6.0 Behaviourism - a definition

Behaviourism is the view that mental states are behavioural dispositions

6.1 Distinguishing Philosophical (or Analytic) behaviourism from Psychological (or Methodological) behaviourism.

In philosophic terms, it is usually asserted as a conceptual truth: that the concept of a mental state (such as desire for coffee) is one and the same as the concept of being disposed to drink coffee if coffee is available.

Note that behaviourism is, strictly speaking, not necessarily a materialist position: one can hold that a non-physical state is disposed to cause a physical action in the body when presented with coffee. Of course, this dualistic behaviourism faces the same old problem: the causal closure of the physical world.

Here’s an example: consider a super-secret person who didn’t want anyone to know their beliefs or desires, so they went around acting opposite to their beliefs and desires. Is this a refutation? No, because in this case, they just have an overriding desire to hide their beliefs.

6.1.1 The path to Behaviourism

6.1.1.1 Dispositional Properties

The thesis of materialism only states that mental states are determined (fixed) by physical states. It has yet to say what kind of physical states are mental states, or how physical states realize mental states.

Behaviourism offers one account of what kind of physical stuff determines psychology: i.e. highly sophisticated behavioural dispositions of purely physical bodies.

Note that the behaviourist is not claiming that there is some other property of being a disposition that is superadded to the physical states to realize the mental. A glass is fragile iff it is disposed to break when dropped, but the glass’s fragility is determined (fixed) by the chemistry of the glass. Likewise, another object (such as a rubber ball dipped in liquid nitrogen) can be fragile and have a very different chemistry. In this way, the chemistry realizes the disposition.

In the same way, the dispositions to act in such-and-such a way in such-and-such a condition is determined (fixed) by the neurophysiology of our brains (by hypothesis). Thus, the disposition to behave, which is conceptually identical with a belief, e.g., is realized by the neurophysiology of our brains.

6.1.1.2 A Truism
There is an intimate link between my desire for beer and beer-seeking behavior.

More importantly, according to our ‘folk’ psychology: A person will typically behave in such a way that if their beliefs are true, their desires will be satisfied.

This gives strong motivation for the behaviourist position: On the face of it, it is the essence of mental states to show up in behaviour in appropriate circumstances. – more importantly, acknowledging these connections is part and parcel of understanding what it is to be a mental state (i.e. could something really be a desire for beer if it was never the case that the person would engage in beer-seeking behaviour?)

Note the essential claim: essential (as in essential property (i.e. Descartes’ essential properties of res cogitones and res extensia) are generally thought to be necessary.

One obvious way to accommodate this conceptual connection is to hold that our concept of a mental state is such that we identify each mental state with the relevant disposition. (On a commonsense level: how do we know when someone is in pain? When they are moving away from the stimulus of their pain, when they are writhing, when they are seeking relief, etc. These are all behaviours that figure in the dispositional analysis of ‘pain’.)

6.1.1.3 Two theses of Behaviourism

Behaviourism accepts that:

(a) Mental states are not inner states of persons.
(b) what makes psychological claims true are the subject’s behavioural dispositions.

6.1.1.4 Stating behaviourism in terms of supervenience:

If Smith and Jones differ with respect to mental states, will they not differ with respect to behavioural dispositions?
If necessarily, then behaviourism follows.

6.1.2 Background Material

Behaviourism looks a little wacky, I admit, but it is less wacky than it first appears.

6.1.2.1 Private Language

If I say ‘the cat is one the mat’ that sentence can either be true or false.
What about ‘I think that the cat is on the mat’?
or ‘I have a pain in my foot’?
or ‘I have an itch in my foot’?
On what grounds are these last two sentences true or false?
This is the problem of meaning – how worlds, and by extrapolation or analogy, concepts get their meaning.

Quickly note the sense / reference distinction.

The private language argument – one of the most famous arguments in this century’s philosophy – purports to show that words get their meaning ‘through convention’.

In other words, words refer to things by the way they enter discourse – by their connection with what people are saying and doing, for instance, and by the way they (the words) affect what is said and done. How does my words get their meanings? Because I am involved in a language ‘game’.

Imagine a language... [That] is meant to serve for communication between builder A and an assistant B. A is building with building stones: there are blocks, pillars, slabs and beams. B has to pass the stones, and that in order in which A needs them. For this purpose they use a language consisting of the worlds “block”, “pillar”, “slab”, “beam”. A calls them out; –B brings the stone which he has learnt to bring at such-and-such a call.

-- Wittgenstein, Investigations §2

We could imagine that the language of §2 was the whole language of A and B; even the whole language of a tribe. The children are brought up to perform these actions, to use these words as they do so, and to react in this way to the words of others.

An important part of the training will consist in the teacher’s pointing to the objects, directing the child’s attention to them, and at the same time uttering a word; for instance, the world “slab” as he points to that shape... ...This ostensive teaching of words can be said to establish an association between the word and the thing. But what does this mean? Well, it can mean various things; but one very likely thinks first of all that a picture of the object comes before the child’s mind when it hears the word. But now, if this does happen— is it the purpose of the word?—Yes, it can be the purpose.... ...But in the language of §2 it is not the purpose of the words to evoke images.

But if ostensive teaching has this effect,—am I to say that if effects an understanding of the word? Don’t you understand the call “Slab!” if you act upon it in such-and-such a way?

-- Wittgenstein, Investigations, §6

The main point of the private language argument is this: What we say makes a difference in the world (i.e. in the actions of others). If what we said made no difference, it would have no meaning.

How, then, does this apply to mental events (e.g. sensations)?

Let us imagine the following case. I want to keep a diary about the recurrence of a certain sensation. To this end I associate it with the sign “S” and write this sign in a calendar for every day on which I have the sensation.—I will remark first of all that
a definition of the sign cannot be formulated.—But still I can dive myself a kind of ostensive definition.—How? Can I point to the sensation? Not in the ordinary sense. But I speak, or write the sign down, and at the same time I concentrate my attention on the sensation—and so, as it were, point to it inwardly.—But what is this ceremony for? For that is all it seems to be! A definition surely servers to establish the meaning of a sign.—Well that is done precisely by the concentration of my attention; for in this way I impress on myself the connexion between the sign and the sensation.—But “I impress it on myself” can only mean: this process brings it about that I remember the connexion right in the future. But in the present case I have no criterion of correctness. One would like to say: whatever is going to seem right to me is right. And that only means that here we can’t talk about ‘right’.

-- Wittgenstein, Investigations, §258

The essential thing about private experience is really not that each person possesses his own exemplar, but that nobody knows whether other people also have this or something else.

-- Wittgenstein, Investigations, §272

An ‘inner process’ stands in need of outward criteria.


The point of the argument to which Wittgenstein continually returns is that the ascription of meaning to a sign is something that needs a ‘criterion of correctness’. But what is that?

The criterion of correctness consists in there being some independent test for determining that a sign is being used correctly: the evidence must be public. And as shown in §258, merely checking one’s own sensations is not enough.

On the most uncontroversial reading: if a sign has meaning, it can be used wrongly. If it cannot be used wrongly, it has no meaning. When ascribing signs to inner sensations, it appears that Wittgenstein would hold that a sign cannot be used wrongly (because my own criteria for correctness is not enough).

6.1.2.2 Other motivation and advantages to behaviourism

6.1.2.2.1 Behaviourism can account for the unity of the mind and body.

6.1.2.2.2 Behaviourism can clearly define the separation of two separate minds (unlike substance dualism)

6.1.2.3 Disadvantages for Behaviourism

6.1.2.3.1 The commonsense claim that drove materialism was that the mind and body interact: for there to be interaction, there must be two things. If the behaviourist is correct, and mental states do not, as such, exist, there is only one thing. Therefore, they ultimately destroy one of their primary motivation.
6.1.2.3.2 They cannot explain the intentionality of the mental.

6.1.2.3.3 These are all manifestations of the same problem: the behaviourist denies the existence of inner states.

6.1.2.4 Here are some heroic efforts to rescue behaviourism from this last critique:

6.1.2.4.1 Dispositions are tremendously important in unfolding the nature of mental states:

When one believes in God (e.g.), one believes that even when one is asleep. When we speak of the mental state of believing that God exists, one may be tempted into thinking that there is some actual state that exists in the mind called ‘belief in God’.

On the behaviourist line, the belief in God is merely a disposition to act in certain ways in certain situations - the state need exist all the time for the belief to be real. Consider fragility: the fragility is supervenient on the molecular structure of the glass, so too, the belief is supervenient on the brain states. But the existence of such brain states is not important to the concept of the belief.

On the behaviourist line, “He drinks because he is thirsty” is closer to “the glass breaks because it is fragile” than “he falls because he is pushed”. On the last, one need to postulate two events, not the second, only one. Once this is understood, the temptation to postulate inner states is gone.

6.1.2.4.2 There is an asymmetry between my knowledge of my beliefs and your knowledge of my beliefs.

I might say ‘I am thirsty know’ without being actively engaged in beer-seeking behavior. What I know in this case is not that I am in a certain inner state, but that I have a certain disposition - if I were presented with a beer, I would drink it.

If I am able to make true statements based on no behavioural evidence (i.e. behavioural evidence is evidence that you would have access to as well) one usually concludes that there is some inner evidence (the sensation of thirst, e.g.) upon which that statement is based. But according to the behaviourist, this is false - it is based on the fact that we have ‘privileged access’ to our own dispositions, and this is knowledge that is not based on any inner states at all.

6.1.2.4.3 Multiple Realizability
To correctly apply the same predicate to a number of mental performances does not necessarily mean that they have some common feature in virtue of which the predicate can be applied.

We can apply, correctly, the word ‘game’ to a number of activities – and may never create a list of properties that all and only those activities share. Games share a ‘family resemblance’.

Now take a mental ‘state’ like ‘anger’. If I am angry with Jones, I may strike him, speak ill of him, work against his interests or simply ignore him. All of these are behaviours, and my anger is a disposition to any one of them (perhaps). In that sense, anger is a disposition to a medley of behaviour, which share a family resemblance.

In that way, not only are the dispositions multiply realizable at the level of the physical states, but also with respect to the which behaviours count for which dispositions.

6.1.2.5 Refutations

6.1.2.5.1 A poor refutation.

Behaviourism attempts to provide an analysis of mental states in terms of observed behaviour. But observation is mental, and therefore, the account is circular.

This refutation is no good, for many reasons, but primarily because what behaviours are observed have nothing to do with the conceptual analysis of mental states.

Other: Behaviorism seems to undermine our first person knowledge - this is not the unsurmountable, as pointed out above. 6.1.2.4.2 on page 24 (J & B, p. 33) “you’re fine, how am I?”

Second, the behavourists never delivered on the claim to analyse mental states in terms of behavior - there are many that escape their grasps. Here are two:

6.1.2.5.2 Two Challenges.

Suppose that someone asked me to do a math / logic problem in my head. How can the behaviourist give an account of this mental activity?
Let us assume that while I am calculating in my head, I show no relevant overt behavior at the time.

It appears that the Behaviourist must say that what is important is not what is going on during the calculating, but what I say once I am finished. If at t1 I am given a problem, then I fall silent for a while, and then at t2 I present the correct result. Then we can say that he did the calculation ‘in his head’.

But is doing a calculation really a disposition to fall silent for a length of time, and then produce the correct answer?

Isn’t it that when I am doing a calculation, I am experiencing mental, inner, events?

Wittgenstein said, in response to this sort of objection: “What if I said: It strikes him as if he had calculated.” - But isn’t this also a purely inner, mental event. - Calculating is a purely mental event, it is a species of thinking, but it is very, very hard to deny that the outward behaviour is not part and parcel of the behavior itself.

What about Dreaming? Some have even attempted to provide a behaviorist analysis of dreaming: according to which dreaming is a disposition to, after waking, tell certain stories of how things seemed to be.

There are two major critiques of this: first, telling one’s dreams may be part and parcel of the concept of dreams for a linguistic creature, but what about dogs? or very small children – Do they not dream? And they certainly have no disposition to tell stories upon waking.

Second, it sometimes occurs to us, while we are sleeping, that we are dreaming. Suppose, in a dream, I say ‘I am dreaming’. But since, on the behaviorist line, there is no such mental activity, the sentence is meaningless - it is a contradiction. It would be akin to saying ‘And then I suspended the law of non-contradiction’. But they still must hold (as I may be disposed to wake and say ‘I said that I was dreaming’) that the sentence did not, at the time, seem like nonsense. And that seems to falsify the behvaiorist’s claims that they were doing a conceptual analysis of our mental terms.

6.1.2.5.3 The Causal Problem for Behaviorists.

It is a long standing truth amongst metaphysicians that nothing can cause itself. It follows from this that the
causal relationship is essentially contingent (go over that again, if I need to).

This means that if two things are necessarily conjoined, they cannot be causally related - only logically.

Thus, If your itch is the disposition to scratch, the relationship that holds between the disposition to scratch, and the itch is one of identity. Identity is necessary, therefore, the relationship is not contingent, and therefore not causal.

But what, then, is the cause of the scratch? It is the same as in the case of fragility: it is that physical state which realizes the disposition.

And if we identify with the itch with that physical state, we are no longer behaviorists.

We have, then, three theses which appear incongruent:

1. Causal connections are essential contingent.
2. Mental States cause behavior.
3. There is a conceptual connection between being in a mental state and behavior.

The solution is to place the typical causal role - or the disposition to cause X - into the correctness conditions for the application of a concept. Take the case of poison: part of what defines poison as poison is its disposition to cause death or illness. If something did not cause death or illness upon ingesting, it would not be poison. Events are correctly labeled cases of ingesting poison precisely because they are events which are disposed to cause death or illness. But the connection between the event and getting ill or dying is contingent (suppose I take the antidote)

Therefore, mental events are like the event of ingesting poison: the cause of the behavior, like the cause of death, is a mental state, but the mental state gets labeled a particular mental state correctly in virtue of what behaviours it is typically disposed to cause.

Finally Objection: Impossibility of a 1-1 matching

Consider the belief that there is a tiger: is it identical with a disposition to run away? Maybe, but only if there is another belief that the tiger is dangerous, etc.

6.2 Methodological

Methodological behaviourism is (very roughly) the doctrine that the way to study the mind is not through introspection but through behaviour and the capacities for
behavior. We do not diagnose color-blindness on the basis of introspection, we do so on the basis of discrimination tests.

6.3 Revisionary

Revisionary behaviourists admit that there will never be a one-to-one mapping of our ordinary mental concepts onto behavioural dispositions, but so much for our ordinary mental concepts.

6.4 Conclusions:

(1) We cannot deny the existence of inner mental states.

(2) Outer behaviour is nevertheless, in some way, involved in the concept of mind.

6.5 Toward Functionalism

(Output States) Mental States cause behavior. And the disposition to cause a certain behavior is what identifies pain as opposed to an itch.

(Internal States) Second, according to the impossibility of a 1-1 matching of mental states to behavioral dispositions, the typical causes of our behavior will be mental state A + and number of other associated mental states.

(Input states) Third, there is an environmental component: movement towards beer only matters to a desire for beer if the beer figured causally in the desire.

Consider the case of seeing: you see a red ball in front of you, but there is a mirror between you and the red ball, which is poised at a 45 degree angle. There is another red ball to the right. Which red ball do you see? The one to your right - not the one in front of you, behind the mirror. Thus, the content of my visual representation is the red ball which is causally responsible for that visual representation.

This leads us towards a Causal theory of mind: mental states are states with typical causes and effects.