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Nazım GÖKEL

Yrd. Doç. Dr. | Assist. Prof. Dr.

7 Aralık Üniversitesi, Fen-Edebiyat Fakültesi, Felsefe Bölümü, TR
7 Aralık University, Faculty of Arts and Sciences, Philosophy Department, TR

ngokel@yahoo.com

ORCID: 0000-0003-4356-8563

Behaviorism: Dead or Alive?

Abstract

Behaviorism, both as a psychological research program and a philosophical doctrine, was once a very popular and promising theory, the extension of which had a great impact on various fields such as socio-political theory and education. Both behaviorist movements actually shared something in common, which is to bring the downfall of the Cartesian metaphysics, in which the mental is understood as something essentially private and subjective. In this work, first I will briefly go over the general circumstances before the rise of behaviorism and the challenge of behaviorism to the Cartesian metaphysics. Later on, I will provide some of the technical details of philosophical behaviorism. In the last section, I will summarize some of the famous criticisms of behaviorism. I will argue for the claim that despite what Putnam and others thought, behaviorism does not seem to be a weak theory at all. On the contrary, I think that Putnam's criticisms could only show how badly behaviorism is misunderstood and caricaturized. Finally, I will talk about possible theoretical responses to Putnam's criticisms, responses that could easily be launched from a Rylean or Wittgensteinian perspective.

Keywords

Mind; Cartesian Metaphysics, Behaviorism; Introspection, Putnam.

Behaviorism: Dead or Alive?

Having its historical roots back to J. B. Watson's revolutionary perspective and works in the beginning of the twentieth century, behaviorism made an appearance in the psychology literature as a methodological reaction to "the subjective and unscientific character of introspectionist psychology" (Kim 1996: 25),¹ and, alternatively, as a new way of conducting psychological experiments. According to Watson's conjecture, it was impossible to derive any scientific information from a set of heavily unreliable and extremely subjective data about mental life and consciousness. Therefore, psychology, as a branch of science, must give up dealing with the psychoanalysis of inner mental episodes and consciousness, and it must be concerned with only "publicly observable human and animal behavior" (Kim 1996: 25). Influenced by Pavlov's stimulus-response model of explanation, Watson suggested that instead of taking conscious experience as the proper object of psychology, we must develop, in opposition to the introspectionist approach, a new research program called "Behaviorism", which should investigate the observable facts about the adjustment of organisms, man and animal alike, to their environment and the connection between stimuli and responses of those organisms in a given environmental condition (Watson 1913: 167). In this respect, the proper objects of psychology, Watson and other behaviorists firmly believed, must be something that is objective, testable and measurable. As thus understood, the initial goal of psychology is to discover general laws of behavior by means of which one can control behavior and make exact predictions about behavior (Watson 1913: 158). Behaviorism, later to flourish and be called "behavioral science", was found to be successful in explaining a wide range of human and animal psychology, especially about memory and learning history (Kim 1996: 25; 41-44).

On the other hand, behaviorism, as a philosophical doctrine, shares something in common with its closely related cousin "psychological behaviorism". Both behaviorist movements objected to the Cartesian metaphysics, in which the mental is understood as something "essentially private and subjective" (Kim 1996: 26), on the grounds that knowing other minds turns into a big astonishing enigma. In this theory, only a single Cartesian soul/mind has direct and privileged access to the perceptual and cognitive occurrences in his own mind, and, for this reason, the rest of society of souls/minds has no conceptual or empirical evidence/tool to rely on, except his verbal and non-verbal behavior, so as to ascribe experience and thinking to him. The problem with this view, many philosophers and psychologists maintain, is that the Cartesian notion of mentality

¹ In this essay, my primary goal is to present a very concise overview of philosophical behaviorism. Therefore, I will leave out the discussion of methodological behaviorism, psychological (radical) behaviorism and behaviorism as a socio-political theory. For methodological behaviorism, see John B. Watson, "Psychology as the Behaviorist Views It," *Psychological Review* 20, no. 2 (1913), pp. 158-77. For psychological behaviorism, see Burrhus Frederic Skinner, *Science and Human Behavior* (New York: Free Press, 1965). For behaviorism as a socio-political theory, see Burrhus F. Skinner, *Walden Two* (New York: Macmillan Co. 1962). For the real time influence of Skinner's behaviorism as a socio-political theory in *Walden Two*, see various online and printed materials about Twin Oaks Community in Virginia in the U.S.A. For a general history and technical elaboration of behaviorism, see John Staddon, *The New Behaviorism* (New York: Psychology Press, 2014), pp. 3-145.

simply makes it impossible to know whether a being/system is a brute automaton or it has a mind (Kim 1996: 26; Campbell 1984: 63). Much like in Wittgenstein's example of "the beetle in the box", each soul/mind is only permitted to know/look into his own mind, and does not have the remotest idea of what other souls are thinking or perceiving, and what is worse, he could not know whether there exist other souls. This gives rise to a very difficult question: How could anybody ever come to understand the meaning of the word "pain" and be able to express his pain in a society of mind successfully? The Cartesian metaphysics of mind transforms this very basic and obvious fact about social communication into a big riddle. This was unacceptable, for a great number of people. Behaviorists were probably tired of the Cartesian world where the magic tricks have been used endlessly/abundantly and they could not bear with more magical ideas. The idea of a single Cartesian soul, divided into two, the former of which is engaged in sensing and thinking about something, the latter of which enjoys the privilege of being the only audience to watch the play of sensations and thoughts performed by the former, was a big negative stimulation for the behaviorist community (Kim 1996: 26-27).²

In opposition to the Cartesian idea of an inner private theatre, behaviorism puts forward the claim that each mental phenomenon, however the degree of complexity, can be explained "by reference to facts about publicly observable behavior" (Kim 1996: 28). So, for behaviorists, any mental state, intentional or phenomenal, is a disposition, or better, family/complex of dispositions, to exhibit a certain kind of behavioral patterns in response to a certain kind of stimulus conditions (Ryle 1949, 2000: 43).³ Accordingly then, to have a fear (of some sort) is just to acquire a complex disposition; and acquiring a disposition, in one sense of the term "disposition", "is just having come true some conditional statements describing my tendency to behave" (Campbell 1984: 72). The following example is a case in point:

A subject, S, is in fear of flying (in the state of aerophobia)=_{def.} If S is seated in an airplane ready to take off, then S, under normal conditions, will typically exhibit certain kinds of behavioral patterns (e.g. screaming desperately, crying out loud, performing gestures of such-and-such kinds, when asked "What is the matter (with you)?" he will typically respond, "Flying is dangerous and not natural for human beings", "I do not like flying", etc.)⁴

The example is meant to capture the project of logical/analytical behaviorism. According to this theory, "any meaningful psychological statement, that is, a statement describing a mental phenomenon, can be translated, without loss of content, into a statement solely about behavioral and physical phenomena" (Kim 1996: 29). Logical/analytical behaviorism, having its theoretical origins from logical positivism,

² The idea is commonly known as "Cartesian inner private theatre".

³ Ryle here states that possession of a dispositional property "is not to be in a particular state, or to undergo a particular change; it is to be bound or liable to be in a particular state, or to undergo a particular change, when a particular condition is realized." Cf. Armstrong, David. "The Nature of Mind." In *Readings in Philosophy of Psychology*, Vol. 1, edited by Ned Block (Cambridge, Mass.: Harvard University Press, 1980a), p. 194.

⁴ I owe this example to Stephen Voss.

holds on to the big project of translation through which one will get clear about the implications of the mental-causal talk and explain the mental properties in terms of behavioral dispositions, while, at the same time, avoiding any reference to inner private episodes of individuals. At the end of this translation project, logical/analytical behaviorism hopes to demonstrate, at least in principle, that behavior is not only a sign of mentality, but also it constitutes mentality. So, “having a mind just is a matter of exhibiting, or having the propensity to exhibit, certain appropriate patterns of observable behavior” (Kim 1996: 26).⁵

What is disposition to behave, and how does it differ from cause of behavior? In passing, I shall say a few words about this difference. Let us go over some examples about disposition first. Consider dispositional properties such as “being soluble in water”, “being magnetic” and “being fragile”. Take the definition of fragility for instance. Any object O is fragile, iff O is easily broken or damaged, under normal conditions, whenever some suitable external object strikes/hits O. In a similar fashion, behaviorism defends a dispositional account of mental states. For instance, being angry, for a behaviorist, does not signify an inner mental episode that causes angry-behavior patterns; rather, it is a disposition (Campbell 1984: 65) or complex of dispositions to exhibit angry-behavior patterns when the circumstances are normal and right set of stimuli obtain. But, why does a behaviorist believe that a mental state, anger say, is not the cause of angry behavior? First, behaviorism commits to the idea that “the connection between mind to behavior is too close to be causal” (Campbell 1984: 65). For instance, writing a poem, as a behavior, does not really indicate the ending of mental activity for which the behavior is the end-result. “Writing a poem ... is itself a piece of mental activity” (Campbell 1984: 65).⁶ Campbell nicely illustrates this aspect of behaviorism:

What is out of the question is that mental events, processes, or conditions should play a causal role in producing the behavior which is a manifestation of *that* mental event, process, or condition. To call the behavior a *manifestation* of the mental state is already misleading. The behavior *is* the mental state,⁷ to the extent that anything categorical constitutes a mental state. The mental state is never a cause of its own behavioral elements, just as nothing is cause of itself (Campbell 1984: 66).⁸

⁵ This statement might be a source of confusion to the extent that it gives rise to the suspicion that all behaviorists say that any given mental state is either behavior or behavioral disposition. However, the statement only stands for the different approaches taken by early behaviorists and later behaviorists. Early behaviorists claim that the mental states are essentially publicly observable behaviors associated with those mental states. Later behaviorists like Ryle, on the other hand, identify mental states with dispositions to behave. So, later behaviorists can give an account of cases where a mental state is not exhibited in a behavior.

⁶ I borrowed Campbell’s example about writing a poem.

⁷ It does appear to me, contrary to Campbell’s interpretation, that it is wiser to identify mental states with dispositions to behave rather than with actual behaviors.

⁸ Italics belong to Campbell. The point is related to the distinction drawn between reasons and causes. Before Davidson’s seminal essay “Actions, Reasons and Causes”, the Wittgensteinian approach was very orthodox. According to this approach, explaining action with reference to

For behaviorism, it is a fundamental error to lead into the direction of common thought and ordinary language in which mental events are always taken as the causes of behaviors. The fundamental error, for behaviorism, seems to be grounded on the wrong attitude to analyze mental descriptions. Take the sentence “He built a house”. From this sentence, one is easily led to believe that there is “a sequence of public events in a public space involving physical rearrangements” (Campbell 1984: 68). Now, take the sentence “He built a fantasy”. This time, people wrongly think that the statement describes “a sequence of private events in a private space involving mental rearrangements” (Campbell 1984: 68).⁹ Behaviorists believed that this way of understanding mental events eventually lead one to postulate a spiritual mind for which mental objects like anger, pain, etc., fills its states or serve as its spiritual/psychological contents. So, instead of leading into a dualist metaphysics, they preferred to understand mental descriptions not as referring to private episodes but to refer to tendencies, or dispositions to behave in a public space (Campbell 1984: 68).

So far, I presented a very brief sketch of behaviorism. Now, I would like to discuss some of the famous charges pressed against behaviorism. First of all, it may be true that behavior is the most evident sign of mentality, especially in the case of mental states such as being in pain, being angry, being thirsty, etc. But, it may be completely another matter to describe higher cognitive states. For instance, how can a behaviorist provide a behavioral description of beliefs like “there is no largest prime number”; “an independent judiciary system is essential to a democratic government”? (Kim 1996: 32)¹⁰ These are states that are difficult to describe in behavioral terms. For the explanation of these kinds of states, behaviorists, in general, apply for “verbal behavior”. So, a behaviorist description for a belief includes more or less like the following:

“S believes that p =_{def.} If S is asked, “Is it the case that p ?” S will answer, “Yes, it is the case that p ” (Kim 1996: 32)

The difficulty, this time, for a behaviorist is to give a pure behavioral/physical description of verbal behavior without presupposing any psychological notion such as “understanding”, “meaning”, “intending to mean that p ”, etc. It does seem, for many philosophers, however, that this is almost an impossible task, because the idea of verbal

reasons indicate different kinds of descriptions under which action can be evaluated as “intentional” or “non-intentional”. This way of explaining the phenomena of intentional actions radically differs, according to Anscombe, from the way of explaining the causation between two events, because while the former depends on conceptual/logical relations, the latter depends on contingent/causal relations that hold between two events. As opposed to this tradition, Davidson developed the argument in order to demonstrate that rational explanation is a form of causal explanation. In this regard, his essay was a turning point in the twentieth century philosophy of mind that helped change the way mental states were understood back then. See Donald Davidson, “Actions, Reasons and Causes.” In his *Essays on Actions and Events* (Oxford: Clarendon Press; New York: Oxford University Press, 1980). See also Gertrude Elizabeth Margaret Anscombe, *Intention* (Cambridge, Mass.: Harvard University Press, 2000).

⁹ Both examples belong to Campbell.

¹⁰ Both examples belong to Kim.

behavior is actually a cluster term for all these psychological conditions and events. Therefore, behaviorism, for some people, fails to explain at least higher cognitive states.¹¹ If higher cognitive states are part of mentality, and if behaviorism can't find a way to explain those states, then it follows that the thesis of behaviorism that behavior is constitutive of mentality is wrong. The argument, however, rests on the possibility of giving an account of language without presupposing psychological notions. Nevertheless, this task of giving an account of language without the baggage of psychological notions may not be a completely hopeless and impossible task. Wittgenstein and Ryle, for instance, have a way of explaining verbal behavior that excludes private and introspective episodes one is supposed to experience during thought (Wittgenstein 1953; Ryle 1949).

The difficulty of explaining verbal behavior may seem to be only the tips of the iceberg, and the real challenge might be something larger and insurmountable. As a second, and perhaps the most powerful and celebrated, criticism of behaviorism, comes Putnam's attack on behaviorism (Putnam in Block 1980a: 24-36). Putnam invited people to re-consider the behaviorist construal of the relation of behavior and mentality. In Putnam's counter-examples for behaviorism, we have a community of super-Spartans who train themselves, for some ideological reasons, not to exhibit any sort of pain-behavior even though they feel pain. Also, Putnam suggests that there could be perfect actors who do not feel pain when actually hit in the face, either due to some neural condition or due to pain-killing drugs, and yet still can manifest the same patterns of pain-behavior (as we do when we are in pain). At the end, Putnam and many others came to the conclusion that "not only can there be pain-behavior without pain, there can be pain without pain-behavior or any disposition thereto" (Campbell 1984: 73-74). The argument is taken, for many people, to refute behaviorism.

I tend to believe, nonetheless, that a good behaviorist can accommodate both of these cases within the conceptual borders of behaviorism. Let us recall behaviorism. A behaviorist begins with the definition of "disposition". Any object, O, is fragile, iff, O is easily broken, under normal conditions, whenever some suitable external object hits O. The definition is meant to specify that not all kinds of external objects are eligible to break O. For instance, a feather would not have any effect on O since it does not have enough power to break anything. So, a feather is not a suitable external object to break O. Also, not in all conditions, O can be broken. For instance, the external object, although it may carry enough force to break O, say a piece of glass, may not be able to break the same object under different conditions, like in the water for instance. So, we need to specify the conditions (whether normal or not) and the agent object (whether it is eligible object to break anything, and so forth) if we want to produce a definition about fragility. Then, by the same token, a behaviorist can provide a dispositional

¹¹ Contrary to Kim's conviction, this argument may not be the reason for drawing people away from behaviorism to functionalism. For both behaviorism and functionalism rely on verbal and non-verbal behavior as a criterion of mentality. One can point out that the best way to understand whether a subject believes that there is no largest prime number is to ask him and wait for his verbal response. The Turing Test, which is generally cited as a functionalist test, can be understood as a behavioral test for mentality as well. I owe this point to Stephen Voss.

account of mental states with a special focus on normal circumstances. Any individual/subject, S, is thirsty, iff S has the tendency/disposition to exhibit behavioral patterns (e.g. water-searching behavior, putting his tongue out of mouth, etc.,) and when water is available, under normal circumstances, he will be drinking some. Then, there is a good chance that we can observe that S will be exhibiting water-related behavioral patterns under normal conditions (e.g., when there are not any environmental/social pressures preventing the individual from exhibiting his water-related behavior, or when there is not any physical abnormality that makes his having the disposition to exhibit water-related behavior temporarily or permanently unavailable). In the case of super-Spartans, we can observe social pressures imposed on any single individual living in the community of super-Spartans. It is their moral code not to exhibit any pain-related behavior, but Putnam insists that they are still in pain (internally). So, the concept of pain still applies to them. At this point, a good behaviorist can say that it is still possible for any member of this society to exhibit pain-related behavior when, for instance, social pressures are removed from his environment. So, it does not mean that super-Spartans have found a way to shut off their pain sensations completely; they are still in pain and this pain can be exhibited, for instance, when no super-Spartans are around (that is to say, when the social conditions are normal).¹²

As for the case of perfect actors, we have this time abnormal physical conditions, conditions like the lacking of pain-fibers or taking pain-killing drugs. So, it may be the case that a perfect actor, due to some neural condition or pain-killing drugs, may undergo a typical pain-causing stimulus during the play and he may produce typical pain behavior, indistinguishable from those individuals who exhibit the same kind of pain behavior. But, if I was a behaviorist, I would say that since the conditions are not physically normal and the same, then even though the actor and others are stimulus-behavior equivalent, the actor is not exhibiting a pain behavior. He only pretends to be in pain, and pretending is only another kind of behavior. The question, of course, for a good behaviorist is to distinguish the act of pretending to be in pain from the real behavioral situation of being in pain. However, this should not be a big problem for behaviorists. If a behaviorist is allowed to observe the behavior of those perfect actors for a longer period, it will be a matter of time for them to detect that there is something physically wrong with those perfect actors.¹³

For these reasons, I do not really understand how Putnam's curious cases of super-Spartans and perfect actors can refute behaviorism. If they do something, I guess, they could only show us that, if you find abnormal or extreme cases, then you may easily spot an error about any general theory. However, if a behaviorist is allowed to incorporate the clause about "normal physical/social conditions", then I do not see any threat posed by Putnam's counter examples of super-Spartans and perfect actors.

There is really some grain of truth to the behaviorist way of describing mental states. Epistemically speaking, behavioral data is probably the most powerful evidence

¹² Assuming, of course, that the code is binding for each member of the super-Spartan community when and only when super-Spartans are around.

¹³ For a full discussion of dispositions, see Alexander Bird, *Nature's Metaphysics: laws and properties*. Oxford: Clarendon Press; New York: Oxford University Press, 2007.

to ascribe mentality to beings/systems. At one point, when we want to understand the level and the degree of intelligence and consciousness of creatures we interact with, behavior seems to be the first, and arguably the most crucial, touchstone by which judgment about the intelligence and mentality of other creatures is made. Moreover, to distinguish a mental state from another, say “fear” from “excitement”, we often apply to bodily actions associated with those mental states (Campbell 1984: 75).¹⁴ So, behaviorism, in a way, was in the right track regarding the analysis of correlations that often hold between mental states and behaviors; yet, later it was found to be inadequate to explain the real nature of having a mind, something that is the internal cause of intelligent and conscious behavior.

¹⁴ The example about fear and excitement belongs to Campbell.

Davranışçılık: Ölü mü Diri mi?

Öz

Hem psikolojik bir araştırma programı hem de bir felsefi doktrin olan davranışçılık, bir zamanlar çok popüler ve umut vaat eden bir kuramdı, onun büyük etkisi ise sosyopolitik kuram ve eğitim gibi birçok farklı alana uzanıyordu. Her iki davranışçılık kuramının ortak yönü ise zihinselliğin öz itibarıyla özel ve öznel olarak anlaşıldığı Kartezyen metafiziğin çöküşünü hazırlamaktı. Bu çalışmada, öncelikle davranışçılık öncesi genel duruma ve davranışçılığın Kartezyen metafiziğe başkaldırısına kısaca değineceğim. Daha sonra, felsefi davranışçılığın bazı teknik detaylarını analiz edeceğim. Daha sonra, davranışçılığa yöneltilen bazı meşhur eleştirileri özetleyeceğim. Son bölümde ise, Putnam ve diğerlerinin aksine davranışçılığın hiç de öyle zayıf bir kuram olmadığını savunacağım. Tam aksine, benim düşünceme göre Putnam'ın eleştirileri sadece davranışçılığın ne kadar kötü anlaşıldığını ve karikatürize edildiğini gösterebilir. Son tahlilde, Ryleci veya Wittgensteinci bir perspektiften hareketle Putnam'ın eleştirilerine karşı olanaklı teorik cevaplardan bahsedeceğim.

Anahtar Kelimeler

Zihin, Kartezyen metafizik, Davranışçılık, İçebakış, Putnam.

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