Medical Anthropology

Contemporary Theory and Method

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2. Important as pharmacologic assessment is, one must not lose sight of the fact that the subjects of ethnopharmacologic study are not ambivalent about how they use botanicals: in a dietary context, a plant is unequivocally "nonmedicine" and is regarded instead for its nutritive value and eaten by all household members who "eat from the same pot." The same plant in preventive and therapeutic contexts is clearly "not food" and may be ingested alone or in a composite preparation by the ailing individual, by the healer and patient, or even by whole groups who consume therapeutic meals that are communal (although meant to benefit a particular person).

3. The relation of ethnoveterinary to human therapeutics and its currently understudied status are reflected in the view that ethnoveterinary medicine is a "peninsula on the shore of local knowledge systems" (Nolan 1989:v).

4. Although anthropologists are assured that therapeutic models will be revealed in sufficient detail through "thick ethnography," we echo the concern of pharmacologists that one cannot extrapolate with confidence from the analysis of plant chemistry to the human experience (Etkin 1988b; Romanucci-Ross and Moerman 1988). Pharmacologic potential is confounded at least by the social and cultural constructions of therapeutics, including "placebo effects."

5. Potentially toxic nonbotanical ethnomedicines have been recorded, the lead tetroxide salt *azarcon* (*greta, liga, rueda,* etc.) being perhaps the most familiar (Yáñez et al. 1994; Trotter 1985); but the physiologic implications of human consumption, especially in what volume and with what regularity, have not been established.

6. Chimpanzees select the young leaves of various plants (*Aspilia* spp., *Lippia plicata, Ficus exasperata,* and *Commelina* spp.), rub them between the buccal (inner cheek) and tongue surfaces, and swallow them whole. Absorption through the buccal mucosa leads to rapid absorption into the systemic circulation to reach target organs directly and protects pharmacologically active constituents from inactivation in the low pH (acidic) environment of the stomach and degradation by hepatic enzymes (Newton and Nishida 1990). Buccal administration of drugs finds parallels in many indigenous therapeutic systems (e.g., for coca and tobacco), including in biomedicine the buccal or sublingual administration of apomorphine (for Parkinson's disease), bromfenac and buprenophrine (for pain), diazepam (Valium) and triazolam (sedative, antianxiety), and nifedipine (for hypertension).

7. Early morning ingestion for "medicinal" purposes may reflect higher pharmacologic activity at that time and/or that after overnight fasting, chimpanzees need to replenish blood levels of the active plant constituents.

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Studying Biomedicine as a Cultural System

Lorna Amarasingham Rhodes

Western biomedicine and medical anthropology are intimately connected.[1] Many medical anthropologists work in biomedical settings or study problems that have been defined in biomedical terms. Medical anthropologists also study biomedicine itself, exploring the ways in which it is socially, culturally, and historically constructed and showing how its perspectives influence the lives of its patients. In addition, most medical anthropologists are members of societies in which biomedicine provides the dominant forms of explanation and treatment for illness and are thus participants in as well as observers of the culture of biomedicine.

In this chapter I explore some of the implications and paradoxes of this relationship. My focus is on the ways medical anthropologists and others in related fields (mainly history and sociology) approach biomedicine as an object of study. My emphasis is on biomedicine as it is understood by these writers; discussing the diversity, internal complexity, and changing conditions of current biomedical practice in the United States is beyond my scope here.

Recently a good deal of discussion and controversy has arisen within medical anthropology about its relationship to biomedicine. Often the issue is phrased as a difference between "clinically applied" and "critical" medical anthropology. Clinically applied medical anthropology has been described as "serving to clarify specific issues in health maintenance and response to sickness" (Chrisman and Maretzki 1982b:2). Its orientation is the application of anthropological perspectives to particular clinical situations and problems. Critical medical anthropology, on the other hand, defines itself in terms of a concern with the macrolevel of political and economic forces that shape medicine and determine the nature and extent of its interventions. Margaret Lock describes the critical approach as one that pays attention to "macro-structural questions, the role of

power in social life, and the way in which biomedicine is culturally constructed''
(Lock 1986a:110; see also Singer 1995). Biomedical theory and practice is prob-
lematic not simply when it fails to address cultural and social issues involved
in individual patient care but because of its embeddedness and (often) sustaining
role in dominant political and economic systems.[2]

The precise nature of the division between clinically applied and critical med-
ical anthropology is by no means a matter of agreement among medical anthro-
pologists, and there are numerous variations on these definitions.[3] Morsy (1989a)
points out that critical analysis is common in other disciplines and objects to
using a label that sets it apart as special. On the other hand, M. Singer, Lani
Davison, and Gina Gerdis (1988:373) make a case for separating ''critical''
analyses that ''explicate culture in non-cultural terms'' from ''culturalist'' ap-
proaches that avoid economic or political forms of explanation. In fact, many
studies in medical anthropology are not easily assigned to particular camps.
Nevertheless, the argument between clinically applied and critical medical an-
thropology reveals a central problematic issue: How is biomedicine understood
and described from within medical anthropology?

I begin the exploration of this question by considering the anthropological
concept of the cultural system, showing how several recent works illuminate
biomedicine's cultural construction and the ways it functions as a system for
producing and expressing cultural meanings. I then turn briefly to clinically
applied approaches, showing how they deal with the cultural dichotomies con-
tained in clinical practice. Finally, I explore some of the premises of the critical
perspective as it touches on the issue of biomedical knowledge and practice. I
end by discussing some of the research strategies implied by each of these
orientations and suggest some directions for future work.

BIOMEDICINE AS A CULTURAL SYSTEM

In a series of classic articles, Clifford Geertz (1973c:108) suggests that cul-
tural systems can best be understood in terms of their capacity to express the
nature of the world and to shape that world to their dimensions. Thus, for
example, religion ''formulates, by means of symbols, an image of a genuine
order of the world.'' This simultaneous shaping and expression produces a con-
gruence between culture and experience that provides an ''aura of factuality''
within which cultural systems ''make sense'' and seem ''uniquely real'' to their
participants. For our purposes, the crucial phrase here is ''aura of factuality.''
The implication of Geertz's analysis is that cultural systems achieve a feeling
of factuality, of realness, that is, in part or whole, a by-product of their symbolic
forms.

In Western society biomedicine is generally believed to operate in a realm of
''facts''; many people experience their most intimate contact with science
through the biomedical description of the facts of bodily function and disease.
This realm of bodily fact is often perceived to be quite separate from other

cultural and social domains. ''To a degree perhaps unique to segmented Western
society, the participants of this ethnomedicine [biomedicine] emphatically dis-
tinguish their medicine from other aspects of institutions of their society. Illness
is thought of as a 'natural' occurrence'' (Hahn and Kleinman 1983b:312). Given
this assumption that nature and the body exist in a directly apprehendable realm
of fact, the problem for a cultural analysis of biomedicine is the delineation of
the ''aura'' in the ''aura of factuality'' that it promotes. The issue is not simply
the description of biomedicine but the discovery of strategies that will make
visible its nature as a cultural system. As Emily Martin points out (1987:52), it
takes a ''jolt'' to see the ''contingent nature'' of biomedical description.

Several recent explorations of biomedicine undertake specific and deliberate
strategies to provide this jolt by making visible the culture of biomedicine. One
strategy is historical contextualization; biomedicine is shown as the historically
embedded product of particular cultural and social assumptions, thereby high-
lighting the ''arbitrariness of institutions'' (Foucault 1988:11). Another strategy
is to uncover, through analysis of metaphor and other forms of speech, ways in
which social meaning is embedded in biomedical categories. Attending to the
life worlds of clinicians is a third strategy; the daily practice of clinicians is
revealing of biomedicine's theoretical and pragmatic foundations. All of these
forms of analysis aim to recover from the domain of the ''natural'' and the
''given'' those aspects of biomedicine that are cultural and constructed.

Most historical discussions of biomedicine emphasize its origin in an elabo-
ration of the Cartesian dichotomy between mind and body.[4] Biomedical theory
developed out of the possibility, following René Descartes, of a separation of
the physical body from the mental and social. The body, as part of the natural
world, becomes knowable as a bounded material entity; diseases similarly are
physical entities occurring in specific locations within the body. Robert Hahn
and Arthur Kleinman (1983b:313) describe the consequence: physical reduc-
tionism is a central tenet of biomedicine. This medicine also radically separates
body from nonbody; the body is thought to be knowable and treatable in iso-
lation.

As Nancy Scheper-Hughes and Margaret Lock (1987:10) point out, even
those who try to take an integrated perspective on illness ''find themselves
trapped by the Cartesian legacy. We lack a precise vocabulary with which to
deal with mind-body-society interaction and so are left suspended in hyphens.''
This is not just a matter of vocabulary but of epistemology; biomedicine partic-
ipates in deep-seated cultural assumptions about what it means to know the
body.

The particularity of this way of knowing the body can be seen in biomedical
texts and practices that provide a mechanistic and desocialized imagery of bodily
processes.[5] For example, in a section of *The Woman in the Body* (1987) entitled
''Science as a Cultural System,'' Martin examines the images of women's bod-
ies found in medical textbooks and suggests that several metaphors of the body
permeate their seemingly ''scientific'' (that is, in this context, neutral or value-

free) descriptions of physical processes. Thus, the processes of menstruation and menopause are described in terms of production and control. The female reproductive system is geared to "production" and is organized as a hierarchical system of communication among hormones, cells, and the brain. This imagery corresponds to that of our economic system. In menopause, "what is being described is the breakdown of a system of authority . . . at every point in this system, functions 'fail' and 'falter.' Follicles 'fail to muster strength' to reach ovulation. As functions fail, so do the members of the system decline" (p. 42). The key to this metaphor, Martin says, is functionlessness: "these images frighten us in part because in our stage of advanced capitalism, they are close to a reality we find difficult to see clearly: broken down hierarchy and organizational members who no longer play their designated parts" (p. 44). In these images, the "natural" functioning of the body is described in a way that fits a wider social view of women as defined by their reproductive function.

A similarly circular relationship between social and medical imagery can be seen in Rayna Rapp's (1988a:149) description of the process of genetic counseling. She points out that "statistics and medical terminology are genres of communication, not simply neutral vocabularies. . . . Much of the scientific information that counselors want to convey is technical and invisible." The visual aids used by counselors, such as charts and graphs, have an effect in "shaping the perceptions of the client" and thus, for some clients, redefining what is known in terms congruent with the biomedical definition of the "natural." The "codes, genres and assumptions construct the conversations genetic counselors may have with their patients" (p. 151), producing as natural a particular way of seeing the body and its reproductive life.

A revealing account of the historical embeddedness of biomedical knowledge is provided by Michel Foucault. For Foucault, medicine is one of a number of related disciplines that have shaped the body as a vulnerable site for the articulation of social relationships. In *The Birth of the Clinic* (1975) Foucault argues that modern medicine had its birth in the period around 1800 when medicine became clinically based and concerned with both the inside of the body and the control of the health of populations. Foucault's thought is complex, and my discussion here limited, but two examples can perhaps give some idea of the sense in which he perceives that medicine both shapes and expresses its historical context.

Foucault describes the period around 1800 as one in which medicine shifted not from a less to a more accurate understanding of the body but from one kind of knowledge to another. Before 1800 Europe had a "medicine of species" that depended on classification; diseases were organized into families and species and related more to one another than to the body of the patient. Medicine after 1800 was dominated by what Foucault calls "the gaze," a new way of seeing that looked into the body and focused on what was individual and abnormal.

Suddenly doctors were able to see and to describe what for centuries had been beneath the level of the visible. It was not so much that doctors suddenly opened

their eyes; rather the old codes of knowledge had determined what was seen (Sheridan 1980:39). A new way of seeing produced a new kind of knowledge: "clinical experience sees a new space opening up before it; the tangible space of the body . . . the medicine of organs, sites, causes, a clinic wholly ordered in accordance with pathological anatomy" (Foucault 1975:122). For Foucault the historical context, and particularly its shaping of what is possible, of what can be seen, determines what at any time is considered to be true. Practitioners of the early nineteenth century did not suddenly become better observers and therefore better able to discover the truth about the body; rather, there was a fundamental change in what constituted observation. This change brought about profound changes in medicine, and these in turn shape the body we perceive. In this argument, the issue of shaping goes deeper than what is said. Foucault is interested in what *can* be said and in the mutual shaping of perception and possibility that gives rise to a particular medicine at a particular historical moment.

Foucault later extends this argument to show that in the nineteenth century, the body became an object of social control in a new sense. Minutely observed in clinics, prisons, and hospitals, bodies could be made into docile instruments of and for the exercise of power. One tactic of discipline is the dossier—the collection of documents that locates, describes, and accounts for each prisoner, patient, or child. As Foucault (1979:192) puts it, "The turning of real lives into writing functions as a procedure of objectification and subjection." Thus, for Foucault, neither "objective" description nor the case format in which such description is often framed constitutes value-neutral aspects of medicine. Rather than functioning to delineate a reality that exists independent of its description, they are techniques for the shaping of reality that create patients as individuals susceptible to a particular kind of judgment. Thus, people are profoundly shaped by disciplinary mechanisms that permeate our society, with medicine primary among them.

Issues of the relationship between mind and body, questions about what is knowable, and integration into the discipline of institutional life are enacted in the daily practice of clinicians. An example of a study that explores the lived world of a practitioner is Robert Hahn's "Portrait of an Internist" (1995). Hahn portrays the symbolic world of a clinician; the internist uses and reflects on biomedicine's categories, and his practice is revealing of how these categories exist in the larger culture. Hahn's strategy is to explore the interface between the personal and social that is provided by the world of work, showing the "goals, assumptions and uncertainties of medical logic" (1985:53). His internist enacts in work the production, of both self and society.

The internist described in Hahn's portrait engages directly the questions of realism and nominalism inherent in biomedicine's Cartesian origins. Thus, the internist "refers to his conception of the patient's problem, most often a physiological one, as 'a picture' . . . a 'thing' "; sometimes "pictures" "make sense," and sometimes he "makes sense of" them. As Hahn points out, "If

purported facts fail to make sense, the anomaly must inhere in the facts; but, if Barry (the internist) is unable to make sense of the facts, it may be . . . that the difficulty lies in Barry's sense-making activity. . . . These are respectively met-aphors of realism and nominalism, of naturalism and constructionism'' (1995: 140). Thus, this physician enacts, through work and in relation to the bodies of his patients, some of the fundamental issues embedded in the history of medicine itself.

The assumption behind Geertz's definition of a cultural system is that ''culture can be explained primarily in terms of itself'' (Singer, Davison, and Gerdes 1988:370; Good and Good 1981; Fabrega 1979). However, these examples sug-gest that the culture of biomedicine does not lend itself to explanation in terms of itself. One problem is the same as that of Hahn's internist in the passage quoted: the relationship between constructed and natural fact. Hahn points out that social science observers in biomedical settings have often paid insufficient attention to its materiality. Biomedical practice depends on the assumption of an objectified nature subject to scientifically formulated ''reality testing,'' and although, as Hahn points out (1984), reality testing is fundamental to all healing traditions, we find our particular brand especially compelling. Thus, from the perspective of patients, practitioners, social scientists, and laypeople in our so-ciety and despite much evidence of limitations or confusion, nature as it is understood by biomedicine demands to be taken seriously (that is, not ques-tioned) in studies of biomedicine. This paradox, usually not in evidence in stud-ies of other medical systems—for example, most studies of Ayurveda do not generally consider its disease categories as descriptive of actual diseases but of socially constructed ones (see, for example, Obeyesekere 1978)—means that the categories of the culture under study are also the categories used to study it.

A second difficulty arises not so much in connection with factuality as with its aura. The closed circle of belief and expression suggested by the notion of cultural system appears flawed, even fragile, in several of these accounts. This may result in part from the way illness itself threatens the cultural order with chaos and loss of meaning and thus ''calls into question particular socio-cultural resolutions'' of the dilemmas of human existence (Comaroff 1982:51). Paradox and doubt may be intrinsic to the experience of the body; ''physical form . . . generates, from its own internal contradictions, the potential basis for critical awareness'' (Comaroff 1982:51).

In addition, however, biomedicine participates in a cultural separation of mind and body, nature and culture, in ways that may produce a sense of dissonance expressed in increasing criticism and doubt. Martin, for example, found that women she interviewed expressed diverse images of their bodily processes, con-tradicting and resisting biomedical formulations (1987). Similarly, Rapp's work suggests a complex interplay between social context and the expression of med-ical ''information,'' with some counseling recipients unwilling to accept the language of risk in which advice was proffered and with that language itself constantly modified in interaction (1988a). Thus, as Jean Comaroff puts it,

''there has been an awareness that 'factual' knowledge might imply social val-ues, that medicine has bequeathed us powerful metaphors along with its 'natural' truths and that these might . . . reinforce the deep-seated paradoxes raised by illness'' (1982:56). The examples given here suggest that critical perspectives tend to emerge out of the cultural analysis of biomedicine.

BRACKETING BIOMEDICINE

One solution to the problem posed by medicine's grounding in ''fact'' is to segregate biomedical and social science ways of knowing. Most of clinically applied anthroplogy, and much research in medical anthroplogy as a whole, is based on a bracketing of biomedical expertise as referring to areas of knowledge not within the purview of the anthropologist.

This bracketing is the basis for the well-known distinction between disease and illness proposed by Leon Eisenberg (1977) and Arthur Kleinman (1980) (see also Young 1982; Hahn and Kleinman 1984). This distinction is created by dividing up the field of ''sickness'' into a domain of disease, considered to be pathology as biomedically defined, and illness, which encompasses the cultural meaning and social relationships experienced by the patient. Allan Young sums it up thus: ''Disease refers to abnormalities in the structure and/or function of organs, pathological states whether or not they are culturally recognized.'' This is the ''arena of the biomedical model.'' Illness, on the other hand, ''refers to a person's perceptions and experiences of certain socially disvalued states in-cluding, but not limited to, disease'' (1982:264). Thus illness includes the ex-periences and beliefs of individuals; disease is what biomedicine discovers ''in'' the person regardless of his or her (personal or cultural) awareness.[6]

The disease-illness distinction has provided the basis for much work in med-ical anthropology on the explanatory models and semantic illness networks of patients and, to some extent, of practitioners. These studies set aside the disease half of the distinction and concentrate on understanding the illness experiences and behavior of individuals and cultural groups. By ''setting aside,'' I do not mean that disease itself is not considered problematic for those who experience it but that the definition of disease—its status as a real, natural phenomenon— is considered nonproblematic. This has allowed medical anthropologists to study culture (beliefs, issues of meaning, experience of illness) in medical settings without dealing with questions of the cultural construction of medicine itself. It also allows for the defining of research problems (for example, the study of groups of patients suffering from a particular disease or the study of the rela-tionship between cultural and physical aspects of causation in a particular dis-order) in ways that are relevant to the social context supporting the research. As Noel Chrisman and Thomas Maretzki say, ''In our research, anthropologists have explicitly or implicitly drawn on clinical medicine as the standard for judging the 'real' world of sickness'' (1982b:22).

One consequence is that medical anthropologists have been able to do re-

search and teaching in medical settings, finding ways to incorporate anthropology into practice while respecting the orientation and commitments of clinicians. For the anthropologist who is, as Chrisman and Maretzki describe, bicultural in anthropology and medicine, the ideal is a translation of perspectives, enabling clinicians to make use of anthropological insights. Often these insights have to do with negotiation among perspectives (as in, for example, Kleinman's use of explanatory models, 1980); at other times they have to do with patient advocacy (as in, for example, obstetrics) or with the clarification of ways that the biomedical perspective influences the cultural interpretations of patients.

On the other hand, the disease-illness distinction is a variant of the mind-body and culture-nature dichotomies (Hahn 1984a). By using it to separate natural facts from cultural constructions, medical anthropology runs the risk of taking on characteristics of biomedicine itself. Instead of offering a perspective that comes from a position of stranger (Chrisman and Maretzki 1982b), the anthropologist may be a kissing cousin in disguise. For example, the emphasis on case studies reproduces in anthropology the individual-centered and "objective" approach of the medical case study (but see Hunter 1991 for a discussion of narrative in medicine). Similarly, the use of scientific language to describe disease reproduces the position "from the outside looking over or into a space" (Pratt 1986) that is fundamental to the medical gaze. The anthropologist is also influenced by the premise of biomedicine that "it is *the* medicine, real medicine; only other ethnomedicines are specially denominated, 'osteopathic medicine,' 'Chinese medicine' " (Hahn and Kleinman 1983:312). In both biomedical settings and the study of other kinds of medicine, it is hard to avoid the assumption that what needs to be explained are the "alternatives," the "other" perspectives, the "misunderstandings" or "misuses" of biomedicine rather than biomedicine itself.

An interesting recent development is that as biomedicine expands its definitions of physical disorder, incorporating problems with recognizably large social components (as in, for example, alcoholism and posttraumatic stress disorder), the position of the anthropologist becomes problematic. These conditions, with their roots in problematic social environments, seem to be ripe for anthropological analysis and understanding. However, attempts to bring social and cultural considerations to bear on biological phenomena tend to participate, often unwittingly, in a process of naturalization that turns them into things comparable to diseases. The bringing of chronic or behavioral conditions into the domain of biomedical treatment (the very thing that brings them to the attention of the biomedically based medical anthropologist) tends to result in their naturalization and "reinterpretation as events requiring medical intervention." Thus, the more they are translated into the reified, concrete terminology of "disorders," the less room there is for the anthropologist's perspective on the cultural shaping of both the symptoms and their interpretation. As Young has shown for posttraumatic stress disorder, the production of "knowledge" about such disorders is itself a cultural process (1988).

CRITICAL PERSPECTIVES

Much work in anthropology has explored the positive aspects of cultural systems in providing and sustaining meaning in human social life. But there is another perspective from which the congruence between the shaping and expressive aspects of culture can be seen as perverse. Religion, for example, appears in this view as an "opiate," preventing people from recognizing the truth of their situation. Medicine, in its powerful mediation of human physical and emotional frailty, can similarly be understood in terms of its relationship to a larger social (political and economic) system in which it serves to conceal sources of injustice and suffering. From this point of view, medicine cannot be described apart from the relations of power that constitute its social context. As Howard Waitzkin puts it: "Major problems in medicine are also problems of society; the health system is so intimately tied to the broader society that attempts to study one without the other are misleading. Difficulties in health and medical care emerge from social contradictions and rarely can be separated from those contradictions" (1983:41).

There are two aspects to this relationship. One is that health problems themselves may be socially caused, creating what Waitzkin calls the "second sickness" (1983). The other, related, aspect is that medicine may function to conceal the social origins of sickness and to suppress the possibility of protest.

When biomedicine is seen in this light, clinical knowledge itself becomes problematic; its connections to the larger system mean that it "cannot be either evaluated or transformed in any simple, decontextualized manner" (Comaroff and Maguire 1981:121). Nor can it be seen merely as a "web of significance" (following Geertz) approachable through understanding; it must also (or perhaps, instead) be considered as a "web of mystification" (Singer, Davison and Gerdes 1988).

Critical analyses of biomedicine are attempts at demystification. One strategy aims to uncover the incidence and causes of the "second sickness" by exploring ways in which medical care fails to reach, recognize, or correct socially created problems. Many analyses stress the relationship between capitalist production (and the profit motive inherent in it) and the failure to protect workers and others from its effects (e.g., Waitzkin 1983; Michaels 1988; Taussig 1978). Others focus on the maldistribution of medical care and the effects on the health of populations created by the dominance of complex technology (Young 1978; Navarro 1976).

A second strategy aims to uncover how biomedicine mystifies sickness through its participation in the nature-culture dichotomy. Medicine, because of its bias toward the uncovering of natural facts, represents the body in ways that are powerfully suggestive of a natural reality separate from the social. The effect, if not the intention, is to make the social invisible and to place sickness, as a natural process or entity, inside the individual.

Martin's point in her argument about menopause is that the "shriveling" of

the ovaries is a metaphor that rests on and reinforces the social representation of the "shriveling" of production in the older woman. Because medicine has clothed the social representation in scientific language, it is difficult to discover its origins (1987). Similarly, Michael Taussig (1980a) describes the way a hospitalized patient is convinced of her own helplessness in the face of disease. She minimizes her own strength because she has been taught to rely on experts who function to invalidate her intuitive understanding of the social origin of her problem. Her disease is treated as a thing, part of a natural world separate from the social world that oppresses her. Thus Taussig considers medicine to express a hidden ideology, one that reifies the social and separates it into a natural domain where it cannot be understood for what it is.

By placing the body and bodily experience in the realm of nature, biomedicine conceals both the social causes of sickness and the social embeddedness of the experience of sickness. Thus, for example, the diagnostic category of premenstrual syndrome (PMS) creates a "disorder" that may serve to obscure the social relations that are the context of women's suffering (Martin 1987; Johnson 1987a). Similarly, the processes of childbirth and dying may be isolated from their social contexts and treated in largely technical terms that prevent those involved from taking care of themselves and each other (Illich 1976; Osherson and Amarasingham 1981; Comaroff 1982).

Recent cross-cultural and historical studies suggest that these tendencies toward reification and mystification are widely associated with biomedical practice. Lock's work on school refusal and on menopause in Japan shows that Japanese biomedicine similarly describes social problems as "syndromes" to be treated (Lock 1986a). In northeast Brazil, medical treatment, especially in the form of tranquilizers, serves to conceal the economic and social origin of starvation (Scheper-Hughes 1992). An example from the history of psychiatry comes from Andrew Scull (1979), who shows that asylums in nineteenth-century England had the effect of isolating and controlling those in the population who could not survive under the conditions of early industrialization. Asylums maintained a distinction between the mad and the able-bodied, who could not be given relief for fear of undermining their value as surplus labor. Medical definitions of insanity contributed to and perpetuated the separation of "useless" from "useful" individuals. Scull sees the current move toward deinstitutionalization to be similarly motivated by economic policy; welfare and disability payments make it cheaper for the state to maintain disabled people outside asylums (Scull 1977).

Other areas of medicine have also been seen as fostering dependence in order to conceal and support class and gender interests. E. Richard Brown (1979), for example, shows that late-nineteenth-century capitalism in the United States deliberately fostered biomedical definitions of problems that might otherwise have been seen as related to industrial development. The notion of the body as a mechanism that could be repaired corresponded in important ways to factory production (Scull 1979). Similarly, nineteenth-century medical theories about

the fragility and emotionality of women served to bolster male dominance and the creation of the home as a domain separate from the workplace (Ehrenreich and English 1978).

These analyses regard biomedicine's aura of factuality as precisely its source of power. Medicine can describe events in a value-neutral language that makes them appear to be part of the natural world and thus neutralizes what are, in reality, social problems. In the nineteenth century, villagers whose ability to support aging relatives had been undermined by social change were convinced that asylum care was provided by "experts" (doctors) and thus superior to their own; women who rebelled against restrictive conditions could be persuaded that bed rest was the only remedy for their restless female organs. Similarly, today, Brazilian peasants believe tranquilizers to be "medicine" for starvation (Scheper-Hughes 1992), and women angry over the unfair distribution of domestic work regard their anger as a "symptom" of PMS (Martin 1987).

For some writers this analysis of the embeddedness of biomedical categories in social life (and their tendency to perpetuate sickness-causing aspects of social life) is not enough. Additionally, it is important to recognize the ways in which biomedicine also gives rise to resistance. Martin attempts to make visible, through the analysis of women's speech, the way ordinary women resist the biomedical description of women's bodily life. For example, women may refuse to go to the hospital for childbirth, or they create original metaphors to describe bodily processes. Brigitte Jordan, in an analysis of the medical "training" given to Maya midwives (1989), shows that the midwives ignore much of what is presented to them and instead use medical supplies (masks, birth control pills) as props and symbols. They are resistant to changes in their way of delivering babies, preferring their own situated knowledge. Foucault suggests that this kind of "subjugated," situated knowledge, arising out of practice at a local level, forms the basis for a potential resistance to biomedical domination (1980b); however, he refuses to speculate about the ultimate shape that any change might take, insisting that while we can critique our system, we cannot be programmatic in our approach to change (1984).

Those who emphasize the misuse of medicine are more prescriptive. If the problem is the creation of sickness under capitalism and the maldistribution and misappropriation of biomedicine, then the solution does not lie so much with changes in biomedicine itself or with pockets of resistance among patients or practitioners as in larger-scale changes in the system. Hans Baer, Merrill Singer, and John Johnsen issue this challenge: "Attention to the influence of class interests as well as to the workings of power in large-scale organizations is vital for a truly critical medical anthropology. . . . An approach that is sensitive to these issues will not cater to the furtherance of 'medical cultural hegemony' of the capitalist world system, but will help create a *new medical system*" (1986: 97; emphasis in original; see also Singer 1995 for a more contextualized approach).

Criticism of biomedicine—regardless of whether the stress is on discovering

resistance or creating a new system—often seems to involve a paradox. On the one hand, biomedicine as part of society (the "medical establishment") is seen as failing to serve the real best interests of that society. On the other hand, the techniques of biomedicine (its science) are seen as one means for discovering these real best interests. In some instances, biomedical categories themselves are employed to critique the use of biomedicine. For instance, Nancy Scheper-Hughes uses biomedical definitions of starvation to challenge the misuse of biomedicine to conceal it. This sidesteps the question, raised by those who consistently question biomedical categories (for example, Foucault), as to whether the science of biomedicine itself does not contain intrinsic assumptions about society and about the nature of reality that are, at best, disempowering and, at worst, harmful to body and society (as in, for example, Illich's 1976 critique of medicine's iatrogenic effects).

As an example of the complexity of this problem, consider Jordan's account of the training of Mayan midwives (1989). Jordan suggests that these midwives are competent in their own right, rarely losing a mother or baby; she also suggests a few areas in which their management of labor and delivery is questionable by modern obstetrical standards. Is there a way to take what is "good" (useful? relevant?) from biomedicine and incorporate it into their practice? Who should decide what that usefulness or relevance is, especially as medical standards themselves change rapidly? Is it not possible that a few seemingly benign changes might undermine the midwives' entire practice? On the other hand, can Jordan, who knows, for example, that encouraging pushing too soon may damage the mother or baby, simply consider this aspect of the midwives' practice a part of their "culture," thereby refusing to acknowledge the possible benefits of medical training? In a situation like this, it becomes clear that we are torn between our own belief that the body can be considered part of the natural world, with at least part of its truth discoverable by biomedicine, and our (often also strong) belief that biomedical intervention can be either oppressive or outright wrong.

CONCLUSION

When I teach medical anthropology I often point out that illness entails an intensity and vulnerability that reveal the most basic attitudes of the society in which it occurs. This is what makes medical anthropology particularly interesting. The study of life-and-death situations often throws into relief issues and contradictions that are less visible when there is less at stake. In this chapter I have been concerned with what happens when we turn our gaze on our own medical system. Not surprisingly, we find that fundamental attitudes of our society and, in fact, our very epistemology, emerge as problematic. At the same time, the vulnerability of self, body, and society to illness engages us, to a greater or lesser extent depending on context and inclination, in the same prob-

lem faced by clinicians: the need to act, to provide useful understanding or in some other way to contribute to the alleviation of suffering.

How one thinks of biomedicine makes a difference in medical anthropology, influencing research, teaching, and one's orientation in one's own society. When biomedicine is contextualized and regarded as a cultural system, what Scheper-Hughes and Lock call the "as-ifness" of our "ethnoepistemology" is revealed (1987:30). A researcher oriented to this perspective is likely to be interested in how medicine's aura of factuality is achieved, focusing on historical, social, or linguistic contexts. She or he is likely to adopt a questioning stance toward the biomedical definitions of health problems. Thus Young (1988), for example, takes posttraumatic stress disorder as his object of study, not as the definition of what he should study. Similarly, Howard Stein (1982b) questions not "cultural influences" on alcoholism but how "alcoholism" is a socially constructed category. Emily Martin (1994) addresses "immunity" as a contemporary discourse rather than (merely) as a scientific discovery "about" the body. Comparative work is particularly congenial to this perspective because movement through time or space reveals the arbitrary and culturally constructed nature of medical categories. On the other hand, it may be difficult to persuade those engaged in direct care of the usefulness of epistemological doubt; nor do problems framed in terms that "explain culture in terms of culture" always make sense to those accustomed to a biological bottom line for research.

The second approach takes the environment created by biomedicine—clinics and professional schools—as given and tries to contribute an anthropological understanding that will improve the treatment of patients. Often this understanding is in the form of analyses of the meanings patients attribute to illness and of the process of care seeking; more rarely, understanding extends to the meanings clinicians attribute to their work. A medical anthropologist working within this framework is likely to do research on a "medical problem"—a disease or diseaselike entity or a clinically defined issue like doctor-patient relationships. The aim may be to discover certain facts about the problem or to show how cultural and social factors contribute to it. Conclusions are likely to point to useful changes or interventions. The point here is not that these steps do not result in criticism of biomedical practice—they often do—but that they rarely lead to an examination of biomedical knowledge itself as culturally constructed. What is made visible are likely to be problems within medicine, not medicine itself.

Finally, the third approach I have outlined attempts to shift the focus of attention to larger (macro) social problems such as class and gender inequality, corporate domination, and the health-destroying features of capitalism. The starting point is different; the clinic is no longer a bounded site for research but part of a larger system of domination or mystification. The improvement of the doctor-patient relationship is not the issue; rather, the question is how it reflects and augments relationships of power in the larger society. The medical anthropologist with this perspective is likely to focus on an area of social injustice

and suffering and show how medicine contributes to mystifying the social forces involved. This perspective seems to require Gramsci's "pessimism of intellect, optimism of will" (Frankenberg 1988b:331) in the face of resistance to change at the macrosocial level. Or, as Taussig (1980a:7) puts it, "It is essential to pose the challenge [of developing a critique] but it is utopian to believe we can imagine our way out of our culture without acting on it in practical ways that alter its social infrastructure."

Since the contradictions in medical anthropology's relationship to biomedicine are reflective of contradictions in the society in which we work, they are unlikely to be resolved through any sort of agreed-upon theoretical framework for the discipline. In fact, it would probably be to the detriment of the liveliness and self-reflection evident in current medical anthropology were there easy solutions to the differences between clinical and critical approaches. Nor can we avoid the discomfort of "suspension in hyphens" when we consider the ways in which our epistemology mires us in the time-worn dilemmas of our culture. However, there are several fruitful directions for research that address some of the problems raised in this chapter.

The first is to press on with the study of biomedicine. The studies I have described here suggest the enormous richness of biomedical practice and history as areas for research in medical anthropology. Others, such as Charles Bosk's study of error on a surgical ward (1979), Donna Haraway's work on the immune system (1988), and Good's discussion of the construction of medical objects (1994) point to areas (the less "social" medical specialties, the imagery of biological science, the production of knowledge within medicine) that have barely been touched on by medical anthropology.

One promising direction is the close examination of practitioners. Their world of work, their formation of professional identity, and their situated knowledge provide a counterpoint to our already extensive study of patients (see, for example, Hahn 1995). The practice of biomedicine often differs significantly from the standard descriptions of biomedicine as a system of knowledge, and these differences need to be explored (see, for example, Gordon 1988). In addition, such a close reading of practice is likely to discover seeds (if not a full-blown flowering) of criticism within biomedical practice itself and, perhaps, the basis for a critical analysis arising from below.

Second, we need to shift our perception of boundaries. We can seek out ways to define our object of study that avoid some of the more obvious contradictions in our own culture. This is what Scheper-Hughes and Lock suggest in their article, "The Mindful Body: A Prolegomenon to Future Work in Medical Anthropology" (1987). They propose that we make the body our object; by including its capacity to express and reflect emotional, social, and political life, we may be able to escape the "mind/body, nature/culture, individual/society epistemological muddle" (1987:28). Hahn makes a similar suggestion, proposing that we give our attention to "suffering" rather than "disease" or "illness." This, he says, creates a framework based on a "pan-human phenomenon" that

can encompass various kinds of medical knowledge as "accounts for suffering" (1984a:22, 1995). These proposals aim to shift our vision, to create a larger framework within which problems of society and problems of individuals can be seen as mutually illuminating.

Third, we must experiment with mixed forms of analysis. Often we present our work in ways that reflect the epistemological muddles we are trying to escape. Medical anthropology might benefit from closer attention to recent work on reflexivity and experimental ethnography that explores the roots and implications of writing styles in anthropology (for example, Clifford and Marcus 1986; Marcus and Fischer 1986). Another possibility is to experiment with combining close phenomenological analysis of individual situations with a "reading out" of the social criticism embedded in such situations. In a study of stroke patients, for example, Kaufman shows how their situations reflect medical and societal limitations (1988). Scheper-Hughes approaches the suffering of northeast Brazilians by combining intimate portraits with a critical analysis. These approaches require a shifting of attention back and forth from the close-up involvement required to understand the details of individual lives to the more distanced view necessary to see the social forces expressed and reflected in them. This leap may be hard to make because of the difficulty of showing precisely how the microlevel and macrolevel are connected; there is also the difficulty of knowing how far to go beyond the interpretations offered by those involved (see, for example, Csordas 1988b). Nevertheless, the attempt is worth making if it allows us to be specific about the complexities of the body-person-society connection.

Medical anthropology speaks of, and speaks from within, the complex intersection of social institutions and the bodies and selves of individuals. Our concern with the connections among person, culture, and society places us squarely in the midst of fundamental anthropological debates about the nature of culture and the construction of social reality. At the same time, our involvement in illness and care leads to a concern with criticism and social action. These issues are likely to impinge, whether recognized or not, on theory and practice in the field of medical anthropology.

NOTES

1. All the terms we have for our medicine—*biomedicine, allopathic* medicine, *Western* medicine—are limited and inadequate. *Biomedicine* seems the best choice, though it implies, as Frankenberg points out, "an unjustifiable identity of biological (itself far from unitary) thinking and the medical gaze" (1988c:455). In this chapter I use *medicine* interchangeably with *biomedicine*.

2. The fact that "criticism" is an issue in medical anthropology—named, defined, argued over—may reflect the association between medical anthropology and biomedicine. There seems to be a sensitivity and defensiveness about "criticism" of a medicine with which we (as individuals and as a field) are, to varying degrees, intimate.

3. It is not my intention to provide a classification of medical anthropologists by type. In fact, there is variation within many individuals' work in terms of their alignment with one or another of these perspectives.

4. Many older studies of medicine do not make visible its aspect as a system of knowledge. For example, earlier studies of medical settings (e.g., Fox 1959; Caudill 1958b), while illuminating social relationships and issues of meaning within the clinic, do not examine the theoretical premises on which the clinical practice itself is based.

5. Interestingly Sontag (1978), who has given us a rich description of the metaphors associated with illness, exempts biomedicine itself (as theory) from her analysis. She replicates the cultural assumption that only patients and wrong-headed clinicians have "beliefs"; true science is metaphor free.

6. Kleinman's views of the relationship between disease and illness have changed (e.g., 1983) to reflect an increasing emphasis on the ways in which illness is converted to disease by biomedical practitioners.

Part III

Health Issues in Human Populations