

***A REASSESSMENT OF PRAGMATISM IN BEHAVIOR
ANALYSIS: II. THE WORLD VIEWS OF BEHAVIOR
ANALYSIS***

**UNA REEVALUACIÓN DEL PRAGMATISMO EN EL
ANÁLISIS DE LA CONDUCTA: II. LAS PERSPECTIVAS
DEL MUNDO DEL ANÁLISIS DE LA CONDUCTA**

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Abstract

Relations established between behavior analysis and the philosophy of pragmatism generally focus on the matter of truth criteria, in which both philosophies seem to

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converge. Nevertheless, there is another aspect in which such philosophies could find common ground: their world views. On one hand, several authors have defended that the world view of behavior analysis is that of contextualism, which is precisely a pragmatic world view. On the other hand, some have argued that mechanism fits better as the world view of behavior analysis. A third point is raised by others: behavior analysis would be “a-ontological”, that is, free from metaphysical commitments. This essay examines arguments surrounding this debate, and evaluate how they relate to pragmatism. As a conclusion, we note that pragmatism not only does not interdict metaphysical claims, such as ontological ones, but also that it encompasses a particular world view. To recognize this aspect of pragmatic philosophy is important for a thorough understanding of its relations with behavior analysis.

Keywords: Behavior analysis, pragmatism, world view, contextualism, mechanism

Resumen

Las relaciones establecidas entre el conductismo radical y la filosofía del pragmatismo generalmente se enfocan en el tema del criterio de verdad en el cual las dos filosofías parecen converger. Sin embargo, existe otro aspecto en el que tales filosofías pueden encontrar un terreno común: sus perspectivas del mundo. Por un lado, numerosos autores han defendido que la perspectiva del mundo del análisis de la conducta es la del contextualismo, que es precisamente una visión pragmática del mundo. Por otro lado, algunos han argumentado que el mecanicismo ajusta mejor como la perspectiva del mundo del análisis de la conducta. Un tercer punto hecho por otros: el análisis de la conducta debería ser “a-ontológico”, eso es, libre de compromisos metafísicos. Este ensayo examina argumentos alrededor de este debate y evalúa como se relacionan con el pragmatismo. Como conclusión, notamos que el pragmatismo no solo no prohíbe los argumentos metafísicos, tales como los ontológicos, sino que suscita una perspectiva particular del mundo. Para reconocer este aspecto de la filosofía pragmática es importante un entendimiento exhaustivo de sus relaciones con el análisis de la conducta.

Palabras clave: Análisis de la conducta, pragmatismo, perspectiva del mundo, contextualismo, mecanicismo

Quoting Chesterton, and agreeing with him, James (1907) attested “that the most practical and important thing about a man is still his views of the universe” (p. 7). Before that, in “The will to believe” (James, 1896/1912), he had already

declared: “The most interesting and valuable things about a man are his ideals and over-beliefs” (p. 13). In a lecture titled “The one and the many”, James (1907) argued that believing that the world is one or many is the most important question in philosophy, because it is full of consequences. James (1907) explained: “I mean by this that if you know whether a man is a decided monist or a decided pluralist, you perhaps know more about the rest of his opinion than if you give him any other name ending in *ist*” (p. 61).

In general terms, monism is the thesis that advocates the existence of a perfectly unified world. All things converge and adhere to each other in a regular manner, and any sign of independence or variation between events is understood by monists as an accident within an unchangeable reality (James, 1907). Pluralism, however, advocates the coexistence of regularity and irregularity in the world. Notwithstanding, different from monism, pluralism admits that one is not more important or illustrious than the other. There are regions in the world where more regularity can be found, while other regions contain more irregularity. Similarly, there are useful and useless realities. Pluralism accepts a world imperfectly unified. And pluralism is the world view of pragmatism, in James’ (1907) words: “Pragmatism, pending the final empirical ascertainment of just what the balance of union and disunion among things may be, must obviously range herself upon the pluralistic side” (p. 73).

Facing this scenario, two points need to be reconsidered. First that there is an intimate relation between belief and action: beliefs are rules for action (James, 1907). The second point is that, according to James (1907), believing that the world is in one way or another has practical consequences, that is, beliefs about the world express different ways of acting in the world. This Jamesian discussion has affinities with contemporary debates in the scope of philosophy and the history of science that indicate that every scientific proposition is implicitly or explicitly oriented by world views (Burt, 1924/2003; Kuhn, 1962). Thus, a proposition of science can only be comprehended satisfactorily when its world views are clarified (Burt, 1924/2003).

Some behavior analysts have sought inspiration in the work of S. C. Pepper (1891-1972) in discussing this science’s world view (Carrara, 2004; Hayes, Hayes, & Reese, 1988; Morris, 1988, 1993a, 1993b). But which hypothesis or world view is assumed by behavior analysis?

To this question some commentators answered that it is contextualism (Carrara, 2004; Hayes et al., 1988; Morris, 1988, 1993a, 1993b), a world view subjacent to pragmatism (Pepper, 1942/1961). But there are those who opposed this perspective (Delprato, 1993; Marr, 1993; Shull & Lawrence, 1993), claiming that behavior

analysis would subscribe to a mechanistic perspective. Parallel to this debate, there is another controversy involving the pragmatic interpretation: calling upon the philosophy of pragmatism, it is asserted that behavior analysis would be exempt from metaphysical pronouncements, such as ontological ones. Nevertheless, would it really be reasonable to lean on pragmatism to avoid any metaphysical positioning? Would behavior analysis be a science exempt from world view? These are the issues addressed ahead.

Contextualism versus Mechanism

Let us start with the matter of contextualism. According to Pepper (1942/1961), contextualism was born as a theory of truth: the first contextualists, Charles Sanders Peirce and William James would have initially insisted that no theory about world would be involved in this conception of truth. For Pepper, pragmatism has been presented by these authors merely as a method that describes the way individuals behave when they reach conclusions that they considered truthful. However, the claim to establish pragmatism simply as a method has proved indefensible: “The method has thickened into a doctrine and thence into a world theory” (Pepper, 1942/1961, p. 268). This theory about the world is named contextualism by Pepper.

Morris (1988, 1993a, 1993b, 1997) was one of the earliest to argue that contextualism was the fundamental world view of behavior analysis. In his writings, aside from showing the adequacy of this world view to aspects of behavioral science, he criticized the mechanistic interpretation of this same science. For this purpose, he chose some notions and dichotomies as focuses of the analysis, among them: pragmatic criterion of truth, elementarism *versus* holism, causal analysis *versus* functional analysis, continuity *versus* discontinuity, and the idea of an evolutionary ontology.

As the pragmatic theory of truth has already been addressed, we will start by discussing the tension established between holism and elementarism. Referring to mechanical theories of development, Morris (1988) pointed out that, from this perspective, any complex action would be understood as a composition of basic elements and their associations, like a machine, given that “the whole can always be reconstituted in terms of its parts because the parts are unchanging” (p. 300). For behavior analysis, by contrast, “behavior is a dynamic, synergistic, and active inter-relation, not a thing, in which a response is but one component” (Morris, 1988, p. 300). Not recognizing a priori elements (i.e., independent from context) capable of defining concepts like response and stimulus by themselves, behavior

analysis leans toward a holistic approach: its concepts are not seen as things, but as abstractions derived from a changeable, ever evolving behavioral flux.

On the distinction between causal and functional analysis, Morris (1988) stated that the task for mechanistic science is “an analytic account of behavior in terms of antecedent-consequent, if-then relations” (p. 303), relations that would be linear, although not necessarily unidirectional. This tactic has become central to psychological science, just as the triple contingency has become central as a unit for behavior analysis. However, “characterizing behavior in terms of independent and dependent variables and making the former into ‘causes’ has more to do with the behavior of scientists than with the functional interrelations under study” (Morris, 1988, p. 303). In behavior analysis, the traditional task of “searching for causes” is substituted by the identification of interdependence relations between events. Thereby, the prescription to employ notions such as “stimulus” and “response” in the execution of a functional analysis does not subscribe to the mechanic logic of decomposition into elements, or the search for independent variables that “cause” behavioral effects (dependent variables). From a contextualist perspective, the functional analysis is always an abstraction from the behavioral process, which has been relatively useful in satisfying certain ends such as prediction and control of behavior. The analysis *per se* does not subscribe to mechanism as a world view, because “[I]n attempting to discover functional relationships the radical behaviorist does not accept any a priori logical assumption of the universe that is orderly in a mechanical sense upon which he feels he must base his scientific work” (Day, as cited by Morris, 1993a, p. 34).

Another result of a contextualist world view is the rejection of the (mechanistic) idea of a continuity in the process of development, which would occur “in linear succession of cause and effect in which changes in responding are, in principle, exactly predictable and reproducible from prior responding and its causes” (Morris, 1988, p. 304). From a contextualist standpoint, “change is categorical – behavior is never static”, thus, “behavioral development is discontinuous in the sense that the behavioral structure of functional relationships undergoes qualitative reorganization with each interaction” (Morris, 1988, p. 304). An arrow does not seem to exist to guide the development process in which dependent and independent variables interact in a linear continuity, as Carr (1993) restated in support. It is rather the opposite, because of behavior’s fluid, changeable and evanescent nature (Skinner, 1953): the discontinuities are always present through the process of development, which is updated and transformed as new relations are established.

From these connotations arises Morris’ (1997) proposition of an evolutionary ontology of behavior (cf. also Moxley, 2007). Morris recognized the existing dis-

trusts on ontological discourse, as it, not rarely, is seen as a discourse that would intend to reveal the “world as it is”. The epistemological discourse, on the other hand, would be merely concerned with the behavior of individuals and their possibility of knowledge of the world. The difference would reside in the fact that epistemological issues could be tested, differently from ontological issues, which, being supposedly not vulnerable to test, should be excluded from the domains of science. But Morris considered that this meaning for “ontology” is erroneous. According to him, it is generally considered that ontological claims

are taken to reflect less the behavior of scientists and more the nature of nature. These claims are presumably either true or not – and are not subject to test. If they are not subject to test, they cannot evolve. On the evolutionary account I am suggesting, this latter view is, as I said, mistaken. *Ontology does indeed reflect the behavior of scientists* [emphasis added – the behavior of making and acting on (or in accord with) ontological assumptions. These assumptions are subject to empirical test in terms of their usefulness and effectiveness (or not) in the long run, and thus they, too, evolve. (p. 538)¹

The reactions to Morris’ ideas were vigorous. One of the most prominent voices of the opposition was Marr’s (1993), who accused contextualists of relying on a false view on mechanism, a kind of straw man fallacy: a strategy without logic basis, in which a degenerated caricature of the idea to be criticized is engendered. According to him, contextualists have set up a fallacy that does not hold up under cautious examination (Marr, 1993, p. 60). The version of the mechanism described by contextualists would be purposely twisted.

To expose what he deems to be an obtuse logic present in the contextualists’ discourse, Marr (1993) invoked a proposition named “integrated-field orientation,” formulated by Kantor, who besides Pepper (1942/1961) would be the scholar to which Morris (1988, 1993a) would appeal. Contextualists, inspired by the physical sciences, would appeal to the notion of field because they supposed, mistakenly, that this notion would be exempt from mechanistic connotations:

¹ Morris’ (1997) interpretation of ontology as concerning the behavior of scientists is especially important here, since some versions of pragmatism (e.g., Richard Rorty’s approach (1979)) implies a rejection of metaphysics, deeming it as a philosophical attempt to achieve the reality beyond appearances. Here, alternatively, ontology simply refers to a form of behavior (that of making and acting on ontological assumptions, such as world views). Therefore, this approach does not commit with classical metaphysical categories such as “essences” or “substances”, nor does it implies the idea of describing reality as it is, which would be odd to a pragmatic perspective.

perhaps the most often cited “nonmechanistic” aspect of physics is a “field.” The logic of contextualists and other field theoretic psychologists seems to be as follows. Physics successfully invokes the field concept, and the field is non-mechanistic; we contextualists invoke an “integrated field perspective” so we are not mechanists either. Furthermore, we gain scientific respectability by being (or perhaps I should say “becoming”) part of the retreat from mere mechanism. (Marr, 1993, p. 63)

Warning that the concept of field encompasses properties liable to a mechanical description (such as speed, momentum and energy) – Pepper himself (1942/1961) indicated that the electromagnetic field can be seen as a metaphor suitable to a more sophisticated form of mechanism (i.e., “consolidated mechanism”) – Marr (1993) tried to deconstruct the contextualist interpretation of behavior analysis. In his own words: “contextualists will have to choose another model for their fields. The one in physics is too mechanical. Perhaps they should look to agronomy” (Marr, 1993, p. 64). In line with that, Delprato (1993) reaffirmed that considering the version of consolidated mechanism, “behavior analysis is mechanistic” (p. 52).

Another argument against the contextualist interpretation was presented by Shull and Lawrence (1993). They suggested that since contextualists assert that every act must be comprehended in its own context, how would it be possible to elaborate universal laws? An endeavor as such is interesting, if not necessary to any science. If an alliance with contextualism could obstruct analysis, it could result in a paralyzing effect on behavior analysis. They noted:

Contextualism seems to us to lead to historical description of unique events rather than to the formulation of abstract generalizations. In short, when pushed to its extreme, contextualism does not appear to us to favor the development of the kind of science that enhances prediction and control. (p. 242)

In response to the critic on the supposedly impossibility of “abstract generalizations” (Shull & Lawrence, 1993) imposed by contextualism, Morris (1993b) replied, quoting Skinner (1974), to whom science would not be more than a set of laws for an effective action. From a radical behaviorist point of view, scientific laws are not considered universal truths that are independent of scientists’ behavior: “laws and principles are constructs that are useful means towards the end of successful working with the subject matter (e.g., the prediction and control of behavior)” (Morris, 1993b, p. 262).

Morris (1993b) observed that the “analysis per se is not inherently antithetical to contextualism” (p. 260). Even though Pepper (1942/1961) labelled contextualism as a synthetic philosophy, instead of analytical, there is nothing in his theory

suggesting the impossibility of analysis and elaboration of laws, such as scientific ones. On the relation between contextualism and the practice of analysis, it is said that: “For contextualism, *element* [emphasis added] analysis is intrinsically distortive” (Pepper, 1942/1961, p. 248). As it seems, the criticism refers specifically to one type of analysis: element analysis, that is, an analysis that seeks to break down the subject matter into its smaller, indivisible parts, aiming to identify elementary and irreducible instances that constitute it. A contextualist model of analysis is the opposite of this proposition:

The implications here are revolutionary from the standpoint of the analytical theories, formism and mechanism. In these theories it is assumed that any object or event can be analyzed completely and finally into its constituents . . . This assumption is categorically denied by contextualism; for according to its categories there is no final or complete analysis of anything. (Pepper, 1942/1961, pp. 248-249)

This distinction, referred by Morris (1988) as a tension between contextualist holism and mechanistic elementarism, spurs from fundamental categories of each world view. For contextualism, there is not an end to the analysis, since it does not consist of the reduction of the whole to its smaller constituent parts. This is one of the most characteristic qualities of contextualism as a world view: “Contextualism is the only theory that takes fusion seriously. In other theories it is interpreted away as vagueness, confusion, failure to discriminate, muddledness. Here it has *cosmic dignity* [emphasis added]” (Pepper, 1942/1961, p. 245).

Given the priority of the whole, in contextualism the parts are abstracted from the whole, and not the opposite. The same can not be said about mechanism, not even in the case of consolidated mechanism, in which the machine metaphor is substituted by the field metaphor: “an electromagnetic field is nothing more, nor less than electromagnetic forces acting in spatio-temporal field” (Pepper, 1942/1961, p. 214). Summing up, the distinction between mechanism and contextualism is abyssal, and it can not be reduced to the ordinary idea that the latter deals with what is complex and the former with what is simple. These are incommensurable world views, which can guide scientific practice in decisively different ways.

A science exempt from world view?

The quarrel between mechanism and contextualism is only a sample of the uproar common to debates concerning the world view of behavior analysis. Another controversy is marked by questions such as: Does behavior analysis encompass

metaphysical statements, such as an ontological discourse? Would behavior analysis be a science exempt from world view? As mentioned, Morris (1997) not only defended contextualism as a world view, he also presented it as a specific form of ontology. In an analysis about what has been named “Skinnerian metaphysics,” Flanagan (1980), despite defending an interpretation diverse from the pragmatic (namely, a materialist interpretation), asserted that “the thesis that Skinner’s behaviorism has important ontological and metaphysical elements . . . is secured” (p. 10).

Notwithstanding, obstinately contrary to any kind of ontological discourse, some behavior analysts have advocated that their science would be “a-ontological”. Referring to the traditional metaphysical debate about realism versus antirealism, Barnes-Holmes (2005) asserted that “the a-ontological position of behavioral pragmatism is simply silent on the issue of ontology” (p. 68).

Krägeloh (2006) went beyond that, deeming as irrelevant any kind of ontological beliefs: “The goal of behavior analysis is successful prediction and control of behavior. As long as the techniques of behavior analysis are used appropriately, *it is irrelevant* [emphasis added] whether at heart one is a dualist, monist, idealist, materialist, or any other -ist” (p. 331). As does Barnes-Holmes (2005), Krägeloh presented his propositions as justified by pragmatic philosophy.

Considering this, it would be fitting to ask: Would it be prudent to invoke pragmatism as a subterfuge to avoid any metaphysical positioning? An interesting way to face these impasses might be resorting to the proposers of what, in philosophy, has been originally known as pragmatism. Despite differences in interpretation of pragmatism, John Dewey and William James are obvious references. We resort, therefore, to some statements of these authors concerning world view. As stated before, pragmatism is presented as a method (James, 1907), but would the fact that the pragmatic method presents itself as a resolution route to metaphysical disputes imply that pragmatism, in general, is free from a particular world view? More importantly, would it be a pragmatic stance to consider human activity (as it is scientific activity) independent from the beliefs of the individual (scientist) about the constitution of the world?

One of the strategies in science, often named pragmatic, for not compromising with formulations about the nature of the world is to state that a *working hypothesis* is adopted (cf. Wilson, 1958/1974, p. 238). An emblematic example is the issue of determinism. It is said that there is no conclusive evidence in favor of determinism because empirical evidences may be consistent both with determinism and inde-

terminism. Still, it is argued that determinism is important as a working hypothesis, because it encourages the search for causes. In this case, the scientist acts as if the world was determined, but he/she does not really believe in that, since there is no decisive evidence to validate this thesis.

Firstly, underlying this proposition there is a strictly intellectualist view of truth, criticized by pragmatism, according to which the beliefs accepted by scientists are purely justified logically and/or empirically. According to James (1896/1912), every adopted belief has an element, as small as it may be, of irrationality. From this view, saying that the scientist acts as if the phenomenon was like that, but without believing that it is that way, is a technique to “eliminate the irrational element inherent to belief, putting the decisions on completely intellectual basis: the scientist ‘pretends’ to believe, acts, and then sees the result” (Lopes, Laurenti, & Abib, 2012, p. 49). Secondly, from the pragmatic perspective, it is impossible to accept the assumption of not believing that the world is determined, but (the scientist) acting as if it was. As discussed above, there is an inextricable relation between belief and action.

Belief is a living hypothesis, in the sense that it typifies a disposition to act. Dead hypotheses are those that do not subscribe to any action. If the scientist acts in accordance with determinism, determinism is a living hypothesis, a belief, that is, he/she believes that the world is determined. On the other hand, if he/she does not believe that the world is determined, determinism would be a dead hypothesis, and accordingly, would not subscribe to any type of action of the scientist. In other words, from a pragmatic perspective, it would not be possible to act effectively in the world without a belief about it; “either the scientist believes and acts, or does not believe and does not act” (Lopes, Laurenti, & Abib, 2012, p. 50). The issue that stands, then, is not whether it is possible to act in the world without any belief about it, but rather what would be the practical consequences of believing in this or that world view. What would be the practical consequences of believing that the world is one or many, determined or indetermined, mechanistic or contextualist?

To clarify this, we shall start by considering John Dewey’s arguments on the emphasis about the role of consequences in pragmatic philosophy. To Dewey (1931/1981), such a stance extrapolates a methodological position, becoming a particular form of metaphysics:

Pragmatism thus has a metaphysical implication [emphasis added]. The doctrine of the value of consequences leads us to take the future into consideration. And this taking into consideration of the future takes us to the conception of a uni-

verse whose evolution is not finished, of a universe which is still, in James' term, "in the making," "in the process of becoming," of a universe up to a certain point still plastic. (p. 50)

Also to James, not every metaphysical discourse deserves contempt. On the contrary, a specific form of metaphysics was introduced by the author. Maybe the most evident recognition of the metaphysical commitments of pragmatism, as described by James (1907), arises in his lecture "Pragmatism and Humanism", in which pragmatism and rationalism are compared: "The essential contrast is that for rationalism reality is ready-made and complete from all eternity, while for pragmatism it is still in the making, and awaits part of its complexion from the future" (p. 115). In another passage, he complemented: "the alternative between pragmatism and rationalism . . . is no longer a question in the theory of knowledge, it concerns the structure of the universe itself" (p. 116).

In his lecture "The one and the many", James (1907) named "pluralism" his metaphysical proposition (Pepper's contextualism seems to be an update of it). James claimed that his proposition has faced severe resistance to be accepted, given its apparently counter-intuitive character: "the world's oneness has generally been affirmed abstractly only, and as if any one who questioned it must be an idiot" (p. 73). An explanatory hypothesis is raised: "if our intellect had been as much interested in disjunctive as it is in conjunctive relations, philosophy would have equally successfully celebrated the world's disunion" (p. 65). The "quest or the vision of the world's unity" (p. 62), that has been established as the aim of philosophy could clarify the motives of the disregard for pluralism.

It may be that the propositions of Krägeloh (2006) and Barnes-Holmes (2005) derive from a common (but not necessary) identification between ontology and essentialism, or substantialism. In defending the pragmatic interpretation of behavior analysis, Lopes, Laurenti and Abib (2012) observed that this confusion feeds the conviction that pragmatism would have to avoid any metaphysical commitments. But as Castro (2008) explained, despite its historical commitment to the notion of substance, some contemporary ontological approaches discard such notion, as is the case of the ontology of processes (cf. Castro, 2008).

Beyond this, it is worth noting that to James (1907), "[t]o believe in the one or in the many, that is the classification with the maximum number of consequences" (pp. 61-62). On one hand, it is a proposition that evidently contrasts with Krägeloh's (2006) claim, according to which the scientist's beliefs would make any practical difference. On the other hand, the point reached by James matches Morris' (1997)

argument, whereby the ontological discourse concerns precisely the scientist's behavior, "the behavior of making and acting on (or in accord with) ontological assumptions" (p. 538). Disregarding this type of human variable – as well as the notion that underlying every scientific proposition, there is a metaphysical orientation, thus, a particular world view – is not typical of pragmatism, but of another tradition in philosophy of science: positivism (Burt, 1924/2003).

In Burt's (1924/2003) words, it is simply not possible to avoid metaphysics, or, more specifically, "there is no escape from metaphysics, that is, from the final implications of any proposition or set of propositions. The only way to avoid becoming a metaphysician is to say nothing" (p. 227). On this point it is worth considering the wise observation by Burt:

[T]here is an exceedingly subtle and insidious danger in positivism. If you cannot avoid metaphysics, what kind of metaphysics are you likely to cherish when you sturdily suppose yourself to be free from the abomination? Of course it goes without saying that in this case your metaphysics will be held uncritically because it is unconscious; moreover, it will be passed on to others far more readily than your other notions inasmuch as it will be propagated by insinuation rather than by direct argument. (p. 229)

The positivist ideal of scientific knowledge absolutely free from metaphysical considerations differs from the pragmatic perspectives of James (1907) and Dewey (1931/1981), which states that pragmatism implies a metaphysical discourse. When it comes to approximations between radical behaviorism and the pragmatic philosophy, this seems to be a crucial difference. A partial appropriation of pragmatic philosophy, which extract from it only its effectiveness criterion and neglects its metaphysical assumptions may mischaracterize pragmatism, with relevant consequences for its relations with behavior analysis.

Final remarks

In this analysis, we have discussed how the appropriation of some isolated aspects of pragmatism does not seem to be sufficient to justify the proximity between behavior analysis and this philosophy. Expanding the discussion about beliefs that make practical changes in our lives, as discussed in part I of this analysis, pragmatism does not seem to eliminate discourse on world view: instead, it proposes a particular metaphysics (Dewey, 1931/1981); pluralist, according to James (1907), contextualist, in Pepper's (1942/1961) interpretation, or indeterminist, in the conception

of other scholars (cf. Laurenti, 2008; Moxley, 2001, 2007). In other words, world views are beliefs about the nature of the world and they should, as James restated, be evaluated according to their practical consequences.

Neglecting these aspects of pragmatism not only does make behavior analysis move away from a pragmatic tradition, but it can also make it closer to doctrines diverse and antithetic to pragmatism, such as positivism and mechanism. More than that, considering that pragmatism's theory of truth implies coherence as one of its criterion, we could wonder how it does apply to a discussion of the world view of behavior analysis. From a pragmatic point of view, it does not seem coherent to sustain that as long as behavior analysts keep on "getting things done efficiently" their world views do not matter, for such a claim seems to imply an uttermost dichotomy between belief and action that is blurred by pragmatism. One's beliefs, that is, world views, are decisive for one's action over the world. That is why a whole, thorough understanding of pragmatic philosophy is so important.

Focusing on the title and subtitle of the compilation of James' seminal lectures on pragmatism, it is possible to find a providential clue on why it is relevant to conceive pragmatism in its wholeness: "Pragmatism: a new name for some old ways of thinking". From the start of this book, James (1907) announced a series of features of other philosophical traditions that are shared by pragmatism. So if it is precisely this gathering of several philosophical affinities that constitutes pragmatism, it is not hard to comprehend why a partial assimilation of this philosophy, besides mischaracterizing it, can easily incur in an unexpected commitment to another philosophical tradition. It is precisely in this sense that behavior analysts, appropriating the pragmatic philosophy only partially, might be, advertently or not, subscribing to propositions that are antithetical to pragmatism.

Exploring different facets of pragmatism as a method, as a theory of truth, as a world view may clarify eventual affinities of radical behaviorism with this philosophy. Highlighting these affinities is useful to behavior analysis because it could approximate it to contemporary debates about scientific activity, emphasizing the variety of kinds of discourses that are part of scientific knowledge (epistemological, ontological, ethical, political), and criticizing an aseptic view of science based on the idea of neutrality (Kuhn, 1962).

A pragmatic interpretation of behavior analysis is one among others. Given all that has been argued in these two essays, the final conclusion is that this is a useful, consistent, auspicious interpretation. A pragmatic approach to behavior analysis would lead such science "to its ultimate consequences", implying a reassessment

about truth criteria and world views. Indeed, it provides a philosophy of consequences for a science of consequences.

References

- Barnes-Holmes, D. (2005). Behavioral pragmatism is a-ontological, not antirealist: A reply to Tonneau. *Behavior and Philosophy*, 33, 67-79.
- Burt, E. A. (2003). *The metaphysical foundations of modern science*. Mineola, NY: Dover Publications. (Original work published in 1924)
- Carr, E. G. (1993). Behavior analysis is not ultimately about behavior. *The Behavior Analyst*, 16, 47-49.
- Carrara, K. (2004). Causalidade, relações funcionais e contextualismo: algumas indagações a partir do behaviorismo radical [Causality, functional relations and contextualism: some questions from radical behaviorism]. *Interações*, 9, 29-54.
- Castro, S. (2008). *Ontologia* [Ontology]. Rio de Janeiro: Jorge Zahar.
- Delprato, D. J. (1993). Behavior analysis and S. C. Pepper's other mechanism. *The Behavior Analyst*, 16, 51-53.
- Dewey, J. (1981). The development of american pragmatism. In J. J. McDermott (Org.). *The philosophy of John Dewey* (pp. 41-58). Chicago: The University of Chicago Press. (Original text published in 1931)
- Flanagan, Jr, O. J. (1980). Skinnerian metaphysics and the problem of operationism. *Behaviorism*, 8(1), 1-13.
- Hayes, S. C., Hayes, L. J., & Reese, H. W. (1988). Finding the philosophical core: A review of Stephen C. Pepper's world hypotheses: A study in evidence. *Journal of the Experimental Analysis of Behavior*, 50, 97-111.
- James, W. (1907). *Pragmatism: A new name for some old ways of thinking*. New York: Longmans, Green, and Co.
- James, W. (1912). *The will to believe and other essays in popular philosophy*. New York: Longmans, Green, and Co. (Original text published in 1896)
- Krägeloh, C. U. (2006). Pragmatism and a-ontologicalism in a science of behavior. *The Behavior Analyst Today*, 7(3), 325-334.
- Kuhn, T. S. (1962). *The structure of scientific revolutions*. Chicago: University of Chicago Press.
- Laurenti, C. (2008). Determinismo, probabilidade e análise do comportamento [Determinism, probability and behavior analysis]. *Temas em Psicologia*, 16(2), 171-183.

- Lopes, C. E., Laurenti, C., & Abib, J. A. D. (2012). *Conversas pragmatistas sobre comportamentalismo radical: Mundo, homem e ética* [Pragmatic conversations about radical behaviorism: World, humankind and ethics]. Santo André: Esetec.
- Marr, M. J. (1993). Contextualistic mechanism or mechanistic contextualism?: The straw machine as tar baby. *The Behavior Analyst*, 16, 59- 65.
- Morris, E. K. (1988). Contextualism: The world view of behavior analysis. *Journal of Experimental Child Psychology*, 46, 289-323.
- Morris, E. K. (1993a). Behavior analysis and mechanism: One is not the other. *The Behavior Analyst*, 16, 25-43.
- Morris, E. K. (1993b). Mechanism and contextualism in behavior analysis in behavior analysis: just some observations. *The Behavior Analyst*, 16, 255-268.
- Morris, E. K. (1997). Some reflections on contextualism, mechanism and behavior analysis. *The Psychological Record*, 47, 529-542.
- Moxley, R. A. (2001). Sources for Skinner's pragmatic selectionism in 1945. *The Behavior Analyst*, 24, 201-212.
- Moxley, R. A. (2007). Ultimate realities: Deterministic and evolutionary. *The Behavior Analyst*, 31(1), 59-77.
- Pepper, S. C. (1961). *World hypotheses: Prolegomena to systematic philosophy and a complete survey of metaphysics* (4^a ed.). Berkeley: University of California Press (Original work published in 1942)
- Rorty, R. (1979). *Philosophy and the mirror of nature*. Princeton, NJ: Princeton University Press.
- Shull, R. L., & Lawrence, P. S. (1993). Is contextualism productive? *The Behavior Analyst*, 16, 241-243.
- Skinner, B. F. (1953). *Science and human behavior*. New York: Macmillan.
- Skinner, B. F. (1974). *About behaviorism*. New York: Knopf.
- Wilson, H. V. R. (1974). On causation. In S. Hook (Org.). *Determinism and freedom* (pp. 237-243). New York: Macmillan. (Original text published in 1958)

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