Irreconcilable Differences and Political Reality in These Dark Ages

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Dr. Neuringer believes that behavior analysts and psychologists can stop squabbling, bury their differences, and learn to live together happily. Neuringer's assessment of this case is that the fault lies with behavior analysts, who are too arrogant and doctrinaire. His recommendation is for behavior analysts to relax, to become more accepting of diversity, to stop insisting so stubbornly on their point of view, and to start doing some serious capitulating. I am happy to provide a second opinion on this case.

IRRECONCILABLE DIFFERENCES

I believe that there is an essential difference between behavior analysis and psychology that probably gives rise to most of the specific, substantive disagreements between them. This difference is so fundamental that I think it unlikely that the two disciplines can be reconciled. The difference is in ontology. Behavior analysis and psychology entail different conceptions of reality; they disagree fundamentally about what constitutes the world. Behavior analysis presupposes a materialist ontology, according to which the world consists of material objects and events. Psychology presupposes a nonmaterialist ontology, according to which the world consists of nonmaterial objects and events as well as material objects and events. But what is a nonmaterial object or event? One example of a nonmaterial object is personality. A behavior analyst might argue that personality is a linguistic illusion and that the word actually re-

fers to a repertoire of behavior. But to a psychologist, personality is something that a person possesses, and that is merely manifested in behavior. An individual's personality can be experienced by interacting with him or her, and it can be "tapped"—although not completely captured and defined—by "instruments" like questionnaires and Rorschach tests. But these "measurements" only illuminate one or another facet of an individual's personality, they do not define it. To a psychologist, personality exists in a real psychological sense, even if not as a material object.

A second example of a nonmaterial object is an intention. A behavior analyst may describe behavior as intentional if it is teleonomic, or apparently purposive. But a psychologist would argue that a person *has* an intention, and that this is demonstrated by the fact that one can ask a person about his or her intentions in the absence of behavior that might be described as intentional. A person who responds to the question, "What are you going to do this afternoon?" by saying "I'm going to go to the grocery store," is describing an intention just as surely as the person who responds to the question, "What kind of chair is that?" by saying "It's a Windsor chair," is describing a chair. According to the psychologist, both the chair and the intention are real existents; one is materially real, the other is psychologically real. Psychological reality is an ineffable reality that cannot be fully captured by material measurement.

There are many additional examples of nonmaterial objects and events in psychology. Expectations and beliefs, for example, are nonmaterial entities. A behavior analyst might say that careful consideration shows these to be ways of speaking about material entities and events, but a psychologist would argue

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that the expectations and beliefs themselves exist in a real psychological sense. An example of a nonmaterial event is the development of openness and genuineness in a relationship. According to the psychologist, this is a psychologically real occurrence that extends through time and that cannot be identified with or reduced to changes in behavior.

It seems to me that most specific, substantive disputes between behavior analysts and psychologists stem from this fundamental difference in ontology. For example, this difference gives rise to the charge that behavior analysis just scratches the surface of human life and action, or that it ignores the richness of human existence (e.g., Schwartz & Lacey, 1982). Such complaints are not about the failure of behavior analysis to deal with private events, but about the discipline's failure to deal with these events *qua* nonmaterial entities. To deal with nonmaterial entities and events by identifying them with material items, saying that their apparent nonmateriality is a linguistic illusion (or something similar), will never satisfy a psychologist who takes it as axiomatic that the nonmaterial items themselves are psychologically real.

It is difficult to imagine how the different ontologies entailed by behavior analysis and psychology can coexist. It can't be both ways. Does this mean that only one or the other discipline makes sense? Not necessarily, but it does mean that they are different disciplines, as has been suggested before (e.g., Epstein, 1985; Fraley & Vargas, 1986), with different ontological points of departure. Do behavior analysts and psychologists have nothing to say to each other then? Probably not. Psychological and behavior-analytic disputants who argue about, say, whether thoughts can influence actions, are really talking at cross purposes. The issue cannot be resolved because the ontological difference does not permit it. According to the behavior analyst there can be no such thing as a nonmaterial thought, so the psychologist must be talking about something material, whether the psychologist realizes it or not. But no, the psychologist is talking about a *real*

nonmaterial thought. Oh no, there is no such thing as a real nonmaterial thought, according to the behavior analyst, and so it goes. The only thing behavior analysts and psychologists can reasonably talk about is ontology. Once the ontology is decided, everything else falls into place. Behavior analysis follows from a materialist ontology and psychology follows from a nonmaterialist ontology.

Does the difference in ontology mean that behavior analysis is science and that psychology is not? This question can be illuminated by asking about the epistemologies of these disciplines and how they are related to the disciplines' ontologies. In fact both behavior analysis and psychology make use of an empiricist epistemology, and this may be why some would like to call both disciplines science. But an empiricist epistemology that operates on a materialist ontology is very different from an empiricist epistemology that operates on a nonmaterialist ontology. Because propositions in the first type of discipline entail material objects and events, empirical methods can lead to decisive conclusions about the truth or falsity of those propositions (McDowell, 1990). For example, the truth of the proposition that contingent time out suppresses oppositional behavior can be examined by arranging a time-out contingency while counting instances of oppositional behavior. If fewer instances of the behavior occur when time out is applied than when it is not, then *ceteris paribus* the proposition is true. Because propositions in the second type of discipline entail nonmaterial objects and events, empirical methods cannot lead to decisive conclusions about those propositions (McDowell, 1990). This is because the nonmaterial constituents of the propositions are not accessible to the empirical methods. There will always be what might be called a "gulf of ineffability" between empirical findings and the nonmaterial constituents of a proposition upon which they bear. Empirical findings can persuade one, more or less, of the truth of a proposition that entails nonmaterial objects and events, but because the empirical findings do not bear

directly on the nonmaterial constituents of the proposition, the truth or falsity of the proposition cannot be decided with finality.

Consider, as an example, the proposition that an individual, say a client in psychotherapy, has an authoritarian personality. The truth of this proposition can be examined by administering various questionnaires and psychological tests. Responses to test items are empirical data, but to the psychologist the data themselves are not interesting. The psychologist does not care about, for example, the mere fact that the client answered yes to the question "Do you usually try to get people to do things your way?" Instead, he or she is interested in what that answer says about the client's personality. Hence, the data are interesting only insofar as they form a basis for arguing that the client does or does not have an authoritarian personality. The personality itself is never measured, and cannot be measured because it is not the kind of thing that is susceptible to material measurement. This is the gulf of ineffability. Now suppose it is concluded that the client has an authoritarian personality, and suppose further that someone challenges this conclusion by saying that the manifestations of authoritarianism are only a defense mechanism, not the client's true personality, which is in fact dependent and submissive. How are we to decide the truth or falsity of that proposition? Perhaps we can administer a defense-mechanism scale, or a Rorschach test that is specifically scored for dependency and submission. Responses to these tests form a basis for arguing that the client's personality is or is not authoritarian, but we can only be more or less persuaded of the truth of such an argument. Because the personality itself cannot be measured it is impossible to arrive at a definitive conclusion.

Some might argue that the gulf of ineffability that arises when an empiricist epistemology operates on a nonmaterialist ontology is bridged by operational definitions. But this is only lip service, and is an affront to operationism. Psychologists use reduction sentences (Car-

nap, 1954), not operational definitions. There is no psychologist anywhere who would agree that by authoritarian personality he or she means a particular pattern of responses on a certain personality test. No, the pattern of responses just reflects, is indicative of, or constitutes "a handle on" the authoritarian personality. Another attempt to bridge the gulf of ineffability is psychometrics. Good test-retest reliability, construct validity, and so on, are meant to assuage our concern about the reality of the object that is being "tapped." But in psychometrics, as in all psychological enterprises, empirical data themselves are not the objects of interest. The data merely reflect, are indicative of, or constitute a handle on the nonmaterial entity that is being limned. Reliability and validity coefficients clearly interconnect data from various sources, but the interconnected data remain unconnected to the entity of interest. Psychometricians are like builders of a dock who neglect to moor it to the shore. If you tie up your boat you will still be adrift in the ocean.

What about the issue of science, then? As noted earlier, if by science one means a discipline that makes use of an empiricist epistemology, then both behavior analysis and psychology are science. The difference is that in behavior analysis the empiricist epistemology has the advantage of making the truth or falsity of propositions decidable, whereas in psychology it does not. But if by science one means a discipline that has this advantage, that is, a discipline that entails both a materialist ontology and an empiricist epistemology, then only behavior analysis is science. It may seem that decidability is an important benefit, but it is not likely to stir envy among psychologists. To a psychologist, the benefit of decidability is far outweighed by the cost of being restricted to propositions that do not address what the psychologist believes is most important about human action.

POLITICAL REALITY IN THESE DARK AGES

If there are irreconcilable differences between psychology and behavior anal-

ysis, then Neuringer's recommendation for behavior analysts to practice humility is not likely to be successful—unless the behavior analyst becomes so humble as to abandon a materialist ontology and become a psychologist. But Neuringer's article is probably a reaction to punitive contingencies that seem to be fairly widespread, and that exert pressure against behavior-analytic verbal, academic, and research behavior. The political reality is that psychologists dominate, and that the nonmaterialist ontology entailed by that discipline is widespread in our culture.

I believe that contemporary psychology's nonmaterialist ontology is a residue of ancient superstitions that have been influential in many disciplines in the course of intellectual history (e.g., Deitz, 1982; McDowell, 1988). For example, vitalist theories, which are theories that posit nonmaterial animating principles as activators of otherwise lifeless biological tissue, have been around since 900 B.C., the time of Homer's *Iliad*. Other examples of theories that entail nonmaterialist ontologies include Aristotle's influential doctrine that motion occurs in virtue of a motive force located inside the moving body (McDowell, 1988), and the various fluid and ether theories of eighteenth- and nineteenth-century science (Laudan, 1984). Unfortunately, it has sometimes taken a long time for theories based on nonmaterialist superstitions to lose their influence. For example, Ptolemaic stationary geocentrism and the Aristotelian doctrine that bodies had internal sources of motion survived for over 1,000 years (McDowell, 1988), a period of intellectual history that is sometimes referred to as the Dark Ages. In the study of human nature and action we are now living in similar dark, superstitious ages.

Two circumstances may help account for the powerful grip of nonmaterialist superstitions in the study of human behavior. The first is the pervasiveness of psychology's ontological perspective in contemporary western culture and the existence of important social institutions that take this perspective for granted. For example, virtually all depictions of human action in entertainment vehicles

such as popular songs, television shows, movies, and fiction, entail the nonmaterialist ontology of psychology. One important social institution that takes this ontology for granted is the legal system which, among other (psychological) things, considers it necessary to demonstrate "intent" to commit a crime in order to judge an individual guilty. Kuhn (1957) argued that an analogous state of affairs contributed to the long persistence of the Ptolemaic and Aristotelian theories. That is, stationary geocentrism and its many ramifications were an important part of the social order from antiquity until at least the seventeenth century A.D.

A second possible reason for the strong grip of psychology's ontology is that it agrees with personal experience. Most people will assert that they do have thoughts, intentions, and beliefs, which are not completely reducible to material entities. And they will express skepticism about the idea that their behavior might be related to material events and, in fact, caused by them. Again, this agreement with personal experience was also characteristic of Ptolemaic stationary geocentrism. The sun, moon, and stars do seem to move across the sky during the day and night, and people did not (and still don't) experience the expected effects of the earth's alleged rotation, such as strong easterly winds or the movement of the ground when one jumps into the air.

Personal experience and cultural institutionalization probably work together to maintain the strong hold of psychology's ontology. Personal experience legitimizes the installment of nonmaterialist ontology in cultural institutions, and the existence of these institutions in turn makes it less likely that people will question their personal experience. The result is further institutionalization of nonmaterialist ontology, which leads to even less reason to question personal experience, and so on. This feedback loop suggests that the nonmaterialist ontology of psychology may be as difficult to overcome as was the stationary geocentrism of Aristotle and Ptolemy.

While several authors, in addition to

Professor Neuringer, have suggested ways of dealing with the political reality of psychology's dominance in these dark ages (e.g., Epstein, 1985; Fraley & Vargas, 1986; Malagodi & Jackson, 1989), most seem to have given up on the idea of enlightenment. But, prodigious difficulties notwithstanding, perhaps this could be accomplished by providing a good reason to question personal experience. Perhaps what is needed is a compelling conceptual and data-based treatment of human nature and action from a behavior-analytic perspective, a treatment that is as conceptually compelling as was Newton's *Principia* in the treatment of motion, and as empirically overwhelming as was Darwin's *On the Origin of Species* in the treatment of natural history. An important part of such a treatment of human action would be the demonstration, by sheer weight of evidence (which has yet to be obtained), that human behavior in natural, undisturbed environments is under the control of material variables (Smith, 1983). This is the approach that I favor, although it is not very humble.

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