

Behaviorism and Society

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Abstract A probable list of causes for the limited acceptance of behaviorism in our society is identified. This is followed by a summary review of the proposed solutions identified in other papers in this special issue of *The Behavior Analyst*, most of which relate to either better marketing of either the behavior analytic process or the results achieved as a consequence. One paper proposes a more broad conception of behavior analysis. This paper endorses the solutions identified in previous papers and then goes on to propose an even more broad conception of behavior analysis and makes the point that behavior analysis is unlikely to flourish unless behavior analysts understand a good deal more about the cultural and other contextual features of the environments in which they work.

Keywords Linear causation · Circular causation · Marketing attributes · Marketing benefits · Cultural contingencies · Organizational functions · Organizational costs/benefits · Theory based practice

There is a distinct advantage to viewing a set of papers to be co-published with one's own. This is especially the case with the papers in this volume because they all address the same issue, yet each is different, and each is strong within its own frame of reference. What emerges from this set of papers is a shared concern for the current place of behaviorism in society, or perhaps the lack of place, and recommendations for improving that position.

Behaviorism's place in society and in psychology has been a concern since the late sixties, but has recently become more pronounced, perhaps because nearly 50 years have passed without producing significant change. It is difficult to account for this lack of place since the seminal work of Skinner (1938) provided for psychology, finally, a

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way to study the behavior of the individual organism in time using an experimental methodology. And, just as important, the model supported the development of an associated methodology to generate behavior change in applied settings.

It must be acknowledged that the science of behavior analysis is not yet sufficiently advanced to provide a mathematical language and grammar as has happened first in physics, then chemistry, and more recently in biology. In each case, the development of the field accelerated orders of magnitude. Perhaps this will come in time for behaviorism, but it is worthy of note that each of these sciences had a significant impact on society prior to the establishment of their rigorous language. It seems likely that the same should be true for behaviorism.

Perhaps the delay of behaviorism's broad impact is, in part, a result of society's growing concern, even mistrust of science. The fact that a significant component of our political society actually works to undermine confidence in science for political advantage only adds to the problem.

In addition to society's concern, the notion of an actual science of human behavior challenges the assumptions, the beliefs, and personal experience of most human beings. And virtually every religion has some sort of assumption related to free will. As a consequence, there has been not only a limited response to behavioral approaches but also strong push back from organizations and individuals, many with solid intellectual credentials, who view behaviorism as a form of mind control.

In part, the history of behaviorism provides a basis for these beliefs. Behaviorism came into use as a term first associated with classical conditioning. With Pavlov's dogs, the effect is linear and one way, i.e., environment controls behavior. Skinner's (1938) use of the term operant, referring to a reciprocal controlling relationship between behavior and the environment, has never become as well known and did not produce any change in the public's perception of behaviorism. Nor does the public know of Skinner's evidence-based strong support of positive reinforcement over the use of negative reinforcement or punishment.

Additionally, Skinner's (1938) use of the word *control* to describe the relationship between behavior and environment contributed to the publically held notion of conditioning as manipulative mind control. Control is a perfectly adequate scientific term, of course, but it is not a good term to positively influence public perception. The public fails to understand that, in terms of control, there is little difference between a behaviorist systematically arranging for a behavior change and a parent encouraging an infant to talk by saying "Say mama," and then hugging the child when the child responds correctly. The term control applies to these two events in exactly the same way from a behavioral point of view. To a behaviorist, the principles are the same in each case.

There is also the issue that, with the rise of behaviorism in psychology, there came to be identified a conflict between those who hold the view that behavior controls the environment and those who believe that environment controls behavior. In fact, most introductory psychology courses not only raise the issue but also identify behaviorism with environmental control. This position is inaccurate, of course, because it is incomplete when applied to operant conditioning. But most psychologists lack an understanding of Skinner's model.

Skinner himself recognized that the controlling relationships were, in fact, reciprocal (Skinner, 1974). But he never followed up by challenging the fundamental concept of

causation, the notion that the cause-effect relationship is linear with cause resulting in effect, rather than circular with behavior controlling environment and environment simultaneously controlling behavior.

Skinner acknowledges that he was influenced by Russell (1927) and Whitehead (2010), the so-called post-Einsteinian philosophers. Einstein and Infeld (1938) provided the first empirical demonstration of non-linear causation when he showed that two particles can interact in time and each come away fundamentally altered as a result of the interaction. Which is cause, which is effect? The answer: Which one do you want it to be? Both Russell and Whitehead supported the notion that causation could be more than linear and specifically acknowledged that non-linearity would apply in the study of human behavior. But this never influenced Skinner to acknowledge that linear causation was too limited a concept for his own thinking. Yet Skinner, too, had demonstrated reciprocal control, and talked around it repeatedly, beginning with his very early comments that the behavior most under control in his experiments was his own. But he never identified with anything other than a commitment to the traditional linear mechanical concept of cause and effect. That is unfortunate since it is clear that the answer to the question whether behavior controls environment, or environment controls behavior is “Yes.” Perhaps, were this concept articulated more clearly and frequently, it might ameliorate somewhat the commonly held concern about human as automaton.

Possible Solutions

Whatever the causes, it is clear that behaviorists, themselves, need to change their behavior in ways that make society more comfortable and accepting of behavior analysis to the mutual benefit of society and the discipline. What follows is a quick review of the author’s perspective on the contributions of the other papers, followed by a review of the author’s own views. Each of the authors in this set of papers attempts to address issues related to this fundamental disconnect between behaviorism and society.

Three papers take the approach of adopting a customer focus that is similar to a marketing perspective in business. Marketers tend to think of a marketing bifurcation that divides efforts into two foci, one on benefits the other on attributes. Attributes describe characteristics of provider behavior or product features whereas benefits describe what the customer gets.

In the attributes framework, Freedman (2015) suggests that behaviorists cast principles in a friendlier form and emphasize the fuzzy side of the business. Smith (2015) includes Freedman’s recommendations but suggests the adoption of easily understood frameworks and the use of technology to achieve scale. The paper by Biglan (2015) suggests that sustainable behavior analysis suggests that behavior analysts adopt common business practices for influencing organizations. These would include such practices as marketing, lobbying, and media advocacy. Within the benefits framework, Freedman (2015) suggests outcome comparison studies and Smith (2015) recommends substantiation through historical examples of success across a wide range of domains. Each of these papers contains worthwhile contributions to the effort to anchor behaviorism in

the culture. In this author's opinion, they are necessary, but not sufficient efforts.

The paper by Malott (2015) takes a different approach. Malott, though writing primarily on leadership, has several critical points to make on the issue of behaviorism's place in society. Malott distinguishes between cultural and behavioral contingencies. To summarize, Malott notes that behavioral contingencies apply to the individual whereas cultural contingencies apply across more broad components of organizations or societies. Her analysis concludes that, by failing to take account of cultural contingencies, behaviorists fail to consider relevant complexities and contextual variables. Importantly, she further states that behavior change often takes place in complex, non-replicable circumstances. Finally, Malott suggests that we get on with the science of cultural contingency analysis. This commentary, in some ways, compliments the Malott paper.

There might be a question about what to include in a cultural contingency analysis, but it is doubtful that such an analysis can be complete without taking into account variables such as the value proposition, the competition, and the financial status of an organization. Culture is sometimes loosely defined as "the way we do things around here," but there is an issue about why we do things around here the way we do. Perhaps it is because of past and no longer relevant contingencies, perhaps it is due to financial necessity, or perhaps it might relate to marketplace competition.

This being the case, it is suggested that Malott's cultural analysis should be widely applied to any and all of the contingencies that make the organization function as it does. By the way, references to financials, marketplace, and competition do not apply only to businesses. They apply to nearly all organizations, be they business, social service organizations, non-profits, or even churches and academia.

In addition to these broadly conceived cultural contingencies, there is another factor that enters into the value proposition that behaviorists offer to prospective clients. From the author's vantage point, behaviorists generally know how to create behavior change but display a very limited perspective on identifying what behavior needs to change. The reference here is not to the usual kind of pinpointing but to the identification of those behaviors most likely to insure faithful delivery on the value proposition. The limited focus on critical behaviors may conflict with the fact that organizations often seek consulting when they need help in determining what to do, and less often on how to do it. Were behaviorists to have a deeper knowledge of organizational cultures, and know some specific cultures intimately, they could play a significantly larger role in the organization.

Unfortunately, it is not possible for behaviorists, or anyone else for that matter, to answer the question of what to do without knowing the culture, not just cultures in general but, as Malott implies, the specific culture in question. An example might help here. The company in which the author was employed, COBA, Inc., was founded for the purpose of changing behavior in organizations. Specifically, COBA was formed to assist on strategy implementation. An issue that arises frequently in organizations is that organizations find themselves unable to effectively implement the strategy. COBA's premise was that the implementation of a strategy required somebody(s) behavior to change. If there was no behavior change, there was no strategy implementation. Assuming that the organization knew what would need to happen to implement a strategy, COBA's initial task was to arrange an environment in which the identified

required behaviors for successful strategy implementation were established across the units and levels of the organization.

What happened more often than not, however, was that when raising the questions of whose behavior and what behavior needed to change, it became clear that nobody really knew. They had never thought about it in terms of behavior change, as such. So COBA then began to help the organization determine whose behaviors and what behaviors were required for successful strategy implementation.

Yet a further problem sometimes occurred when it became clear that nobody, including COBA staff, could identify the required changes. This was an indication that the strategy was just a lot of noble sounding words. If something cannot be implemented, it cannot be a useful strategy. So COBA began working, where required, to help companies design strategies that were implementable, i.e., were essentially behaviorally based. This work could not have been done without a deep understanding of the fundamentals of the organization, its value proposition, its competitive position, and features of the general industry in which it functioned.

This example is only one of many in which COBA behaviorists could not achieve what was required without getting into the basics of the organization. Bringing to bear a behavioral perspective on the organizational culture, the relation of the organization culture to the larger culture, and the competitive landscape were necessary to bring about the desired organizational outcome.

There are really five points to be made here. The first is that when working to change the behavior in an organization, one must understand how the organization functions. Behavioral Systems Analysis, as described by Hyten (2009), offers a significant model for this effort but does not adequately account for the cultural and interpersonal contingencies that are critical. For that we need the study of cultural contingencies, as suggested by Malott.

The second point proceeds out of the first. Behaviorists need to specialize, i.e., they need a deep understanding of one or a few business domains such as health care, financial services, academic institutions so that they can engage management in serious discussions about their organizations. One cannot be effective without deep understanding of specific companies in specific industries. It takes years to achieve this understanding across a wide range of industries.

The third point is that behaviorists must describe their efforts not just in terms of behaviors to be changed, but in terms of the organizational costs and benefits.

The fourth point relates to Malott's (2015) notion that there are unique aspects to individual organizational cultures. These can be mastered only by direct observation in that organization. COBA's first step in entering organizations, therefore, was to do an organizational analysis. Without getting into the detail, this was an analysis, but not an experimental one, of the current activities of the organization and the culture in its competitive environment.

The fifth point is that one should not underestimate the power of behavioral thinking. Understanding the controlling relationships in an organization from a behavioral point of view can be very helpful in identifying problems and seeing possible solutions.

COBA relied heavily on behavior theory. The organizational analyses that COBA did were always conducted within a behavioral framework, though the language used was always that of the client where possible. A beneficial by-product was that when

one can engage in conversations that reveal a fundamental understanding of the both desired and actual organizational performance, one is far more likely to be engaged by the organization to assist in making it happen, and far more likely to be trusted to produce a useful result.

The old notion that one simply needs to understand behavior analysis and then can apply it with impunity anywhere is clearly wrong for any kind of large scale intervention. The next question would become one of how behaviorists are to acquire the necessary skills.

The first recommendation would be to expand the scope of behavioral research as suggested by Malott and expanded in this paper. This research would eventually allow a more specific and data based description of the culture.

The second recommendation would be that students be trained more broadly to develop a deeper understanding of the broad array of contingencies that must be taken into account, especially when work is to be done on a scale. The third recommendation is that students learn something more about organizations in general. Students need exposure to the marketing concept of differentiation and the competitive marketplace. Students should be able to read and interpret cash flow, profit and loss statements, and how to read a balance sheet. These recommendations apply to all organizations, not just businesses. Students might also study operations research. Operations interventions may involve some behavior change, but also look at other mechanical, electrical, or other processes, all for the purpose of increasing efficiency.

The fourth recommendation is that students gain direct experience in organizations, the more broad the exposure, the better. One cannot learn how organizations function from a book any more than they can learn golf from a book. Business students may know some of the fundamentals, but they are no more prepared to function in organizations than behavior analysts (Krapfl & Kruja, 2015).

The fifth recommendation is that students apply for Organizational Behavior positions in colleges of business. Many of the business faculty in Organizational Behavior Departments are psychologists, but, inevitably, they are Industrial/Organizational Psychologists who are steeped in statistically based measurement and, though claiming otherwise, know almost nothing about behaviorism. This author believes that behaviorists could make great contributions to business and would be well received by business students.

The final recommendation, and one of the most important, is that students be trained well beyond the technology of behavior analysis. Students need broad training in behavior theory and philosophy. Conceptualizing the entire world, an entire industry, or an organization within a behavioral framework and then conceptualizing the inner workings of the organization, admittedly without rigorous measurement in most cases, can be a valuable tool for the behavior analyst, and can differentiate the behavior analyst from competitors, not through the use of behavioral language but through the provision of coherent alternatives to existing realities. In this author's opinion, these skills have proven to be powerful offerings to clients and appear to them to be straightforward, sensible, and yet provide a perspective they had not considered.

A number of you may scoff at the lack of data associated with theoretical extensions, and, of course, the behavioral model tells us that we can only achieve certainty with data, and such things as reversal designs. But, just as the physicist can approximate what will happen to a falling object based on an understanding of gravity, the scientific

law of gravity can be demonstrated only in a vacuum. Nevertheless, in the world of daily affairs, the scientist turned consultant or practitioner can approximate or make educated guesses based on the scientific laws he knows to be firmly established.

Skinner's notion that the behavior most controlled in an experiment is one's own is powerful. By placing oneself in an environment one can bring to bear a behavioral perspective and begin to understand the nature of that environment and the nature of the consultant's interaction with it. It is not as precise as the experimental chamber, of course, but it will often do for intervention purposes. Furthermore, it saves time. Especially in businesses, time is of the essence. Managers are almost always unwilling to sacrifice time for precision and frequently take risks where certainty is too costly in terms of time.

Furthermore, it is a focus on the reciprocal controls on the culture and the behavior of the observer that will be required to articulate a model for controlling cultural contingencies.

So, shall we keep limping along with a brilliant model for changing behavior, but having so limited a range of practical uses, or shall we insert ourselves in more complex environments, perhaps such as those suggested by Mattaini and Aspholm (2015) and begin to provide a more solid record of both achievement on behalf of clients and a broadened understanding of our model? It is this author's conviction that, if the effort is forthcoming, good results will follow.

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