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A Look Back at "Where Have All the Behaviorists Gone?"

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The paper in the title (Branch & Malagodi, 1980) was written at a time when behavior analysis and behaviorism were being declared dead in the mainstream psychology literature, and at a time when the program in which I served, the Behavior Analysis program (then called the Experimental Analysis of Behavior) at the University of Florida, was going through difficult times. The paper covered several points, and in this retrospective account I return to them to see if they still have relevance more than 30 years later.

Our first point was that behavioristic approaches to solving the world's problems were not very evident. Overpopulation, poor shepherding of resources, wars, famine, and accumulation of debt were noted. "Plus ça change, plus c'est la même chose" (Karr, 1849, p. vi). Those have been issues for decades, if not centuries, so it is not surprising that they remain on the list of large-scale problems with their roots in behavior. It still appears, also, that attempted solutions based on a science of behavior remain difficult to find. Little progress is evident on that front.

Our second issue was that one reason for the paucity of behaviorally based approaches to societal problems was the dearth of persons trained to bring a behavioristic perspective to the issues. Specifically, we pointed to the relative lack of specialized verbal communities, also known as doctoral training programs, to produce a critical mass of people who could develop behavioristically based schemes. Overall, the current situation is not much better. A few new programs (e.g., University of Nevada–Reno, University of North Texas, University of North Carolina–Wilmington) have emerged, but a few former programs (e.g., University of New Hampshire, Harvard University, Columbia University, University of North Carolina–Greensboro), which provided sound training in a behavioristic approach (especially basic behavior analysis) have disappeared. Again, not much progress is evident.

The paper was directed more at basic research from a behavioristic perspective than at applications of what was already known. Our argument was that basic research on behavior was not only being directed largely by mentalistic approaches, but that such approaches were encroaching on the small domain of researchers who professed to be radical behaviorists. We pointed to instances of mentalisms that appeared in the bastion of behavior-analytic research, the *Journal of the Experimental Analysis of Behavior* (*JEAB*). That, too, remains an issue. *JEAB* has drifted away from being a place in which behavioristic interpretations were prominently featured to a publication in which they are neither encouraged nor prohibited, just as mentalistic accounts are treated.

We provided a lengthy criticism of a paper by Schwartz, Schuldenfrei, and Lacey (1978) that had appeared recently in *Behaviorism* as an example of the problem. As far as I can see, the problem persists, especially in the

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analysis of the behavior of verbally competent humans. As evidence, consider recent pronouncements by Schwartz (2012) himself. He opines that a radical behavioristic approach is as follows:

> You can't measure mental life, so study behavior. This rather pinched view of what it was possible to study (methodological behaviorism) grew into the view that it was all that was actually worth studying (radical behaviorism), and … that approach dominated academic psychology. (p. 1296)

It is hard to imagine that someone could be so misinformed about the tenets of radical behaviorism, at least as espoused by B. F. Skinner, who, in a withering criticism of operationism, publically declared the skin to be a conceptually unimportant boundary as early as 1945 (Skinner, 1945). And, of course, radical behaviorism never has come close to dominating academic psychology. The methodological behaviorism of Hull and Spence, which did dominate academic psychology, opened the door for the return to cognitivism (see Moore, 1989).

If behavior analysis, however, is to be part of the understanding of normal human behavior, then at some point it must tackle empirically and conceptually the complex problems of adult human behavior, including, most importantly, the role of verbal behavior. The bad news for behavior analysis is that verbal behavior plays a powerful and obvious role in directing human behavior, a fact acknowledged by the concept of rule-governed behavior (Skinner, 1969). For example, people initially engage in terrorist acts less because they have they have had terrorist behavior shaped by reinforcers but more because they have been convinced by verbal stimuli to do so. The good news for behavior analysis is that very little is known about how verbal stimuli *become* so effective. Behavior analysis, being based in radical behaviorism, is dedicated to discovering and analyzing the experiential origins of behavior, so it is an approach that could actually do something about the dearth of knowledge in the domain of verbal governance of behavior. If behavior analysis is to survive as a recognized important approach to the science of behavior, it is going to have to develop scientists who can and will tackle those issues. As I have noted elsewhere (Branch, 1991, 2011), that is going to be no mean feat because of the nearly insurmountable scientific obstacles that face attempts to understand and analyze the experiential factors at play in the development of speaking and listening (i.e., expressive and receptive language, in lay parlance). Behavior analysis has, however, as a base, a conceptual analysis of how verbal behavior develops, Skinner's (1957) *Verbal Behavior*, from which to start. I don't think any other perspective in psychology has anything even approaching that to serve as a useful starting point. Over the last decade or so, there has been a modest increase in research on the development of speaking and listening from a behavioristic perspective (see Carr & Miguel, 2012, for an overview), and applications of that perspective in language training. That is a hopeful sign that points to a possible avenue toward greater influence in the future.

I hope that the upsurge of programs aimed at the training required to gain certification as a Board Certified Behavior Analyst (BCBA) may provide an avenue to the hiring of behavioristically inclined basic researchers who are, importantly, teachers versed in a radical behavioristic approach. The programs will almost certainly require training about procedures, based on behavioristic interpretations, to assist in the development of verbal repertoires, but effective application of such procedures rests on a reasonable understanding of the foundation that Skinner's work provides, so instruction

in that interpretation should be required as well. Ideally, that instruction should come from persons who conduct research in that domain. That is one avenue to the justification of faculty positions for persons who conduct research on verbal behavior and verbal control of behavior. Of course, Skinner's analysis and his conceptual position are grounded in basic behavior-analytic research, so to develop a reasonable understanding of his approach, it is advantageous to have a background in basic behavioral phenomena, such as stimulus control, the effects of reinforcer intermittency, and other basic processes. That, of course, provides a justification for faculty positions for persons engaged in research on basic behavioral processes. Another, ironic, justification is that of all adult human activity, arguably the least rule governed of all behavior is verbal behavior itself!

The foregoing assessment acknowledges the burgeoning of programs aimed at training BCBAs. An important issue is based on another worry voiced in the original paper, and that has to do with the role of being a member of a behavioristic verbal community. As noted earlier, a concern in the original paper was that even within this community, rigorous nonmentalistic language was eroding. We lamented the view, promulgated by some, that it is all right to "talk funny" as long as you do the right things. That is, mentalistic accounts are permitted as long as they do not lead to supposed solutions based on mental causes. We noted that the culture in which we all develop our initial verbal repertoires is an environment that provides extensive training in broad-based mentalism. Virtually all everyday accounts of behavior are mentalistic, in that they attribute causation of behavior to either conscious private activities (e.g., thinking, imagining, deciding, etc.) or to more ephemeral entities (e.g., beliefs, expectations, mental executives, personality traits, representations, schemas, attitudes, interests, memories, impulses, etc.; the possible list is very, very long). Most of contemporary psychology continues to adopt that general approach, sometimes with the argument that the mentalisms are merely placeholders for the actual immediate causes, which are presumed to reside in neurophysiology. The latter types of mentalisms (e.g., beliefs) do not represent a significant problem for behaviorism logically, and can usually be shown to be entirely fictional as causes; but conscious deliberation and the like are seemingly more troublesome for a behavioristic account. Clearly, instances of deliberation before decisions, solving many kinds of problems, and many other activities by humans show that private, often verbal, activities act as controlling stimuli in the generation of behavior. Behaviorists need not deny their importance and would be foolish to do so (see, e.g., Palmer et al., 2004).

The view, however, that conscious thinking can be a cause therefore requires more discussion and analysis. Half of language is receptive, that is, a listener's repertoire. We all learn to react to (i.e., to understand) what others say, and, importantly, to what we ourselves say, publicly or privately.

In the original paper we offered a few suggestions about how to remedy the situation with respect to the dearth of graduate training programs. One of our suggestions, based on the modicum of research then indicating that contingency-shaped behavior may be more resistant to change than is rule-governed behavior, was to arrange that fledgling behavior analysts, especially those who are likely to move on to careers in application of behavioral principles, receive training in basic, laboratory behavior analysis. Now, more than 30 years later, I still think that is not a bad idea, but I doubt that it is enough. Rigorous training in the tenets of radical behaviorism and in

a behavioristic approach to verbal behavior, especially its role in the governance of human behavior, seems necessary. There has been, nevertheless, a continued erosion of behavioristic language, even in the journals that focus on behavior analysis, partly perhaps due to social pressures to appear open to alternative interpretations, including mentalistic ones. It is therefore ironic that a key contributor to both mainstream behavior analysis and cognitive psychology, John Wixted (2008), recently argued that

> *JEAB* should be the one journal that seriously considers Skinnerian (and related environment-based) interpretations of empirical results, whether or not the study involved an analysis of individual-subject behavior and whether or not the Skinnerian analysis is ultimately endorsed by the author. (p. 137)

One of the key characteristics of behavioristic language, at least initially, was the emphasis on precision and accompanying lack of ambiguity. That emphasis is supported by Skinner's analysis of scientific verbal behavior. On that view, scientific verbal behavior should be made up of relatively "pure" tacts, that is, utterances that are tightly tied to actual occurrences and processes that exist in nature. The mature physical sciences have successfully made use of the precision of mathematics to keep ambiguity and unnoticed contradictions to a minimum. At least at present, behavior analysis and psychology are relatively dependent on verbal behavior, so it is at that level that attempts need to be made to be clear and precise. That precision comes only if the verbal community enforces contingencies that promote such exactness. Journals are one of the vehicles that can provide those contingencies, so how people say things is important and should be subject to correction during the review process.

Another avenue worth traveling is an attempt to make greater contact with another minority group in psychology, those who follow a Gibsonian (e.g., Gibson, 1979) approach to perception. It is an approach that focuses on whole-organism interactions with the environment, rather than viewing the environment as being detected by the brain, which then processes the incoming information and generates output that is seen as behavior. As noted by several authors (e.g., Costall, 1984), Gibson's approach to perceptual behavior is very compatible with a radical behavioristic view of such processes, and the approach, although not dominant in the study of perception, is still widely respected by those with more traditional input–processing–output views. The Gibsonian view is currently wending its way into the study of animal behavior (Barrett, 2011), and behavior analysts would do well to become conversant in Gibsonian approaches.

We are left, therefore, in a situation not unlike that of more than 30 years ago. Behavior analysis still has a small footprint in psychology. That footprint, however, has recently gotten larger, and therein lies hope for the future. The ever more widespread use of approaches that have their roots in behavior analysis to provide services to those with autism spectrum disorders might provide an entrée into the world of mainstream psychology. As the need for people with specialized training grows, psychology departments are more likely to become interested in hiring persons who can provide that training. Such teachers, if they have the appropriate training themselves, might be able to show to their colleagues that the approach from which the effective training procedures emanated has relevance not only to those with disabilities but to everyone. Given that a behavioristic approach, a historically new idea, is offering itself as an alternative to at least three millennia of mentalistic approaches to behavior, I choose to put on my rose-colored glasses to see that modest inroads have been made into the culture, and that

there remains a promising future for radical (i.e., Skinnerian) behaviorists.

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