

## Class 2 - Behaviorism

### I. The rise of behaviorism

From the early seventeenth century through the nineteenth century, Cartesian dualism, and the pre-eminence of consciousness as definitive of the mental, dominated philosophical thought.

The most influential philosopher of the eighteenth century, Immanuel Kant, agreed with Descartes that the ability to reason distinguished humans from other animals, that minds were different in kind from bodies, and that our understanding of ourselves must be rooted in our conscious experience.

Developments in the nineteenth and early twentieth centuries started to erode the Cartesian view.

By 1980s, there were at least four major alternatives to Cartesian dualism, and many minor variations. Substance dualism is mostly regarded as dead.

The first sustained 20<sup>th</sup> century attack on Descartes' dualism came from a variety of sources (logical positivists, psychological behaviorists, linguistic philosophers) which we can loosely group together as behaviorists.

The positivists (e.g. Hempel) and the psychological behaviorists (e.g. Skinner) were united in their desire to dispense with metaphysical speculation in favor of concrete, observable scientific evidence.

The linguistic philosophers (e.g. Ryle and Wittgenstein) agreed that appeals to obscure internal processes were dispensable, and that we should explain behavior in terms of what is observable.

The methods of psychology, until the time of the positivists, relied almost exclusively on introspection. Freud, Adler, Jung, and William James all agreed with the Cartesian view that we have what Ryle calls privileged access to our mental states.

Introspective psychologists believe that we can know about our own minds best by reflection, and the only way to know about the minds of others is by their reports of their own mental states.

The increasing importance of unconscious mental states to psychological explanation eroded the Cartesian notion that the essence of mental states is their consciousness.

Ryle calls these channels tributary to the stream of consciousness.

True, the evidence adduced recently by Freud seems to show that there exist channels tributary to this stream, which run hidden from their owner. People are actuated by impulses the existence of which they vigorously disavow; some of their thoughts differ from the thoughts which they acknowledge and some of the actions which they think they will to perform they do not really will. They are thoroughly gulled by some of their own hypocrisies and they successfully ignore facts about their mental lives which on the official theory ought to be patent to them. Holders of the official theory tend, however, to maintain that anyhow in normal circumstances a person must be directly and authentically seized of his present state and workings of his own mind. (Ryle, *The Concept of Mind*, 1949: Barnes and Noble Everyday Handbooks, p 14)

The introspective psychologist can maintain his focus on consciousness by noting that even unconscious mental states may eventually become conscious.

Further, the way that psychologists tried to access the unconscious mental states was through introspection.

More threatening to introspective psychology is that there is no way to test or verify what some one says about their own mental states.

So, the Cartesian view resists proper scientific treatment.

Furthermore, the Cartesian, immaterialist view of humans was opposed by Darwin's work.

For the Cartesian, human beings are markedly distinct from other animals by virtue of their distinct ability to reason.

Darwin's work evoked an understanding of human beings as no different in kind from, as contiguous with, other animals.

We have more advanced faculties than lower animals, but our ability to reason can be explained according to evolutionary principles.

Thus, from the point of view of science, including scientific psychology, in addition to the problem of mind/body interaction, the Cartesian view is unsatisfactory because it allows for no testable hypotheses and no observational access to the mind.

## II. Hempel and positivism

Hempel was a member of the Vienna Circle, a group of scientists and philosophers whose members became known as logical positivists.

The positivists were inspired by an early work of Wittgenstein, the *Tractatus Logico-Philosophicus*.

The *Tractatus* promoted a program of constructing representations of the world out of its basic facts using logical tools.

Wittgenstein eventually disavowed the *Tractatus* and abandoned the positivist movement, though the positivists continued without him.

A central claim of the positivists was that the meaning of a statement consists in just the methods we use to verify the statement.

So, 'John has a toothache' means that John holds his mouth, and cries, and has swollen gums, etc.

It does not mean that there is some inner sensation, pain.

Note that the positivists are concerned with the meaning of psychological terms.

The focus on language was a central element of most twentieth-century philosophy.

That is, they wondered what 'pain' meant, rather than what pain is.

The positivists focused on the meanings of words because they were determined to rid philosophy of unscientific doctrines.

Certain words and sentences that look meaningful are in fact meaningless.

Their criterion for meaningfulness is verifiability.

Any term that is not verifiable is unscientific, and should be removed from proper scientific language.

Instead of trying to determine the nature of mental states, or whether the mind is material, the positivists thought that these questions were pseudo-questions.

The positivists, while inspired directly by Wittgenstein, were also clearly indebted to Hume.

Hume had argued that since everything we believe originates in sensation, that to determine if a term or sentence, or doctrine, is meaningful, we should be able to trace it back to original sense impressions.

Hume, in turn, owed a debt to Locke's program.

For Hume, terms like 'God' and 'soul' were meaningless, since they correspond to no sense impression.

For the positivists, such philosophical terms are meaningless because sentences which contain them have no hope of being verified.

By ascribing verifiable, behavioral meanings to sentences referring to mental states, the positivists turned such sentences into legitimate scientific hypotheses.

But, they eliminated any introspective aspect of mental state vocabulary.

### III. Behaviorism and positivism

The behaviorist approach to psychology, endorsed by the positivists, rejected introspection in favor of behavioral analysis.

The positivists interpreted terms which referred to mental states as shorthand for behavior.

The psychological behaviorists worked to describe and predict behavior.

Thus, Skinner writes that behavior is a function of environmental history.

If we knew all of a person's antecedent experiences we could predict with certainty his or her behavior.

Since we can not know all of a person's antecedent experiences, we can only predict with probability.

Still, in theory all that we need to know to predict a person's behavior is what happens to that person, and not what his or her inner, mental life is like.

Thus, for both the positivist and the behaviorist, psychology can be a legitimate science.

We can have observational access to people's minds, since mental states are just behaviors and we can watch people behaving.

We can test specific psychological hypotheses, since they are hypotheses about behavior.

Hempel agrees that what is left of psychology after introspection is eliminated according to positivist, verificationist, principles, is a physicalistic science.

Terms of psychology really just mean their behavioral manifestations.

Behavioral manifestations are physical.

So, psychology is a physical science.

### IV. The redundancy of introspective explanation

Hempel uses Neurath's analogy of a watch to argue that introspective explanations are eliminable, p 169.

When we say that a watch is running well, we use that statement as a shorthand for a much longer statement about the correspondence between the movement of the watch and the rotation of the Earth and its revolution around the sun.

Further, Hempel argues that when we use psychological terms, we use them as shorthand for complicated statements about people's behavior.

Just as we don't look for something called the running of the watch, of which its running is just a symptom, and we don't look for some ineffable basis for the temperature of a gas, we should not look for something ineffable inside us when we attribute to ourselves mental states.

Our mental states are just their physical manifestations.

Skinner considers, "He eats because he is hungry."

He calls this sentence a redundant explanation, p 162.

Skinner claims that there is one set of facts, and that it is not the case that a private inner state is a cause of a separate, observable action.

Skinner's claim seems false.

For, there is the mental state, of hunger, and the physical state, of the body desiring food.

Certainly, Descartes would posit two states.  
Descartes seems right, here, and so the burden is on Skinner.

Skinner's argument against there being two states is that reference to internal states is otiose.  
"It is obvious that the mind and the ideas, together with their special characteristics, are being invented on the spot to provide spurious explanations (162)."  
Skinner provides a range of examples: absent-mindedness, confused ideas, nervous breakdowns, shell shock.

All the examples posit an internal state to explain what seems in fact to lack a cause.  
Insofar as such explanations lack scientific, neurological basis, Skinner is right that they are spurious.  
Or, perhaps better, they seem unsubstantiated.

Additionally, parsimony is in the behaviorist's favor.  
If we really could predict all of a person's behavior without reference to introspective mental states, then we could at least eliminate them from behavioral science.  
The behaviorist's elimination of internal states makes his theory more limited in scope, though.  
The question is whether the advantages in simplicity outweigh the losses in explanatory power.

Against Skinner's argument, there seem to be different kinds of cases.  
Absent-mindedness does seem to be non-explanatory.  
But consider, "He screamed because he was in pain," as a result of a piano falling on his foot.  
The pain seems to be an essential element of the explanation.  
If the piano, for some reason, did not cause any pain, there would be little reason for the screaming.  
Pain seems to be a different kind of term from absent-mindedness.  
It seems to refer to something really causally efficacious.

Here is another way to put the question for Skinner: are inner states the causes of behavior, or identical to them?  
Do we think before we speak, or does our ascription of thought reflect only how we would have spoken?

## V. Troubles for behaviorism

Skinner argues for behaviorism because observable behavior is available for scientific analysis.  
But, what if internal states were available for scientific analysis, too?  
This question could be interpreted in two ways.  
One, what if brains and their states were available for scrutiny?  
Two, what if mental states were available for scrutiny?

Against the first suggestion, Skinner argues that detailed neurological information would be useless, p 161.  
But, Skinner provides no evidence that neurological information is irrelevant to explanations of behavior.  
And the evidence seems to favor at least some neurological explanations.  
We can affect how people think and behave by stimulating different areas of their brains.  
For example, psychiatrists are using transcranial magnetic stimulation to relieve depression.

The second suggestion seems even more damaging to Skinner's position.  
If we could develop a sophisticated theory which referred to mental states, then Skinner's behaviorism

would be doomed.

Is Skinner arguing against mental language, as he says he is?

Or, is he merely arguing against a bad science of mental language?

## VI. Logical behaviorism vs psychological behaviorism

Hempel distinguishes his logical behaviorism from psychological behaviorism.

Logical behaviorism is a claim about the logic of psychological statements, that they are verified in the same way as other physical statements.

Since statements about the phenomenal aspects of my mental states as revealed by introspection can not be verified, they have no meaning.

The psychological behaviorist similarly denies that internal mental states play any role in predicting and explaining behavior.

So far, the two theses appear to be the same.

The psychological behaviorist may say that the domain of research must be restricted to stimulus and response.

The logical behaviorist accounts for this restriction, which Hempel doesn't even want to call a restriction, by claiming that any statement which does not admit of verification is not a real statement.

I will proceed by ignoring the differences between the two positions.

## VII. The compatibility of behaviorism and dualism

Skinner and Hempel were concerned to form a scientific theory of human behavior which eschewed appeal to the inner workings of the mind.

A dualist might be willing to accept their accounts of human behavior, but hold that mental states are real, nonetheless.

The behaviorist could have the domain of behavior, and the dualist can retain a mental life.

This would be a major concession on the part of the dualist, of course, since the dualist would be admitting that mental states would play no causal role in behavior.

Still, as far as the psychological and logical behaviorist accounts are concerned, one could maintain at least an epiphenomenal account.

Epiphenomenalism says that there are irreducibly mental states, but they do not affect physical ones.

That is, there are mental states, but the direction of causation goes just from the physical to the mental. Epiphenomenalism is thus a weak form of substance dualism.

Later behaviorists, especially Ryle, strove to eliminate the compatibility of behaviorism and dualism, using logical and linguistic tools.

Ryle calls Cartesian dualism the official doctrine, and argues its proponents make a category mistake.

In short, the idea is that mental states are just another way of looking at physical (behavioral) states, and not an additional kind of state.

Also, in order to account for mental states which did not correlate with actual verifiable behavior, Ryle supplemented the original behaviorist account by identifying mental states with dispositions to behave.