Philosophical Problems in Medicine and Psychiatry, Part II

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The absence of widespread agreement concerning the best conceptual framework and most-practical clinical methods in integrative medicine reflects important unresolved philosophical problems about the nature of health and illness. It is only through the analysis of philosophical problems related to observation, evidence, and causality in medicine that a rigorous methodology for clinical integrative medicine will evolve.

This 4-part paper began last issue with a brief review of Western medicine's philosophical origins, which I extend in this essay to an examination of the philosophical assumptions underlying non-Western systems of medicine. I explore the significance of the resulting "philosophical gap" between Western biomedicine and non-Western systems of medicine, arguing that "ways of seeing" illness and health phenomena are embedded in various systems of medicine based on incongruent metaphysical assumptions. These differences occur because all systems of medicine continuously evolve in the broader context of social, technological, and economic influences.

Eastern and Indigenous Healing Systems vs Western Medicine

In contrast to conventional Western biomedicine, the primary categories of existence in Chinese, Ayurvedic, and Tibetan medicines, as well as in other non-Western indigenous healing systems, have been historically regarded as dynamic processes describable as "energy." In this vein, ideas about causality are not constrained by the premise that all natural phenomena are reducible to material processes that can be described in terms of linear relationships in space and time. According to these non-Western paradigms, material states are secondary manifestations of energy states—in other words, they are "appearances" or epi-phenomena associated with more fundamental qualities of reality. Implicit in this model is the belief that energy exists, is knowable and describable as subjective experiences by patients, and is observable by skilled practitioners.

Because of the inherent differences between Western and non-Western ways of knowing, criteria used to establish the reality of a symptom in many non-Western systems of medicine are regarded as arbitrary and subjective by Western scientific standards, while, from the view point of non-Western schools of medical thought, there is no requirement to construct methodologies that reduce phenomena to empirically verifiable causes or effects. Thus, non-Western systems of medicine assert claims of so-called energetic causes of illness or effects of treatment as a priori factual assumptions.

For this reason, attempts to construct reductionistic arguments within non-Western systems of medicine based on a strictly empirical methodology and conventional biomedical criteria borrowed from Western science are often regarded as irrelevant (ie, by medical practitioners trained in non-Western traditions). In other words, the use of established empirical methodologies to investigate or confirm material causes or effects is not a productive or necessary exercise from the point of view of non-Western medical thought.

For this reason, also, the majority of research studies that examine efficacy claims of non-biomedical modalities are initiated by Western-trained scientists. Based on the paradigm from which they ask a question, Western-trained scientists use conventional empirical methodologies and conventional biomedical criteria to investigate hypothesized biological effects of non-Western modalities, while dismissing non-empirical methodologies and overlooking claims related to causes of illness or effects of treatment that cannot be reduced to postulated factors that are non-material in nature.

Limits of the Materialistic Perspective

The delay in efforts to integrate conventional Western biomedicine and non-Western systems of medicine is related to the fact that diverse traditions of healing are based on non-overlapping philosophical perspectives. In a general sense, this philosophical gap is a reflection of different "ways of seeing" embedded in disparate paradigms. As mentioned in part I of this article, the dominant "way of seeing" that informs the theory and practice of Western biomedicine is materialism.

The materialist position is actually a metaphysical point of view that has its roots in early Greek philosophy and, as previously mentioned, was eventually modified by Descartes to dualism. Its specific philosophical claims have continued to change over the centuries in response to scientific theories of the day. The classical model of discrete particles of matter as the fundamental building blocks of all objects was severely shaken by the advent of general relativity theory and, subsequently, quantum mechanics in the early 20th century. The contemporary materialist perspective now conceives of objects as a kind of "lumpy energy" according to the tenets of quantum mechanics theory. Thus, the dominant Western perspective has shifted from posited discrete "bits" of matter to discrete quanta of energy. This shift led to a fundamental change in Western scientific thought.

In the above context, attempts to formulate a comprehensive Western scientific model of "reality" are complicated by the fact that competing interpretations of the meaning of quantum mechanics theory remain to be confirmed or refuted. Recent directions in theoretical physics point to multidimensional "strings" of space–time that may comprise the basic fabric of the

universe while providing a unifying paradigm for the divergent worldviews of general relativity theory and quantum mechanics. Presently, no consensus exists in the scientific community as to whether or by what available technological means divergent theories in physics can be verified or refuted. The limits of contemporary scientific understanding are therefore consistent with the philosophical perspective of relativism in that multiple perspectives or "frameworks" have been adduced while none can be confirmed or refuted

In spite of the lack of compelling empirical evidence supporting contemporary models of physical reality, Western biomedicine continues to look exclusively to Newtonian physics for reasonable constraints on its own theories. In other words, conventional biomedicine rests on the same metaphysical assumptions about the properties of "real" phenomena that are embedded in classical materialist views of the universe. For reasons discussed above, this philosophical position will probably continue to evade empirical confirmation or refutation for the foreseeable future.

It is a significant fact that the limited philosophical perspectives contained within contemporary Western science and conventional biomedicine have not impeded their rapid growth and widespread acceptance. This is due, in large part, to economic and political factors that continue to assure the dominant position of science in developed countries. The methodology of contemporary Western science has resulted in profitable technologies that profoundly benefit human existence at many levels. Because of the economic advantages of Western science, its perspectives will almost certainly continue to play an important role in the world. In spite of its successes, it is important to remark that the dominant economic position of biomedicine and Western science does not remedy the awkward fact that contemporary scientific methods rest on shaky philosophical ground.

There Is No Proof in Medicine, Only Standards of Evidence

There is no "proof" in medicine, only tests of verification for claimed outcomes and a consensus on standards of evidence supporting those claims. By the same token, there can be no certainty of a beneficial outcome when a particular treatment approach is used, only an estimate of the likelihood that a particular outcome will occur based on statistical analysis of previous trials examining the same approach. The highest level of evidence for a claimed outcome is achieved when a strong link is demonstrated between effects of a treatment and a desirable outcome. Further, as discussed above, depending on the system of medicine that is being used, both objective and subjective criteria are used to determine whether a treatment has had an "effect" and whether that outcome is beneficial.

Research evidence and anecdotal reports continue to accrue for hypothesized mechanisms of action that operate when a particular treatment or assessment approach is used; however, claims of effectiveness can be described only in terms of probable beneficial effects based on the accrued outcomes data. Thus, evidence of treatment effectiveness in medicine is inherently probabilistic and open-ended. As more findings accumulate, the relative strength of evidence will become stronger or weaker. Following the same general logic, there can be no final confirmation or refutation of the effectiveness of a particular treatment (or assessment approach), but only a greater or lesser probability that a claimed outcome will or will not take place.

In conventional Western biomedicine, treatments that are regarded as the most substantiated fulfill unambiguous criteria for specific, replicable, and clinically significant outcomes when a specified assessment or treatment approach is used and a postulated mechanism of action can be adequately described and empirically verified under tightly controlled conditions replicable by trained investigators working independently. These criteria are held up by Western science as objective, empirical indicators of mechanism and the presumed link between mechanism and outcomes (ie, measurements of assessment accuracy or treatment effectiveness).

According to these criteria, poorly substantiated treatments demonstrably fail to meet strict requirements of empirical verification. However, such modalities sometimes remain in use because of persistent claims that they are sometimes effective. Provisional modalities fulfill some, but not all, criteria for a hypothesized mechanism of action or claimed outcome and may eventually emerge as more substantiated or less substantiated, depending on future research findings.

This way of thinking about treatment effectiveness is complicated by the fact that, in Western science, criteria for evidence sometimes change—requiring commensurate changes in both kinds and levels of evidence when arguing in support of a putative mechanism of action or claimed outcome. Understandings of evidence embraced in disparate systems of medicine will probably continue to be incompatible because of differences in metaphysical assumptions about the kinds of phenomena that are a priori accepted as constituting legitimate medical evidence.

This point bears on basic differences between the perspectives of disparate systems of medicine as related to the importance of empirical confirmation. Because postulated nonphysical phenomena—regarded as fundamental in many non-Western systems of medicine—are not susceptible to empirical verification according to current Western science, it is assumed they cannot contribute to scientific evidence for claims of mechanism or outcomes. It follows that convincing evidence for many postulated mechanisms of action—or claimed outcomes associated with non-Western treatment approaches—is very difficult to obtain using Western scientific methods. However, substantial empirical information and patient reports support claims of beneficial outcomes associated with many conventional and non-Western approaches.

Practical Implications for Clinicians

The above general philosophical considerations can be translated into a practical approach to thinking about integrative medicine that can help the practitioner address actual clinical problems. Conventionally trained physicians as well as practitioners trained in non-Western systems of medicine learn how to "see" phenomena that are believed to point to illness or health. Observable indicators of illness are described as objective "signs"

of illness, while claims by the patient of non-observable illness-related phenomena are described as "symptoms." Medical practitioners learn to "see" particular phenomena according to an interpretive framework that is an explicit part of training.

Medical practitioners in many traditions are instructed in methods that permit them to interpret patients' subjective complaints as clinically pertinent information about the condition(s) or cause(s) of illness. The practitioner's interpretation of the significance of signs and symptoms in the context of a particular system of medicine determines which "causes" of illness can be regarded as possible or legitimate. In this way the kinds of assessment and treatment approaches available to clinicians are implicitly limited by their particular medical tradition.

In sum, different ways of "seeing" and assigning significance to objective signs and interpreting subjective "symptoms" are built into disparate systems of medicine. In the context of a particular system of medicine, a student has progressed to the point of professional competence when he or she reliably "sees" the same signs and symptoms and proficiently interprets their significance using a clinical methodology endorsed by an expert clinician of the same cloth.

Different metaphors of illness embedded in disparate systems of medicine are, essentially, culturally determined "ways of seeing." A problem that must be addressed is how to know when one is describing a metaphor (or picture) for "signs" or reported "symptoms" versus actual causes or conditions associated with signs or symptoms. I am assuming that in most cases this distinction will not be clear to the practitioner, as there are seldom rigorous means for verifying whether assumptions about causes or conditions of illness correspond to interpretations of observed phenomena (signs) or subjective states (symptoms).

Even when a clinician is able to differentiate between "seeing" a subjective picture of the patient's illness from objectively verifiable information about the actual causes or conditions underlying the illness, this distinction can seldom be confirmed or clearly described. For example, the monoamine hypothesis (that mood disorders are caused by deficient brain levels of certain monoamine neurotransmitters) can be viewed as a contemporary, biological metaphor for descriptions of certain affective symptoms. The hypothesis provides a simple, understandable, and convenient picture that frames conventional theories of the biological roots of depression, but so far fails to provide a sufficient explanation of the causes of symptoms or changes in symptoms in response to conventional psychiatric treatments.

In the same vein, the Chinese concept of chi (also written as "Qi") can be regarded as a convenient metaphor for purposes of framing symptoms according to the philosophical worldview of Chinese medicine. But, like Western biomedicine, this model neither can be confirmed nor refuted using available empirical means. Both the monoamine hypothesis and the Chinese model of illness are essentially higher-order metaphors of metaphysical propositions embedded in two disparate systems of medicine that describe postulated causes of symptoms.

This issue becomes relevant when addressing the epistemological limits of methodology in medicine. In major world systems of medicine, explicit relationships exist between metaphors used to describe symptoms and the actual biological, psychological, or energetic phenomena associated with illness. In some cases, a demonstration of the specificity or accuracy of a particular assessment approach, or of the effectiveness of a particular treatment, suggests that a high degree of fit can be obtained between a metaphor and the causes or conditions of symptoms the metaphor is used to describe. Productive metaphors are those that consistently result in specific, accurate assessment findings or beneficial outcomes. Such metaphors will presumably continue in use. Conversely, metaphors that fail to yield useful or reliable information about the nature of illness phenomena are less widely embraced and are eventually discarded.

In the Next Issue: Part III

In the broader context of dualism, contemporary Western psychiatry poses an interesting and unresolved dilemma. On one hand, proponents of biological psychiatry claim to be non-dualist and argue that normal and abnormal states of mental functioning are reducible to known or knowable neurobiological mechanisms. On the other hand, proponents of different schools of psychoanalysis and psychotherapy argue that "ego," "id," "unconscious," "sub-conscious" and other presumed primary functions of consciousness correspond to normal or abnormal mental states, and claim that it is impossible to reduce mental functions to discrete neurobiological mechanisms.

Contemporary psychoanalysis and most current psychological theories rest on overtly dualist models whose assumptions are not explicitly stated, but are implicit or vaguely worded. In contrast, contemporary biological psychiatry and its parent, Western biomedicine, avoid inherent ontological and epistemological problems of dualism by claiming that all "normal" and "abnormal" mental functions are reducible to knowable (if not presently known) neurobiological processes. As argued above, I believe Western medicine in general, and conventional biological psychiatry in particular, rest on unstated metaphysical assumptions pointing to dualist models that are empirically derived or consensus-based.

In Part III, I argue that a kind of functional congruence must exist between phenomena that underlie a specified illness and phenomena operationalized as the mechanism of action associated with a particular assessment or treatment approach. I give reasons why future changes in the criteria used to determine which kinds of phenomena are acceptable will lead to corresponding changes in a typology of medical approaches regarded as legitimate when applied to the assessment or treatment of a specified illness. Disparate meanings of evidence in medicine are discussed, and unresolved philosophical problems in psychiatric classification and diagnosis are briefly reviewed.

Additionally, important ontological questions pertaining to the philosophy of medicine are summarized. I argue for a relationship between the problem of existence of postulated causes of a symptom and the properties of effects operationalized as assessment or treatment approaches in a particular system of medicine. I show that for many established conventional or non-conventional approaches, determinations of the existence of a postulated mechanism of action cannot be made

in the framework of orthodox Western science on the basis of information obtained using established methodologies and contemporary technologies.

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