

## *Private* versus *Inner* in Multiscaled Interpretation

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It sometimes is important to account for someone's behavior when the relevant environmental facts are inaccessible. Baum's (2011) essay seems to belittle that problem, especially when fine-grained analyses might be relevant. Schnaitter (1978) proposed a solution to it by delineating the difference between behavior analysis and behavior-analytic interpretation. The former entails manipulative assessment of behavior–environment relations, whereas the latter accounts for behavior by appealing to the kinds of relations that have previously been verified through analysis, an appeal that includes hypothesizing the occurrence of inaccessible facts that are thus private despite their environmental status, and that is fairly standard practice for addressing practical problems. The private events aspect of the argument was introduced earlier, by Skinner (1945), who was concerned, on the one hand, with what is at issue when people invoke mentalistic psychological terms, and on the other hand, with accounting for a person's learning to describe his or her internal goings-on. Following Skinner's lead, Baum's essay often appears to conflate *private* with *internal*, but Baum asserts that neither private environmental events nor inferred internal events have a place in a proper behavior-analytic account. It is argued here that appeals to external events that are *private in fact* yield fairly straightforward, albeit provisional explanations. Appeals to private internal

events are worthy of our attention but they remain problematic: First, one may describe internal events, but it may not be internal events that one is describing; second is the difficulty of distinguishing internal responses or stimuli from working parts of the behaving organism, and third is the issue of how to account for the effects of one repertoire upon another. Finally, Baum's categorical use of the term *molar* to characterize his viewpoint obscures its multiscaled characteristic. The term *multiscaled* would permit greater salience of the fact that small-scale analyses can be consistent with his position and could enable more detailed and constructive comparisons of behavior analysis with other explanatory traditions.

Skinner's (1945) introduction of private versus public as an interpretive distinction was a masterstroke for eliminating spooks from the scientific interpretation of phenomena that are typically identified as mental. However, that agenda needs to be characterized more carefully than is typical even in Skinner's own writings. His objective can be understood as more constructive than merely asserting the fictional status of mental events, for the main accomplishment of that essay was to identify what is at issue when people invoke mentalistic or psychological terms, and to account for how it is that people talk that way. Thus Skinner's initial contribution in this domain was to describe how the people surrounding an individual can teach that individual to speak coherently about his or her internal goings-on. And there, as well as in later writings such as the one that Baum quotes (Skinner, 1974), the

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discussion frequently conflates *private* with *internal*:

A science of behavior must consider the place of private stimuli as physical things, and in doing so it provides an alternative account of mental life. The question, then is this: What is inside the skin, and how do we know about it? The answer is, I believe, the heart of radical behaviorism. (Skinner, 1974, pp. 211–212)

*Private*, however, is not the same as *internal*, although Baum finds them equally problematic. Nevertheless, although it was integral to an account of a person's internal events (whether or not, as discussed below, internal events are what the account is really about), the role or status of private events in behavior is relevant to a far broader range of discussion. A point that sometimes gets lost in the course of Baum's essay is that privacy is no more than a relation between some process or event and the interpreter, that is, the person whose verbal behavior we are concerned with. Furthermore, sometimes we are (and Baum's essay is) concerned with the verbal behavior of others, and even with our own behavior of interpreting the interpretive behavior of others.

The rationale for distinguishing *private* from *internal* in behavior-analytic discourse was laid out years ago by Schnaitter (1978), who addressed private causes by delineating the difference between *behavior analyses* and *behavior-analytic interpretations*, and identified a proper role for each. Analyses of behavior entail the manipulation of variables along with the recording of corresponding changes in behavior; in short, analyses entail the experimental method. However, in many circumstances it is not feasible or desirable to carry out such manipulations. Schnaitter proposed that in such cases it is legitimate to appeal to the kinds of relations that have previously been demonstrated in similar situations. He identified such appeals as *interpretations* instead of *analyses*. They

are behavior-analytic interpretations if they appeal only to the kinds of relations that have already been demonstrated through analyses of comparable behavior. Thus, for example, it having previously been verified through experimental procedures that delinquent adolescent boys reinforce each others' socially deviant talk in a manner described by the generalized matching law (Dishion, Spracklen, Andrews, & Patterson, 1996), one would not propose to implement the procedures necessary to reverify that reinforcing effect when justifying a reinforcement-based intervention, even though the intervention might be justified by reference to that effect. Besides consuming valuable time and resources, or not being feasible in a given situation, such manipulations could obscure the effects of the pragmatic intervention or interfere with its evaluation. The rationale for the intervention, then, would be an interpretation appealing not only to the fact that such reinforcing effects had been identified in observed interactions between such boys, but also to other known properties of reinforcement contingencies. Such interpretations are typically given explanatory status, although they should be viewed as provisional, that is, less certain than explanations based on accomplished analyses. This is not "simply making stuff up," as Baum suggests (p. 191), for it is supported by the explanatory advantage that we claim for behavior-analytic interpretations, in contrast with other kinds of interpretations that are not grounded in principles that have been validated through experimental analyses.

Now, the events typically appealed to in a behavior-analytic interpretation are events within a particular person's history; if they are inaccessible to the interpreter, their status in the interpretation is that of privacy, but to be sure, not *private in principle*, which would make them problematic.

Access to other events may be confined to a subgroup of people, a subgroup that excludes the interpreter, as in the case of a detective attempting to solve a crime; for the detective the events are private, but for the perpetrator and victim they are not. In both cases the events are what Baum calls *private by accident*, and I agree that “whatever its disadvantages, the notion that private events are public in principle remains the only tenable position for radical behaviorism” (p. 188). However, Baum goes on to claim that because, in this view, all private events are, in principle, measurable and thus potentially public, the view “leave[s] no mysteries” (p. 188). To be sure, ontological and metaphysical mysteries are thus finessed, but pragmatic ones remain that we cannot ignore. Mysteries that arise from the privacy of physical events are very much with us: Presumably, if Baum were among those who continue to question who killed JFK, he still would be confident that the assassin was a physical entity. Furthermore, despite Skinner’s assertion that “Private events may be inferred by the verbal community in everyday affairs, but inferred private events can never serve as scientific explanations of public behavior” (p. 190), one should not rule out the scientifically informed behavior-analytic interpretations characterized by Schnaitter (1978), as I have sketched above. Thus, I propose a valid pragmatic status for events that are *private in fact*. These comprise a subclass of Baum’s accidental private events, a subclass whose use in explanation is justified in exactly the same way as behavior-analytic interpretation is justified when it is impractical or impossible to accomplish a behavior-analytic analysis.

The internal–external distinction is problematic in an additional way: One may describe internal events, but it may not be internal events that one is describing. The patterns of ordi-

nary language can be subtly misleading in such matters. For example, one might speak of being *deeply* angry, which implies that a neuroscientist would look for correlates in the brain stem instead of the cortex. Instead, saying “deeply angry” is for the most part occasioned by long duration, rather than by intensity or location of the anger. Learning to describe oneself as *frustrated* is occasioned by extended sequences: the presence of discriminative stimuli previously correlated with one’s reinforced efforts, but with reinforcement currently inaccessible. Saying “I’m really frustrated” comes to be occasioned by such configurations: events that, during initial learning, were available to both speaker and audience. Skinner (and Baum?) assert that saying “my stomach aches” could be occasioned by internal gaseous pressure, taught by others who had access to one’s correlated behavior. In such cases one learns to describe an internal condition. In contrast, “I feel frustrated” describes not some internal event, but instead, one’s ongoing interaction with the external environment. The counterintuitive aspect of this is the suggestion that one can feel sequences of events that are substantially dispersed in time, just as one can feel a rough surface by brushing one’s fingers across it, reacting to the vibratory stimulation, albeit on a smaller time scale (more on this later).

There will inevitably be occasions when I act aggressively when the events that occasion that behavior, even though recent or ongoing, are inaccessible to others. If those observers were to appeal to my frustration (as in the well-known frustration-aggression hypothesis of mainstream psychology) in interpreting my actions, they would be appealing to private events. Ordinary folk would identify those events as internal feelings; behavior analysts would identify them as likely sequences of behavior–environment interactions,

but in both cases the presumed precipitating events would be private. A behavior analyst could offer an alternate parsing that would make the likely sequences more explicit, appealing to the known fact that aggression often occurs during extinction of previously reinforced behavior (aggression as a by-product of extinction). This would be authentic behavior-analytic interpretation. If my aggression were seriously problematic, the interpretation might be followed up by a functional analysis, or, if such manipulations were unfeasible or socially inappropriate, followed up directly by an intervention based on that interpretation. Despite the fact that the initially precipitating events remained private, this could be science-based practice, so long as the design of and the data yielded by the intervention permitted the ultimate sequence to constitute an analysis (Hineline & Groeling, 2011).

On the other hand, granting a concern with events internal to the behaving organism, including the fact that with contemporary technology they have become more and more accessible, a most tricky issue remains. It concerns distinguishing between internal goings-on that may be taken as playing roles comparable to external public events (covert responses, or discriminative, establishing, or reinforcing stimuli) versus internal goings-on that are best understood as dynamic parts of the organism. As I understand the matter, only the former are construed as private events in an account of verbal behavior. To quote from Moore (2008),

To be sure, there are many events that take place within the body that can be known about. At issue is the functional role of these events in a science of behavior. For example, when one sees an object, there are clearly nerves firing in the optic tract. However, the firing of nerve cells in the optic tract is ordinarily not a private event with which radical behaviorism is concerned. Similarly, the brain obviously functions when an individual behaves, with many structures and

pathways involved. ... Brain activity is simply part of the physiological processes according to which behavior can take place. As such, brain activity provides the continuity within a behavioral event, from environmental stimulation to behavior. It is part of neuroscience, rather than a science of behavior concerned with the relation between environment and behavior. Radical behaviorists are interested in private events whose contribution to subsequent behavior is a function of a specific history of environmental relations. (p. 217)

And from Baum's present essay:

Although some insult to the body stimulates nerve endings that may be involved in pain, the cut, burn, pressure, blow, or tear is the origin of the pain and is always observable. The stimulation of the nerve endings is like light stimulating receptors in the retina. If Jane stops her car at a red light, the stimulus that controls her stopping is the red light, not an inner representation or sensation of the red light. Similarly, if Jane has a pinched nerve in her spine, the pinched nerve is the event contributing to her pain, not an inner representation or sensation of pain. ... The pinched nerve may be regarded as a stimulus, but it is not private, except perhaps in the trivial sense that no one has taken the necessary X-rays. (p. 196)

The trickiness of this is drawn out by Engel (1986), who cited a variety of experiments showing that various components of the circulatory system (merely blood flowing through particular loci, and usually construed as dynamic parts of the organism), depending on the arrangements that relate them to external events, can be not just parts of reactive adjustment to the configuration of the whole organism's ongoing activity, but also can be conditioned responses in the Pavlovian sense, or even operant responses maintained or modified by environmental consequences. Just as in the case of overt behavior, the topographical form of an activity does not tell us what kind of behavior it is; so also, the anatomical locus of an internal event does not tell us whether the activity there should be construed as behavior or as a dynamic part of the organism as a whole. Thus, the distinction among internal physical stimuli, physiologi-

cal mechanisms, and responses to those stimuli will not always be as clear as Baum suggests.

A related issue requiring clarification is how to characterize the interactions between an individual's distinct repertoires. In the domain of rule-governed behavior (perhaps better characterized as verbally governed behavior; Catania, 2007, p. 408), what one says can affect other things that one does. But if we reject causal language for characterizing such effects, what term would best characterize such verbal influence? If a person overtly states a promise or commitment, we could use that term in accounting for the effect of that statement ultimately in terms of social contingencies, which reside in the environment. If instead, a person covertly "self-states" some advice and then overtly behaves in accordance with that covert statement, Baum's interpretation would presumably reject an appeal to generalization with overt statements, but then how would it relate to a history of first learning to heed advice supplied by others? Presumably, Baum would dismiss this as irrelevant and retreat to the point at which assumed environmental relations had come into play, but as a practical matter this would be even more vaguely speculative.

It would have been helpful for Baum to place his elegant exposition of the nature and rationale of a science of behavior at the beginning of his essay. This would be important for justifying his later assertion that

Mechanisms inside the skin, particularly in the nervous system, but also in glands and muscles, are important to *understanding how* [italics added] behavior is accomplished, but understanding how the environment causes an organism to behave one way rather than another depends on a larger time frame, that is, the history of the individual and the species to which the individual belongs. (p. 197)

Most non-behavior-analytic readers, whom Baum appears to address in

addition to behavior analysts, adhere to a different set of assumptions while they assert legitimate claims to science-based viewpoints. In contrast to behavior analysts' focus on environment-based interpretation, they appeal primarily to characteristics of and conditions within the behaving organism (Field & Hineline, 2008; Hineline, 1990, 1992; Hineline & Wanchisen, 1989). Several differences follow from this, and for us to engage, and even convince those who encounter our work from such viewpoints, it is important to recognize those differences:

1. They differ, as Baum hinted, as to the fundamental questions to be answered: Organism-based theorists begin with: How does the organism do what it does? Behavior analysts begin with: What does the organism do, in what circumstances?

2. They differ regarding the nature of *process*: For organism-based theorists, process underlies behavior. Behavior analysts view process as the interaction between behavior and environmental events.

3. They differ regarding the status of behavior: For organism-based theorists, behavior is an index or symptom of underlying process. For behavior analysts, behavior is *part of* process.

4. Especially relevant to the present topic, they tend to differ regarding causation over time: Organism-based theorists typically adhere to contiguous causation, whereas behavior analysts, at least those such as Baum and myself, adhere to multiscaled process.

This last one raises a final point. As Baum explicitly states, "In the molar view of behavior, activities are more extended or less extended in time, which means they have the property of scale; more extended activities are defined on a longer time scale than less extended, more local, activities" (p. 194). The pervasiveness of assumed necessity that causes be contiguous with their effects (Field &

Hineline, 2008) appears to provide an establishing condition for overstatement of the contrary view. Even without such overstatement, *molar* is typically understood as exclusively concerning the more temporally extended behavior patterns (Hineline, 2001). Baum's view, with which I agree in many respects (other than the interpretive status of private events), would be better described as a multiscaled behaviorism (Hineline, 1995, 2001, 2006).

### REFERENCES

- Baum, W. (2011). Behaviorism, private events, and the molar view of behavior. *The Behavior Analyst*, *34*, 185–200.
- Catania, A. C. (2007). *Learning* (4th ed.). Cornwall-on-Hudson, NY: Sloan.
- Dishion, T. J., Spracklen, K. M., Andrews, D. W., & Patterson, G. R. (1996). Deviancy training in male adolescent friendships. *Behavior Therapy*, *27*, 373–390.
- Engel, B. T. (1986). The circulation as behavior. *Behavioral and Brain Sciences*, *9*, 285–318.
- Field, D. P., & Hineline, P. N. (2008). Dispositioning and the obscured roles of time in psychological explanation. *Behavior and Philosophy*, *36*, 5–69.
- Hineline, P. N. (1990). The origins of environment-based psychological theory. *Journal of the Experimental Analysis of Behavior*, *53*, 305–320.
- Hineline, P. N. (1992). A self-interpretive behavior analysis. *American Psychologist*, *47*, 1274–1286.
- Hineline, P. N. (1995). The extended psychological present. *Behavioral and Brain Sciences*, *18*, 128–129.
- Hineline, P. N. (2001). Beyond the molar–molecular distinction: We need multiscaled analyses. *Journal of the Experimental Analysis of Behavior*, *75*, 342–347.
- Hineline, P. N. (2006). Multiple scales of process, and the principle of adduction. In E. Ribes-Inesta & J. E. Burgos (Eds.), *Knowledge, cognition, and behavior* (pp. 223–241). Guadalajara, Mexico: University of Guadalajara Press.
- Hineline, P. N., & Groeling, S. M. (2011). Behavior-analytic language and interventions for autism. In J. A. Mulick & E. A. Mayville (Eds.), *Behavioral foundations of effective autism treatment* (pp. 35–55). Cornwall-on-Hudson, NY: Sloan.
- Hineline, P. N., & Wanchisen, B. A. (1989). Correlated hypothesizing, and the distinction between contingency-shaped and rule-governed behavior. In S. C. Hayes (Ed.), *Rule-governed behavior: Cognition, contingencies, and instructional control* (pp. 221–268). New York: Plenum.
- Moore, J. (2008). *Radical foundations of radical behaviorism*. Cornwall-on-Hudson, NY: Sloan.
- Schnaitter, R. (1978). Private causes. *Behaviorism*, *6*, 1–12.
- Skinner, B. F. (1945). The operational analysis of psychological terms. *Psychological Review*, *52*, 270–277.
- Skinner, B. F. (1974). *About behaviorism*. New York: Knopf.