5

BEHAVIORISM AND OTHER MINDS

Behaviorism: Introduction and Overview

Behaviorism is the view that everything there is to know or say about people with regard to their mental states can be known or said in terms of their observable behaviors (including verbal behaviors). We might go even further and say that, according to behaviorism, all there is to mental states are certain patterns of behavior or certain dispositions toward certain behaviors. 5.1

These simple statements of behaviorism can be broken down into three claims about mental states. The first is a claim about how to gain *knowledge* of mental states. The second is about the *meanings* of what we say when we use terminology like "belief" and "desire." The third is about what mental states *are*, that is, what their ultimate nature is. Philosophers describe these three claims like this: The first claim is *epistemological*, the second is *semantic*, and the third is *metaphysical*. 5.2

To illustrate these three claims, consider the emotional state of *feeling sad*. In particular, consider the sadness of another person. 5.3

Illustrating the knowledge claim: How do you know that this person is sad? The behavioristic answer is very close to the commonsense answer. You know by what they do and what they say. They frown, they cry, they mope. They say things like "I feel sad."

Illustrating the meaning claim: What does the word "sad" *mean*? What does one understand when one understands claims like "Mary is very sad

This Is Philosophy of Mind: An Introduction, First Edition. Pete Mandik.
© 2014 John Wiley & Sons, Inc. Published 2014 by John Wiley & Sons, Inc.

today"? The behaviorist says that the meanings of such words can be spelled out in terms of behavior. If we describe someone as being in a mental state of "sadness," then *by definition* we are describing them as having, or being prone to have, behaviors such as frowning, weeping, and moping.

Illustrating the metaphysical claim: There are two versions to this claim, one that we can call *reductionist* and the other that we can call *eliminativist*. The reductionist version says that sadness *just is* a kind of behavior or behavioral disposition. The eliminativist version says that, there really is no such thing as a mental state of sadness, and that what exists instead are certain behaviors or dispositions. We will have more to say about eliminativism in chapter 10. Throughout this chapter we will mostly focus on the reductionist version of the metaphysical claim.

5.4 One thing that is especially noteworthy about behaviorism is how well it is suited to *other* minds. As we already noted, the basic behaviorist view of how we know about other minds is very close to the commonsense view—our knowledge of the minds and mental states of other people is mediated by observed behavior. Since there's very little scientific evidence for the existence of telepathy, there is no serious reason for thinking we can directly know the minds of others. We have to go on what they do or say and figure it out from there.

5.5 While behaviorism seems well suited to other minds, it may not be well suited as a view of one's own mind. At least, this has been a complaint of many philosophers against behaviorism. Consider how you know of your own sadness. Which seems the more plausible of the following two accounts?

Account 1: You observe your own behavior and notice that you are frowning and weeping. You conclude that you are probably sad.

Account 2: You simply *feel* sad and thereby know your sadness. You don't need to rely on any observations of your behavior. You just introspect and directly feel the sadness inside of you.

Many people will regard account 2 as much more plausible and for that reason resist behaviorism. Relatedly, one of the most prominent objections to behaviorism concerns certain subjective aspects of the mind—qualia—that we allegedly know directly via introspection. We will explore such objections later in this chapter. First, however, we turn to behaviorism's history.

The History of Behaviorism

"Behaviorism" is a label for two distinct historical movements, one in psychology and one in philosophy. The psychological movement is called "psychological behaviorism," "methodological behaviorism," or "empirical behaviorism." The philosophical movement is called "philosophical behaviorism," "logical behaviorism," or "analytical behaviorism." These two movements emerged due to different historical forces and have different main topics of concern, although there is overlap. 5.6

The main topic of concern for psychological behaviorism is a question of what methods are best suited for conducting scientific research in psychology. Psychological behaviorism rebelled against introspectionism, which favored introspective methods for studying the mind. 5.7

The main topics of concern for philosophical behaviorism were semantic and metaphysical. Historically, philosophical behaviorism emerged from the philosophical movements of logical positivism and ordinary-language philosophy. Ordinary-language philosophers were suspicious of philosophical theses such as Cartesian dualism that were not stated in the terms of ordinary language. Logical positivists believed in a verificationist theory of the meaning of terms. On this theory, the meaning of a term is given by specifying the observable conditions that would verify its application. So, the meaning of "oxygen" is given by specifying the experimental conditions in which one can verify statements such as "there is oxygen present." 5.8

Behaviorism can be seen as a consequence of applying verificationism to mentalistic terminology like "belief" and "desire." At least insofar as we focus on other people, it is plausible that the only evidence we have for verifying whether they believe or desire something is evidence concerning their behavior. If we assume the verificationist theory of meaning, we wind up with the behaviorist view that behaviors are part of the very meanings of mentalistic terms like "belief" and "desire." 5.9

Despite the historical and topical differences between behaviorism in psychology and behaviorism in philosophy, there is considerable overlap, with commonalities in the answers given to the three core questions we mentioned earlier (the questions we identified as epistemological, semantic, and metaphysical). Nonetheless, the discussion in the present chapter will be primarily focused on philosophical behaviorism. 5.10

For any philosopher whom someone calls a behaviorist, controversy arises about whether that philosopher really is a behaviorist. Nonetheless, 5.11

it is worth mentioning some of the key philosophers who are often associated with behaviorism, namely Gilbert Ryle, Ludwig Wittgenstein, W. V. O. Quine, and Daniel Dennett. In the present section, we will focus on two especially influential figures from the early days of philosophical behaviorism: Gilbert Ryle and Ludwig Wittgenstein.

Ludwig Wittgenstein and the private language argument

5.12 One of the central ideas that behaviorists rebel against, an idea with close associations with Descartes and his dualism, is the idea of the privacy of the mental. This idea of privacy is that you can only have knowledge of your own mind. You can make an educated guess about other minds, but you can only know, or only know with certainty, your own mind.

5.13 One early and influential attack on this idea of privacy originates with Ludwig Wittgenstein in his *Philosophical Investigations*. Wittgenstein expresses his antipathy towards privacy in his "beetle in a box" passage (from section 293 of the *Investigations*):

> Suppose everyone had a box with something in it: we call it a "beetle." No one can look into anyone else's box, and everyone says he knows what a beetle is only by looking at his beetle. Here it would be quite possible for everyone to have something different in his box. One might even imagine such a thing constantly changing.
>
> Suppose the word "beetle" had a use in these people's language? If so it would not be used as the name of a thing. The thing in the box has no place in the language-game at all; not even as a something: for the box might even be empty. No, one can "divide through" by the thing in the box; it cancels out, whatever it is. That is to say: if we construe the grammar of the expression of sensation on the model of "object and designation" the object drops out of consideration as irrelevant.

5.14 In Wittgenstein's discussion, the beetle in a box is a metaphor for sensations, especially as sensations are thought of from a Cartesian point of view. From a Cartesian point of view, sensations are known only privately. Others can observe your behaviors, but only you can experience your sensations. From the point of view of someone on "the outside" your sensations might be very different or altogether missing. Such an idea is reminiscent of the thought experiments about zombies and inverted qualia that we discussed in chapter 3. For someone on the outside, you might as

well have no sensations at all. Wittgenstein's point here is even stronger: Even for you, you might as well have no sensations. You might as well have nothing in your "box."

5.15 How can we reach this even stronger conclusion? Isn't it just obvious that there might be private sensations, that there might be a "beetle in the box"? Part of Wittgenstein's point is to focus on the words we would use to even try to frame such a question, words such as "sensation." "Sensation" is a word in English, a language shared by multiple people. As such, "sensation" has a public use. But also as such, whatever private things accompany our public uses of "sensation," they might as well not be there—"sensation" would still have its public use.

5.16 This line of thinking gets developed in Wittgenstein's famous *private language argument*. The conclusion of this argument is that it is impossible for there to be a language that referred to private things, a language about sensations that could only be understood by a single person. Central to Wittgenstein's discussion is a thought experiment in which you try to imagine devising a language with which you could keep a diary of your own private sensations, a language that only you understand.

5.17 Suppose you devise a sign, "S," that you intend to stand for a particular sensation that you just had. You write "S" down in your private diary. Wittgenstein invites us to wonder how you would know that "S" did indeed stand for that sensation and not some other (or stood for nothing at all). According to Wittgenstein, in keeping this private journal, you will not ever be in a position to distinguish whether, on some occasion, you used "S" to correctly refer to some sensation as opposed to merely *seeming* to yourself to have used it correctly. And since, by hypothesis, this is supposed to be private, no one else will be in a position to distinguish between a correct use of "S" and a mere *seemingly correct* use of "S." Since there is no one—not you, and not anyone else—who can distinguish between a correct usage and an incorrect usage of a sign in this language, there is no such distinction. But, according to Wittgenstein, where one cannot grasp a distinction between correct and incorrect uses, there just is no place for a notion of correctness at all. The sign "S," as well as the rest of the signs in this so-called language, is thus meaningless, and this is no language at all. The conclusion that Wittgenstein urges is that there cannot be a genuinely private language. Languages, then, are necessarily public, as are the things that we refer to using language. Whatever sensations are, then, they cannot be private. For the word "sensation" has a public use, and that's the only use that matters.

Gilbert Ryle versus the ghost in the machine

5.18 The philosopher Gilbert Ryle, in his book *The Concept of Mind* (1949), parodies Descartes' view of the mind as a view of "the ghost in the machine." Descartes' solution to the mind–body problem is to think of the mind as a ghost that inhabits our body (the machine). Part of what's wrong with this view, according to Ryle, is that it treats the mind and the body as each a kind of thing. Only on such an assumption would it make sense to say that the mind is literally *in* the body (like a ghost might be in a machine). But regarding the mind as itself a kind of thing is to make a mistake that Ryle calls a "category mistake."

5.19 A category mistake is the mistake of treating something that belongs in one logical or conceptual category as if it belongs in another. Here's an illustration of Ryle's: Imagine that one day you visit a university and join a tour of the buildings on campus. You are brought to the library, the science building, the sports building, and so on. Imagine further that you interrupt your tour guide and say, "Thank you so much for showing me the library, the science building, the sports building, etcetera, but when are you going to show me the *university*?" The mistake here is thinking that the university belongs in the same category as the various buildings, as if it were yet another building that you could be led to.

5.20 Ryle sees dualists as committing various category mistakes in the way they talk about the mind. The central category mistake is that of thinking of the mind itself as a thing that has its own properties and is made of its own substance. Instead we should think of talk concerning mind and mental states (like believing and thinking) as a way of tracking the behaviors and behavioral dispositions of people. The behaviors that a physical being can engage in do not themselves constitute a separate thing that the physical thing is related to. A dance is not a thing separate from the dancer. For Ryle, the mind is no *thing* at all!

5.21 Another important strand of Ryle's thinking is his *regress argument* against intellectualism and his closely related distinction between *knowing-how* and *knowing-that*. The *intellectualism* that Ryle targets can be represented as the view that any act that anyone does intelligently must be preceded by some episode of thinking. So, for example, if you intelligently glue a small component on to a model you are building, this action must be preceded by some thought of the form "the component should be glued in *this way* . . ." Ryle sees this as leading to an infinite regress since he sees thinking as itself a kind of action that can be done either intelligently or

unintelligently. If an intelligent action must be preceded by some thinking, presumably the thinking must itself be *intelligent* thinking (since some stupid thinking can't be the cause of some nonstupid acting). And if the thinking itself is an intelligent action, then some other thought must precede it, and so on for infinity. Thus, an infinite regress arises.

The way Ryle's own view avoids leading to this intellectualist regress is by drawing a distinction between two kinds of knowledge—knowing-how and knowing-that. In knowing-that (what others have called *propositional knowledge*) there is some thought or proposition that you know to be true. For instance, in knowing *that* the Earth is round, what you know is that the proposition *the Earth is round* is true. In contrast, in knowing-how (what others have called *procedural knowledge*), your knowledge is had by having an ability, a disposition to behave in a certain way. When you know how to ride a bike, you are, for example, disposed to move forward while pedaling the wheels and not falling off. According to Ryle, such ability cannot be summed up in the form of one or more propositions *that* one knows. The intellectualist regress is thus broken by having occasions of knowing-that, and intelligent action more generally, be grounded in know-how, a kind of knowledge that itself is not grounded in any other knowledge. 5.22

Objections to Behaviorism

We will examine three objections to behaviorism: (1) the qualia objection, (2) Sellars's objection, and (3) the Geach–Chisholm objection. 5.23

The qualia objection

One sort of objection that philosophers have raised against behaviorism is an objection that hinges on qualia. To really appreciate the force of this objection, it helps to focus on the aspect of philosophical behaviorism that has to do with the meanings of mentalistic terms, or, as we might put it, the structure of our mentalistic concepts. Behaviorism holds that the very concept of a mental state like desire or fear is connected to concepts having to do with behavior. So, for example, the very concept of someone being afraid of dogs is connected to concepts having to do with dog-related behaviors, such as moving away from any dogs that are nearby or speaking with a trembling voice whenever the topic of dogs comes up. If being afraid of dogs is conceptually linked to certain dog-related behaviors, then it 5.24

ought to be *inconceivable* for someone to have a fear of dogs but not be in any way disposed toward dog-avoiding behaviors. Conversely, if it is so conceivable—if we can indeed conceive of someone being afraid of dogs independently of conceiving of them of having any dog-related behaviors—then that counts against this version of behaviorism.

5.25 Now, let us return to the question of qualia. Consider a red quale. Are there any behaviors such that they are conceptually linked to the concept of a red quale? Certain familiar thought experiments are relevant to answering this question. Consider, for example, the inverted spectrum thought experiment that we discussed in chapter 3. In this thought experiment, it is supposed to be conceivable that two people are alike in all their behaviors and behavioral dispositions, including their behaviors and dispositions regarding the sorting and naming of color samples, but have completely different qualia from each other. If such a situation is conceivable, then having a red quale cannot be conceptually linked to having such-and-such behaviors and dispositions.

Sellars's objection

5.26 Another sort of objection to behaviorism originates with the philosopher Wilfrid Sellars. The gist of Sellars's point is that (1) it is part of our very concept of a mental state like a belief that it is the cause or explanation of certain behaviors, and (2) genuine causal explanations cannot be circular, but (3) behaviorism would make the resulting causal explanations circular. Let us take a closer look at (1) and (3).

1. *It is part of our very concept of a mental state like a belief that it is the cause or explanation of certain behaviors.*

5.27 Consider verbal behavior. Consider, for example, someone who says sincerely, "Turnips taste best when harvested in August." Compare that case to a case where similar sounds are produced by a recording or a well-trained parrot. What makes the person's utterance count as a genuine piece of verbal behavior? What makes it a genuine speech act as opposed to merely the production of sound? Plausibly, only in the case of the person is the noise produced an expression of a belief or a thought. And what it means here for the speech to be an expression of a thought is for the thought to be a cause of the speech and that the thought and the speech have roughly the same content. What it means to say that they have roughly the same content in this example is that the person both thinks and says

that *turnips taste best when harvested in August*. What's important here in the present context is not so much the content part of this story as is the causal part of the story, namely, that the thought is the cause of the speech that expresses it.

A similar line of thought can be extended to nonverbal behaviors. 5.28 Compare a person who kicks their leg out intentionally (perhaps they are kicking a ball in a game) and a person doing it unintentionally (perhaps in their sleep because an insect tickled their foot). What makes the first kicking a genuine intentional action and the other a mere bit of involuntary reflexive motion? Arguably what's important in the intentional case is that the kicking is the result of some prior plan or intention. The person has some goal or aim in mind and this mental state caused the movement of the foot. In the reflexive response to being tickled by the insect, there is no prior plan or intention.

3. *Behaviorism would make the resulting causal explanations circular.*

To see this point, it will help to consider a very simplified version of 5.29 behaviorism. Suppose a behaviorist offered the following definition of sadness: Being sad *just is* having certain behaviors, such as crying and frowning. Now, according to Sellars, it is part of our commonsense grasp of terms like "sad" and "sadness" that we use them to explain certain behaviors. Why is Mary frowning and crying? Here's a commonsense explanation: She is crying and frowning because she is sad. But if the behaviorist is right, that explanation turns out to be circular. Since the behaviorist has defined sadness as having the behaviors of crying and frowning, the commonsense explanation winds up being equivalent to the following obviously circular explanation: Mary is frowning and crying because Mary is frowning and crying.

The Geach–Chisholm objection

One highly influential criticism of behaviorism is attributed to the philoso- 5.30 phers Peter Geach and Roderick Chisholm. The gist of this objection is that mental states cannot be individually connected with behaviors, but can only be connected to behaviors in concert with other mental states in a way that makes behaviorism an intractably complex theory.

To see why this presents a problem for behaviorism, let us begin by 5.31 taking a look at a particular mental state. Suppose that Jane fears tigers. Suppose also that Jane is on an expedition in the jungle and there is a tiger

only five feet away from her. What behavior will her fear of tigers result in? What behavior she engages in depends to a large degree on what other mental states she has. First, it depends on whether she believes there is a tiger near by. Suppose she hasn't seen the tiger or has seen it but believes it is her friend in a tiger suit trying to play a trick on her. Without any belief that there is a tiger near by, the mere desire to avoid tigers is unlikely to trigger any particular behavior on this occasion.

5.32 The story of Jane and the tiger helps us to see that the desire to avoid tigers is not all by itself connected to tiger-avoiding behavior. It is only in concert with other mental states such as beliefs that a desire is connected to a particular kind of behavior.

5.33 This point does not just apply to desires. We can make the point about any mental state. Consider belief. Suppose there is a tiger five feet away from George and that George believes this—George believes that there is a tiger five feet away. What will his behavior be? Suppose George believes tigers are friendly and like to be petted. Suppose further that George desires to pet tigers. That might lead to one sort of behavior. But if George has a different desire, then he might behave differently.

5.34 Given that a mental state can only be connected to a behavior by also being connected to a bunch of other mental states, what's the problem for behaviorism? The problem is that the project of saying which behavior a mental state is connected to is so complicated as to be totally intractable. We are never in a position to give a definition of a particular mental state in terms of behavior, since we must bring in some other mental states in the definition. But how will we define each of those other mental states? Each of them can only be connected to behavior by reference to other mental states, including the mental state that we started with, and thus are we led in a circle.

5.35 Given that much of behaviorism is concerned with characterizations of the minds of others, it is natural at this point to delve deeper into the philosophical problem of other minds.

The Philosophical Problem of Other Minds

5.36 The problem of other minds is largely an epistemological problem—while most of us *believe* that there are minds other than our own, how can we each come to *know* that there are other minds? What *justifies* our belief in the existence of other minds? The problem can be felt as especially acute

if we make certain Cartesian assumptions. One such assumption is that there is a stark difference between the way we know of our own minds and the way we know of the minds of others. On the Cartesian view, I know my own mind with certainty. However, my knowledge of things external to my own mind is mediated by my senses. And, since my senses may be deceived, nothing I know through them is known with certainty. Worse, the possibility arises that maybe I don't know anything at all about things external to my mind.

In the next two subsections we will examine two general strategies for solving the problem of other minds. The first strategy accepts that there is an important asymmetry between the way one knows one's own mind and the way one knows the minds of others. The second strategy denies any deep asymmetry—the way each of us knows our own mind is not importantly different from the knowledge of the minds of others. 5.37

The rise and fall of the argument from analogy

The first solution that we will look at is known as the *argument from analogy*, which can be spelled out in four steps. 5.38

The first step is to note the existence of one's own mind. You know that you have a mind and various mental states. You know you have beliefs, desires, perceptions, memories, thoughts, feelings, and so on. 5.39

The second step is to note that on many occasions, certain kinds of your mental states are correlated with certain kinds of behavior. You notice that when you are happy, you tend to walk with a bounce in your step and wear a smile on your face. You notice that when you are sad, you tend to frown and sulk. You notice that when you believe things, such as that $2 + 2 = 4$, you are disposed to say so. 5.40

The third step is to notice the other human bodies in the world and to note the various behaviors they engage in. Sometimes those bodies walk with a bounce and smile. Other times those bodies frown and sulk. Sometimes those bodies engage in verbal behaviors. They say things like "$2 + 2 = 4$." 5.41

The fourth step is the step that gives the argument its name. The fourth step involves reasoning by drawing an analogy and then making an *analogical inference*. Here the analogy is between your own body and the bodies of others. These bodies behave in analogous ways. Just as your body smiles and walks, so do the bodies of others. The *analogical inference* is to infer that the other people are similar to you in having mental states. 5.42

5.43 So, is this argument any good? We should note here that analogical inference is a kind of reasoning that we employ often and such inferences are regarded as a respectable way to think about things. For instance, suppose that you've opened over a thousand peanut shells in your life, and that every peanut shell that you've ever opened so far has contained two seeds. It is reasonable, then, to expect that the next peanut shell that you open will also contain two seeds. What's the analogy here? The analogy concerns resemblances between the unopened peanut and the ones you've already opened. The unopened peanut resembles the other peanuts in having a similar shape and having come from a similar plant. You reason that, given these similarities, the new peanut will be similar in other ways as well.

5.44 Since analogical reasoning is a respectable form of reasoning, the mere fact that the argument from analogy deploys an analogical inference is not a problem. Nonetheless, the argument from analogy has a serious flaw. It is a *hasty generalization*. To see what's wrong with hasty generalizations, consider a variation of the story with the peanuts. Suppose George has only ever encountered or even heard about a single peanut. This single peanut contains two seeds. Suppose George concludes from observing this single peanut that on every future occasion of opening peanuts, they will be revealed as containing exactly two seeds. George is leaping to a conclusion. Having observed only one peanut, he doesn't have enough evidence to justify his claim about *all* peanuts. A claim about *all* peanuts is a generalization about peanuts, and in basing his generalization on only a small amount of evidence, George is making a hasty generalization.

5.45 What makes the argument from analogy a hasty generalization? Given the Cartesian assumption that you only have direct access to your own mental states, the only mind you "observe" is your own mind. But there are billions of human beings alive on the planet Earth. The crucial flaw of the argument from analogy is that it is making a generalization about what must be true of billions of people based on "observable" correlations between the behaviors and mental states of only one person.

Denying the asymmetry between self-knowledge and knowledge of other minds

5.46 Perhaps what makes the problem of other minds especially problematic is the Cartesian assumption that there's an asymmetry between the way you know your own mind and the way you know the minds of others. One strategy for solving the problem of other minds is to deny any deep asym-

metry between knowledge of one's own mind and knowledge of the minds of others. Call this the "symmetry strategy."

One version of the symmetry strategy is behaviorism. According to behaviorism, since mental states can be defined in terms of bodily behavior, there is no *special* problem about knowing the minds of others. Knowing the minds of others is no more difficult than knowing the existence and motions of various physical bodies. This is a version of the symmetry solution because it claims that you know your own mind in the same way that you know the minds of others, namely, via knowledge of bodily behaviors. However, as discussed earlier, behaviorism is vulnerable to several powerful objections. 5.47

Another version of the symmetry strategy holds that knowledge of other minds, and knowledge of minds generally, is a kind of theoretical knowledge similar to the knowledge codified in the form of various scientific theories, theories such as the atomic theory of matter. 5.48

Crucial to this view of theories is the idea that theories posit the existence of unobservable entities (such as entities too small to be seen) as an *inference to the best explanation* of the observable data. In the case of the atomic theory of matter, microscopic particles invisible to the naked eye are posited in order to explain the observable interactions between various chemical samples. 5.49

Many philosophers follow Wilfrid Sellars and hold that our own knowledge of minds is codified in terms of a theory that we implicitly grasp, a theory referred to as *folk psychology*. The key entities in this theory are mental states such as beliefs and sensations. The existence of such mental states is posited to explain certain patterns of behavior. As we discussed earlier in connection with Sellars, such posits cannot simply be defined in terms of the behavior they are posited to explain, for the various explanations would then turn out to be circular. So, it is crucial on this view that the behaviorist program to define mental states by reference to behavior be rejected. In chapter 10 we will discuss further the idea that our grasp of minds is constituted by a grasp of a theory. 5.50

Conclusion

Some form of behaviorism seems especially plausible as an account of our knowledge of other minds. What else do we have to go on besides the behaviors of others when we try to understand what is going on in their 5.51

minds? We can ask them directly, but their answers are just a form of behavior—verbal behavior. Some of the biggest obstacles to behaviorism, however, concern the knowledge of aspects of our own minds. I seem to have an acquaintance with my own conscious experience that is unmediated by observations of my behavior.

Annotated Bibliography

Dennett, Daniel (1997) "True Believers: The Intentional Strategy and Why it Works," in John Haugeland (ed.), *Mind Design II: Philosophy, Psychology, and Artificial Intelligence* (Cambridge, MA: MIT Press). An exposition of Dennett's "behaviorism," especially as it applies to beliefs and other propositional attitudes.

Dennett, Daniel (2003) "Who's on First? Heterophenomenology Explained," *Journal of Consciousness Studies*, *10*(9–10), 10–30, full text available from http://ase.tufts.edu/cogstud/papers/JCSarticle.pdf, accessed February 6, 2013. Dennett's "behaviorism" is applied to consciousness in the form of what he calls "heterophenomenology," a method for studying consciousness that is not restricted to so-called first person methods.

Hauser, Lary (2005) "Behaviorism," in *Internet Encyclopedia of Philosophy*, full text available from http://www.iep.utm.edu/behavior/, accessed February 6, 2013. A useful overview of both psychological behaviorism and philosophical behaviorism.

Hyslop, Alec (2010) "Other Minds," in Edward Zalta (ed.), *The Stanford Encyclopedia of Philosophy*, full text available from http://plato.stanford.edu/archives/fall2010/entries/other-minds/, accessed February 6, 2013. A wide-ranging overview of various versions and aspects of the problem of other minds.

Ryle, Gilbert (1949) *The Concept of Mind* (London: Hutchison). Ryle defends a kind of behaviorism while attacking Cartesian dualism as a kind of "category mistake" which casts the human mind as a "ghost in the machine."

Sellars, Wilfrid (1956) "Empiricism and the Philosophy of Mind," in Herbert Feigl and Michael Scriven (eds.), *Minnesota Studies in the Philosophy of Science*, *Volume I*: *The Foundations of Science and the Concepts of Psychology and Psychoanalysis* (Minneapolis: University of Minnesota Press), pp. 253–329, full text available from http://www.ditext.com/sellars/epm.html, accessed February 6, 2013. Sellars develops both a critique of philosophical behaviorism and a defense of what he calls "methodological behaviorism," the view that behavior is the best route we have to knowledge of one another in psychological terms.

Wittgenstein, Ludwig (1953) *Philosophical Investigations*, trans. G. E. M. Anscombe (Oxford: Basil Blackwell), full text available from http://gormendizer.co.za/wp-content/uploads/2010/06/Ludwig.Wittgenstein.-.Philosophical.Investigations.pdf, accessed February 6, 2013. One of the greatest philosophical works of the 20th century, the source of Witttgenstein's private language argument, and much else besides.