

Commentary

RESPONSE TO CONFERENCE PAPERS ON “DAVID BOHM’S IMPLICATE ORDER: PHYSICS, PHILOSOPHY, AND THEOLOGY”

by David Bohm

This was the first conference ever to consider my work as a whole. The fact that it took place in a seminary community and drew on a major university at the same time made it a unique experience in my professional life. A large number of people came to hear my public lecture, and the degree of interest shown there impressed me very much. I was especially struck by the wide variety of world views of those who contributed papers and of the twelve respondents. Nevertheless, there was a common thread running through the conference, which was a serious concern with wholeness and with helping heal the present fragmentation of the human being and of society in general.

I would especially like to express my appreciation for the careful and serious attention to my ideas given by all those who participated in the experience and for the generally cogent criticisms that they made of my work. Through these I was able to see that my ideas on the implicate order contain many strands and that I have to explore ways in which these may be woven together harmoniously. The seeds of a critical reappraisal of my ideas were thus planted in me during the conference, and by now these ideas are beginning to show signs of developing in new ways.

Each of these papers has helped to bring out a particular phase of my ideas. For example, Robert Russell’s paper was the first detailed attempt to find substantive parallels between my work and the Judeo-Christian tradition. It also included a careful discussion of the physics, which should help nonscientists understand some of my scientific work over the past thirty years. In this discussion, Russell has also called attention to the need in my theory for a treatment of irreversibility and cosmogony. As it has been presented thus far, the implicate order has a kind of timelessness that seems more suited to Fredrick Hoyle’s steady-state theory of the universe than to the by now generally accepted view that the cosmos has evolved irreversibly from an initial “big bang.” I am now working along these lines, by exploring a possible relationship between the implicate order and Ilya Prigogine’s work on irreversibility.

David Griffin’s paper was the first systematically to relate my own views to those of a major philosopher, Alfred North Whitehead. Indeed, partly as a

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result of Griffin's paper I have further developed many similarities between my own ideas and those of Whitehead, and I have tried to bring out in detail some of the basic differences in our approaches. In doing this, I have been led to consider a kind of "relative timelessness" that avoids many of the difficulties pointed out by Griffin.¹

Geoffrey Chew's paper pointed out areas of contact between his topological bootstrap theory and my approach to the implicate order. Here, I can say that since this conference, I have begun to develop an algebraic theory in which geometric forms and relationships are enfolded in a deeper implicate order beyond that of space and time. Chew's treatment in terms of Richard Feynman's diagrams would then be interpreted as a particular form of this algebraic geometry.

Ted Peters's paper related my ideas to the postcritical perspective, bringing in Arthur Köstler, Fritjof Capra, and others, and looked in some detail at the religious significance of my thoughts in a broad way. What is especially important in this regard is, in my view, that the holomovement is not to be considered as divine. Rather, as with all scientific theories, I regard it as inherently incomplete and contingent on that which goes beyond it. If this "beyond" is carried to an ultimate transcendent, then the main point about the implicate order will be that it provides a much more natural account of how the transcendent is able to act creatively within matter than does a mechanistic approach (i.e., by proceeding from ever more subtle levels of enfoldment outward toward the explicate order).

Since this conference, two more conferences have been held, involving a total of over 50 scholars which discussed my ideas on the implicate order, one in Claremont, California, in March, 1984, and the other in Notre Dame, Indiana, in April, 1984. My ideas have grown further through them and have in this way begun to develop significantly from what they were a year ago, when I attended the Berkeley conference. I am looking forward to further dialogues like these in the years that lie ahead.

Finally, I would like to thank those who arranged the conference and all of those who participated in it for making possible this fruitful exchange between physics and theology.

NOTE

1. This notion was first pointed out to me by Archie Bahm in a private communication. For an account of it, see A. Bahm, *Southwestern Journal of Philosophy* 5 (1974).