Philosophical Problems in Medicine and Psychiatry

Part I: Overview

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The absence of widespread agreement concerning the best conceptual frameworks and most practical clinical approaches 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 development of a rigorous methodology for clinical integrative medicine will evolve.

This 4-part paper begins with a brief review of Western medicine's philosophical origins, which I further develop in part II to examine the beginnings of non-Western systems of medicine. I explore the significance of the resulting "philosophical gap," arguing that "ways of seeing" illness and health phenomena are embedded in various systems of medicine that are based on incongruent core metaphysical assumptions. These differences occur because all systems of medicine continuously evolve in the broader context of social, technological, and economic influences.

In the third and fourth parts of this paper, I discuss divergent meanings of evidence in disparate systems of medicine and review unresolved philosophical problems in psychiatric classification and diagnosis. Important ontological questions pertaining to medical philosophy are discussed, exploring the point that, for many established conventional or non-conventional approaches, a determination 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. I argue that while claims of mechanism can be verified for relatively few conventional and non-conventional medical approaches, claims of effectiveness with respect to a specified symptom or illness can be verified only for a particular approach employed in a specified system of medicine. I conclude that most contemporary biomedical and non-conventional approaches are maintained through expert consensus, but are not currently empirically verifiable according to rigorous scientific standards of evidence. Thus, in many cases selecting an appropriate clinical method when addressing a specified illness requires judgments other than the empirical verification of a putative mechanism of action.

Introduction

The dominant model used in Western science to explain natural phenomena has shifted from naïve materialism to a more sophisticated model informed by quantum mechanics theory. However, at present, the validity of assumptions about the nature of phenomenal reality, space, time, and causality embedded in the Western medical model cannot be confirmed using contemporary technological means. This has resulted in a kind of relativism in science and medicine, as well as—on the positive side—intellectual openness to competing, sometimes "non-Western," explanatory models.

One example of this openness is the coexistence in contemporary Western psychiatry of the dualistic (ie, mind–body) perspective of psychoanalysis and the reductionist–materialist perspective of neurobiology, which asserts that all phenomena can be "reduced to" fundamental biological processes.

In spite of a lack of empirical evidence supporting contemporary models of physical reality, Western biomedicine continues to look exclusively to the basic sciences for explanatory models of illness causation. Western biomedicine, like all other subdisciplines of conventional Western science, ultimately refers back to "laws" of physics as they describe both living and non-living phenomena. For example, contemporary understandings of biochemistry and molecular biology are derived from broadly accepted theories describing the nature of matter, energy, and interactions between matter and energy at the level of molecules, atoms, electrons, etc. These core theories are thus, necessarily, at the heart of explanatory models of illness causation and, by extension, explanatory models of treatments used in Western medicine.

By relying exclusively on the basic sciences for building its theories, Western medicine begins with epistemological and ontological assumptions that are metaphysical in nature, but which seek to end in empirically verifiable physical results. This creates a circularity of logic that cannot be resolved. A practical consequence of this is the impossibility of verifying outcomes claims for mechanisms of action because claims can only be described probabilistically. Thus, the philosophical framework embedded in contemporary scientific method reflects widely shared, largely unquestioned, and ultimately non-verifiable metaphysical assumptions about the nature of phenomena.

It follows that there can be no absolute "proof" in medicine, but only different levels of evidence that change in relationship to accruing findings. The unavailability of unequivocal "proof" in medicine highlights the importance of subjective reports of patients in determining the benefits of treatment in all systems of medicine, and invites consideration of the role of metaphors and meaning in illness and health. Productive metaphors are those that consistently result in specific, accurate assessment findings or beneficial outcomes.

All Systems of Medicine Continue to Evolve

Western science and, by extension, conventional biomedicine rest on theories, methodologies, and clinical

approaches that evolve on a continuous basis, resulting in novel ways of understanding illness and health in successive historical epochs. Thus the criteria used to define "evidence" in medicine also change in relation to evolving theories of illness causation in the broader context of changing research designs and analytical methods. This process results in new conceptual methodologies for verifying claims as well as novel technologies permitting empirical verification of those claims. The consequence is ongoing change in both the meaning and content of evidence with respect to conventional medical approaches.

Different methodologies used in disparate systems of medicine translate into corresponding differences in practical clinical methods for assessing and treating postulated causes of illness. Management of a particular illness within a particular system of medicine is necessarily determined with respect to the prevailing medical theory and clinical techniques in current use within that healing tradition. In any given system of medicine, a certain treatment approach is regarded as "effective" with respect to a specified illness when available technologies and research methods permit confirmation of beneficial outcomes.

Philosophical Origins of Western Medicine

The perspective of conventional Western biomedicine stands in contrast to those of other established systems of medicine because of implicit and explicit assumptions about existence, causality, and time that can be traced to the cultural and philosophical roots of Western science and philosophy. In Western culture, material existence has historically been held to be a fundamental quality of reality. According to this point of view, the term "process" describes dynamic interactions among observable material entities that take place within a world that assumes linear time. This model reduces "process" to simple linear relationships between presumed fundamental material states of existence and time.

In Western culture, a priori assumptions about primary material categories of existence, together with assumptions about the linear nature of time, have led to understandings about valid ways to demonstrate the truth of claims pertaining to relationships between certain material states (causes) as they relate to illness and other material states (effects), as they, in turn, are related to treatments. This ancient philosophical perspective eventually led to the establishment of formal, empirical methodologies based on observation—a school of thought starting with Plato's academy in Athens (early- to mid-300 BCE), then progressing to more refined methodologies with the French Catholic philosopher René Decartes (1596–1650) and Renaissance author Sir Francis Bacon (1561–1626), and, in the early 20th century, the logical positivists of the Viennese in Austria, and, finally, Ludwig Wittgenstein (1889–1951) in his Tractatus Logico-philosophicus.

The philosophical school of realism continued to evolve with the writings of Karl Popper (1902–1994), who argued that a hypothesis can never be finally confirmed because only one contradictory finding is sufficient to falsify its claims. This position asserts that although a state of affairs approximating objective reality may exist, its existence can neither be verified nor unambiguously described. Imre Lakatos (1922–1974) extended Popper's thesis by adding the concept of heuristics and their influence on methodologies in science. In *Against Method*, Paul Feyerabend (1924–1994) argued that scientific method does not have a privileged position in the universe of possible approaches for investigating phenomena and that scientific method should, therefore, be viewed as not more legitimate than disparate competing methodologies. Feyerabend's anarchist position can be regarded as a radical kind of relativism.

Finally, in the 1960s, Thomas Kuhn (1922–1996) put forward the idea of competing paradigms as a less-extreme form of relativism in *The Structure of Scientific Revolutions*. According to Kuhn, a paradigm is a conceptual framework of presuppositions that define how scientists trained in a particular tradition approach their theoretical and practical work. Like Popper and Feyerabend, Kuhn argued that ultimate "truth" is unattainable and that acceptance or exclusion of scientific theories has more to do with consensus and political affiliation than with the rational or rigorous demonstration of claims. Kuhn held that paradigms—which reflect shared points of view and not objective reality—evolve and are eventually overthrown as new "maps" of reality are accepted by scientists and, thus, achieve political and institutional backing.

In both Popper's and Kuhn's forms of relativism, there is an assertion that understandings of truth in science—and in general—have more to do with one's cultural and social perspective than do research findings or the logical structure of a particular methodology. Most Western-trained scientists subscribe to a kind of naïve realism (ie, belief that phenomena have objective existence that can be confirmed or refuted through empirical means) in spite of the fact that, decades ago, this philosophical perspective was displaced by the idea of continuously evolving paradigms in Kuhn's relativism.

The Philosophical Gap Between Western and Non-Conventional Systems of Medicine

When Bacon introduced the conceptual basis of modern science in his seminal work *Novum Organon*, his ideas rapidly evolved into what is known as "scientific method," which purports to provide skilled investigators with objective or value-neutral information based on observation and analysis of the properties of natural phenomena. However, Bacon's original thesis and its modern form continue to rest on metaphysical assumptions that often go unstated. As relayed by psychotherapist Medard Boss (1903–1990) in his seminal work *Existential Foundations of Medicine and Psychology* (Jason Aronson, July 1977):

> *"Every science is . . . necessarily and always based on pre-scientific premises. These constitute a fundamental structure that not merely sets forth in advance which inquiries are possible and which are not, but furthermore determines the very character of the science and the*

extent to which its results will be significant. It sets the goals for the science and establishes the procedures guaranteeing correct practical application of theory. . . ."

By prescientific, Boss means that which conceptually comes before science, thereby delimiting what kind of activity science is and defining its legitimate operations and core philosophical premises. Prescientific premises are, by definition, metaphysical statements because it is not possible to substantiate them using empirical means.

Methodologies employed in all traditions of science and medicine ultimately rest on prescientific metaphysical assumptions that describe and delineate kinds of phenomena that can have existence, properties of phenomena that are knowable, and kinds of relationships between phenomena that can take place in physical space and time. Because all methodologies are ultimately based on metaphysical assumptions, no particular methodology can stand alone as a completely objective or value-neutral approach.

In sum, biomedicine borrows assumptions about "reality" and a methodology for verifying or refuting the existence of phenomena described in terms of a postulated mechanisms of action, from a naïve 19th-century version of materialism that became obsolete with the emergence of quantum mechanics almost a century ago. Therefore, the assertion by biomedicine that only certain kinds of things can have existence is an ontological assumption. The belief that only certain prescribed empirical methodologies can yield factual information about "real" phenomena is an epistemological assumption.

Both ontological and epistemological assumptions comprise the basis of contemporary methodologies in Western science and biomedicine. The argument, however, is circular and philosophically unsound. The logic implicit in conventional scientific method asserts that only "real" phenomena can function as causative agents, and that phenomena can be regarded as real only if their existence and properties are empirically verifiable by means of empirical methods. That said, empirical methods are those that examine properties of phenomena that are presumed to be real because they are knowable, according to accepted criteria. We are left with the circularity that posited phenomena and their properties are observable and verifiable as real using a prescribed methodology that permits verification of only certain kinds of phenomena, but the application of this methodology is a necessary test for determining whether a phenomenon is real, or by exclusion, non-existent. The argument is in the form of an infinite regress and cannot be logically resolved. Thus the philosophical framework embedded in contemporary scientific method reflects widely shared, largely unquestioned, and ultimately non-verifiable metaphysical assumptions about the nature of phenomena.

Next Issue

In Part II of this series, I will discuss non-Western indigenous healing systems in which causality is 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 epiphenomena associated with more fundamental qualities of reality. Implicit in this model is the belief that energy exists, is knowable and reportable as meaningful subjective experiences by patients, and is also observable by skilled practitioners.

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