inherent humanity, which is our discipline's greatest asset. With these, we can make important contributions in the area of health intervention and promotion pro-

gramming, a challenging and critical focus for praxis.

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References Cited

- Alland, A. Jr.
 1970 *Adaptation in Cultural Evolution: An Approach to Medical Anthropology*.
 New York: Columbia University Press.
- 1977 Medical Anthropology and the Study of Biological and Cultural Evolution.
 In *Culture, Disease and Healing: Studies in Medical Anthropology*.
 Pp. 41-47.
 D. Landy, ed.
 New York: MacMillan Publishing Co.
- Armelagos, G., T. Leatherman, M. Ryan, and L. Sibley
 1992 Biocultural Synthesis in Medical Anthropology.
Medical Anthropology 14: 35-52.
- Baer, H.
 1996 Toward a Political Ecology of Health in Medical Anthropology.
Medical Anthropology Quarterly 10(4):451-454.
- Baer, H., M. Singer, and J. Johnsen
 1986 Introduction: Toward a Critical Medical Anthropology.
Social Science and Medicine 23 (2): 95-98.
- Becker, G.
 1995 Editorial: Medical Anthropology in a Time of Change.
Medical Anthropology Quarterly 9 (1): 3-5.
- Douglas, M.
 1992 *Risk and Blame: Essays in Cultural Theory*.
 London: Routledge.
- Frankenberg, R.
 1993 Risk: Anthropological and Epidemiological Narratives of Prevention.
 In *Knowledge, Power and Practice*. Pp. 219-242.
 S. Lindenbaum and M. Lock, eds.
 Berkley: UCLA Press.
-

-
- Franzkowiak, P. and E. Wenzel
1994 AIDS Health Promotion for Youth: Conceptual Framework and Practical Implications.
Health Promotion International 9 (2): 119-135.
- Goering, P. and D. Streiner
1996 Reconcilable Differences: The Marriage of Qualitative and Quantitative Methods.
Canadian Journal of Psychiatry 41: 491-497.
- Heurtin-Roberts, S.
1995 Exiting the Ivory Tower for the Real World: A Comment on Critical Praxis.
Medical Anthropology Quarterly 9(1): 110-112.
- Kaufert, P. and J. O'Neil
1993 Analysis of a Dialogue on Risks in Childbirth.
In *Knowledge, Power and Practice*. Pp. 32-54.
S. Lindenbaum and M. Lock, eds.
Berkeley: UCLA Press.
- Leatherman, T., A. Goodman, and T.R. Brooke
1993 On Seeking Common Ground Between Medical Ecology and Critical Medical Anthropology.
Medical Anthropology Quarterly 7: 202-207.
- Lindenbaum, S. and M. Lock
1993 *Knowledge, Power and Practice*.
Berkeley: UCLA Press.
- MacCormack, C.
1994 Ethnological Studies of Medical Sciences.
Social Science and Medicine 39 (9): 1229-1235.
- McElroy, A. and P. Townsend
1989 *Medical Anthropology in Ecological Perspective*, 2nd ed.
Boulder: Westview Press.
- Morgan, L.
1993 Comments on Wiley's 'Adaptation and the Biocultural Paradigm in Medical Anthropology: A Critical Review.'
Medical Anthropology Quarterly 7:199-201.
- Nelkin, D. and S. Gilman
1988 Placing Blame for Devastating Disease.
Social Research 55(3): 78-39.
-

Pflanz, M.

- 1975 Relations Between Social Scientists, Physicians and Medical Organizations in Health Research.
Social Science and Medicine 9: 7-13.

Singer, M.

- 1989 The Limitations of Medical Ecology: The Concepts of Adaptation in the Context of Social Stratification and Social Transformation.
Medical Anthropology 10: 223-234.
- 1992 The Application of Theory in Medical Anthropology: An Introduction.
Medical Anthropology 14:1-8.
- 1993 A Rejoinder to Wiley's Critique of Critical Medical Anthropology.
Medical Anthropology Quarterly 7:185-191.
- 1995 Beyond the Ivory Tower: Critical Praxis in Medical Anthropology.
Medical Anthropology Quarterly 9(1):80-106.
- 1996 Farewell to Adaptationism: Unnatural Selection and the Politics of Biology.
Medical Anthropology Quarterly 10(4): 496-515.

Singer, M. and H. Baer

- 1995 *Critical Medical Anthropology*.
Amityville, NY: Baywood Publishing Company, Inc.

Stein, Howard

- 1995 Cultural Demystification and Medical Anthropology: Some Answers in Search of Questions - A Commentary on Singer.
Medical Anthropology Quarterly 9(1):113-117.

Trostle, James

- 1986 Early Work in Anthropology and Epidemiology from Social Medicine to Germ Theory, 1840-1920.
In *Anthropology and Epidemiology*. Pp. 35-58.
C.R. Janes, R. Stall, and S. Gifford, eds.
Dordrecht, Netherlands: Reidel.

Webb, D.

- n.d. *Conceptualizing HIV Epidemiology: The Action of the Individual or the Consequence of Place?*
UNICEF: Lusaka, Zambia. Unpublished Manuscript.

Wiley, A.

- 1992 Adaptation and the Biocultural Paradigm in Medical Anthropology: A Critical Review.
Medical Anthropology Quarterly 6 (3): 216-236.
-

-
- Willms, D., J. Best, D.W. Taylor, J.R. Gilbert, D. Wilson, E. Lindsay, and J. Singer
1990 A Systematic Approach for Using Qualitative Methods in Primary
Prevention Research.
Medical Anthropology Quarterly 4: 4.