

TOWARD A BEHAVIOR ANALYSIS COMMITTED TO VALUES

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Abstract: Understanding scientific practice as a product of reinforcement contingencies renders science incompatible with scientific neutrality, but it does not indicate the role of values in science. Taking this into account, in this article, we discuss the function of values in behavior analytic science. Initially, we indicate that the scientific community commonly engages in the construction of knowledge based on epistemic criteria that, although indispensable, must be critically analyzed, considering its history and function to achieve a description of the non-epistemic values that guide the criteria of scientificity (epistemic consciousness). We also indicate that epistemic criteria are insufficient to guide scientific practice since ethical and political values are part of the research process and must be equally recognized and declared (non-epistemic consciousness). Second, we demonstrate that this thesis is compatible with the Skinnerian conception of science. We conclude that the community should guarantee contingencies to ensure that the scientist is committed to consistent epistemic values and that the incorporation of anti-capitalist, anti-racist, and anti-patriarchal critique into the worldview of behavior analysts would serve as an antidote against intolerable practices of human subjugation.

Keywords: epistemic consciousness, non-epistemic consciousness, radical behaviorism, scientific research, values.

Science and Commitment to Values

The role of values in the sciences has been an issue over the years (Bogo & Laurenti, 2012; Lacey, 2005, 2008; Lopes & Laurenti, 2016). Among the questions raised are: Should science and values mix? Is it possible to have a scientific practice free of values? What can be the implications of assuming a value-free science or a science committed to values?

A widely spread view of science, mainly present in common sense, assumes that the application of the “scientific method” produces a type of knowledge objectively proven, free of external values to science (e.g., of religious, ethical, or political nature) and any influence of human subjectivity (Chalmers, 1983/1993; Latour, 2016). Such a position, whose origins date back to the first half of the 17th century, with the paradigm usually called modern science, has been systematically criticized over the years (Lopes & Laurenti, 2016).

Critiques directed to scientific neutrality point to the impossibility of constructing and evaluating knowledge without any interference of subjectivity (e.g., Chalmers, 1983/1993; Lacey, 2005, 2008). As a result, the political character and social impact of the neutrality notion are denounced. Although the pursuit of a science free of values was a progressive position in the Middle Ages, as it promoted distance

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from conceptions that at the time hindered scientific progress, its perseverance represents a setback to the development of humanity. By committing to neutral science, the scientist, in search of supposed pure knowledge, would be exempt from thinking about the determinants of their research questions and the social implications of their investigation. It would be up to them to produce reliable data and, to those having the means to do so, use them according to their interests (Marcuse, 1968). The result is a scientific practice that obscures the socially and historically established origin of human problems and consequently does not challenge them (Mészáros, 1989).

Similar discussions can be found in behavior analytic literature (e.g., Carrara & Zilio, 2021; Holland, 1978; Laurenti et al., 2020; Lopes & Laurenti, 2016). Recognizing that the class of behaviors of researching (i.e., formulating research questions, selecting populations, choosing and applying investigative methods, interpreting data) is a function of the scientists' history and the sociopolitical and economic context in which they are situated (Fonseca Júnior, 2020), there is no room for scientific neutrality²; a presumption incompatible with the thesis that behavior is a function of phylogenetic, ontogenetic, and—of particular interest to this discussion—cultural variables (Skinner, 1981). Therefore, in line with Ulman (1986), we understand that reflecting on and making explicit the biases underlying scientific discourse makes the debate more candid and, as a result, provides better conditions for the behavior analyst to evaluate their practice and that of the community to which they belong, assuming the position of protagonist in the construction of the society they aspire to.

Aiming to contribute to this debate, we present arguments in favor of behavior analysts taking on commitments to values and making them explicit, given that refusing to take a position is itself a position (Lopes & Laurenti, 2016), which favors the prevailing order. In the first part of our argument, we argue that behavior analysts should strive for (non)epistemic consciousness—as much as possible—and commit to ethical and political values without minimizing the importance of epistemic values. Then, we discuss the role of (non)epistemic values in Skinner's conception of science. Next, we argue that analyzing the political, economic, and social reality can allow behavior analysts to expand their capacity to act. Finally, we indicate some convergences among the arguments presented here and their possible implications for scientific practice.

Commitment to Ethical and Political Values and Search for (Non)Epistemic Consciousness in Behavior Analysis

Lacey (2003, 2005, 2008) postulates a distinction between cognitive or epistemic values³ and non-epistemic or social values. Epistemic values include criteria for critically evaluating the quality of scientific theories, such as their explanatory and predictive power, parsimony, and simplicity or the coherence between theoretical assertions and the empirical findings that support them. According to the author, a theory should be accepted “if, and only if, it exhibits epistemic values to a high degree, always higher than rival theories” (Lacey, 2005, p. 45). Non-epistemic values, in turn, include ethical and political positions.

Despite emphasizing the primacy of epistemic values in evaluating scientific theories, Lacey (2005) assumes that non-epistemic values may guide the formulation of criteria that justify the choice of a particular scientific position. To illustrate his conception, the author uses an example from agricultural sciences: increasing harvest productivity can be investigated through different forms, such as using transgenic seeds or creating sustainable agrosystem. With both techniques in line with epistemic values, non-epistemic criteria guide the decision about which one should receive higher investment and, consequently, develop more rapidly to become technology. Accordingly, Lacey (2003)

² It does not imply that the knowledge produced by science has the same reliability as the knowledge derived from other forms of knowledge production that are not purposed (or are not made) to be scientific (cf. Carrara & Zilio, 2021).

³ Hereafter, we will use only the term “epistemic” to avoid possible cognitive interpretations of the phenomenon, according to which cognition can assume a causal role in scientific behavior explanation.

postulated that non-epistemic values are legitimate for choosing the research problem and investigation strategy and deciding how to apply scientific knowledge^{4,5}.

We can understand from this perspective that the practical applications of epistemic and non-epistemic criteria perform distinct functions. While epistemic criteria serve to assess the adequacy of scientific investigations and their products for advancing knowledge (e.g., whether a theory is scientifically valid or not), non-epistemic criteria serve to evaluate the material impact of science on humanity and the universe it inhabits (e.g., whether a theory is desirable or not since it leads to human emancipation or destruction, respectively). It is relevant to note that assigning less importance to one of these applications can have disastrous consequences. Applying epistemic criteria devoid of reflection on non-epistemic criteria can lead to scientific practices that serve the interests of those in positions of power (i.e., in the control of social contingencies; Nicolodi & Hunziker, 2021) and align with reprehensible ethics. For example, due to the international division of labor, part of Latin American science reproduces research agendas from dominant countries that do not always serve its own intellectual, cultural, political, and socioeconomic interests (Kreimer, 2011). On the other hand, applying non-epistemic criteria, devoid of reflection on epistemic criteria, can lead to distorted understandings of reality, such as scientific racism (Jensen, 1978), and ineffective practices in altering events in the world. In both cases, we would be facing a conservative science.

Additionally, part of Lacey's (2003) analysis is that non-epistemic values are illegitimate for guiding decisions related to the acceptance of data, hypotheses, and theories. On this aspect, consideration is necessary. In our view, applying epistemic criteria to evaluate the adequacy of these elements (as well as the behavior of formulating such criteria) is inseparable from non-epistemic values. The proposition of criteria that define a practice as good science is a product of a historical time and therefore determined by the variables that operate at that moment. If different criteria can (or cannot) lead to the characterization of knowledge as scientific, it is necessary to evaluate the non-epistemic values that the scientist adopts (see Burawoy, 1990, for a discussion on the diversity of epistemic criteria to qualify the scientific character of an area of knowledge). It follows from this that the formulation and application of epistemic criteria for the evaluation of data, hypotheses, and theories must be subjected to historicization and functional analysis, making it necessary to describe the variables, especially political ones, that control the behavior of adjectivizing knowledge as scientific—which, inspired by Laurenti et al. (2020), we call *epistemic consciousness*. Such description (and its publicization, as advocated in this study) must be a fundamental part of scientific practice, as it allows understanding of the variables that guide the development of particular disciplines and science in general.

Therefore, we argue that epistemic values should guide the evaluation and consequent acceptance of data, hypotheses, and theories. However, these values must be critically described and analyzed.

In our analysis, epistemic and non-epistemic values are inseparable. Nevertheless, there are different levels of recognition among scientists about this relationship and diverse reasons to keep it hidden or to make it explicit (e.g., serving or not the current order). Thus, in line with Lacey (2005), we argue that making non-epistemic values part of the scientific debate enables scientists to evaluate different positions that integrate the scientific practice—as well as the variables that control the researcher's behavior—and create conditions for “the freedom to choose an approach that allows them to explore and perhaps identify possibilities that serve interests such as those of poor countries or minorities” (p. 52). When such values are declared, a space for dispute about the role of science emerges.

Each choice available for the scientists (e.g., what question to ask and how to answer it) has different political and economic implications that must be considered when defining where and for what

⁴ It is relevant to point out that non-epistemic values influence the behavior of scientists despite their ability to describe it (cf. Laurenti et al., 2020).

⁵ It is also relevant to point out that knowledge produced within a particular political-economic system (e.g., capitalism) not necessarily reproduces the interests of the dominant group in that system. Class struggle is present not only between colonizing and colonized countries but also between the bourgeoisie and the working class in both colonizing and colonized countries (Losurdo, 2013/2016). The dynamics between these classes can influence either the production of knowledge pro-oppressor or pro-oppressed.

purpose they will invest their time and financial resources. Texts aimed at guiding scientific writing seem to support this assumption, as they often indicate that a study must demonstrate its scientific and *social* relevance, both necessary for the scientific community's evaluation of research adequacy (APA, 2020). The formulation and application of non-epistemic criteria—such as the formulation and application of epistemic criteria—are products-producers of a historical time. Hence, they also require historicization and functional analysis, which can lead to a *non-epistemic consciousness*. Ultimately, the assessment and understanding of non-epistemic values allow us to realize what societal project the research promotes and evaluate whether this project is (or is not) desirable (see Ulman, 1988, for an example of how different non-epistemic values relate to distinct understandings of behavioral principles and society).

In this perspective, identifying personal interests and systematically searching for a research question whose answer seems relevant to oneself and the community is the initial part of any investigation process (Runkel & McGrath, 1972). No matter what a researcher is willing to study (e.g., stimulus parameters that favor the conditioning of operant responses in nonhuman organisms, variables related to the formation of symbolic relations in the laboratory, social dynamics responsible for intensifying poverty, strategies to increase the productivity of employees in a multinational company, interventions that produce work humanization, therapies aimed at promoting mental health, policies focused on civil obedience, philosophical affiliations on which a theoretical-conceptual system is based), they will always respond to non-epistemic criteria during this choice and, therefore, should evaluate the relevance based on ethical-political implications.

The same logic applies to those who judge the relevance of the research. Let us consider the work of an evaluator from a committee that regulates the assignment of research grants, who must decide which of two research projects should receive funding for its execution. Epistemic criteria will likely be initially applied to evaluate the proposals, trying to ensure that the procedures are adequate to answer the proposed research questions. However, if both works prove equally acceptable to such criteria, it will be necessary to resort to other criteria. The evaluator may reflect, for example, on which of the studies, if executed properly, will produce data that will be more relevant according to their understanding. Considering that both projects address a given social problem, it may be necessary to choose, for example, between a project that seeks to adjust individuals to society or a project that aims to intervene on societal contingencies responsible for the phenomenon (Holland, 1978). In either case, non-epistemic criteria will be present.

The rationale presented previously shows that epistemic and non-epistemic criteria are an inherent part of the knowledge production process, such that ignoring them implies neglecting a relevant part of the variables that control the accurate behavior of the scientists and their social responsibility.

The Role of the (Non)Epistemic Values in a Science based on Skinner's Assumptions

From a Skinnerian perspective, what characterizes science are the conditions set by the scientific community so that the scientist's behavior remains, as much as possible, under the control of their object of study (Skinner, 1957). In this sense, Skinner (1953/1965) wrote: "Experiments do not always come out as one expects, but the facts must stand and the expectations fall. The subject matter, not the scientist, knows best" (p. 13). According to this conception, the scientists' behavior should be controlled by relevant aspects of the observed phenomena, and descriptions should be motivated by better prediction, control, and interpretation of the subject matter. Consequently, the control of the scientists' behavior by spurious variables or individual benefits would be mitigated.

Recognizing that irrelevant variables can control scientist's behavior provides support for the efforts of behavior analysts who investigate facilitating (and inhibiting) variables of scientific biases, which can lead to distortion of data reporting and hinder scientific progress (Mahoney, 1977; Sham & Smith, 2014). Knowledge about these variables allows the scientific community to arrange conditions to promote good scientific practices; as Skinner suggests, the behavior of the scientist is a product of specific contingencies:

To argue that layman and scientist are simply looking at two aspects of the same thing is to miss the point, because aspect is what causes trouble: people see different things when they have been exposed to different contingencies of reinforcement. Like everyone else, the scientist sees green,

but he also responds in other ways to the same setting. It is a mistake, however, to say that the concepts of science are constructed from personal sensory experience. Both layman and scientist respond—in similar or different ways, depending upon the contingencies—to the features of a given setting. (1974, pp. 79-80)

Contingencies aimed at shaping scientific behaviors are predominantly arranged by universities, scientific journals, conferences, and other academic environments. Among the practices of the scientific community that serve this purpose are the selection of new forms of verbal responses, replacing lay vocabulary—which can be imprecise at times—and the visual representation of events through graphs, tables, and models; extinction or even punishment of exaggerated, dishonest, distorted, or superfluous verbal responses; and the promotion of the use of instruments such as experimental apparatus and software to facilitate the appropriate apprehension and examination of the studied phenomenon (Skinner, 1957). Therefore, scientific behaviors are subject to differential reinforcement by members of the scientific community, who rely on criteria derived from epistemic values to determine what will (or not) be selected⁶.

As a result of the contingencies arranged by the scientific community, it is presumed that scientists' behavior will be less susceptible to sources of secondary control (e.g., individual benefits) that can compromise the reliability of the data (Sidman, 1960), preventing, for example, hypothesis myopia (i.e., disregarding aspects of the functioning of the object of study due to preconceived notions about it; Bachrach, 1962) and, at the extreme, deliberate data fraud (Callaway, 2011). In this sense, the scientific community seeks to reduce the influence of contingencies parallel to those that control the accurate reporting of relationships between events in the world. The pursuit of data reliability does not eliminate non-epistemic values (e.g., ethical-political) from knowledge production.

Although references to epistemic values are frequent in Skinner's work, the author is aware of the role played by non-epistemic values in the construction of knowledge, which sets him apart from the thesis of scientific neutrality. According to Skinner (1953/1965, 1957, 1974), scientists know the world according to their histories. Thus, no matter how robust the epistemic criteria may be, they do not indicate the direction science should take: the diversity of objects and reliable ways of studying them is significant (Lacey, 2005).

In the early period of his work, between 1930 and 1947, Skinner primarily published reports of basic experimental studies (Andery et al., 2004). The year 1947 marks an important transition in Skinner's work (Andery, 1990): from an initial period marked mainly by experiments with nonhuman organisms and the formation of the empirical and philosophical foundation of his explanatory system to a period of delineating a science of human behavior focused on understanding human actions in various contexts and transforming the world. Furthermore, the second half of the 1940s stands out for a significant increase in the number of Skinner's texts published in popular media (Rutherford, 2004), such as newspapers and magazines, indicating his interest in disseminating his science of behavior to the general public, not just to specialists.

According to Skinner (1947), in his article titled "Experimental Psychology," the lack of commitment to building a consistent theory of human behavior was the worst problem in Experimental Psychology at that time, which limited the practical impact of that science. As a result, psychologists were confused and unmotivated, without a clear path to follow. In a later reflection on his work, Skinner (1979) indicated that the 1947 text was written to advocate, as a primary task of the experimental psychologist, the development of "a theory that would be useful in every field of human behavior" (p. 343). Theory should guide the practical actions of anyone working with human behavior. All efforts to identify basic processes in the laboratory should ultimately serve to address relevant social issues (Skinner, 1947). In this sense, a science not engaged in social transformation would not have meaning and would fail to generate interest in laypeople and scientists. This aspect was systematically reiterated

⁶ It is pertinent to consider that the scientific community practices, although largely effective, do not eliminate the possibility of control by other consequences beyond the enhancement of prediction, control, and interpretation of the world, such as rewards, money, or other benefits (Skinner, 1957). They also do not exclude the possibility of "errors," which could be comprehended as descriptions under the control of events considered irrelevant by the scientific community because they are unnecessary for the occurrence of the investigated phenomenon.

by Skinner (1948, 1953/1965, 1971) throughout his extensive body of work, highlighting, for example, the role of Behavior Analysis in societal planning.

Although Skinner's science of behavior does not unequivocally align with a specific political position (Dittrich, 2005), which allowed scientists to be part of the problem or part of the solution in their practice as behavior analysts (Holland, 1978), the author's work has a clear commitment to transforming the societal model in which we live (Skinner, 1986). In his view, social engagement is an element that gives meaning to Behavior Analysis. Otherwise, the behavior analyst would be merely a "data collector," a caricature of a scientist devoid of purpose.

There is a familiar caricature of the experimental psychologist which runs something like this: He is first of all an apparatus man, who spends a good share of his time tinkering with sundry pieces of equipment which never quite work to his satisfaction. He investigates only problems which he calls appropriate to the laboratory. He cannot study learning as part of the complex and subtle interplay of behavior and environment in everyday life, so he confines himself to the memorizing of meaningless words presented with clocklike regularity in a standard aperture . . . The only strong motives he knows are his own, for his subjects perform merely to oblige him or because they are required to do so as part of a course they are taking. (Skinner, 1947, p. 16)

Avoiding the caricature presented by Skinner implies taking on an ethical-political commitment that orients the production of knowledge and its application. A science of behavior supposedly uncompromised with non-epistemic values would merely provide personal satisfaction to the scientist (Skinner, 1947) and preserve the current societal model (Marcuse, 1968), having no impact on relevant social issues. Therefore, the scientific community is responsible for creating conditions for scientists' ethical and political commitments to be part of the scientific discourse. Contingencies designed to promote public debate of non-epistemic values (see Ulman, 1983, for an example) are relevant since there is no reason for scientists to expose themselves when they reproduce the dominant order. It is also the community's task to establish contingencies to ensure these values do not distract scientists from their commitment to a science that produces and discusses data following relevant epistemic values.

The elements presented here suggest that the thesis presented in the previous section, which states that, in addition to rigorous epistemic values, behavior analysts need to adopt and declare non-epistemic values, is compatible with Skinner's conception of science. Skinner advocates the necessity of control of the scientist's behavior by the object of study and social commitment to give meaning to their practice.

Toward an Active Behavior Analysis in the Construction of its own Reality

According to Skinner (1957), the practices of the scientific community, such as hypothesis formulation, deduction of scientific rules, and elaboration of experimental design, inform the scientist's behaviors. In line with the Skinnerian perspective, Andery et al. (2000), when applying the concept of operant behavior to scientific inquiry, suggest that the practices of the scientific community shape the forms of knowledge production. As emphasized earlier, this conception implies that understanding the development of scientific knowledge demands comprehending the contingencies that have produced it. One of the implications of this understanding of the scientist's behavior, in general, and the behavior analyst's behavior, specifically, is that it is possible to conclude that:

As producers of knowledge, and enunciators of rules that will govern the behavior of others, we behavior analysts are obligated to recognize the subjective and objective nature of the rules we formulate, of the knowledge we produce. With this implication assumed, it is impossible to envision ourselves as isolated, autonomous knowledge producers, or to exempt ourselves from evaluating the practices of knowledge production, in our case, within the scientific community of behavior analysts. (Andery et al., 2000, p. 141)

In the context described here, understanding and determining the direction of Behavior Analysis involves focusing on the behavior of the behavior analyst, seen as both a product and producer of their scientific and social context. It becomes necessary, therefore, to examine both the contingencies set by their scientific community and the social, economic, and political contingencies to which they are

exposed. It is also necessary to evaluate how behavior scientists are engaged in preserving or transforming the field and its potential capacity to produce knowledge and social well-being. Inherent in this dialectical conception is the understanding of the social, economic, and political factors that (dis)favor the behavior analyst's actions according to their principles (cf. Azoubel & Gianfaldoni, 2014; Ellis, 1991; Winett & Winkler, 1972), and to examine whether they are actively participating in the construction of a context that either perpetuates contingencies that violate human dignity or builds emancipatory alternatives (Holland, 1978).

The work of behavior analysts in education can illustrate how social, economic, and political contingencies affect their behaviors. Azoubel and Gianfaldoni (2014) analyzed reports from behavior analysts working in higher education. They identified difficulties related to the application of educational technologies based on Behavior Analysis due to philosophical views of educators that diverge from the assumptions of Radical Behaviorism; a lack of commitment from politicians to promote evidence-based teaching practices; a lack of resources provided by institutions for hiring teaching assistants to enable individualized instruction and the development of programmed instructional materials; rigid deadlines for starting and completing courses, preventing students from progressing at their own pace; the heavy workload imposed by institutions, which favors the use of less labor-intensive but ineffective teaching methods, among others (see also Gianfaldoni et al., 2021, for a discussion on the detrimental educational contingencies that Latin American educators are submitted to and the role of behavior analysts in that context). Thus, in education, the possibility of intervention by behavior analysts is circumscribed by the prevailing social, economic, and political conditions, which hinder the consistent application of the principles they uphold.

As emphasized earlier, in addition to understanding the determinants of the behavior of behavior analysts—which makes them a product of the contingencies they are exposed to—it is necessary to comprehend their scientific and social role in their practices—which makes them a producer of contingencies that affect themselves and others. Often, behavior analysts submit themselves to the hidden interests of institutions and individuals who hire their services (Holland, 1978). Investigations into their work in institutions, such as schools (Winett & Winkler, 1972) and prisons (Ellis, 1991; Pereira et al., 2014), indicate that these professionals frequently create conditions that develop or strengthen behaviors that serve the maintenance of order and submission to the interests of individuals in privileged positions of power, to the detriment of constructing repertoires that could be relevant outside of these institutions, both for the individual and the community.

The establishment of *Behaviorists for Social Action Journal*—a journal where important political debates unfolded—is a fruitful example of opening the field for debating non-epistemic values that permeate the area. The participation of some behavior analysts in this journal marks positions that should not only be expressed but also embraced as guiding principles for professional practice. We particularly agree with Morrow's (1978) stance in the editorial that inaugurates the journal. According to the author, "we must become active participants in the struggle against injustice" (p. i), which implies recognizing a "set of contingencies of reinforcement called capitalism, [which] produces racism, sexism, poverty, war, and a great many other undesirable effects" (p. i), as well as promoting its replacement. We agree that we should politicize our field, and this is in no way related to distorting reality for "political ends" since the "sacrificing of truth is necessary only for those who would exploit others—not those who would overturn exploitation" (p. i). The lack of systemic critique of the capitalist mode of production in recent behavior-analytic literature shows that Morrow's (1978) question remains relevant: "How can we expect to obtain deserved credibility for the science of behavior when we give no credibility to the most obvious social fact of this century" (p. i).

The present analysis leads to the understanding that to deal with the disconnect between a critical practice towards oppressive forms of control and the conditions imposed by contractors and funders of services, political engagement is necessary (i.e., recognizing and producing variables that allow resistance, for example, to profit contingencies; Ulman, 1983). Through political engagement, it may be possible to prevent and change conditions that hinder professional practices consistent with the pursuit of human dignity. These conditions are imposed by individuals wielding power, who define the goals of socially relevant institutions and shape the thought of the masses through the production of descriptions that mask exploitative contingencies and serve the maintenance of the existing order (i.e., ideology; Mészáros, 1989). Incorporating anti-capitalist, anti-racist, and anti-patriarchal critique into

the worldview of behavior analysts would serve as an antidote against intolerable practices of human subjugation.

Not only is the behavior of the behavior analyst selected and maintained by contingencies—within the scientific environment and the social, economic, and political context they experience—but the populations receiving the services of behavior analysts also have their behavior determined by their contingencies, which include their financial condition, access to education, support network, and understanding of reality. Therefore, if we only act on the specific environment of individuals, leaving the broader environment in which they are embedded intact, we neglect the determinants of their behavior (Holland, 1978). If we create artificial environments to change the behaviors of our clients, we have “little chance of competing with the generally older, more significant, and more frequent contingencies in the individual’s life” (Guedes, 1993, p. 84). Consequently, the work of behavior analysts should go beyond the scope of individual intervention, actively seeking to create conditions for structural social transformations (e.g., through political engagement).

In summary, producing social well-being implies being committed to modification of the political-economic organization to which we are subjected; one in which classist, racist, and patriarchal contingencies prevail. If the objective of Behavior Analysis is to promote socially relevant behavioral changes for the benefit of individuals and society (Baer et al., 1968), the behavior analyst must take a stance and define whose interests their actions will serve; that is, whether they will defend contingencies that benefit the oppressor or the oppressed. Therefore, we argue that the behavior analyst should be actively engaged with the change of the current political-economic system and that abstaining from taking a position—due to its inherently conservative nature—should be challenged by the scientific community. Ignoring the determinants of behavior, especially those of a social, economic, and political character, means allowing others to shape our history on our behalf.

Final Remarks

Initially, we indicate that the scientific community commonly engages in the construction of knowledge based on epistemic criteria that, although indispensable, must be critically analyzed, considering its history and function to achieve epistemic consciousness (i.e., a description of the non-epistemic values that guide the criteria of scientificity). We also indicate that epistemic criteria are insufficient to guide scientific practice since ethical and political values are part of the research process and must be equally recognized—non-epistemic consciousness—and declared. Second, we demonstrate that this thesis is compatible with the Skinnerian conception of science. Finally, we argue that the social, economic, and political reality delimits the possibilities of action for the behavior analyst and determines the behaviors of the beneficiaries of their practice. Thus, we argue that understanding reality enables action upon it.

The argument that ethical-political criteria are necessary to assess and guide scientific production is related to the understanding that it is crucial to change the material conditions of the populations served (or should be served) by behavior analysts. In this context, we suggest that the behavior analyst’s actions should be committed to anti-capitalist, anti-racist, and anti-patriarchal practices and that without this commitment, any behavioral intervention to social problems will fall short of its capabilities. Only through a critical evaluation of the social contingencies to which individuals are exposed and an understanding of their needs considering their reality can new scientific endeavors be collectively proposed to benefit them effectively.

According to Ribeiro (1981), abstaining from examining and deliberating on possible decisions and how they impact life is a conservative way of behaving. After all, decisions are taken all the time, so not pondering over them, or not deciding means accepting that others make decisions according to their interests and values, continuing to be in control. Consequently, consciously or not, the status quo is maintained. A similar statement applies to behavior analysts who assume a similar position by advocating for supposed neutrality, which obscures control relationships and masks the purposes and effects of current scientific and professional practices (Lacey, 2005; Ribeiro, 1981).

The points advocated here converge with the position that behavior analysts should be critical of their reality and act upon it based on declared values that guide their actions. It can be done in various ways, such as through engagement in social movements and political parties, publicizing analyses of economic proposals and public policies, and active participation in institutions. In this work, we argue

that regardless of the chosen approach, behavior analysts must commit to practices that ensure human emancipation and dignity and combat practices that subject political minorities to the individualistic interests of certain groups.

The balance between epistemic and non-epistemic criteria, a central point of this work, should prevent historical errors from recurring. Undervaluing epistemic criteria can lead to stories like those of Copernicus, Galileo, Darwin, Skinner, and many others, whose scientific findings were questioned despite being constructed according to solid scientific bases due to religious and moral reasons. On the other hand, undervaluing non-epistemic criteria can enable ethically reprehensible research activities. Therefore, we endorse a Behavior Analysis committed to refined epistemic and ethical-political values. Only in this way will we advance toward relevant and socially responsible knowledge.

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