THE STUDY OF MEDICAL PROBLEMS IN PRELITERATE SETTINGS**

Two major theoretical orientations guide the investigation of medical problems in settings where Western medicine has not had a major influence. (In this report, for the sake of convenience, these settings will be termed preliterate.) These two orientations, which stem from the traditional fields of medicine and cultural anthropology, approach medical problems quite differently and, in addition, seek rather diverse aims. An unfortunate consequence of this difference in disciplinary emphasis has been that the accumulating knowledge of each tradition that deals with medical phenomena has not been systematically related to that of the other. Earlier investigations, thus, have not produced a clear picture of how sociocultural processes, the material world, and medical problems are interrelated. In this report we will first review the analytic approaches that have heretofore been followed in these investigations. Logical problems, stemming in part from disciplinary concerns, that limit the scope of investigations in this field are discussed. In the light of these problems, a framework will be outlined that may prove useful for examining health and illness in relation to sociocultural processes and ecologic givens. This framework is then used to critically review substantive issues that have received research attention in the past.

ANALYTICAL APPROACHES

The concepts and aims of studies that explore the relationship between socio-environmental factors and medical problems generally are sufficiently varied to allow one to draw distinctions between them. A basic distinction is whether health and illness is analyzed using conceptual categories that draw on Western scientific medical knowledge or, instead, whether the native (cultural) framework is followed. As is well known, these two analytical perspectives differ sharply. Briefly, scientific medicine derives from the empirical and rationalistic Western tradition, with disease interpreted as resulting from the breakdown of physiological and biochemical homeostatic mechanisms. Field studies conducted in preliterate settings that employ this orientation seek to delineate how the distribution of various diseases is affected by geography, environment, or cultural practices. These studies, generally speaking, fall within the rubric of medical epidemiology

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and medical ecology. Alland, employing this orientation, has written an excellent account of how the study of disease might be used to answer evolutionary questions of concern to both biology and anthropology. In the native cultural framework, as will be emphasized subsequently, medical problems and concerns are closely linked to morality, and illness is seen as the result of violating social and religious rules. Field studies that employ this orientation seek to determine not only the way in which native beliefs and attitudes affect the definition of illness (cause, diagnosis, sick role, etc.) and the mode or form of treatment practices that are employed, but also how illness and treatment may affect the functioning of sociocultural systems. These studies, some of which can be termed ethno-medical, and the perspective from which they stem, constitute the field of medical anthropology. Presently, we merely want to draw attention to these two conceptual orientations towards the medical problems of preliterate groups. When the cultural or "non-Western" perspective towards illness is followed, notions of cause are usually linked to social or supernatural events and processes, whereas when the Western perspective is adopted a broader array of potentially harmful agents and factors (i.e., climatic factors, nutritional deficiencies, microbial agents, etc.) are entertained. Studies employing the Western perspective can be further distinguished by the way in which they type or classify the particular health impairment that is of salience. In other words, in defining or specifying the "ultimate" basis of an impairment, investigators often attempt to draw a distinction between physical (i.e., biological or structural) disorders and psychiatric (i.e., mental or behavioral) disorders. Epidemiological field studies, for example, can focus on mental illness or parasitic infestations.

Our contention is that in order to link considerations of health, and illness, to the study of how human groups adapt to their environment, no useful purpose is served by either focusing on only one type of medical orientation or by maintaining a logical distinction regarding type of illness. Stated differently, continuing to study medical problems in preliterate settings by means of traditional approaches creates analytic problems that limit clarification of the mutual influences that culture, the environment, and illness have on each other. What is more, relying on these approaches has practical disadvantages.

PROBLEMS RESULTING FROM CONTRASTING MEDICAL ORIENTATIONS

We may illustrate some of the conceptual problems associated with the study of medicine in preliterate settings by examining the portion of the literature in psychiatry and anthropology that attempts to clarify the role or effect of culture on mental illness. A variety of unusual or atypical syndromes
occurring in various non-Western settings have been described.\textsuperscript{37-40} The exact status or "nature" of these disorders is said to be unclear. A particular syndrome, for example, may be said to be either a unique clinical entity, or a specific type of neurosis.\textsuperscript{37-40} Preoccupations of this type, it will be argued subsequently, constrain investigation and limit the potential value of studying illness in preliterate settings. More specifically, it would appear that the logical problems involved in crossing medical orientations (i.e., of not keeping the scientific and the native conceptual perspectives separate) have not been fully considered. This will be elaborated upon subsequently.

Very often, studies examining the syndromes or illnesses that appear to be unique to preliterate groups implicitly or unknowingly assume the concepts and, in some instances, the universality of the \textit{premises} of Western scientific medicine. They begin, in other words, with a preconceived picture of the nature of illness and disease. Then, having defined categories of disease according to Western scientific principles of classification, the concern is to unmask or unravel the cultural \textit{factors} or \textit{contributions} from the "true" or "essential" disease process that is felt to underlie the particular illness episode that is under investigation. Implicit, then, is the view that disease types (categorized in terms of Western scientific categories) are universal or transcultural entities which are somehow being obscured by culturally specific categories, symbols, and behavioral prescriptions. Stated more succinctly, the orientation of these studies appears to inadvertently confound the Western medical perspective with the native one. The search is for a scientifically defined \textit{disease type}; what is found and analyzed is a culturally defined "\textit{folk illness}." The attempt is then made to determine whether the two are actually equivalent.

This attempt to equate a disease as defined by the Western medical system with a culturally defined folk illness involves a misuse and a misinterpretation of both the relevance and significance of the cultural perspective. By and large, individuals in indigenous or primitive settings, unlike their scientific observers, do not differentiate between states of illness in terms of whether the mind or the body is affected, or whether the referents of illness manifestations are the product of psychodynamic or organic events and processes. As has been clearly enunciated by others, illness to persons of indigenous settings has a moral dimension and is conceptualized in a unified way.\textsuperscript{37-40} Explanations of how the illness developed involve considerations of the self in relation to others, to norms and to the gods. Although there are exceptions,\textsuperscript{47} the explanations do not, to any significant extent, involve notions of how the body functions and whether the mind as opposed to organ systems are affected.\textsuperscript{37-40} Thus, although investigators studying psychiatric problems in preliterate settings adopt the cultural framework regarding the
unit of analysis (i.e., the folk illness), they overlook the native rationale for explaining the illness and instead substitute their own which involves different categories and premises. The result is a mixing of logical types.* More importantly the unique effects that the cultural patterns and definitions can have in affecting the way persons respond to stress or to changes in bodily processes (in the form of symptoms or cluster of symptoms) is disregarded. Symptomatic responses are instead coded using the referents of scientific medicine.

In summary, when investigators discuss unusual illnesses that occur in pre-literate settings, they quite frequently employ Western scientific medical concepts and nosological principles. The focus of the discussion, however, is often a folk illness. Such an illness is defined on the basis of conceptual categories that differ substantially from those of Western nations. More to the point, the way in which members of the sociocultural unit define and cope with stress differs, and this difference should be taken into account in analyzing or explaining features of the illness. In other words, the linkage between cultural patterns and expressions of problematic human adjustment (i.e., illness) should be made the focus of analysis and not eliminated from consideration by exclusively applying the traditional Western model of illness. The application of this model of illness means that "atypical" or unusual features of the folk illness under investigation are likely to be overlooked, attributed to non-relevant factors, or at the very least, prove to be conceptually ambiguous to the investigator who is aimed at rigidly typing the "true" basis or nature of the syndrome in terms of his a priori (and perhaps) inapplicable model of illness.*

PROBLEMS STEMMING FROM A DUALISTIC ORIENTATION

Another way of bringing out some of the ambiguities and limitations inherent in traditional approaches to the study of health and illness in pre-literate settings (we will focus again on psychiatric studies), is to draw attention to their psychologistic biases and, as we have already implied, their simplistic handling of the mind/body dichotomy. A particular psychiatric or

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* An example is provided by attempts to study possession states crossculturally. Investigators differ as to whether these should be viewed as determined by intrapsychic conflicts that are analogically those said to be characteristic of hysteria, or whether they are best explained as behavioral episodes that are responses to specific cultural and situational contingencies (see discussion by Salisbury and Langness in references 31-34). Here, the framework of motivational psychology and the clinical aim of diagnosis stands in opposition to the goal of understanding from a sociocultural framework what appear to be behavioral discontinuities. The general point that needs emphasis is that controversy exists regarding how native possession states should be explained and defined. Recent attempts at clarification, although sound theoretically, may prove difficult to apply in specific contexts.
folk syndrome that is being explored in native settings, for example, is often assumed to be “functional” (which means, “not organic”) and culturally determined, and there is usually a strict reliance on a psychocultural framework of analysis. Sometimes this will be revealed by the fact that some culturally specific syndromes are disqualified from consideration because they are said to be organically determined or because they may include symptoms indicating specific physiological disturbances. Psychocultural factors bearing on the etiology or expression of the syndrome may, consequently, be disregarded. At other times, a converse tendency is in evidence: any syndrome or symptom cluster that appears to be psychological, is assumed to have no biological basis. The analysis of the syndrome is then pursued entirely at the psychocultural level when it may well represent an expression of or a way of coping with a “disease” having a structural basis.

No segment of behavior, of course, regardless of whether it is judged to be “normal” by members of a culture, or claimed to be “abnormal” in a “functional” (or “psychological”) sense, by a panel of psychiatrists, is devoid of a biological or physical basis. In just the same way that the limitations inherent in rigidly maintaining the distinction between genetically determined vs. environmentally learned capacities or traits led modern biologists to formulate an interdependent basis for understanding or conceptualizing the behavior of man, persons studying medicine in preliterate settings may be led to see the utility of dealing with the phenomena of health and disease in a comprehensive and unified way. Wallace, for example, although labeling his concern “mental illness,” has lucidly discussed the manner in which the “organic” and the biological may interdigitate in various ways with the sociocultural, the behavioral, and the psychological in promoting a failure in adaptation. Similarly, Engel has emphasized the need to view health and illness as composed of interlocking processes that are determined by biological and environmental, as well as psychological factors. We believe that preliterate groups, because they rely on alternative patterns and categories of experience, offer an opportunity to examine how sociocultural processes and given ecological characteristics uniquely structure or shape human adaptation including illness (e.g., its definition, form, treatment, etc.). Employing a medical orientation in this regard involves applying, in a rational and theoretically productive manner the concepts of health, illness and medical care to the life circumstances of these groups. One way to accomplish this is to employ a perspective that can accommodate the Western as well as the native medical framework. In addition, it is felt that the examination of disease or illness should not be pursued using a dualistic typology for this may have the effect of narrowly constraining observations and data organization. A behavioristic perspective, such as the one which will be
suggested subsequently, accomplishes both of these objectives. That is, it allows equating contrasting definitions of health and illness, and in addition, avoids prejudging phenomena and forcing medically relevant observations and data into the dualistic mold.

Analytical problems such as those involved in defining and specifying the nature, basis, or type of disorder are not unique to field psychiatric studies. Even when medical diseases having clearly specifiable structural bodily changes are studied in Western settings, for example, conceptual and definitional problems are present. A comprehensive inquiry into the “cause” of the disease is likely to uncover psychological factors, and a non-biased description of its manifestations will disclose behavioral symptoms. What is more, both causal factors and manifestations are likely to vary depending on social class and ethnicity. Feinstein has lucidly enumerated some of the problems and limitations of relying on the traditional concept of disease in clinical medicine. The preceding considerations emphasize the limitations of assuming that diseases have either a fixed nature or a definable set of properties. If the study is conducted in preliterate settings, an additional factor that makes understanding a particular disease problematic using traditional conceptions is that the underlying biological changes, which may be the essential elements of the disease, will be interpreted and expressed differently. That is, the behavioral expression or form associated with the biologically altered processes will vary depending on the cultural patterns of perception and behavioral organization.* It would appear useful, then, to also approach the study of “non-psychiatric” medical problems in preliterate settings with other than a dualistic and fixed orientation towards the nature of disease. If a careful evaluation of individuals who are known to harbor various recognized disease processes is made, it may be necessary to use new descriptive units to understand the relationship between biological function and behavioral adjustment. The consequences of this may well be to render untenable the position of maintaining a dualistic orientation in the study of health, illness and society. In a methodological sense, studying the distribution of diseases that have structural changes relying on a rigid typology is a most complex undertaking. There are few diseases that can be clearly and

* Our contention here is that in order to understand the role of disease in the interplay between environmental and socio-cultural systems, diseases need to be viewed as biological and behavioral facts, i.e., as multidimensional or multisystem entities that extend across narrow discipline-based definitions. If we limit our concern to diseases that express themselves as acute medical crises and emergencies, then a purely biological framework may in fact go far in accounting for the variance in the expression of the disease, although, as we have tried to emphasize, the consequences of the disease for the group obviously depend on other (particularly cultural) factors. On the other hand, manifestations of other diseases (e.g., diabetes, peptic ulcer, pyelonephritis, cirrhosis of the liver), although traceable to discrete or interconnected biological abnormalities, are inadequately captured in space and time by such an analytical framework.
unequivocally diagnosed in field studies without the aid of laboratory tests and careful medical examinations. Even in these instances, human judgment is required and this judgment often rests on ambiguous evidence that renders the judgment to some extent unreliable. The application of exclusive or arbitrary criteria, of course, may allow making reliable diagnoses. However, in order to relate this knowledge to questions pertaining to the functioning of sociocultural systems, one needs to know how the disease and the manner in which it is dealt with expresses the group's attempt to cope with its environment. The latter requires specifying how manifestations of the disease are structured, defined and treated; the criteria that the group uses to evaluate the impact of the disease, and the possible role that these issues have on the social organization of the group. To accomplish this, a broader description of medical phenomena than that afforded by results of specific laboratory tests is needed.

A SUGGESTED FRAMEWORK

It is felt, then, that the traditional approaches of both epidemiology and ecology on the one hand, and medical anthropology on the other, limit elucidation of the reciprocal influences that socio-cultural processes, ecologic factors, and medical problems have on each other. How culture and environment shape physiological function and the manner in which these biological processes (or their malfunction) are perceived and explained obviously relate crucially to health status. The latter, consequently, cannot be meaningfully examined if the concepts and methods that are employed prejudice or narrowly constrain the phenomena to be examined. In order to develop a broad understanding of medicine, what is needed is a framework that allows

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* We are here viewing the fields of medical epidemiology and medical ecology as more or less equivalent. This convention is being adopted for two principal reasons: First, representatives of both disciplines actually concern themselves with disease types as defined by western scientific medical knowledge. Second, they in general tend to share the concern of clarifying the way in which the disease is distributed in space and time and how it relates to social, cultural or physical attributes of the setting. There are, however, obvious differences in the type of work that they perform. Medical epidemiologists usually work with population segments that reside in industrialized settings, they tend to partition their groups using demographic and sociological criteria, they frequently focus narrowly on discrete disease entities, and their ultimate aim is often to arrive at causal explanations of disease in terms of specific socio-environmental factors using linear logico-deductive methods. On the other hand, medical ecologists often work in non-industrialized settings with whole indigenous groups; if groups are partitioned, then only demographic criteria tend to be employed, their concern is with various disease entities as these relate to physical aspects of the environment (e.g., climate, available food supply, etc.), their questions are broader and more abstract involving population and evolutionary concerns, and their methods are frequently those of systems theory. For a general review of related issues, the reader is urged to consult the discussions of Gordon, Dubos, Burnet, Neel, Rogers, Alland, MacMahon and Pugh, Howard and Scott, and the recent work of Wiesenfeld, Livingstone, and Dunn.
linking behavioral-processual data with data obtained from biological analyses. Such a framework should focus on medically relevant transactions and make explicit native conceptual categories. Its aim must be to make understandable the vocabulary of meanings that generate, mediate and organize clearly defined behavioral sequences that relate to health and illness. This type of analysis must be linked with information that is derived from concomitant evaluation of the physiological systems of the body.” By relying on multiple levels of analysis, the nature and course of illness episodes can be specified with fidelity and the sociocultural and biological consequences of the manner in which a particular group deals with the illness can be explicated.

It should be mentioned here that few studies have carefully and rigorously delineated what are the necessary and sufficient set of elements (i.e., events, situations, behaviors, processes, and relevant conceptual categories) on the basis of which a group reaches a decision that someone is or, equally important, ceases to be “ill.” Some studies have dealt with the events that follow a group’s decision that someone is sick.” Thus, the actions and responses of individuals and their families to an instance of illness have been studied. Although quite obviously determined by the beliefs and attitudes that associate with the notion of illness, these actions need to be examined behaviorally, with attention given to transactional and processual elements, as well as physiologically. A practical reason for employing a general and comprehensive orientation when attempting to resolve some of the health problems of disadvantaged urban residents has been presented elsewhere.”

The following outline summarizes a framework that may prove useful in evaluating health and illness in preliterate settings.

A. The categories, normal and sick

A1. The segments of behavior denoted by the terms “Normal” and “Sick” refer to aspects of an individual’s continued adaptation to his environment. Although these categories are in many implicit ways acted upon as if they were continuous (i.e., as if one can “be” or have “both”), they are in an explicit sense often regarded as mutually exclusive.

A2. Normal and sick can be seen as designations of a person’s behavior by himself (a self-concept), or as designations by others, i.e., as an imputed identity. These two, self-designation and other designation, may vary independently in given instances. These designations of identity may be viewed as the bases for a role, i.e., set of expectations mobilized by an identity in a situation.

A3. Given these designations, the investigator must know how they are applied. In other words, how do people become differentiated and in-
dividuated over time by means of the categoric designations “well” or “sick?” How do people come to act in accord with the sick role or how do they cease to act in accord with this role and come once again to be viewed as normal?

A4. The designations or labels listed above come to be applied as part of an interactional process that is culturally structured. Culture in this context refers in part to such inferences from behavior as values, norms, attitudes and “rules of thumb” or taken-for-granted assumptions.

B. Relevant behaviors

B1. “Normal” and “Sick” are both highly abstract terms each of which refer to clusters of behaviors which in a given situation have relevance and validity in terms of the underlying assumption listed in A4.

B2. Clusters of behavior labeled either “normal” or “sick” are located in time, geographical space and in discernible segments, sections or processes of a given social system. To further simplify our meanings, we claim that the labels are applied in situations. What is described as sick in one time and place and with a given audience may not receive the same response in a different configuration of time, place and audience.

B3. A possibility exists that there is a pattern to the relationship between units of the temporal, spatial and social systems (B2) on the one hand, and the identities of the clustered behaviors of the categories B1 on the other. This pattern, of course, is actualized by processes alluded to in assumptions A3, A3, and A4.

C. The bases for relevant behaviors

C1. The behaviors categorized as normal or sick (cf. A1, B1) may be traced to individual actions (or utterances), external (i.e., sociocultural) or situational contingencies (A4, B2).

C2. In a great many instances, medically relevant individualistic actions and utterances may be a result of or be accompanied by the perception (by the self or others) of altered functioning that can be verified by biologically based analyses. It is to be emphasized, however, that sickness need not be associated with biologically altered states.

C3. The categories or designations “normal” and “sick” bear an important relationship to the manner in which the members of a sociocultural unit evaluate the functioning of their bodies. By this we mean that the form of the behaviors labeled by these terms are affected by
the manner in which persons evaluate and perceive the functioning of their body.

C4. This evaluation (C3) is linked to the specific normative range of function (and deviations therefrom) that characterizes the various physiological systems of the body. This in turn is determined by the group's sociocultural patterns, gene pool and breeding history, and ecological characteristics. At the very least, to obtain a multilevel appreciation of the meaning and function of health-relevant transactions, the functional status of the systems of the body needs to be specified. (It should be clear that it is against these norms that practitioners of Western scientific medicine base their judgments about disease.)

C5. Behaviors described in C1 may also arise from a perception that the individual is in a state of relational disequilibrium with himself, his family, other primary groups in which he participates, and/or the sacred elements (individuals, religious personages, etc.) of his society.

C6. The relationships, implicit or explicit, between A1, A2, B2, C2 and C8 are problematic and therefore require investigation to discover what criteria or rules are used by people in the culture or situation to judge the health status of comembers.

C7. The health relevant conditions delineated by B2, C2 and C5 may exist independently or may coexist.

C8. Only by repeated observations and recording of behavioral events will the investigator be in a position to decide whether C2 and C5 coexist or exist separately, and also whether the relationship between individualistically and situationally centered changes is one of logical necessity or of probabilistic association.

D. Judgments of behavior segments

D1. Individualistic behaviors judged to constitute illness, thus probably contain references to disturbed feelings, bodily sensations, beliefs, or convictions and at the same time symbolically communicate the individual's inability to function productively and in conformance with the implicit rules, attitudes and goals of the group.

D2. The elements of segments of the behaviors of A1 may be reacted to with varying degrees of disapproval and in some instances, approval. They are judged and interpreted in terms of folk or native medically-relevant dimensions, e.g., cause, severity, consequences, implications, etc.
D₃. The goal the investigator should set for himself is to make explicit the content, form and duration of those behavioral segments that comprise A₁, the medically relevant dimensions on the basis of which these behaviors are interpreted, and, lastly the action imperatives that they elicit in the immediate family and elsewhere in the group.

D₄. The judgments and interpretations that associate with the behaviors A₁, B₁ provide the basis for decisions concerning the different action alternatives or imperatives possible.

E. The consequences of judgments of behavior as sick

E₁. In an urban society where rational scientific medicine exists, this type of medical system provides one set of alternatives that competes with inactivity, peer advice, family definitions and responses, neighborhood experts and quasi-medical personnel (pharmacists), and other lay advisors and religious figures.

E₂. The action choices available in the various curing or medical systems may involve attempts at (1) eliminating the symptoms, (2) eliminating the perceived causes of the underlying illness, or (3) perpetuating the illness source for purposes of expiation or punishment.

E₃. The consequences of particular responses (D₃) that are made to behavior judged to constitute illness varies. The sick person, generally speaking is affected by both the nature of the responses and the conditions (B₂) under which they are generated.

E₄. The sick person, as a result of this response and in conformance with implicit rules and values of the culture, will consciously modify, shape or structure his subsequent behavior in ways that the investigator needs to make explicit.

E₅. Because the behavioral effects of this modification and shaping have synchronic or cross sectional properties, they can be grouped and said to constitute a role (i.e., a set of behavioral expectations or prescriptions) for the sick person.

E₆. Because the behavioral effects of this modification and shaping have diachronic, developmental or time bound properties, they can be seen as a career for the sick person.

F. The career of the sick person

F₁. The concept of a career highlights the truism that the sick person is continually involved in interactional sequences (i.e., self vs. others). A career implies a potential beginning, intervening stages with distinctive properties, and equally important, an end.
F2. The investigator should set for himself the task of delineating in depth characteristics of the sick person's career. The task involves data bearing on A-E above. In a concise fashion, this entails making explicit the interrelationships between features of disease (altered functioning of the body as determined by direct evaluation of biological status) and illness, the socially structured results of the alternatives chosen in the light of factors A-D and consequences as seen in E.

F3. The sick person's behavioral participation in or execution of the action imperatives of D3 constitute what one could term the explicit features of his career.

F4. The investigator must attempt also to delineate implicit features of the sick person's career. These may not necessarily be tied to the goals of eliminating or perpetuating the illness, but involve issues such as morality, perceived self-worth, and other symbolically altered interactional sequences that indicate that the sick person's identity has been individuated and differentiated in the social setting.

F5. The content, form and duration of these career features must be delineated as well as their effect on the original illness behaviors of D1.

G. The return to normality

G1. The termination of the sick person's career and his return to a non-sick status involves, to some extent, reversal of the above listed experiential and physiological modes. The exact relationship between these modes, the interactions involved, and the shared meanings that mediate them must be delineated.

G2. The investigator should assume that there are definite behavioral consequences to having been sick, i.e., to have experienced and completed one of the possible symbolic types of illness careers suggested in this scheme.

G3. These consequences (G2) might involve putative residues of the cultural stereotyping that associates with having been at one time sick or deviant.

G4. These consequences (G2) may lead the person to re-enter the illness cycle beginning again with A1 while carrying the symbolic burden of the initial cycle. The investigator must study the extent of overlap and recycling of illness careers as well as the internal variations in their interactional content.

G5. Participation in illness chains, or cycles of health and illness, are unending for the individual and in a given group or culture. It is use-
THE NEED TO STUDY THE CONSTITUENTS OF MEDICAL JUDGMENTS

The “healing” that persons experience from participating in curing rituals and ceremonies is believed to be a consequence of primary psychosocial changes in identity: the patient’s value to himself and to his immediate group is believed to be enhanced by the ceremony. These identity changes are brought about by the manipulative and persuasive actions of the practitioner which occur in a setting of heightened emotion.”7•8 Some of the benefits of ceremonial cures probably depend on the pharmacological effects of herbs or potions. The use of these agents, however, usually rests on supernatural revelation and not on articulated explanations that refer to bodily processes or functioning.

Assuming that folk healing results primarily from psychosocial identity changes, the professional success of folk medical practitioners would seem to depend on at least two related factors. One of these involves the practitioner’s interpersonal skills. These consist in part of his ability to emotionally arouse others and especially of his capacity to influence and manipulate their behavior in line with particular decisions having to do with treatment. These skills are seen by some as stemming from persuasive or “charismatic” personality attributes.9 The second factor that relates to the professional success of practitioners involves what could be termed their clinical judgment. The patients of successful practitioners more often improve, which suggests that these practitioners may generally select and commit themselves to treat persons whose underlying medical problem is likely to remit or improve. Success in making this essentially prognostic judgment appears to require some general appreciation of degrees of bodily functioning, a general understanding of illness behaviors, and an intuitive knowledge of the relationship between both of these. Studies are needed which explore the possibility that practitioners, compared to non-practitioners, are more sensitive to these physical attributes and manifestations of illness that relate to prognosis.

Earlier studies of folk or primitive medicine have not dealt with this particular aspect of practitioner behavior. The nature of the understanding that folk practitioners have of medical phenomena has never been empirically investigated by means of testing material which depicts manifestations or components of disease. To the extent that a critical evaluation of the practitioner’s knowledge and judgment is disregarded it suggests that medical
practice in primitive settings is constituted of purely ideologically based decisions and actions, and that folk practitioners are relatively insensitive to those dimensions of illness that reflect biological functioning. There exists, in other words, a need to clarify the extent to which this particular dimension of illness affects the medical judgments of practitioners generally, and their judgment of severity or prognosis specifically. Clarification of this aspect of folk medicine will lead to greater understanding not only of the way disease is patterned, but also of the way disease is handled in these settings.

THE NEED FOR INFORMATION ON HOW FOLK MEDICAL KNOWLEDGE IS DISTRIBUTED IN A CULTURE

Exotic and "peculiar" features or symptoms of illnesses that may or may not be intraculturally significant very often appear to receive more attention than the rather basic question of what are the bodily and/or behavioral elements that comprise the general model of illness in a culture. In addition, although certain natively differentiated illnesses have been described with some fidelity, the issue of how distinct and invariant is their content in the culture has not been probed in a controlled manner. The result is that much is known about the general and exotic ways in which culture can shape illness manifestations. Yet the underlying and related issues of how illness is modeled in the culture and how distinctly this model and its component parts is represented in the minds of representative members of the culture have not been carefully explored. There is a critical need to evaluate in an empirical fashion the degree of clarity and specificity with which native subjects construe illness and this needs to be done by determining the extent to which they differentiate between various symptoms, signs, and the clustering of these in syndromes.

A related need is to evaluate the extent to which native conceptions of illness are specific or special to folk medical practitioners. Past studies have not made altogether clear whether the folk practitioner validates his social position by commanding and using a special body of medically relevant information. It is known, for example, that non-practitioners who are co-members of the cultural group have some understanding of the various native illness terms. They frequently can list the symptoms of specific "folk illnesses," their general implications, and the type of treatment procedures that are usually prescribed. In this sense, knowledge about health-illness concerns can be said to be generally shared within the culture. It is possible, however, that if precise attention is given to the kind of understanding that exists with regard to medical phenomena, practitioners will be found to
Medical problems, preliterate settings

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Medical problems, preliterate settings

THENEEDFORMATERIALONTHEPERSONALITYCHARACTERISTICS
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The actual behavior of "native healers," "medicine men," and shamans has long intrigued travelers and missionaries and has received considerable attention from behavioral scientists. Central issues in the field of psychiatric anthropology dealing with the relationship between culture and mental illness have been approached, using as a paradigm the adaptation of the shaman. A persistent question has been whether shamans are socially deviant persons with an underlying psychotic personality whose pathology is somehow protected and concealed by the behavioral requirements of their role. Silverman has recently reviewed the literature pertaining to this general topic. He elaborated on the ideas of Devereaux and Wallace and using psychiatric knowledge about the syndrome of schizophrenia developed a five-stage cognitive model to explain and compare shamanism with the schizophrenic process. Handelman has stressed the need that exists in this general area for psychological data. He emphasized the importance of distinguishing between the role behavior of the shaman and behavior directly traceable to personality dynamics.

Initially, impressionistic and scattered observations served to link shamans with psychopathology. Single case studies or life histories of shamans, although often used for structural-functional analyses of sociocultural units, provide a profile of personality dynamics and functioning. The picture that emerges from some of these studies is hardly one of pathology. Case studies, unfortunately, cannot answer the question of whether shamans, as a group, tend to demonstrate psychopathology. In order to establish this in any one culture group as a whole, more extensive and controlled psychological studies
are needed. In contrast to the interest generated by this general problem, however, there are actually few investigations that have dealt with a group of shamans by use of systematic interview and testing methods. A notable exception is the work of Boyer et al. who studied the personality configuration of Mescalero Apache Indians using a sample that included shamans, pseudo-shamans and normals. His initial psychoanalytical impressions, which were felt to be validated by subsequent Rorschach analyses, were that Apache shamans are not individuals who have disguised serious psychological illness, but on the contrary, that “based upon their greater capacity to test reality and their ability to use regression in the service of the ego, they are healthier than their societal comember.”

These studies of Boyer, et al. are the only studies available in the literature which probe in a controlled fashion the psychological status or adjustment of folk medical practitioners. Further studies of this nature are needed. At this stage, the conclusions of Boyer regarding the adjustment of the Apache practitioner must be regarded as tentative. The details of his psychoanalytic observations and interpretations, for example, have not been published. In addition, information derived from psychoanalysis is difficult to measure and quantify reliably so that it often cannot be used for conducting controlled comparisons of groups on discrete personality dimensions. Similarly, not enough data on the social characteristics and experiences of their subjects has been reported so that the comparability of the groups cannot be established on this dimension. Consequently, one cannot determine in what fashion or to what extent the reported “personality” differences are due to differences in the social backgrounds (e.g., acculturative exposures). Related to this is the fact that analysis of the projective material has not been sufficiently linked with knowledge of the role behavior of their subjects. It is possible that psychological data evaluated purely from the standpoint of the health-pathology continuum could be better interpreted from a perspective that accounts for the unique learning experiences of the subjects. Thus, group differences on particular Rorschach measures, rather than exclusively reflecting greater “health” in the psychodynamic sense, may in part be a resultant of unique learning experiences that have accrued from the performance of the shamanistic role. Lastly, the conclusions of Boyer, et al. regarding the greater adjustment or health of Apache shamans appear to rest entirely on psychological grounds. Information derived from analyzing the projective material has not been explicitly linked with information bearing on social adjustment. Because of this, problems that may result from the cross-cultural invalidity of the projective test that was used cannot be excluded."
THE NEED TO STUDY THE DYNAMICS OF MEDICAL PRACTICE

Considerable attention has been given in this review to studies dealing with the folk medical practitioner. Clarification of this area relates centrally to current concerns in the fields of transcultural psychiatry and psychological anthropology. An additional purpose for studying the practitioner, of course, is to allow for a more rational understanding of the role of his behavior in medical care. To recapitulate, delineating the nature of the medical knowledge and judgments of the practitioner should make explicit the relevance of different types of symbolic categories in medical transactions; and, clarifying the role of personality factors should lead to a better understanding of why and how he applies these categories. This information needs to be supplemented by analyses of the actual process of medical care.

Despite an extensive literature on various facets of medicine in preliterate settings there is surprisingly little information which deals with the processes and the dynamics of medical practice in these settings. An example of this is the lack of attention that is given to the various stages of the practitioner-patient relationship which mediates the delivery of medical care. As we have briefly reviewed earlier, the implicit model that most investigators rely on could be termed time-limited and sociopsychological. That is, the modification of social and psychological factors that are assumed to relate to health status is regarded as central to the eventual healing that takes place. Factors promoting this healing or treatment, however, are believed to be set in motion during a sharply demarcated time interval. Such a model does not include discussion of the many considerations and events that antedate a curing ceremony and that also follow it. These events involve the particular healer and patient as well as other key persons and health-focused relationships, relate to the unique sociocultural patterns that structure medical practice in the setting, and importantly affect the nature of any healing or treatment that may take place. Issues of this type have been examined in our society, but a comprehensive understanding of medical practice requires that related phenomena be studied in other settings.

Lack of information regarding the details of practitioner-patient interactions in primitive settings beclouds the manner in which various specifiable disease processes are handled in these settings. It is quite likely, for example, that patients with diseases having different underlying pathological processes are viewed and treated differently by the practitioner. In other words, the formal properties and what is termed the "natural history" of the disease a patient develops probably affect directly the type of healing relationship that ensues. It was mentioned earlier that social scientists have largely ignored the role of these disease properties when studying folk medical practice.
Frake,106 for example, drew attention to the importance of various formal characteristics of skin lesions in classifying illnesses among the Subanun. The actual role that issues such as these might play in affecting medical treatment, generally, and in structuring the practitioner-patient interactions, specifically, has been largely unexplored, however.* This type of focus would enable linking material about the biological properties of disease with material about behavioral processes that are under the control of and that also reflect the functioning of sociocultural systems. The result would be a deeper understanding of how this system bears on medical practice. Similarly despite a large body of traditional epidemiological data dealing with the geographic distribution of diseases, there is little information detailing the native systems of definition and treatment as well as the group's manner of handling the manifestations of the disease.106-107 Consequently, it is not possible to evaluate the extent of the problem created by the disease nor its potential influence in the culture.

CONCLUDING COMMENT

In this report we have reviewed traditional disciplinary approaches to the study of illness and disease in preliterate settings. Some analytical problems inherent in these approaches were delineated. These problems limit the examination of how cultural processes, ecologic factors, and medical problems are interrelated. A framework which may prove valuable for this purpose was presented. Substantive areas that have received attention in the past and that need further investigation were reviewed. Studies in these areas are important for at least three related reasons. First, they have intrinsic scientific interest since they afford specification of a relatively neglected aspect of human behavior that involves individuals dealing with stress using culturally prescribed patterns. In this sense, they are related and can make significant contributions to fields such as anthropology and ecology, as well as medicine proper. Secondly, studying medical phenomena in preliterate settings enables the testing of hypotheses dealing with medical concerns that have been generated in Western industrialized settings. Diseases are ubiquitous, as are man's attempts to deal with them. Our knowledge about disease correlates, however, as we have emphasized throughout this report, contains many of our own cultural biases. When issues involving disease or medical care are evaluated in a new cultural setting, important insights are likely to be gained when some of these biases are made explicit.

* The value of a strictly ethnoscientific approach to the study of the relationship between culture and behavior is not being questioned. The application of componental analytic techniques and the pursuit of its goals in the domain of health, the author feels, are much needed.
Medical problems, preliterate settings

This requires that symbolic processual analyses be linked with information about biological functioning. Lastly, emphasis on the strategies that persons of preliterate settings employ to cope with medical problems will serve to make understandable some of the problems involving the delivery of medical care that plague many disadvantaged urban residents today and that are likely to continue in the future. This is the case because many of these residents have migrated (and will continue to migrate) from rural and isolated settings where health problems are construed and coped with in a manner analogous to that observed in preliterate communities. Indeed, the processes of urbanization and modernization inevitably involve meeting the health needs of persons from settings where Western medicine has not had a major influence.5 When these individuals seek medical care in public health clinics or in the hospitals of the city, they are likely to encounter persons and experience practices that are motivated by language and concepts that are discrepant from their own. When, in addition, the benefits of their transactions with professionals do not meet the expectations that attend to their model of illness and health care delivery, they are likely to withdraw from these transactions. The insights gained by studying the phenomena of health and illness as well as the process of medical care delivery in preliterate settings may thus provide an opportunity to develop new and rational models of health care delivery.

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