A further investigation of "Dialectical Thinking as a Means of Understanding Systems-in-Development: Relevance to Rogers's Principles"

Although this critique accepts the assumptions of Wilson and Fitzpatrick concerning a necessary congruence between a science's world view and its method of inquiry, it refutes their argument for Bunge's dialectic as a method appropriate for the study of human phenomena. It is argued that Bunge's dialectic is developed from a dualistic universe and is, therefore, incompatible with Rogers's views on the unitary nature of phenomena. Another, more internally consistent interpretation of the dialectic is introduced for consideration as an alternative.

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THE RECENT ATTEMPT by Wilson and Fitzpatrick[1] to assess the relevance of "dialectical thinking" to Rogers's principles is a significant contribution:

1. to the development of that particular conceptual system;
2. to the study of the methodological implications of holistic models;[2,3] and
3. to the broader question of whether quantitative or qualitative methods are most appropriate for nursing research.[4-8]

As Wilson and Fitzpatrick point out, dialectics has a long history, varied interpretations, and many specific applications.[1] The dialectic, nonetheless, remains an "explanation that might afford a truer account of human development, thinking processes and evolution than causation [does]."[1(p31)] Because of this potential and because of the implications of such an explanation for the three areas of theory development identified here, dialectical thinking merits further investigation and refinement.

The stated premise of Wilson and Fitz-

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patrick is that the study of those characteristics particular to human phenomena, as conceptualized by Rogers,[9] demands methods more capable of explaining holistic phenomena than the prevailing mode of positivistic science. This premise rests on the implicit assumption that there should be a degree of compatibility between the world view of a science and its method of inquiry.

This argument for internal congruence is familiar to nursing scholars,[10] and it is basic to Wilson and Fitzpatrick's acceptance of the dialectic in favor of a causation model. The acceptability of their arguments that "dialectical thinking" is relevant to Rogers's principles rests, in turn, on two points: (1) whether the world views of Rogers's system and Bunge's dialectic are similar and, if so, (2) whether Bunge's dialectic assures an internal coherence between its world view and its method.

SIMILARITY OF WORLD VIEWS

Rogers's science of unitary beings

Wilson and Fitzpatrick present Rogers's science of unitary man as the study of human phenomena, conceptualized as open systems characterized as four-dimensional, evolutionary, negentropic, developmental processes with pattern, organization, unity, and arbitrary boundaries and in continuous interaction with the environment.[1] They identify the "key points" of Rogers's conceptual system: energy fields as intrinsically dynamic and recognizable by a specific pattern and organization and open systems as negentropic and developing their rhythmic, nonlinear innovations through the continuous interactions between human and environmental fields.

Central to their ensuing argument, Wilson and Fitzpatrick discuss Rogers's rejection of a mechanistic, static, reductionist, dichotomous world view. This includes its corollary model of positivist science, in favor of a paradigm and a method that acknowledges what are assumed to be some of reality's characteristics, ie, "process or becoming, relativity, relations, synthesis, and non-causal determination."[1(p25)]

But Wilson and Fitzpatrick omit a key point: Rogers's description of the relationship between the human and environmental fields. Rogers is clear, consistent,

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and specific in discussing her views on the *unitary* nature of reality. It is repeatedly described as one of the energy fields that "extend to infinity"[9(p90)] and is divided into human and environmental fields that "together are co-extensive with the universe."[9(p53)] "People are inseparable from the natural world,"[9(p49)] and their rhythms are "inextricably woven into the rhythms of the universe."[9(p100)] Rogers explicitly rejects any dualism in statements such as: "Man is an integral part of the universe. Man and environment are complementary systems, *not* dichotomous ones. In consequence, a model of man must affirm the unity of nature."[9(p89)]

In such a universe, all phenomena, whether divided into human or environmental fields, logically share the set of

defining characteristics that identify them as energy fields. If energy fields are open and dynamic, as Rogers and Wilson and Fitzpatrick believe, both human and environmental fields must be continuously changing. There are only two possibilities if either field is not continually changing.

1. If both fields were similarly static, neither would be an energy field as defined, and each would be of a different universe.
2. If one field was dynamic and open and the other was not, the nondynamic field would be beyond Rogers's reality.

Neither case, therefore, would be of concern to scientific inquiry in the conceptual system of Rogers.

Bunge's dialectic

The question is whether Bunge and Rogers share the same world view. Wilson and Fitzpatrick present Bunge's reality as one that unfolds in certain patterns (determination) that are characterized by an orderliness (lawfulness) at three levels: absolute (ontic), conceptual (epistemological), and empirical (logical).[1] In such a world, causality is discussed as a theory of change in which events are explained as happening (1) in ways that are causal, noncausal, or some combination of the two[1] and (2) in definite, lawful patterns that develop from particular "pre-existing," "intrinsic," "invariant" conditions.[1(p28)]

As one of seven noncausal subcategories of determination, Bunge's dialectic[1] logically shares the characteristics of the determination category, ie, an objective existence and the potential of being intellectually constructed and scientifically verified, empirically or logically. Bunge's dialectic, as presented and apparently accepted by Wilson and Fitzpatrick, is a process of "qualitative self-determination"; its unfolding manifests inherent, inner tensions among the parts of the process that self-generate a move toward synthesis and resolution of the opposing tendencies.[1]

Bunge and Wilson and Fitzpatrick find such a dialectic analogous to dialectical explanations found in Ward's epistemology and logic, Prigogene's "dissipative structures," and Bateson's "double descriptions."[1(pp32-34)] They carefully distinguish this dialectic from those of Hegel and Marx, although it is unclear whether they reject the philosophy, political ideology, or methodology of such a dialectic, or all three.[1]

In a universe of dynamic, open systems like that of Rogers, each of Bunge's patterns—ontic, epistemological, or logical—would (1) be incessantly changing and (2) develop through the interactions between the levels. This would also be true for each of Bunge's categories of determination because if there were dynamic and nondynamic patterns and categories of determination, the world would be at least dualistic and certainly not unitary.

Although the nature of Bunge's world is never addressed directly by Wilson and Fitzpatrick, it is easily determined through repeated and consistent inferences as his category of "dialectical self-determination" is developed. The dualistic nature of the universe of Bunge and Wilson and Fitzpatrick can be seen from Bunge's starting point of dividing reality into three types of determinations and patterns.

For the purpose of discussion or study, reality is necessarily divided into parts. Rogers does so by defining human and

environmental fields but makes the point that the boundaries between them are arbitrary and constantly changing.[9]

Bunge begins at an ontic level where phenomena exist in a "reality" in which there are "objective patterns of being and becoming (immanent forms) that relate qualities"[1(p26)] according to laws that are "*absolute and do not change.*"[1(p26)] These patterns are "*intrinsic*" and "*invariant in some respects.*"[1(p28)] "They are *not contingent.*"[1(p27)] (All emphasis has been added.)

Because such patterns do not reflect a developmental process or ongoing interactions, they do not meet the conditions of open systems and ongoing dynamism necessary to Rogers's universe. It is irrelevant whether the dialectic of Bunge and Wilson and Fitzpatrick, as one specific pattern, shares the characteristics of the larger patterns. Given the coextensive characteristics of a unitary universe, the conceptualization that any part of reality is "absolute," "invariant," or "not contingent" raises questions about that whole reality.

Analysis

The universe of Rogers is different from that of Bunge and Wilson and Fitzpatrick. Rogers studies in a world where the only absolute is that there are no absolutes; Bunge and Wilson and Fitzpatrick study the differences between absolute and nonabsolute phenomena, developing or accepting the dialectic as an alternative method for understanding and explaining those patterns that change while maintaining a static ontology. If it is assumed that there should be some compatibility between the world of a science and its method, a dialectic such as that of Bunge and Wilson and Fitzpatrick, which develops within a dichotomous universe, has little relevance to that of Rogers. But this is contrary to the argument of Wilson and Fitzpatrick.

The original problems remain. Positivist science shows itself with increasing frequency as a model that is either inadequate, inappropriate, or both. What then is an appropriate methodology for Rogers, for other holistic models, for nursing research, and for theory development in general?

CHOOSING A DIALECTIC

The original argument of Wilson and Fitzpatrick for the dialectic could be even stronger. The dialectic has long been acknowledged by scholars from many other disciplines whose worlds, like that of Rogers, are dynamic and relational. These disciplines include astronomy, physics, chemistry, biology, sociology, and psychology. Syzmanski states that "Science [thus] finds dialectical ways of conceptualizing more productive than Aristotelian ways when it comes to actually understanding and predicting."[11(p145)] In addition, Rychak emphasizes that "No properly educated social scientist should presume to

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speak for the behavior of human beings without a good understanding of the dialectical metaconstruct."[12(pii)]

Because this critique has questioned whether the world view of Bunge and Wilson and Fitzpatrick is compatible with that of Rogers, it seems logical to identify which dialectics start from world views that affirm a unitary nature of reality. From such a starting point, Wilson and Fitzpatrick's rejection of both the Hegelian and Marxian dialectics becomes problematic for several reasons. First, Fitzpatrick and Wilson's rationale for this rejection is unclear.

Second, they exclude works that are developed from a world view that acknowledges and emphasizes "the whole" and focuses on understanding, explaining, and predicting the "internal relations" of such a world. Hegel began from a starting point of "being" as a universal process of constant movement and postulated that "The truth is the whole. The whole, however, is merely the essential nature reaching its completeness through the process of its own becoming."[13(p55)] This idea is similar to a common goal of nursing intervention, ie, helping people develop to their fullest potential. Although Marx differs with Hegel on several significant points, he shares the fundamental assumptions that (1) being is a constant process of transformation and (2) this ongoing change is dialectical in nature.[14]

A third reason that Wilson and Fitzpatrick's rejection of Hegel and Marx is problematic is a function of the considerable amount of work done by scholars in developing the Hegelian/Marxian dialectic as a productive approach to describing, explaining, and predicting the ongoing development of human phenomena as a relational process. According to Ollman,[15] for example, the dialectic has four functions:

1. *outlook*—a way of viewing entities as phases in their own development;
2. *inquiry*—an approach to the study of problems that focuses on the search for relationships between entities both in the present and over time;
3. *exposition*—a method that explains the organization of a topic and the terms selected to accomplish this,[15];
4. *intellectual reconstruction*—the activity of incorporating what is learned through the dialectical inquiry into what is already known, in the process of expanding and changing the original understanding.[15]

Ollman suggests that the failure to recognize these four functions of the dialectic, as well as the failure to account for the dialectical relationship among the four aspects, contributes to the confusion surrounding the definition, understanding, and use of the dialectic.[15]

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Among the many interpretations of the dialectic, a Hegelian/Marxian dialectic such as Ollman's can provide a paradigm that:

1. begins from a unitary universe;
2. has developed its own internal coherence; and
3. allows a mechanism for its own ongoing development.

This dialectic is therefore among

those that have obvious potential for nursing scholars studying Rogers's conceptual system, other holistic models, or the appropriateness of qualitative versus quantitative research. Theory development in nursing is unnecessarily constrained by rejecting the dialectic of either Marx or Hegel without more detailed investigation.

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