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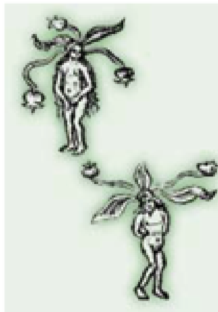

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Cognitive Structures of Traditional Medical Systems: Ordering, Explaining, and Interpreting the Human Experience of Illness*

Arthur Kleinman

Abstract This paper reviews an important area for theory and research in ethnomedicine: comparative studies of the cognitive structures of medical systems. A model of medical systems generated by comparative research—ethnographic, social epidemiological, historical sociological, clinical—is presented for both traditional and modern systems of medical and psychiatric care. In this model, medicine is viewed as composed of total local health care structures which are located in specific sociocultural contexts. Medical systems encompass both professional and popular institutions, forms of knowledge and values, and health-related behaviors. Such local systems are conceptualized in terms of four basic functions of medical care, which seem to obtain in all societies: (1) the social construction of the illness experience; (2) the cognitive ordering of illness via labeling, classifying and explaining; (3) healing acts per se; and (4) the medical management of dying and death. Medical systems also construct that sector of social reality that contains hierarchical structures of health needs, values, and the expectations and evaluations of medical care activities.

The paper then discusses medical cognitive structures within the framework of this model and deals with some of the underlying research issues, especially in Chinese society. Emphasis is placed on the importance of the interactions which occur between different medical systems occupying the same sociocultural space, and the process of modernization is singled out as a crucial focus for research. The different cognitive operations of traditional forms of medical care are discussed and compared with those functioning in modern medical care systems. From this comparison, a critique of modern medical care has been developed. This critique draws from our knowledge of ethnomedicine and suggests ways in which such knowledge is applicable to contemporary health care. I have given special stress to the contrasts between *disease* and *illness*; biological processes and sick persons; *meaning* and *efficacy* in traditional and modern medical systems. Finally, some research approaches to the comparative study of medical cognitive systems are suggested.

Introduction

Elsewhere I have argued that the rapid growth of our knowledge of traditional systems of medicine, or ethnomedicine, which has resulted from research in the history, ethnography, sociology, social epidemiology, and behavioral science aspects of medicine, has given rise to a new comparative study of medical systems.[1] I have also tried to point out that the latter will not be firmly grounded until organized interdisciplinary studies are performed cross-culturally, in which efforts are made to reconstruct entire systems of medicine and to compare their cognitive and social structures. At present, it would seem that we have learned enough about this subject to suggest a universal set of four fundamental functions of medical care systems which seem to hold for all medical systems - ancient, primitive, historical Western, traditional non-Western, folk, popular, and modern.

Such is the case, however, only if we take a very wide view of medicine, one considerably different than our habitual medical and social science perspectives, and see it as a cultural system containing both professional and lay institutions, forms of knowledge, and behaviors. Quite obviously, in most traditional societies the medical system interpenetrates with other cultural systems, especially the religious system. Medical systems may differ significantly in their levels of organizational development and professionalization. A given traditional society may possess a number of distinct and often quite different systems of medical care, even apart from the presence of modern scientific medicine introduced from the West. These separate traditional medical forms, coexist, complement, and compete with each other, and, in turn, with modern scientific medicine. Their interaction, gives rise to many different con-

* Professor Arthur Kleinman gave lectures in June 2011 at Heidelberg (SAI) and at Freie Universität Berlin. During an Interview on June 28, 2011 he gave the permission to reprint this article, one of his first, where his early main ideas are already very present.

figurations of medical care, but I would argue generally that on the "local" level these disparate medical traditions are more or less integrated into a total functioning structure by social perception and usage, forming a local system of medicine as a distinct part of socially constructed reality. This perspective is crucial for historical and ethnographic reconstructions and comparisons of medical systems.

The four basic functions of medical care systems can be roughly outlined as follows: (1) the social construction of illness into a human experience (illness behavior); (2) the cognitive response to illness via ordering processes such as labeling, classifying, explaining, and interpreting; (3) healing or therapeutic practices per se; and (4) the management of dying and death. These primary functions of medical care are organized into distinct medical systems through the interaction of particular epidemiological factors at play in the environment, the level and kind of available biotechnical interventions, the social system and its institutional framework and pattern of social relationships, and the organizing principles of the given cultural universe, including for example the recognized and legitimated sources of power for healing (i. e. magical, religious, scientific, etc.).

Whereas there has been much interest in and, accordingly, we have learned much about several of these core activities, only recently have attempts been made to systematically explore the second of these. In this paper, then, I should like to discuss the cognitive structures and activities of medical systems, about which we know surprisingly little, even though they are so central to medicine. Such an exercise, I believe, represents a first step in a comparative analysis of the historical sociology and anthropology of practical medical knowledge, an empirical study of the sociocultural basis of clinical rationality and communication.

Since the growth of our understanding of this important subject has resulted largely from the study of traditional systems of medicine, I shall deal with these systems primarily. In fact, explorations into the cognitive foundations of modern scientific medicine are considerably less advanced, and one of the crucial problems often met with in comparative studies of traditional medicine is the relations, interactions, and transformations that occur between the cognitive structures of traditional and modern medicine in the same cultural context. Another major aspect of this subject which has remained poorly understood is popular medical knowledge in modern societies, and its relation to modern medical care. Thus, the comparative study of traditional medical cognitive domains may have a great deal to add to our appreciation of modern medicine, and also to our understanding of science, though it is essential that we recognize the many and often quite marked differences that exist in these different traditions.

That there is a fundamental congruence between traditional and modern forms of medical care is, of course, not very remarkable, since modern medical care itself can be viewed as something of a hybrid: constituted both by a modern scientific component, which has emerged from the scientific revolution and which has been primarily concerned with disease and its biological substrate , and an archaic healing component, which has been chiefly oriented toward the sick person and toward illness as a human experience, as in all traditional forms of medicine, and which itself is derived from traditional medicine in the West.

The Cognitive Structures of Traditional Systems of Medicine

In the most general terms, traditional systems of medicine, directed as they are toward the human reality of illness, have been concerned with providing personal and social meaning for the experience of illness and efficacy for the control of illness. Indeed, these twin requirements of medical healing are imposed upon the illness experience from the outset by the ways in which individuals in different cultures have learned to perceive, feel, and act ill, as well as by the hierarchical structure of health needs, values, and expectations that medical systems create. In this sense, illness always occurs within a given system of medicine, taken as a legitimated sector of social reality, which shapes the illness trajectory just as it generates specific treatment interventions; and, in this same sense, one could say that it is the medical system which both constructs the illness experience and heals.

The cognitive ordering of illness, and of treatment practices, is but another mechanism by which the medical system responds to illness through the provision of meaning and efficacy. Such cognitive activities are perhaps one of the best illustrations of the cultural transformation of disease: the domestication of a naturally occurring, disordering event and its change over into illness, a recognizable, more

or less understandable, and treatable form of human experience.

Traditional medical cognitive structures are more than simply coherent bodies of ideas about illness and about how illness should be responded to, they are also therapeutic activities. These crucial medical care activities are part of the therapeutic or healing fix, the central ideological and behavioral organization of medical care activities around the fact that healing must and will occur in medical systems, even if illness cannot be controlled. That is, healing will occur in terms of meaning rather than efficacy, if there is no means of providing truly effective therapy. Indeed, in some societies, especially those with limited bio-technical therapeutic interventions, these cognitive functions may represent the chief, or sole, therapeutic dimension.

Medical cognitive systems also function as systems of rationality and communication. They are not simply collections of facts and beliefs, but theoretical and methodological frames that order experience and provide ways of knowing and communicating about illness. Such cognitive schemes serve to name, classify, and explain illness, and to rationalize its treatment. They provide communicative strategies for the doctor-patient relationship as well as for the relationship of the family and the community with the sick person. They orient the patient to his disorder and enable him to cope with illness.

One might view these cognitive frames as dialectical structures which link the individual and social experiences of illness. They form a bridge between different cultural strata. Illness is an isolating experience which disrupts the bonds between the sick person and his social nexus. Ethnomedical studies suggest that traditional forms of medical cognition function to restore these bonds and harmonize tension-ridden and disrupted social relations.[2] Furthermore, they reassert traditional cultural themes and value at times of considerable stress both to the individual and his social group. These are major features of what we have termed the provision of *meaning* for illness.

The importance of these cognitive structures as theoretical frames and systems of rationality cannot be overemphasized. FRAKE has demonstrated that medical cognitive systems can be well-articulated, conceptually complex, and logically rigorous even in a small-scale, non-literate society.[3] He has also shown how systems of medical cognition can be studied as language forms, approached from the perspective of linguistic analysis. In the traditional society that he studied, the medical cognitive frame was widely available to all members of the community, and was not limited to a specific group or institution, as is much more commonly the case cross-culturally. FABREGA has carried out much the same kind of study in a folk culture.[4] And this sort of analysis would seem appropriate for investigations of popular medical cognition in modern societies, an enormous subject that has barely been opened up by ethnomethodological[5] and other social science studies.[6]

BERLIN and his collaborators, in their detailed analyses of complex ethnobotanical systems of classification, have very elegantly described a method which could be applied as well to medical classificatory structures.[7] Thus far, little has been learned systematically about traditional clinical rationality, and as a result the work of comparing clinical classificatory schemes in traditional and modern systems of medicine largely remains a frontier for comparative medical research.

However, ROSALDO[8], INGHAM[9], and TURNER[10], amongst a number of ethnographers who have investigated ethnomedical traditions, have studied particular systems of medical cognition from the perspective of symbolic analysis. These researchers have shown that traditional medical systems can only be fully appreciated in terms of the symbolic universe within which their cognitive frames are embedded. Similar studies have been applied not only to primitive medicine and to folk medicine in the West, but also to ancient Greek medicine,[11] from which many of these folk traditions are derived, and to "classical" non-Western systems of medicine, as will be discussed below. Most surprising is the very widespread presence of the hot/cold symbolic polarity in etiological and treatment classifications. A comparative finding not well explained thus far. A number of other kinds of cognitive analyses of traditional medical systems also have been performed which suggest many other new directions for comparative research, only a few of which will be discussed in this paper.[12]

Perhaps, one of the most fascinating and provocative study cases to which this kind of treatment is now being applied and about whose cognitive domain we are learning a great deal is traditional Chinese medicine. Traditional Chinese medical systems

contain an extremely elaborate theoretical tradition with a unique form of medical logic. The latter appears to differ significantly from the formal causal trains of the Western scientific tradition. PORKERT, for example, has attempted to explicate this special form of rationality, and he has examined at length the logical structure of the systematic correspondences and resonant harmonies which characterize traditional Chinese medical thought.[13] SIVIN & COOPER have shown that at times the theoretical structure of classical Chinese medicine was far more important than even its closely associated and remarkably rich empirical tradition, so that drugs were incorporated into the classical pharmacopeia only after they had been rationalized within the theoretical superstructure.[14] Indeed, theoretical issues at times led to ineffective remedies being retained and effective therapeutic agents misapplied.

Moreover, SIVIN has attempted to relate the cognitive structure of classical Chinese medicine with that of Chinese folk medicine. His studies illustrate the transformations and translations that take place between different medical "languages." For instance, Sivin has shown that the medical term *hsieh ch'i*, which in the classical texts represents any pathological entity and which in that system of knowledge conveys the notion of an impersonal agency or force that carries disease into the body, conveys an altogether different notion in Chinese folk medicine, where it signifies "the excess vital energy which persists after death in the form of a possessing spirit;" that is, highly personalized, supernatural agencies, such as ghosts.[16] Sivin provides other examples as well of the complex, many-sided interaction between these quite distinct and often very different cognitive frames in traditional Chinese medicine.

Contemporary ethnographic research by TOPLEY,[17] ANDERSON,[18] POTTER,[19] JORDAN[20] and others gives us a much better understanding of the cognitive structure of the folk medical traditions which actually function in Chinese communities. Some evidence is available which suggests that these cognitive structures have been maintained and are operative in Chinatowns in the United States.[21] The interactions of these traditional forms of medical cognition with the cognitive structures of modern scientific medical care and popular medical knowledge in present day Chinese communities remains an important research problem with considerable practical significance. LEE has begun to dissect apart some of the key issues in this interaction in local Chinese communities in Hong Kong.[22] The problem is paradigmatic for all cultures and sub-cultural groups undergoing modernization and rapid change, and examples of this kind of analysis are available for several traditional cultures[23] and even for the Hispanic-American folk medicine of Puerto Ricans in the United States.[24]

Owing to the presence of multiple, separate and actively interacting cognitive frames, which possess both distinct historical and contemporary configurations, Chinese medical systems offer an especially interesting comparative subject. Not only can we study the interrelations between modern and traditional and between classical and folk medical systems, but even within the folk sphere a number of quite different healing traditions can be isolated, often associated with separate classificatory and explanatory systems.[25] And perhaps the Chinese case is merely a somewhat more exaggerated and better defined instance of what is found in many other cultural settings.

Moreover, this complex picture raises several difficult questions. In doing a local field study in a traditional Chinese cultural area, or when performing an historical reconstruction of Chinese medicine, where does one locate the cognitive structure of the medical system? Is it merely a matter of determining the presence of multiple institutional ideologies: the cognitive orientations of Western-style medical practitioners, Chinese medical doctors, herbalists, Taoist and Buddhist priest-healers, spirit-mediums and shamans, geomancers, fortune-tellers, acupuncturists, bone-setters, physiognomists, pharmacists, itinerant peddlars of drugs and other remedies, recognized experts in the family and social group, and the like? Or is it rather a matter of appreciating the ways in which these different medical institutions and their ideologies are unified into a total local medical system on the level of social perception, knowledge, and usage? The last comes closest to what already has been discussed as comprising the sociocultural structure of medical systems, the special form of social reality within which a given ethnomedical system functions. In the case of Chinese medical systems, the presence of competing and even contradictory healing ideologies, the ambiguous borderland between multiple cognitive systems, the differences in levels of personal and social understanding and commitment, and like problems make the actual situation extraordinarily complex. Yet there is some evidence

community studies that this confusing theoretical picture, which also seems to be true of the study of Chinese religious systems, does not reflect the integrative properties of the people living within traditional social and cultural systems to constitute a total medical cognitive domain out of these diverse elements.

Evidence bearing on this subject can be found, for example, in HSU's description of the web of medical cognitive relations in a local Chinese community.[26] In his study of a cholera outbrea in a rural village in Yunnan, Hsu noted that the villagers make use of a number of available explanatory mechanisms—Western, folk, and classical—some of which they had either little understanding of or belief in. And they were able to resort to these different cognitive elements simultaneously, linking together clinical rationalities of the most diverse kind. Furthermore, TSENG has demonstrated the presence of multiple kinds of folk psychotherapeutic forms in Taiwan, which are both organized as distinct rational systems and participate in the wider cultural universe.[27] POTTER has given us a sense of the synthesis of multiple medical traditions into something approaching a medical worldview amongst Cantonese peasants in the New Territories outside of Hong Kong,[28] but we still lack ethnographic descriptions specifically concerned with the ways in which local medical knowledge in Chinese culture leads to actual health care-related choices and actions. Only at present is research being carried out which focuses upon this problem as it relates to modernization, rapid socio-cultural change, and the interactions of traditional and modern medical orientations.[29] This would seem to be an especially important direction for research into traditional medical care systems in post-traditional societies, such as modern China. And in the case of China, we possess a large body of relevant historical materials which may greatly advance our understanding of this subject.[30]

TAMBIAH, working with a somewhat similar problem amongst the local forms of religious belief systems in contemporary Thai communities, has suggested that one can define something of a unified cognitive "field" within which different traditions of belief are more or less integrated on the local level and organized into functioning patterns of thought and action.[31] He has also provided us with an analytic approach to the study of these complex cognitive fields. Ethnomedical studies would certainly benefit from similar investigations, and several relevant examples can be found in the anthropological literature. LESLIE's writings on medicine in Indian society have raised basic questions in this area, particularly with regard to modernization.[32] TOPLEY[33] and ANDERSON[34] have begun to perform this sort of analysis of popular medical rationality in Chinese society.

It is especially interesting to review studies of ethnomedical explanatory systems, a subject of considerable importance for comparative medical research. One of the more provocative discussions of this subject is put forth by HORTON in his examination of the explanatory operations of traditional African medicine and in his comparison of that explanatory system with modern Western science.[35] Horton regards all explanatory and interpretive efforts as attempts to make sense of the chaos of real-life events by relating them to some basic underlying conception of the universe which is itself based upon what a given culture takes to be the firmest and most secure form of reality. Thus, traditional African societies regard human relations as the most fundamental of all realities; and, accordingly, the explanatory model of traditional African medicine has usually been a subjective, highly personalized one: relating illness and death to strains in interpersonal relations as well as to negative human traits such as envy, spite, anger, etc. On the other hand, Western science rests upon a conception of the world that takes biophysical events and processes to be the most central reality, and, as a result, the explanatory model habitually employed by modern scientific medicine is an objective, highly impersonal one. The latter model is not given to providing personal and social meaning for illness. Quite obviously, the wide discrepancy between these two kinds of explanatory paradigms not only makes for considerable difficulty in communication between these two types of medical systems, but also places the traditional medical explanatory idiom closer to popular medical needs, while distancing modern scientific medical interpretive schemas from the human reality of illness. Various modern attempts at combining these explanatory systems within the same system of modern medical and psychiatric care are largely concerned with this key problem.[36] Thus, comparative ethnomedical studies of this sort would seem to hold real value for the restructuring of modern health care systems.

GLICK has presented a related and equally as fascinating notion: namely, that different medical

systems are structured around culturally legitimated images of the sources of therapeutic power (spirits, mana, gods, science, etc.) which then determine the types of explanatory models employed to rationalize illness and treatment practices.[37] Confirmatory evidence again can be adduced from Chinese medical traditions: the abstract explanatory metaphors of the classical system of medicine usually contrasts sharply with the explanatory world of ghosts and demons of the popular medical system. (Yet this is not always the case, and POTTER has limned the medical cognitive field of modern Cantonese peasants in terms of an abstract, impersonal conception of geomantic forces—*fung shui*, "wind and water" —as well as supernatural deities, ghosts, and ancestors.[38] Moreover, when we look at the modern system of medical care in the People's Republic of China, GIBSON[39] and the CHINS[40] provide us with examples of the influence of political ideology and sources of power upon the cognitive structures of medical and psychiatric care, respectively.

That traditional medical explanatory mechanisms may be of considerable adaptive significance, at least with regard to the preservation of the social group, and that they may fit closely with the epidemiological dimensions of the disease they are directed toward is illustrated by a cognitive model like witchcraft in central Africa. As TURNER has pointed out, in areas where malaria is endemic and responsible for extraordinarily high childhood mortality rates, the use of witchcraft as a highly malignant and randomly occurring interpretation of this highly malignant and randomly occurring disease is remarkably congruent.[41] Perhaps epidemic diseases pose the most severe tests for traditional medical systems, which in most cases are incapable of preventing or controlling such devastating occurrences, but which primarily rely upon their explanatory systems to deal with these catastrophes so as to support the social order, reconstitute disrupted personal relations, and provide means for individuals and families to live with suffering, loss, and overwhelming human misery. Some traditional medical explanatory structures seem to have been especially successful in providing adaptive strategies for interpreting and treating mental illness, where the personal and social determinants of an individual's emotional problems have often been skillfully set forth and manipulated. Here the imposition of meaningful form upon chaotic intra- and inter-personal experience via culturally sanctioned interpretations of human experience may represent a level of psychotherapeutic efficacy difficult to match in modern, culturally-fragmented technological societies.[42] Moreover, socially legitimated supports for periods of personal transition—rites of passage and ceremonies for dealing with death and bereavement—suggest that traditional medical systems may possess major advantages in the prevention of mental illness.

Of course, the congruence between natural phenomena and explanatory devices referred to above has not always been possible, and ethnomedical systems for the most part have generated little power in dealing with microbial, endocrinological, and immunological processes. Nor have the explanatory models of traditional medicine always tended towards therapeutic or, even, humanizing results: as in those societies where disfiguring diseases such as leprosy, and social deviance and mental illness have been cruelly and brutally reacted to by ostracism, punishment, or incarceration. Foucalt, for example, has demonstrated these unfortunate instances in the traditional treatment of insanity in Western history.[43] It is patently foolish and naive in comparative research to search only for similarities and prototypes. Thus, it is spurious to scan the "preventive" notions and practices of primitive and ancient societies for preventive medical systems that in any way are analogous to modern public health, which arose as an historically distinct institution and ideology of modern medical science in the West: that is, the cognitive foundation of the public health movement was the modern germ theory of disease, an explanatory system unique to modern science.

For the same reason, it is important to maintain an open comparative perspective and not to merely relate ethnomedical cognitive structures to the presently regnant cognitive models of modern medicine. The metaphor of the "magic bullet" which was so successful in the ordering and treatment of microbial diseases is clearly inappropriate for dealing with chronic degenerative illnesses, psychosomatic disorders, and mental illness. It is sanguine to recall the difficulties placed upon modern medical care in the West by the traditional medical cognitive categorization which separated physiological and mental processes, a separation rarely to be found in primitive and classical non-Western systems of medical thought, however.

It could be argued that the explanatory structures of modern psychiatry are quite close to those of traditional medicine. This is not too terribly surprising since psychiatric interpretation not only reflects an orientation to biological phenomena and disease, but also to the psycho-social and cultural context of illness and sick persons, which after all has also been the chief focus of traditional medical explanatory systems, as I have previously argued. Something of the same sort could be said about the relationship between certain aspects of rationality common to modern and traditional approaches to clinical care in general. Indeed, this would seem to underline the desirability of comparative enquiries into clinical reasoning.

In closing, I shall consider some implications of the issues that have been discussed for research, teaching, and clinical practice. Although I have presented this material chiefly in the context of traditional societies, it should be clear from the implications that already have been drawn that much of what has been said about the cognitive foundations of clinical care is directly relevant to medical care systems in modernizing and fully modern societies as well. Eisenstadt has elaborated the notion of post-traditional societies, traditional societies which modernize both by incorporating Western social institutions and cognitive orientations and also by transforming and continuing many traditional cultural elements.[44] The integration of traditional and modern medicine in China, India, Africa, and even in the U.S., as in the case of Hispanic-American medicine and amongst the Navaho in the American Southwest, for example, illustrates aspect of cultural continuity and change. The study of medical cognitive systems would appear to represent an especially important avenue for studying post-traditional societies and the whole question of modernization.[45]

Furthermore, it might be argued that much of the recent growth the West of "fringe medicine", non-medical healing, and especially the bewildering explosion of psychotherapeutic approaches offers strong support for the viability and significance of traditional medical care functions in modern society, including, the cognitive aspects that have been discussed in this paper. This also might be inferred from recent critiques of the dehumanization and personally and socially unsatisfactory quality of modern, technologically-dominated medical care. Modern medicine's resurgence of interest in clinical approaches to dying and death represents something of an internal reorientation in biotechnical medicine, from sole concern with disease processes to increasing awareness of and attention to the human experience of illness and the problems of sick and dying persons. These are problems about which traditional medicine has much to teach us.

I have argued that comparative studies of the cognitive structures of medical systems, traditional and modern, which are to be sure in a very early period of development and thus still relatively unsophisticated, provide us with a new perspective on the practical rationality of clinical practice both in professional and popular medical domains; a subject central to our understanding of traditional medical systems, but one that has received only limited and unsystematic attention in the past. I should like now to suggest some research approaches to this subject. Elsewhere I have argued that such research should form part of organized interdisciplinary cross-cultural research programs concerned with the description and comparison of different medical systems. I have suggested that situations which are especially important for such examinations are those involving the interaction of different systems of medicine, as in the process of medical modernization in traditional cultures, but also amongst the different strata of modern medical systems. In these circumstances we are able to study the transfers, translations, and transformations that take place as these interpenetrating cognitive structures operate in given sociocultural contexts.

To start with, we are in need of comparative studies of labeling and classifying both in professional and popular medical institutions. Utilizing techniques from ethnomethodology, socio-linguistics, ethno-science, and social psychology, we must generate ethnographies of clinical communication and behavior. We require phenomenological descriptions and cross-cultural comparisons of the ways clinical evidence is assembled, communicated, interpreted, and evaluated. This should begin with studies of clinical perception as it actually occurs in different groups of „clinicians" in professional and popular spheres; and it should move on to clinical judgement and its theoretical and logical supports. We need to learn much more about the structure and use of *medical explanatory models*, as well as study the effect of these cognitive structures on human needs and behaviors in the health field. How do these explana-

tory structures participate in the construction of medically relevant forms of social reality, and how are they created, in turn, by particular social and cultural contexts. Also worth studying are questions relating to the socialization of practitioners and patients into given medical cognitive systems and how these systems are actually used by these participants. Again I would stress the importance of examining these questions within the framework of organized research programs which are directed broadly at medical cognitive structures and which systematically examine each of these aspects and their interrelations as parts of total local medical systems.

Many other issues for comparative research are also worthy of investigations, including questions of hierarchical value structures in medical care, decision making in the choice of medical healing forms, the propagation of medical explanatory models, the conceptual basis for evaluating therapeutic efficacy and its social determinants, etc. But clearly it is unlikely that any of these problems will be at all well answered until we have greatly expanded our understanding of this area generally in ethnomedicine and until field research focuses directly upon these issues and actual cross-cultural studies get underway. Moreover, it is to be expected that, as our body of findings enlarges, we will be able to raise better defined and more useful questions, which in turn should serve to stimulate and guide future research.

It is still unclear at this time, however, how best to go about studying these problems, or what methods and materials are most suited for such comparisons. Nonetheless, it should be apparent that these issues are very important for ethnomedicine, and that we now possess a theoretical framework for organizing and advancing our research in this field.

Summary

This paper proposes an important area of investigation for ethnomedical research: Comparative studies of the cognitive structures of medical systems. I have reviewed some of the research in this area within the theoretical framework of the comparative study of medical systems. In this research perspective, traditional and modern systems of medical and psychiatric care are viewed as total local health care structures which are embedded within particular sociocultural contexts and which encompass both professional and popular institutions, forms of knowledge, and behaviors. Such local health care systems are conceptualized in terms of four basic functions of medical care, which appear to be found in all societies: 1) the social construction of the illness experience; 2) the cognitive ordering of illness via naming, labeling, classifying, explaining and interpreting; 3) healing acts and therapeutic interventions per se; and 4) the medical management of dying and death.

After reviewing some of the uncertainties and difficulties with this emerging theoretical framework in comparative studies, I have focused upon the second of these core medical care functions—the cognitive ordering of illness—because it has been unsystematically and infrequently examined thus far, even though it is of great significance for our understanding of traditional and modern medical systems. I have tried to demonstrate why this is so and why comparative research is especially valuable for studying this subject. However, I have discussed a growing body of relevant research findings primarily in regard to ethnomedicine, since the study of traditional medicine has provided most of our knowledge of medical cognitive systems.

A number of research studies have been reviewed which deal with ethnographic, historical, sociological, social epidemiological and cross-cultural materials. I have discussed these studies in terms of each of the cognitive operations mentioned above, emphasizing field research and historical analysis of Chinese medical systems. Attention has been drawn to the great importance of studying the interactions of different medical cognitive structures within the same cultural setting. Such interactions occur both, in traditional societies as well as in modernizing societies or in the modernizing sectors of fully modern societies. These crucial cognitive interactions have been conceptualized as translations, transfers, and transformations between different „medical languages". Various approaches to this problem have been discussed. I also have been concerned with conceptualizing and encouraging the empirical study of clinical rationality and communication in terms of ethnographies of clinical cognition in professional and popular sectors of medical systems, and I have reviewed some of our knowledge of this subject.

The comparative study of medical cognitive structures has been developed as a major critique of modern forms of medical and psychiatric care. This critique relies heavily upon our understanding of traditional medicine and suggests a direction

for applying ethnomedical research implications to present day problems in local health care systems. I have emphasized the differences between disease as a biological event and illness as a social and cultural phenomenon; and I have attempted to compare modern and traditional medicine in terms of two basic components of medical care in traditional societies and of traditional medical care in technologically-advanced societies: the provision of meaning (personal and social) for illness and efficacy for the control of illness. This discussion has been conducted largely through an appreciation of the structure and functions of medical explanatory frames; and is based upon actual research studies.

Finally, I have outlined some research approaches to the comparative study of medical cognitive systems. It is essential that such research become an important part of ethnomedicine and that such comparative studies form part of organized interdisciplinary cross-cultural research programs which aim to reconstruct and compare total local medical systems. I have also pointed to the difficulties, limitations, and very early stage, but exciting possibilities of this new area of medical research.

Note

This paper is based upon research carried out while the author was a National Science Foundation postdoctoral fellow in the comparative study of medical systems, Dept. of the History of Science, Harvard University, 1970-72. The author's present address is the Dept. of Psychiatry, Harvard Medical School, Massachusetts General Hospital, Boston, Massachusetts.

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