Theory and Philosophy: Future Directions

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Kantor (1953) points out that the instruments by means of which scientific investigations are carried out include more than tools for measuring things and events, controlling the conditions of their occurrence, and calculating data. Also included are the verbal products of scientists' prior contacts with those things and events, among them descriptions, hypotheses, laws or principles, and theories.

Given that the verbal products of behavior scientists, in being derived from their observational contacts with events, are not "free" constructions as were those of their mentalistic predecessors, we might have expected a greater commonality of viewpoint on specific topics and a greater coherence in overall perspective than are apparent in the proceedings of this conference. That such did not turn out to be the case suggests a number of possibilities.

Little agreement among contemporary behavior scientists as to the characteristics of particular types of events suggests that historical formulations of those events are not as adequate as they were once believed to be. For example, although the topic of private events was formally reserved for only one session, so central to an understanding of human behavior is this topic that it found its way into several other sessions. For some, the notion of some unspecified sort of behavior that occurs in some unspecified inner part of the organism seems to be an adequate formulation of events of this type. Others reject this formulation

on the grounds that it violates the subject matter boundaries of the science: Behavior scientists study the action of whole organisms rather than their parts considered separately. Some are more concerned with how we come to talk about private events than what events of these sorts are held to be. Still others abandon the concept of private events altogether on the grounds of its having no utility. And these various interpretations do not exhaust the possibilities (e.g., Hayes & Fryling, 2009; Parrott, 1983). Although the potential for the investigation of a particular type of event is not the only criterion upon which a preference for one or another formulation of that event might be had, it is one such criterion, and little possibility of investigation prevails for events whose definitions prevent their observation. Another criterion by which to evaluate the relative adequacy of different interpretations of the same types of events is to consider their congruence with the definitions and postulates of behavior science more broadly considered. Consideration of the nature and operations of private events in accord with either one of these criteria seems to be a fruitful path for further discussion.

Still, the debate over the nature and operations of private events is not a problem for behavior science so much as it is a sign of its evolution. Behavior science, like all other sciences, is a cumulative enterprise, in that the products of earlier investigations and interpretations contribute to the questions posed and formulations achieved by later investigators. It follows that a greater understanding of a given type of event can be achieved only when observations of

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that same type of event continue to be made. However, it is also by way of continued observations of a given type of event that opportunities present themselves for more adequate formulations of those events. The debate over the nature and operations of private events at this time in the career of behavior science is illustrative of the process by which sciences register progress, namely by resistance to change in the face of inevitable evolution.

The lack of coherence in overall perspective apparent in the proceedings of this conference is cause for some concern, however, because this circumstance tends to be observed when scientists are operating on different philosophical foundations. Among the elements that comprise these foundations are definitional propositions by which the subject matter of a given science is isolated for investigation. As Jack Marr points out in his introduction to this series of papers, "behavior analysis is the only self-proclaimed natural science we know of that still vigorously debates its proper subject matter" (p. 193). A lack of agreement as to the proper subject matter of behavior science (whatever this may be) is not an inconsequential circumstance, because all aspects of scientific enterprises ensue from the isolation of their subject matters. More specifically, different subject matters necessitate different propositions as to their substantive, constituent, developmental, and relational characteristics. These, in turn, dictate different methods of investigation by way of which different types of data are collected and different laws are formulated. In short, different subject matters mean different sciences.

Although it is surely the case that the events isolated by one science are related to those of another, the value of each science to the domain of the sciences as a whole consists of their unique contributions (Kantor, 1953). Problematic in this regard is evidence

of a shift away from behavior–environment relations toward the subject matters of other sciences, namely those of the biological domain. No doubt we will come to understand a great deal more about neurophysiology by studying the brain, but we will not become better oriented to behavior–environment relations in particular by doing so. Is the subject matter of behavior science profitably reduced to the subject matters of the biological sciences? Are behavior–environment relations any more "based on" aspects of the biological organism than on the physics and chemistry of the stimulating environment, or the anthropology and sociology of the human aspects of those environments? Are behavior–environment relations not a legitimate subject matter in their own right? These, too, are questions for further discussion.

The Behavior Theory and Philosophy conference, whose presentations are published in this issue, was a wonderfully stimulating event that was made so in part by the contributions of a highly sophisticated audience, many of whom would have been welcomed as speakers by Jack and me had there been space enough to add them to the formal program. Of special importance were the many talented junior scholars and students who participated in the conference. To them we entrust the future of theoretical and philosophical considerations.

REFERENCES

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