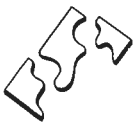

Methodology for the Human Sciences: Systems of Inquiry by Donald Polkinghorne, State University of New York Press, Albany, 1983

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Donald Polkinghorne has written a well-conceived and thoughtful book summarizing the "epistemological commitment" of the major 19th and 20th century philosophers of science. He is attentive to the subtleties of intellectual positions as well as to the etymologies of the words that ignite argument about these positions, and he makes a fluid presentation "of the conceptual issues which inform research designs directed toward understanding human action and social structure" (p. ix).

Although dealing with complex and provocative issues, Polkinghorne's writing is calm, lucid, and remarkably free of jargon. He begins with a brief but adequate discussion of the "Original Debate" between 19th century positivists (Mill, Comte, and Mach) and 19th/20th century anti-positivists (Dilthey, Wundt, Brentano, Husserl, Weber, and James) regarding the nature of methodology and theory applicable to the study of human beings. He then summarizes the intellectual positions and realizations which have animated and transformed the "Original Debate" during the past century. Using an organizational schema proposed by Frederick Suppe, Polkinghorne divides the development of 20th century philosophy of science into five phases: (1) the logical positivism associated with members of the Vienna Circle, (2) the "Theoretical Networks" or "covering laws" position of Hempel, Braithwaite, Hagel, and Popper, (3) the criticisms of this "received view" of science propagated by Quine and Suppe, (4) the "Weltanschauung" position of Kuhn, Toulmin, Hanson, Polanyi, and Feyerabend, and (5) the "Historical Realism" espoused by Shapere, Radnitzky, Landan, and in Toulmin's later writings. Throughout this discussion, Polkinghorne discusses the critical role of Wittgenstein and others who were not primary philosophers of science but whose ideas affected those who were.

By explicating the historical development of recent philosophy of science, Polkinghorne provides the reader with "an occasion to reconstruct the insights originally gained . . . and to reintegrate them into expanded approaches to research" (p. xi). Polkinghorne's contextualization of philosophical controversy is one of the major

strengths of the book as is his comprehensive bibliography facilitating the continued exploration of particular epistemologies.

The final vision of science, that which Suppe calls "historical realism," coincides with Polkinghorne's vision of human science research. It is an optimistic view which accepts the idea of scientific progress while rejecting the certainty of scientific truth, and which unites the human sciences of psychology, sociology, and anthropology with literature, history, and the humanities:

> Science is a human activity in which we seek to understand our world through conjecture and refutation. We are not able to prove that a conjecture is certain; all conjectures are fallible and subject to rejection in competition with other hypotheses. The choice between which conjectures are kept and which are rejected is influenced by the external history of science and by the internal history of empirical testing. (p. 133)

Throughout Polkinghorne's historical discussion, he celebrates the positions and counter-positions of individual philosophers rather than the dialectic of ideas. This strikes me as more than a by-product of the necessity to organize his text. It allows Polkinghorne to present a powerful (if structurally implicit) model of the "assertoric" nature of truth, and the dialogical nature of the process which yields such truth, a vision he contrasts with the "apodictic" assumptions of early positivists. Polkinghorne's emphasis that knowledge results from human discourse is an important declaration which both comforts and challenges. It is comforting to view the search for scientific knowledge as a humane undertaking conducted within like-minded communities of scholars; this diminishes the epistemological direness accompanying searches for univocal truth. On the other hand, a vision of science as human dialogue heightens the responsibility of researchers to examine the theoretical and empirical consequences of their assumptions and marries issues of personal integrity to those of methodology. In portraying science as a human endeavor, Polkinghorne has infused it with moral consequences. As Polkinghorne notes, "It is a serious work with high stakes" and the potential costs of "friendships and professional standing" (p. xii).

With the historical context for his vision of science established, Polkinghorne then discusses several "systems of inquiry" which have been developed since the "Original Debate." He presents the assumptions and questions which guide systems theory, functionalism, structural-functionalism, linguistics, and structuralism and discusses the place of these paradigms in human science research. Although brief, the discussions are provocative and reorient the reader away from philosophical debate about epistemology in the natural sciences toward research with human beings.

It is in his discussion of structuralism that I believe Polkinghorne makes an important error, one which he repeats throughout the rest of the book. Rather than discussing structuralism as one of a num-

ber of assumptive frameworks, he discusses it as if it were the only valid position for human science research. Although it may seem paradoxical to criticize the author of a book about epistemological commitments for steadfastly displaying his own, I believe this commingling reflects serious confusion between methodological assumptions and experienced reality. Polkinghorne seems to mistake the structuralist assumptions, so congenial to human science researchers (including myself), as an improved avenue to empirical truth rather than a philosophical position with consequent methodological assumptions. Rather than present structural analysis as the basic approach to human science research, I believe it would have been more useful to explain structuralism and raise questions in the same way that he has discussed other systems of inquiry. In concluding that "the character of the human realm appears to be organized by structural relationships" (pp. 239-240), Polkinghorne discards the theoretical mirrors of early empiricists, only to replace them with those of later structuralists. In the human sciences, no less than in the natural sciences, we need to create what Joseph Schwab has called a "narrative of inquiry" rather than a "rhetoric of conclusions." Polkinghorne's apparent conclusion that the lifeworld is structured terminates debate on an important and fundamental question.

Although the book as a whole is well-written, it is in the final chapters that the text becomes spirited as Polkinghorne reviews the assumptions underlying the mental cause theories taken for granted by most 20th century academic psychologists. To question the validity of mental cause theories is to question the foundation of modern psychological theory and, by implication, to argue for the structuralist vision which explains by describing rather than by positing causes.

In the final two chapters, Polkinghorne is both insightful and infuriating. His call for "pluralistic research epistemologies" and his discussion of sampling necessities with regard to what he strangely calls the "numeric" and "linguistic data types" are sensible. He draws on linguistic and literary theory to discuss the transformation of interview data, "the richest data source," from living discourse to impassive text, and he provides a useful theoretical context for consideration of this most "fragile" of data types. His assessment of the strengths, limitations, and misunderstandings of both linguistic and numeric data is even-handed. His discussion of the establishment of knowledge claims through the interplay of logic, intuition, and argumentation is a final and compelling argument that scientific knowledge is not truth, but "merely represents the best explanations available . . . explanations in which we trust enough to act" (p. 242). Finally, his coverage of the assumptions underlying phenomenological and hermeneutic research is quite readable and provides compact answers to opening questions about these "contexts of knowledge."

I have, however, both theoretical and pragmatic quarrels with his discussion of hermeneutic research, a "system of inquiry" which

"concentrates on the historical meaning of experience and its developmental and cumulative effects at both the individual and social levels" (p. 203). My first quarrel is that Polkinghorne gives inadequate attention to the social (as opposed to individually interpreted) realm. His inattention to the reality of social structure and the impact that unperceived social forces may have on individual behavior is unfortunate. This omission is particularly striking in light of Polkinghorne's later nomination of Clifford Geertz, an anthropologist conversant with questions of social structure as well as cultural expression, as an example of someone working to employ the theoretical ideas of Paul Ricoeur, the philosopher who "best exemplifies the approach to human science methodology developed in this book" (p. 233). Although originally claiming interest in social structure, Polkinghorne's attentions focus mainly on individual experience, an experience which seems most often self-referential (and reverential!) rather than communal.

A second difficulty I have with Polkinghorne's treatment of hermeneutics is his relative neglect of the inevitable effect that the nature of the research question itself has on the research act. The goal of research endeavors (even the attempt "to understand") influences the data which are collected, the themes found meaningful within these data, and the analytic strategy employed. Although Polkinghorne repeatedly proclaims there is no such thing as scientific *truth*, he does seem to accept *true interpretations* and the unique meaning of these interpretations. I am bothered here by the hint of a modern Platonism: pure meaning exists, waiting to be interpreted correctly. I would have expected that an author who has insightfully depicted the human and ideological contexts of inquiry would make it clearer that hermeneutic inquiry is one more context-laden attempt to symbolize experience, rather than being the science which reveals "correct understanding."

I find the book's most serious failing, however, to be its treatment of exemplary human science research. Although Polkinghorne provides several models of phenomenological studies, adequate examples of hermeneutic inquiry are missing. In an end note he refers readers to a diverse lot of scholars including Brentano, Piaget, Whorf, Weber, and Goffman as models for future human science research. I am troubled by the cavalier catholicity of this approach. Not only is one footnote inadequate to introduce useful models of research, but it ignores significant conceptual distinctions among research epistemologies and methodologies. One has the sense that Piaget, Goffman, and Merleau-Ponty are all providing functionally equivalent, if different, knowledge about the human realm rather than pursuing questions within unique human, philosophical, historical, and empirical contexts. Once more an appreciation of the inescapable contextuality of human science inquiry seems to be missing.

In spite of this shortcoming, the book provides useful bibliographic sources and accurate summaries of epistemological arguments. A second edition would benefit from the inclusion and discussion of additional examples of human science research and a careful discussion of conceptual similarities and divergences. As it is, I was left at the end of *Methodology for the Human Sciences* with the inverse of Wittgenstein's famous dictum: Human science research can be said but now shown. If Polkinghorne believes, as he notes in the preface, that "methodological questions are decided in the practice of research by those committed to developing the best possible answers to their questions, not by the armchair philosophers of research" (p. xi), he would do well to provide the reader with additional selections from the writings of those conducting the quest, not just discussing them.