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"BEHAVIOR" DOES NOT MEAN "BEHAVIOR OF THE ORGANISM": WHY CONCEPTUAL REVISION IS NEEDED IN BEHAVIOR ANALYSIS

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ABSTRACT: This paper considers two different meanings of the word *behavior* and the implications of these meanings for how we talk about behavior. The paper argues that discussions about social justice issues would be more effective if these implications were fully grasped. The paper begins by discussing the etymologically-original meaning of *behavior*, which equates the word with *conduct*. A second meaning of *behavior*, introduced when early psychologists attempted to make usage of *behavior* in psychology consistent with its usage in other sciences, is then discussed. The paper shows that behavior analysts tacitly accept this second meaning when they theorize about operant data. Acceptance is illustrated by discussing the traditional emphasis on body movements ahead of effects and the concept of operant behavior. The paper then reiterates Skinner's emphasis on the central place of data in developing a conceptual framework. It argues that operant data represent changes in the state of various objects that depend on an object and on a participant, among other constituents, which is consistent with the implications of the etymologically-original meaning of *behavior*. The paper concludes that reformulating behavior analysis to make its theoretical claims consistent with the etymologically-original meaning of *behavior* would make discussions about social justice issues considerably more widely accessible.

Discussions about behavior and social issues inevitably use the word *behavior*. When students read these discussions, they presume they are reading about actions, such as marching in protest, baking bread, or casting a vote. If contributors to the discussions were asked to list examples of behavior, they would list similar examples.

As students continue to read, they realize that the word *behavior* has a specialized meaning in many of these discussions. The students read of *stimuli shaping behavior*, of *the environment controlling behavior*, and of *behavior being emitted by organisms*, and they discover that behavior consists of responses that are distinguished from stimuli. Most students enjoy reading about behavior and social issues, but many students object to these ways of talking about the things people do. Why do behaviorists talk in these ways?

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The present article argues that these ways of talking were necessary in the first place only because early psychologists gave the word *behavior* an unusual meaning. To maintain internal consistency with that meaning, behavior analysts have had to talk about human action as if it consists of stimuli and responses. These ways of talking are by now so much part of behavior analysis that we almost equate behavior analysis with them. It might seem that rejecting expressions such as *organisms emit behavior* and *stimuli control responses* also rejects the empirical achievements of behavior analysis. Contrary to that, the empirical achievements and their implications for social justice issues might be easier to grasp if we stopped giving the word *behavior* an unusual meaning.

Normative Behavior

The etymologically-original meaning of *behavior* equates this word with *normative conduct*. Normative conduct consists of the things a person gets done (i.e., achieved, accomplished) that it makes sense to judge as effective vs. ineffective, appropriate vs. inappropriate, and so on. The things a person gets done are instances of the person's impact on the world (Jacobs et al., 1988). They are the acts that Guthrie (1940, 1960, pp. 27-28) distinguished from movements of the body. From this perspective, the effects (e.g., depressions of a lever) traditionally thought to define responses (e.g., lever pressing responses) are things a person gets done. In addition, the consequences (e.g., gaining access to food) traditionally classified as environmental variables that control responses are among the things a person gets done. Depressing a lever and gaining access to food do not differ in this sense from, for example, depressing a key on a computer keyboard and making the letter "A" appear on the screen. A person cannot get either thing done without the keyboard and the computer screen, and one event depends on the other, but, from an ordinary perspective, both events are things the person gets done.

Let us consider a further example of the events under discussion to clarify what is meant here by *a thing that gets done*. Washing the dishes is something a person gets done. We would probably agree that the person has done that thing if (a) there were dirty dishes, (b) now the dishes are clean, and (c) that change in the state of the dishes would not have occurred without the person. The dishes have been done when a particular change in the state of the kitchen has been brought about (no dirty dishes, all dishes clean). You might say the person is now *doing the dishes* when you see her having effects that contribute to getting the dishes done (e.g., getting the sink full of water, getting successive dishes out of the water and onto the dish rack). However, you would not say she has *done the dishes* until the

criterion implied above is met. We would agree the person has done that thing only when she has brought about the specified change. The specified change *is* the thing the person gets done (i.e., completed, achieved, accomplished). These events are what I mean here by *normative behavior* (and what Gilbert, 1978, p. 73, referred to as *achievements*).

Consider the relation of the individual to such an event. The individual *contributes to* the event. The event itself depends on the individual as one of several constituents without which it could not occur. For example, getting the dishes done depends on, and cannot occur without, the dishes, the physical efforts of a person's body, and other variables (e.g., water, gravity). A thing that gets done can depend on two or more individuals (rather than always on only one individual). For example, two or more individuals might contribute to getting the dishes done (i.e., that event). One individual completes some components (e.g., rinse the dishes, fill the sink with water). The other individual completes other components (e.g., dry the dishes, stack them). Both individuals get things done, and at least one thing that each individual gets done is achieved by the individuals together. If we concentrate on defined effects to which at least one individual contributes, then contributions by two or more individuals to some effects is not inconsistent with our basic understanding of the events under discussion.

Behavior of the Organism

The linguistic pattern. The second meaning of *behavior* is seen when scientists and technologists use *behavior* as a synonym of *phenomena*. This usage occurs in modern expressions, such as *behavior of comet Hale-Bopp, behavior of adsorbed polymers*, *behavior of the heliosphere*, and *behavior of the earth*. Such expressions are easily found by scanning the titles of articles published, for example, in *Science*. In these expressions, the normative conduct of a human being is not being considered. Rather, *behavior of* is exchangeable with *phenomena of*. Following this linguistic pattern, the expression *behavior of the organism* means *the phenomena of the organism*.

Early psychologists discussed the word *behavior*. Some of them followed the *behavior of (object)* pattern, rather than adopting the original meaning that equated *behavior* with the things a person achieves or gets done. For example, Angell (1913) reminded psychologists that all sciences concern the behavior of objects. He explained that using *behavior* in psychology without a qualifier was naive. In fact, *behavior* without a qualifier is not naive. It means the conduct (i.e., the things achieved or done by someone). Like Angell, Tait (1932) noted that all sciences observe and investigate behavior. On that basis, he defended psychology's interest

in, specifically, the behavior of the organism. Kantor (1963) commented that all scientists investigate "specialized types of behavior" (p. 500). For example, chemists study the behavior of atoms, molecules, and so on, and physicists study the behavior of various objects. Kantor explained that "science is the systematic and expert study of behavior" and, further, that the subject matter of psychology "consists precisely of the actual behavior of organisms" (p. 500). See Gilbert (1970) for another discussion along similar lines.

A subject matter at the body: Movement. The expression *behavior of organism* converted normative behavior into a quasi-biological subject matter for theoretical purposes. First, the achievements that were implied by *behavior* in the normative sense were theorized about as if they were a property of the biologically bounded individual (i.e., responses or motor output of the body). Second, achievements (i.e., behavior in the normative sense), that depended on objects and surfaces outside the individual as much as on the individual, were theorized about as if they were distinguishable from the individual's environment.

Consistent with this, definitions of *behavior* as meaning bodily activities (specifically, muscular contractions and glandular secretions) became common in psychology. Gallistel (1980) gave a modern example. He noted that *behavior* is "understood to mean any naturally occurring muscular or glandular action or pattern of action" (p. 398). MacNamara et al. (1988) equated a definition in terms of bodily activities with the accepted contemporary meaning of the word *behavior* in psychology.

Behavior analysts follow this tradition when they equate *behavior* with movement. For example, Skinner (1938) concluded a discussion about the meaning of *behavior* as follows: "By behavior, then, I mean simply the movement of an organism or of its parts in a frame of reference provided by the organism itself or by various external objects or fields of force" (p. 6). If psychology is about the behavior of the organism, then behavior must be found at the organism, and therefore behavior must be the movement of the organism.

The practice of listing examples of normative behavior but theorizing about behavior consistent with the implications of the expression *behavior of the organism* is seen in Miller's (1997) excellent text. Miller explained that "behavior . . . is all of human conduct" (p. 15). This explanation implies that behavior analysis is about people achieving various things, including getting to work on time, crossing roads safely, initiating social contacts, and so on.

However, Miller further explained that "[b]ehavior is physical, and it functions to do something" (p. 15). Miller gave running as "an obvious example of behavior: You can observe the action of the legs as they move the body

somewhere" (p. 16). Miller explicitly equated *behavior* with *movements of the muscles*: "Everyone agrees that the obvious movements of major muscles are behavior" (p. 16). Miller continued across successive instances of behavior (reading, thinking, and imagining) which he described as involving body movements increasingly less obviously. Miller began with actions, explained that actions are bodily activities (i.e., movements of muscles) and that bodily activities have effects or functions. This explanation is consistent with the widely-accepted approach to specifying the subject matter of behavior analysis.

In contrast, the normative meaning of *behavior* starts with the events that must occur for us to say that someone has gotten something done. From that starting-point, we acknowledge that these events depend on at least one individual and on other constituents. The word *event* means a change in the state of something. For example, suppose we begin with the event that the dishes have just now been done (i.e., the criterion mentioned earlier has been met). If we start with that event, we are led to conclude that it depends on the individual, the dishes, the water, gravity, and many other constituents. It cannot be understood without considering all of them. To grasp this conclusion, it is essential to focus on the event (e.g., the defined change in the state of the kitchen) and to think about that event (and not get distracted by one of the constituents of the specified event).

Two meanings of the word movement. What does the word *movement* mean? Best (1978, p. 26) noted the ambiguity of this word. I suggest that *movement* often covers two types of events; namely (a) relocations of the body relative to an external object or surface and (b) motions of the body segments around the joints.

First, *movement* can mean relocation of the body as a whole. For example, when we say someone has run down the road, we are talking in part about a relocation of the person's body. The relocation is achieved by what Rosenbaum (1991, p. 124) described as controlled leaps. The actual relocation (i.e., the achievement presently under discussion) can be distinguished conceptually from the bodily activities that are among its constituents (the controlled leaps, their kinesiological details, the muscle contractions that pull the body segments around the joints, etc.). The distinction is conceptual in the sense that, for example, we can count relocations from one side of a road to the other without also counting specified bodily activities (e.g., muscle contractions) and vice versa. As another example, when someone relocates her hand from the keyboard to the mouse, the relocation is an effect of physical effort that changes a state of a particular object (i.e., the location of the hand in space). Again, the relocation depends on but is conceptually separable from the bodily activities that are among its constituents.

Such relocations are observable automatically by using methods that sense them directly. For example, Niswander et al. (1994) used pressure sensitive tiles installed on the floor of the laboratory to detect relocations of a child's body. In such a case, the sensor detects and records relocations. It does not record the bodily activities that combine with the surface, gravity, and other variables as constituents of the event that we identify as a relocation of the body as a whole. This omission is not a shortcoming if it is understood that we are at present discussing specifically the relocation (and not any of the constituents of this event).

Movement can also mean motions of the body segments (forearm, upper arm, etc.) around the joints (e.g., flexion of the elbow). These events comprise the subject matter of functional anatomy (e.g., Rasch & Burke, 1971). Motions of body segments relative to each other are the physical effects of (a) internal forces created by muscle contractions, which pull the bones to which the muscles are attached, in conjunction with (b) external forces including gravity. *Force* is meant in the physical sense of something that pushes, pulls, stretches, or turns an object and that is measured in newtons. Describing the motions of the body segments (e.g., flexion around the elbow joint) differs from describing the relocations noted above.

The difference is made apparent by considering VanSant's (1988) description of children rising from a supine position to an erect stance. VanSant's description is in the language of extension, flexion, abduction, and so on. Accurate use of this language requires knowledge of functional anatomy. A description at the level of relocations of the body would leave the functional anatomy to specialists in functional anatomy. It would record data only at each moment that the criteria implied by "erect stance" and "supine position" were achieved, and it would theorize only about the recorded achievements and their relations to each other and to other relevant events (e.g., instructions, praise).

The complexity of the functional anatomy should not be underestimated. When asked to provide a statement of the functional anatomy involved when a human being releases a button, a colleague from physical therapy wrote the following:

> The fingers are flexed at the metacarpophalangeal and interphalangeal joint so each finger pad contacts the body of the mouse. The thumb opposes. It contacts the contralateral side of the mouse body, the carpometacarpal joint is in opposition, the metacarpophalangeal joint is in neutral, and the interphalangeal joint is slightly flexed. The positions of the joints in the remainder of that limb and in the trunk are not described here. The forefinger, as it releases the button, moves from a position of metacarpophalangeal flexion and slight flexion at both interphalangeal joints. This movement is controlled primarily by an eccentric contraction of the lumbricals and interossei.

> Alternatively, if the pressure exerted against the finger pad by the mouse button is minimal, the movement could be a concentric contraction of extensor indicus and extensor digitorum. If the wrist is not supported and only the index finger is in contact with the mouse button, then joint positions and muscle actions would be different. For example, the wrist and ipsilateral elbow would typically be more flexed. (V. J. Robertson, personal communication, July 1997)

When writing such a description, it is not possible to specify what the functional anatomy *must* be. The starting points can vary, and a person can use alternative parts of the body and alternative movements of those parts to release a button. The permissible motor variability is so great that it is not possible to infer what the anatomical involvement *must* be on the basis of knowledge only of the defined effect under discussion (e.g., release of a button, assumption of an erect stance).

Skinner's comments noted earlier seemed to include movement in both of the two senses. Responses are movements, and movements include (a) motions of body segments around the joints and (b) relocations of the body as a whole in relation to external objects and surfaces. Continuing to elaborate Skinner's formulation, beyond the body there are the environmental effects (e.g., depressions of a lever) that define responses (e.g., lever pressing responses) and the environmental consequences that control responses (e.g., access to food).

What are the responses that environmental effects are thought to define? Are they the motions of the body segments described by functional anatomy? Alternatively, do the contractions of the muscles that pull the body parts when they move around the joints warrant the term *behavior*? If so, then motions of the body segments around the joints are the effects of behavior, and relocations of the body and its parts relative to external objects and surfaces (e.g., translocation of the body from one side of the road to the other) are the effects of effects. Changes in the state of external objects effected through direct physical contact with them are then also effects of effects (e.g., lever depression). In addition, there are effects of effects of effects (e.g., access to food).

Does *behavior* mean *muscle contractions*? Is behavior analysis properly formulated as the science of muscle contractions? Obviously not, because behavior analysis concerns normative behavior, in the sense explained earlier. No one interested in social justice issues, for example, writes about motions of the body segments, the forces generated when muscles contract, or muscle contractions. Added to that, a literal interpretation of operant data implies that behavior analysis is about normative behavior and not about the bodily activities of the organism. Operant data, at least from human operant experiments, usually record the effects a human being has at various objects. The recorded effects (a) ramify

out from the physical efforts of the human body and (b) depend not only on those physical efforts but also on other constituents, including various objects, surfaces, and media.

Treating some of these effects as the events that define responses and some of them as consequences that control responses is necessary only to maintain the central implication of the expression *behavior of the organism*. The central implication is that psychology's subject matter is found at the organism and is therefore necessarily contrasted from, even if interacting with, the world outside the body. Contrary to that, many if not most of the effects that lead us to talk about behavior in the normative sense depend on bodily efforts *and* on other constituents without which they cannot occur. For example, the depression of a lever (i.e., that event) is outside the individual's body and depends on the lever, the organism, and other variables including gravity.

Operant behavior. A possible objection is that behavior analysis is not about movement. Rather, it is about operant behavior. However, the concept of operant behavior was necessary only because *behavior* was initially equated with *behavior of the organism*. The central theoretical problem was then to determine which bodily activities were psychology's subject matter and which activities could be left to physiology.

Recognition of this problem is seen in an early explanation of the concept of operant behavior, Skinner (1938) said the following:

> By appealing to what the organism is doing to the environment a great deal of what is often called behavior is minimized or even excluded. Most of the responses of glands and smooth-muscle fail to act upon the environment in such a way as to yield the *conspicuousness* which is offered as a defining characteristic . . . . Operant behavior clearly satisfies a definition based upon what the organism is doing to the environment, and the question arises whether it is not properly the main concern of a student of behavior and whether respondent behavior, which is chiefly involved in the internal economy of the organism, may not reasonably be left to the physiologist. Operant behavior with its unique relation to the environment presents a separate important field of investigation. (p. 438)

Skinner's problem was to exclude much of what is usually called *behavior (of the organism)*. Unless we assume that psychology's subject matter *is* the behavior (read, bodily activity) of the organism, this exclusion is not required. However, the assumption was made, consistent with contemporary thought at the time.

Skinner's solution was ingenious. It was to note (a) that the subject matter of operant experiments must consist of the bodily activities involved in achieving the recorded effects (e.g., depressions of a lever) and (b) that the data collected in operant experiments therefore represent the effects that define responses (e.g.,

lever pressing responses). More accurately, because multiple alternative bodily movements can have the same effect, the effects were taken to define classes of responses (Skinner, 1935). The recorded events had to be interpreted as events that defined responses (or response classes) to maintain consistency with the assumption that the subject matter consisted of the behavior of the organism.

The present solution to the problem of saying which bodily activities are psychological is that the problem is the wrong problem. Activities of the body (e.g., muscle contractions) are not psychology's subject matter. They are among the constituents of psychology's subject matter. As long as the implications of *behavior of the organism* are accepted, it was (and still is) necessary to distinguish the bodily activities of interest to psychology from the bodily activities of interest to other sciences. In this context, it is worth considering Black's (1971) statement that "it is hard to find any response these days that cannot be operantly conditioned under some circumstances . . ." (p. 244). If we shift attention from the body to an individual's achievements, then we can recast this statement, without losing the empirical achievements that underlie it: "[U]nder the right circumstances the individual can effect some change in the outside world with almost any bodily activity." Now the emphasis is on the effects an individual achieves and on the constituents, including the individual's body, that are necessary for those effects to occur. The argument is consistent with Thelen's (1992) view that actions appear only when many variables, both bodily and worldly, come together in a particular way. This argument is also consistent with a social justice perspective that explains that people's achievements can reflect only the conditions of human lives that *are* the constituents of people's achievements (i.e., the diverse things that people get done).

Returning to the Data

Feibleman (1972) explained that scientists develop conceptual frameworks based on data. The emphasis is not on using data to test a theory about how the subject matter is expected to operate. Rather, it is a matter of using the data literally as a conceptual window on the particulars that comprise the content of the subject matter. In Feibleman's words: "No way of interpreting the observed material so that it means something other than what the observations themselves reveal, is allowed" (p. 31).

Interpreting data that represent instances of normative behavior as if they represent organocentric phenomena is not consistent with this precept. Shimp (1989) referred to this error when he said behavior analysts need "to close or narrow the gap between the reality of existing experimental methods and the

claimed potential generality of a science of behavior" (p. 164). The gap is hard to see because it seems obvious (a) that behavior is the subject matter of operant research, which it is, and (b) that *behavior* and *behavior of the organism* are synonyms, which they are not.

Clarification. It might be objected that operant data are records of response latencies, durations, rates, and so on. In other words, operant data do not consist of events that depend (or do not depend) on the participant. Instead, operant data are records of latencies and other variables. In fact, data files contain records of latencies, durations, and other such variables only when programmers include code to *calculate* them from the recorded events.

It might also be objected that operant data are the graphs and tables presented in reports of experiments, which support conclusions about the environmental control of the responses emitted by the organism. In fact, graphs and tables are typically transformations of the (raw) data. Extant transformations are guided by the assumption that the data warrant inferences about responses and response classes.

The (raw) data in a typical human operant experiment are records of changes in the state of the objects that the computer has detected. For example, data collected in my laboratory are records of button depressions, button releases, score increments, score decrements, onsets of screen blackouts, offsets of screen blackouts, and so on. Many, if not most, of the recorded events could not occur without the participant. To make the fullest possible use of these data, it is essential to think of the recorded events in literal ways. A button depression *is* a change in the state of the button, a score increment *is* a change in the state of the score display, and so on. The events directly recorded in the data are what we talk about when we use *behavior* in the normative sense, as I argue next.

Sources of data: Operanda and other objects. Operant data are usually collected from operanda, such as buttons, keys, and levers. Radical behaviorism interprets operanda as devices for transducing the responses of the organism. For example, a lever, which the individual can depress and release, is understood to be a device for transducing, sensing, or detecting a lever pressing response. Alternatively, operanda can be understood as experimenter-convenient objects with states that individuals can change, without mention of the response concept at all.

Objects (i.e., relatively enduring entities) are not trivial in (normative) behavior. Norman (1998, pp. 11-12) estimated 20,000 to 30,000 objects in the daily life of most human beings. Objects are constituents of the many things that people get done. A window, for example, is an object with various states (intact

vs. broken, closed, etc.) that a person can change. The window is a constituent of the events that occur at it (e.g., change in state of the window from closed to open).

An operant experiment includes objects other than operanda. For example, the score display on the computer screen in a human operant experiment is an object the individual might change. Imagine that the score increments (i.e., the score display changes in this way) contingent on every fifth button depression. The individual has not changed the score display through physical contact but because of the causal relation of the score display with an object (i.e., the button) that *was* changed through physical contact. Behavior analysts classify the score increment as an environmental event and distinguish it from the button depression which they classify as a behavioral event. In fact, both events occur at an environmental object (i.e., button or score display), *and* both events depend on the individual and on other constituents.

Consider an example from outside the laboratory. A person can change the temperature of a room (i.e., get that thing done) by changing a state of the window (e.g., closed to open). The room and its temperature and the window and its various states are in the environment *of the individual's body*. That is, they are outside the individual's *body*. However, they are among the constituents of the *things the individual gets done*. That is, they are inside the person's *actions*. The score displayed on the screen and the temperature of the room are comparable. The individual changes them by changing another object to which these properties of the score display and room (i.e., score, temperature) happen to be related. This approach directs attention to the objects available for an individual to change, their current and possible states, the conditions under which their states change, and the time-tagged changes that occur at them, particularly those changes to which the particular individual contributes.

Responding vs. getting things done in the world. Let us reconsider the present examples while assuming, consistent with radical behaviorism, that the subject matter under investigation *is* the behavior of the organism in the sense of the activities of its body. We must then interpret the examples consistent with the implications of the expression *behavior of the organism*.

We now want to explain something about the organism, which is contrasted from, even if interacting with, the world outside the organism. For example, the button depression (i.e., that event at the button) is assigned to the (behavior of the) organism. That assignment is achieved by talking about the button pressing response or by saying that the button depression defines such a response. The score display and events that occur at it (score increase, score decrease, change of score font color, etc.) are assigned to the environment. For example, an increment

in the score display (i.e., score increase) is understood to be an environmental consequence of the response of button pressing.

Parallel discussion about the window example noted above might be expressed as follows. Various states of the window (intact vs. broken, closed vs. open, etc.) define various possible responses of the organism's body (window breaking responses, window-repairing responses, window closing responses, etc.). A change in the temperature of the room is a potential environmental consequence of some of these responses (and of other responses as well; for example, of a turning-on-the-heater response). We then find ourselves talking, for example, about organisms emitting window-closing responses and about a change in the temperature of a room as an environmental consequence that controls the emitted response.

To someone who understands *behavior* only in the normative sense, this linguistic transformation is puzzling. Changes in the state of some objects in a person's environment are taken to define responses emitted by the organism. Changes in the state of other objects in the person's environment are taken to define environmental stimuli that control the responses.

Why? All of the examples are from the same subject matter; namely, the things the individual gets done or, strictly, contributes to getting done. Opening a window is something a person gets done, and so is changing the temperature of a room. Depressing a button is something a person gets done, and so is increasing the score shown on a computer screen. A person cannot get any of these things done alone. None of the events that must occur for us to say a thing has been done depend exclusively on the individual isolated from the world. It is not a matter of the individual interacting with the world and therefore having effects as a result of the responses he or she emits. It is a matter of what the individual gets done in a world in which she or he is inextricably immersed and can do nothing without. The normative concept of behavior combined with a literal interpretation of operant data leads us directly to this subject matter.

The other meaning of *behavior*, which equates the word with *behavior of the organism*, distorts our interpretation of the events we observe. It alienates many of our students and colleagues, and it leaves us with the eternal puzzle of how to bring organism and environment together into a unified whole. Further, it leaves us in the perplexing situation of repeatedly denying that we are stimulus-response psychologists while we continue to accept the fundamental classification that the reflex model brought into psychology. We might reject stimulus-response psychology by speaking of organisms emitting responses rather than of stimuli eliciting responses, but we continue to accept stimulus-response psychology by

distinguishing the organism, as the source of responses, from the environment, as the source of stimuli. In fact, the constituents of the things we get done are both sensory and motor, as is evident by considering, for example, how we rub our fingers over an object to determine its texture. The important things are what we achieve and how we achieve these things, which is consistent with a means-end or how-what approach (Lee, 1988) and not with a stimulus-response or organism-environment approach.

In conclusion, we should examine the two meanings of *behavior* and decide self-consciously whether we want to retain an assumption made decades ago (i.e., that *behavior* in psychology has the same meaning as *behavior of the organism*). If we decide to abandon that assumption, then we will have to work out a new conceptual framework for behavior analysis that flows from a literal interpretation of operant data. In the process, we might find ourselves empowered to say much more, and with greater impact, about the social justice issues that concern us all and that brought many of us into behavior analysis in the first place.

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