

**THOMAS L. LEATHERMAN**  
Department of Anthropology  
University of South Carolina

**ALAN H. GOODMAN**  
Natural Science  
Hampshire College

**R. BROOKE THOMAS**  
Department of Anthropology  
University of Massachusetts, Amherst

## On Seeking Common Ground between Medical Ecology and Critical Medical Anthropology

**T**he power of a political-economic perspective is clear at a time when the penetration of world capitalism has led to widespread environmental degradation, disruption of the fabric of social life, and manifold constraints on biobehavioral responses. Yet, to dismiss the importance of biobehavioral responses and the reciprocal effects that such responses have with social relations and the environment, seriously diminishes the scope of anthropological interpretation.

Ideological and epistemological barriers doubtlessly divide human ecological and adaptability and critical and political-economic perspectives,<sup>1</sup> making a complementary approach impossible for some to envision. At the extremes, critiques of a functionalist, positivist, reductionist, and ultimately alienating human biological science are juxtaposed with a disdain for a nonscientific, ideologically driven advocacy approach to information generation. Witnessing the debate in the *Anthropology Newsletter* over the salience of the "four field approach" gives one pause that anthropology is close to so fundamental a crisis of disagreement that the sides (mainly biological anthropologists on one side and cultural anthropologists on the other) are at risk of no longer communicating with each other (Brown and Yoffee 1992). The struggle to hold the field together and maintain a firm biocultural perspective is particularly acute in bridging subfields such as medical anthropology.<sup>2</sup> Thus, in our assessment, quite a bit is at stake in the debate within medical anthropology.

This comment is directed from a biological anthropology perspective toward articulating the need for integrated approaches in medical anthropology and possible directions this might take. The potential for more integrative approaches remains strong, as long as scholars such as Andrea Wiley and Merrill Singer continue to communicate across the divide within medical anthropology. Wiley and Singer, together, have made substantial contributions in identifying tensions and points of paradigmatic conflict between medical ecology and adaptability and critical medical anthropology. In her response to Singer's (1989) critique, Wiley (1992) has provided the most comprehensive, current defense of the adaptation and

medical ecology paradigm. Meanwhile, Singer (1989, 1993) continues to provide powerful cautions on the ills—old, current, or potential—of medical ecology and adaptationist thinking.

To enter this debate with the purpose of concluding that one perspective is more worthy does not seem to us to be productive. Who makes sense depends on one's paradigm. Most biological anthropologists undoubtedly remain convinced that the adaptive perspective has much to offer, particularly in a rapidly changing world that is challenging the capacities of many groups to adjust, and where biological adjustment frequently suggests eroded behavioral strategies. We argue here for a break from paradigmatic, interdisciplinary boundaries and recognition that a more resolutely political-economic and critical perspective offers considerable promise, especially to a younger generation of biological anthropologists who seek more comprehensive explanations of human health.

Over the past decade, many biological anthropologists have read with interest the rich developments in political economy and critical theory taking place in other areas of our discipline. We are impressed by their relevance in addressing essential aspects of the human condition, by their scope in placing contemporary problems in historical context, and by their linking of local change to external processes. Little imagination is required to realize the import such a perspective holds for interpreting human biological well-being. Yet, biological anthropologists have resisted serious consideration of critical theory and political economy. Therefore, it seems that if the debate is to serve biological anthropology, its goal should be to expand our scope of inquiry and analysis, increase the relevance of our findings, and advise us on how to best present our data and concepts in order that they be more accessible to social theory.

For us, the points of silent agreement are more interesting than the points made in debate. Singer is persuasive when he freely picks troubling examples from three decades of human adaptability research. Focusing on adaptationism in evolutionary theory, he easily finds excessive emphasis on adaptations as functional products of selection and single-minded concern with proximate explanations of biology and behavior in insufficient context.<sup>3</sup> We agree. These leave the same bitter taste in our mouths as they do of critical medical anthropologists.<sup>4</sup> Wiley, conversely, is very convincing when she addresses a human adaptability that focuses on the social and political origins of stress, inequality, and poverty (Singer's "critical bioculturalism"). Unfortunately, in our estimation, just as Wiley's defense, including an overly sympathetic defense of evolutionary adaptation, conflates the history of human adaptability with where much of the field is now, so, too, Singer conflates antiquated concepts of adaptation with the origin of these concepts.

Neither the articulation of differences nor obfuscation of history is what we find so important about this exchange. Rather, what is most encouraging is the quiet agreement. Not to be overlooked are current and concerted efforts, of which this debate is key, toward finding common ground between medical ecology and critical medical anthropology. Wiley's vision of "new approaches to biocultural adaptation" and Singer's reference to "critical bioculturalism" illustrates best the common ground between medical ecology and critical medical anthropology. These points of quiet reconciliation are exciting and encourage optimism in developing integrated biocultural approaches. Regardless of the name of this new endeavor, what excites us is the possibility of combining the strengths of a medical ecological and

human adaptability paradigm with those of a more critical and political-economic medical anthropology.

Positive steps taken toward reconciliation of differences and the articulation of points of commonality include the 1991 American Anthropological Association symposium organized by Hans Baer and Merrill Singer and a recent Wenner-Gren International symposium, titled "Political-Economic Perspectives in Biological Anthropology: Building a Biocultural Synthesis."<sup>5</sup> Our perspectives and goals in organizing the Wenner-Gren symposium are reflected, in part, in the organizer's statement. We noted that

while biological anthropology should be at the forefront of discussions on the biological dimensions of poverty and inequality, we are not. Biological anthropologists have produced critical information for detailing the biological consequences of poverty and inequality in human populations, but have generally failed to interpret these findings within the political and economic contexts of marginality. Much research remains void of connections to lived experience. Our theoretical attachment to evolution and adaptation theory has effectively blocked political-economic interpretations of contemporary human biological variation. Similarly, failure to broaden our scope to examine political-economic processes, allows an adherence to traditional notions of evolution and adaptation, despite insights which call for an expanded approach.

We believe that biological anthropology has reached a point where a paradigmatic expansion is both possible and necessary. In the 1960's and early 1970's biological anthropologists were largely concerned with understanding adaptations to physical and biotic extremes. In the late 1970's and 1980's we began to recognize that other stressors, such as undernutrition, were more pervasive and often had a greater impact on human biology than purely physical and biotic ones. At the same time, researchers began to note that all stressors and the responses they engender passed through a sociocultural filter. Together these realizations have led to a consideration of political-economic factors as generating stressors (e.g., high pathogen loads, limited food availability) and further constraints on individual capacities to respond to stressful conditions. [Goodman and Leatherman 1992].

The Wenner-Gren symposium provided an intensive, focused opportunity to explore the potential for a more political-economic and critical biological anthropology. One goal, explicit in the symposium title, was to encourage political-economic perspectives in biological anthropology. At the same time we wished to make room for various versions of this new bioculturalism in biological anthropology *and also in medical anthropology*.

A second goal was to begin a substantive rethinking of the utility of the adaptation concept. Most cultural anthropologists counseled for its abandonment; adaptation was envisioned as no longer of use in a more political-economic biological anthropology. Conversely, most biological anthropologists saw continued value in retaining the adaptation concept, albeit in modified versions (including less emphasis on selective processes). More agreement was reached on what was to be maintained in research—a resolute focus on the dynamics of adjustment/struggle—than on the most appropriate label for this dynamic.

Furthermore, everyone agreed that the contexts of bioanthropological research required expansion, and that political-economic perspectives were of great utility in clarifying these contexts. There was less consensus on the directions a political-

economic, biological anthropology might take. Some participants likely will not radically alter their research but will conduct future work with a heightened awareness of the political-economic contexts framing their research problem. Others were seeking new paths for integrating political-economic and human adaptability perspectives. From the symposium, we identified three complementary directions by which this might be achieved.

*Political Economy of Health.* The most common thread running through all of the symposium papers was an intensified focus on the social, political, and economic forces affecting medical systems and health. Within this common thread was an explicit attempt by some to make these forces the starting point of research (rather than to start with proximate links such as the biophysical environment). This path brings biological anthropology into alignment with the political-economic focus within critical medical anthropology. With their abilities to provide detailed information on the biological consequences of inequality and related processes, the inclusion of more work from biological anthropologists should strengthen this approach.

*Dialectical Adaptation.* Following Levins and Lewontin (1985), several participants attempted to develop what might be called a “dialectics of human adaptability.” This perspective continues to utilize the concept of adaptation, but with a radical reformulation. As in most human ecological approaches, the environment includes the social and cultural milieu, as well as the biophysical environment. Unlike many ecological approaches, the component parts of the environment have no ontological priority. Rather, they take meaning from the whole; parts and wholes are interpenetrated (Merchant 1992). As with cause and effect, adaptive response and consequences are in a dialectical relationship (i.e., coping with one set of conditions changes the conditions and creates new problems, which lead to further response). Thus, a dialectical perspective on human adaptability focuses attention on cost of adaptation and conflict and contradiction as entry points to the study of change.

*Critical Biological Anthropology.* In addition to a more explicit political-economic perspective and a rethinking of adaptation, some participants are developing a more reflexive, critical biological anthropology. Such an approach endeavors to expose and analyze the underlying assumptions and ideological dimensions of our work and the sociopolitical and economic use of ideology in biological anthropology (Blakey 1992). In this vein, Morgan (1993) comments that all biological anthropologists should make clear their agendas, in part by locating “researchers” as well as “subjects” in the research process. Moreover, Escobar (1992) cogently argued that a science that is aware of subjectivities is not diminished, but all the more powerful.

There is considerable overlap among these options—in fact a “critical biological anthropology” or “political economy of health” might incorporate all three. Nor are they meant as the only directions toward more integrative biocultural approaches in medical anthropology. Rather, they are offered as possible starting points for future rapprochement of ecological/adaptability and critical medical anthropology perspectives. The point is to open up this arena for greater participation and, together, move forward in directions we all see as beneficial.

Biological anthropologists and medical ecologists defend an adaptive perspective because they find utility in an approach that focuses directly on the immediate

conditions of human action, and especially on responses to adverse conditions. Yet, because the adaptive perspective fails to inquire beyond these immediate conditions causing constraints, the processes influencing their perpetuation and exacerbation are ignored. In contrast, a political-economic perspective highlights historical precedence, external political-economic relationships and their impact not only on the structure of local social relations, but also on how individual actors use their resources and environment. Emphasis is placed on processes of social differentiation and class conflict, as opposed to social cohesion, and thus on different capacities to cope with constraints.

We see great utility in attempting to integrate these perspectives and in striving for disciplinary integration. The urgency in achieving integrative 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.

## NOTES

Correspondence may be addressed to the first author at Department of Anthropology, University of South Carolina, Columbia, SC 29208.

1. Clearly there are many different and ever-changing critical and political-economic perspectives, just as there are a variety of perspectives in human adaptability and medical ecology. Nonetheless, following Singer, we point to clear, unifying themes that provide some commonality in paradigm and approach (and allow for the casting of epithets).

2. Similar strains are seen today in other bridging subdisciplines such as nutritional anthropology and bioarchaeology (Goodman 1990).

3. Singer (1993) cites the "small but healthy" example as an instance where the cost of growth stunting response to limited food availability was not acknowledged. However, biocultural researchers such as Haas (1990) and Martorell (1989) saw the need to explore the functional costs of stunting and their work has been key to a critical readjustment in thinking about the "adaptiveness" of small body size. The point is that human adaptability research can identify problematic responses, provide means for assessing biological costs, and ultimately provide powerful data for advocacy.

4. Wiley, on the other hand, seems to feel obligated to defend a rather wide turf of human adaptability. Not only does she defend what we feel is a brand of human adaptability that focuses too much on evolutionary theory (of limited utility in understanding contemporary problems), she also takes an insupportable stance by defending human adaptation as value free.

5. The Wenner-Gren symposium was held in Cabo San Lucas, Baja California, Mexico, from October 30 to November 7, 1992. Participants included: George Armelagos, Barbara Bender, Michael Blakey, Magali Daltabuit, Billie DeWalt, Arturo Escobar, Alan Goodman (co-organizer), Fatima L. C. Jackson, Stephen Kunitz, Thomas Leatherman (co-organizer), Lourdes Márquez Morfín, Debra Martin, Ann Millard, Lynn Morgan, Pertti Peltó, William Roseberry, Dean Saitta, Ricardo Santos, Merrill Singer, Gavin Smith, Alan Swedlund, and R. Brooke Thomas.

## REFERENCES CITED

Blakey, Michael

- 1992 Beyond European Enlightenment: Toward a Critical Human Biology. Paper prepared for the Wenner-Gren International Symposium "Political-Economic Perspectives in Biological Anthropology: Building a Biocultural Synthesis," October 30 to November 7, Cabo San Lucas, Baja California, Mexico.

Brown, Peter, and Norman Yoffee

1992 Is Fission the Future of Anthropology. *Anthropology Newsletter* 33(7):1, 21.

Escobar, Arturo

1992 From Organism to Cyborg: Notes on the Political Economy of Biology, Nature and Sustainable Development. Paper prepared for the Wenner-Gren International Symposium "Political-Economic Perspectives in Biological Anthropology: Building a Biocultural Synthesis," October 30 to November 7, Cabo San Lucas, Baja California, Mexico.

Goodman, Alan H.

1990 The Limits of Medical Ecology: A View from Prehistory. Manuscript in files of author.

Goodman, Alan H., and Thomas. L. Leatherman

1992 Organizer's Statement. Paper prepared for the Wenner- Gren International Symposium "Political-Economic Perspectives in Biological Anthropology: Building a Biocultural Synthesis," October 30 to November 7, Cabo San Lucas, Baja California, Mexico.

Haas, Jere

1990 Mortality and Morbidity Consequences of Variation in Early Child Growth. *In* Disease in Populations in Transition. A. C. Swedlund and G. J. Armelagos, eds. Pp 223–247. New York: Bergin and Garvey.

Levins, Richard, and Richard Lewontin

1985 The Dialectical Biologist. Cambridge, MA: Harvard University Press.

Martorell, Raynaldo

1989 Body Size, Adaptation and Function. *Human Organization* 48:15–20.

Merchant, Carolyn

1992 Radical Ecology. New York: Routledge.

Morgan, Lynn M.

1993 Comments on Wiley's "Adaptation and the Biocultural Paradigm in Medical Anthropology: A Critical Review." *Medical Anthropology Quarterly* (n.s.) 7(2):203–206.

Singer, Merrill

1989 The Limitations of Medical Ecology: The Concept of Adaptation in the Context of Social Stratification and Social Transformation. *Medical Anthropology* 10:223–234.

Singer, Merrill

1993 A Rejoinder to Wiley's Critique of Critical Medical Anthropology. *Medical Anthropology Quarterly* (n.s.) 7(2):188–195.

Wiley, Andrea

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