READINGS IN PHILOSOPHY OF PSYCHOLOGY

Volume One

Edited by

NED BLOCK

ARMSTRONG BLOCK BOYD CHOMSKY CUMMINS DAVIDSON

FELDMAN FODOR HEMPEL KIM KRIPKE LEWIS McGINN

NAGEL PUTNAM SAVIN SHOEMAKER SKINNER

THE LANGUAGE AND THOUGHT SERIES
Series Editors: *Jerrold J. Katz, D. Terence Langendoen, George A. Miller*

Readings in Philosophy of Psychology

Volume 1

Edited by Ned Block

Harvard University Press
Cambridge, Massachusetts

Printed in the United States of America
10 9 8 7 6

Library of Congress Cataloging in Publication Data

Main entry under title:

Readings in philosophy of psychology.

(Language and thought series)
Includes index.
1. Psychology—Philosophy—Addresses, essays, lectures. I. Block, Ned Joel, 1942-
BF38.R35 150'.1 79-25593
ISBN 0-674-74875-1 (v. 1, cloth)
ISBN 0-674-74876-X (v. 1, paper)

Preface

IT IS INCREASINGLY CLEAR that progress in philosophy of mind is greatly facilitated by knowledge of many areas of psychology and also that progress in psychology is facilitated by knowledge of philosophy. What makes this interrelationship most obvious to practitioners in these fields is that in order to keep up with the current literature on the problems on which they work, they find that they must be able to read the technical literature of one another's fields. The simple fact is that lines of research in many areas of philosophy and psychology have tended to converge on the same clusters of issues.

This convergence reflects a deeper mesh of the fields. A host of crucial issues do not "belong" to either philosophy or psychology, but rather fall equally well in both disciplines because they reflect the traditional concerns or require the traditional methods of both fields. The problems will yield only to philosophically sophisticated psychologists or to psychologically sophisticated philosophers.

The interest and viability of approaching these problems from the joint perspective of philosophy and psychology are widely acknowledged, as is indicated by the number of people engaged in joint research, by the existence of journals wholly or partly devoted to it, by the existence of at least one learned society and a number of less formal discussion groups, and by conferences too numerous to mention. Although there have been a number of books of proceedings of philosophy of psychology conferences, until now there has been no general anthology intended as a text in philosophy of psychology. It is this gap that the present book, which appears in two volumes, is intended to fill.

This is the first volume of *Readings in Philosophy of Psychology*. The second volume covers mental representation, imagery, the subject matter of grammar, and innate ideas—topics that are closely related to current psychological research. The topics covered in this volume—mainly the chief "isms" of contemporary theory of the nature of the mind—deal with the conceptual foundations of psychology and are rather distant from the day-to-day empirical concerns of psychology. Since the anthology has been divided into two volumes, I want to stress that neither volume on its own gives a picture of the field.

It should be said, moreover, that this anthology is *not* intended to survey the field. No single book could be comprehensive and at the same time present its topics in any depth. The topics covered here were chosen because they are especially interesting, because they have been a focus of current activity, because they allowed the selection of high-caliber articles, and because they fit together in a coherent way.

For articles that have been previously published, details of the original publication appear at the foot of the first page. The others (all the introductions, Fred Feldman's "Identity, Necessity, and Events," and David Lewis's "Mad Pain and Martian Pain") appear here for the first time. Throughout the anthology, nonstandard symbols have been used instead of common symbols such as the arrow, double arrow, backward "E," upside-down "A," square, and diamond. Explanations of the notation are repeated in each chapter where they appear.

Contents

Introduction
What Is Philosophy of Psychology?

Ned Block

PHILOSOPHY OF PSYCHOLOGY is the study of conceptual issues in psychology. For the most part, these issues fall equally well in psychology as in philosophy. But this is not to say these issues are always on the *borderline* between philosophy and psychology, peripheral to both fields.

How can it be that a set of issues falls in the mainstream of two such different disciplines? Part of the answer is that progress in science involves the solution of various sorts of conceptual puzzles, often requiring substantial conceptual articulation and sometimes the ferreting out of serious conceptual confusions. For example, Aristotelian physics conflated instantaneous velocity with average velocity, creating paradoxes and contradictions—as Galileo showed (see Kuhn, 1964). Newton's mechanics required resolving the ordinary notion of weight into force and mass, and Cannizzaro's breakthrough in chemistry involved distinguishing among atomic weight, molecular weight, and equivalent weight. Normally, the scientists themselves solve conceptual problems in science. Although the skills involved are of the sort in which philosophers are trained (and in which scientists are typically not trained), only those at the frontiers of scientific knowledge are in a position to see the issues with the requisite degree of clarity.

What is different about conceptual issues in psychology is mainly that the frontiers of knowledge in the field are so close to the heartland of folk psychology that the conceptual issues about the mind that philosophers have long discussed are very nearly the same as the issues that impede theoretical progress in psychology. Indeed, the majority of topics of concern to contemporary philosophers of psychology would have been intelligible and, in many cases, even familiar to philosophers who lived long before the rise of modern psychology. Consider for example such topics of current controversy as the nature of mental representation in general and mental images in particular; whether there are innate ideas; whether perception is inferential; what it is to have a concept; the subject matter of grammar; and what the difference is between rule-governed and rule-described action (all discussed in this anthology). It is worth noting by contrast that a philosopher who lived before the

An earlier version of this introduction appeared as "Philosophy of Psychology" in Peter D. Asquith and Henry E. Kyburg, Jr., eds., *Current Research in Philosophy of Science* (East Lansing: Philosophy of Science Association, 1979) pp. 450-462. Reprinted by permission.

rise of modern physics (albeit long before the rise of modern psychology) would be utterly baffled by most of the issues of concern to contemporary philosophers of physics. (Imagine Aristotle being asked whether the psi function of quantum mechanics is a probability wave.) The difference is that advances in physics have involved strikingly new concepts, and thus new conceptual issues, while advances in psychology have not.

This being said, it should also be conceded that the old issues typically appear in new and often more tractable forms. Indeed, some of the old issues are hardly recognizable in their new forms. For example, the issue of whether the subject matter of grammar is rules in the mind has been considerably altered by the advances in transformational-generative grammar and Chomsky's distinction between competence and performance. Moreover, since psychology does contain *some* new theoretical apparatus, new conceptual questions arise in connection with that apparatus: for example, the philosophical issues concerning Freudian theory (Wollheim, 1974). Also, new experimental techniques sometimes reveal previously unrecognized human capacities whose nature involves recognizably philosophical difficulties. For example, the experimental techniques of psychophysics reveal that people can make a series of judgments of relative brightness of lights that are stable and coherent and that allow experimenters to conclude that brightness is a certain function of a physical parameter (intensity). But this result raises the question of what brightness is, and what it means for one light to be twice as bright as another (see Savage, 1970). The claims of psychometricians to measure intelligence, personality, and so on, have attracted the attention of philosophers of psychology (Block and Dworkin, 1974; Block, 1976). What makes this issue of interest to philosophers (aside from its moral and political implications) is, first, that arguments for the claims made on behalf of the tests have gone unformulated and unexamined, and it is a typically philosophical task to formulate arguments and examine them, and, second, that psychometric practice and ideology presuppose dubious philosophical doctrines.

The sort of problem described in the last paragraph is the exception rather than the rule, however. As I said, the problems of philosophy of psychology are, by and large, traditional problems in new guises. In some cases, hindsight reveals that an old philosophical problem was largely empirical: for example, the question of whether the differences between different emotions are differences of feeling or attitude. Current work by psychologists (Schachter and Singer, 1962), though flawed, suggests that while all emotions involve states of physiological arousal, the differences between them are indeed cognitive differences. Similarly, the old issue of inference in perception seems (to me at least) to have been resolved in the affirmative (Neisser, 1967; Gregory, 1974; but see Anscombe, 1974; Neisser, 1976). Even in this case, some of the old disputes are played out once again among psychologists of different stripes. Thus we have J. J. Gibson and his followers adducing empirical considerations supplemented by traditional philosophical arguments against inferential views.

To illustrate how old issues take on new forms, I shall briefly sketch some of the issues having to do with what is currently philosophy of psychology's hottest topic: mental representation. Issues of current interest include the following: how mental representations refer; how representations that express concepts combine to form representations that have truth value; whether mental representation requires a system of mental representations; whether the meaning of a mental representation is a matter of its role in inference, decision making, and other mental processes (and, if not, what the mean-

ing of a mental representation does consist in); whether natural languages (such as English) are the major systems of mental representation, or whether we have to translate from English into our internal systems; whether the processes that manipulate mental representations take account of their meaning or of their shape only; what the identity conditions on mental representations are; what the difference is between discursive representations and imagistic or pictorial representations; whether images exist and, if so, whether they can refer, and if so, whether they can refer in virtue of resemblance to their causes (as William of Ockham apparently thought). (These issues are discussed in volume 2, part one, "Mental Representation," and volume 2, part two, "Imagery.")

Difficulties about imagery provide a good example of issues that have been changed not one iota by new theory; rather, they have been altered (in the direction of intractability, I fear) by striking new evidence. Roger Shepard and his students (see Shepard and Metzler, 1971) have put together an impressive array of evidence that people perform certain tasks by generating mental images (a process that can be timed) and rotating them at constant angular velocity. For example, when subjects are presented with two figures that clearly differ in their orientation and then are asked whether the figures have identical shapes, the time it takes subjects to answer is proportional to the angular displacement of the figures—independently of whether the rotation is in the plane of the page or at right angles to it.

In another experiment (described in volume 2, part two), subjects were asked to form an image of a map of an (imaginary) island containing seven small pictured objects (a house, a well, a tree, and so forth). Subjects were asked to "zoom in" on (as it might be) their image of the tree, and then answer, *by consulting their image*, the question "Does the island contain a house?" It was found that the time it took to answer was highly correlated with the distance between the tree and the house. Distances between objects varied considerably, and all of the pairs of objects (21) were used. These and many other results make it seem for all the world as if subjects are secretly manipulating drawings or models. Compelling as these experiments are, they do not cast much light on the traditional philosophical issues about images. We still want to know: What are images? Are the images of perception the same sort of thing as the images we "conjure up"? Are images like pictures in the head? If so, in what respects? How can an image be the end product in perception, for then there would have to be a perceiver of the image, and who would perceive *his* images? But what other role could an image have in perception? How can it be that an image of a tiger has no definite number of stripes? Is an image a neural entity? If so, what about the traditional Leibniz's Law problems—for instance, that images can be pink and green striped while the brain is mainly gray.

Another familiar issue having to do with mental representation is the question of what the difference is between behavior being rule-described and behavior being rule-governed. This distinction is at least as old as Aristotle and is also a major issue with respect to Kant's Categorical Imperative: "Act only according to a maxim which can at the same time be willed a universal law." Is a maxim of your action one that merely describes it, or one that governs it as well?

One major issue is whether behavior can be rule-governed, even in cases where one is not conscious of acting in accordance with a rule. Many philosophers of psychology are convinced that in an important class of rule-governed behaviors, we have no conscious knowledge of the rule. Here is an example of the sort of case that provides evidence for that view.

Speakers of most dialects of English pronounce the 'g' differently in 'finger' and 'singer'. The first 'g' might be described as "hard," the second as "soft."[1] There is a regularity here: roughly, the 'g' in 'nger' words formed from verbs is soft; otherwise, it is hard. What is the explanation of the fact that the rule "use soft 'g' in 'nger' words formed from verbs—otherwise use hard 'g' " describes our pronunciation behavior? One possible explanation is that we have in effect memorized the pronunciation of each 'nger' word. Another explanation is that the rule mentioned above (or some other rule—a possibility I will ignore) governs the behavior as well as describing it. Here is one item of evidence that rules out the former hypothesis and thus makes the latter more plausible. Let us coin the word 'ming': to ming is to look to the east. Someone who habitually looks to the east is a minger—with a *soft* 'g'. Since the rule applies to new cases, we have some reason to think the behavior is rule-governed.

It has been suggested (Fodor, 1975) that what the distinction between rule-governed and rule-described behavior comes to is that behavior is governed by a rule just in case a mental representation of the rule causally influences the behavior so as to make it described by the rule. This proposal raises a traditional bogeyman, described below.

Carroll (1895) pointed out that principles of logic cannot be applied without the use of reasoning that itself embodies logical principles. This fact creates difficulties for a view that says that all reasoning is rule-governed—that is, causally controlled by mentally represented rules. For example, suppose one reasons as follows:

The Argument: All men are mortal; Socrates is a man; therefore Socrates is mortal.

If all reasoning is causally controlled by mentally represented rules, it is plausible that the rule involved in this case is something like this:

The Rule: If an argument is of the form 'for any x, if x is F, then x is G; a is F; therefore a is G', then the argument is valid.

But how could The Rule play a causal role in one's reaching The Argument's conclusion that Socrates is mortal? It is hard to see how The Rule could be involved here if not in something like the following reasoning. The Rule says every argument of a certain specified form is valid; The Argument is of that form; so The Argument is valid. But this bit of reasoning *itself involves the application of The Rule.* (This can be made explicit by putting the reasoning so that it is clear that it fits the specified form, with F = being of the specified form, and G = validity: for any x, if x is of a certain form then x is valid; a is of that form; therefore, a is valid.) Thus it seems that in order to apply our mental representation of The Rule to The Argument, we require *another* application of a mental representation of The Rule. And so on. It is hard to see how a mental representation of The Rule can be applied at all. This traditional puzzle can be seen as a serious problem for the foundations of psychology.[2]

I described this puzzle partly to illustrate the traditional aspect of issues of contemporary philosophy of psychology, but partly also to indicate a way in which new approaches often differ from the old. The way the new approach differs here has perhaps as much to do with new technology as with new theory (though this distinction is of less note with regard to psychology than to some other fields). The new technology is that of the digital computer; the new theoretical concept is that of the Turing machine. The example of the digital computer shows us the rough outlines of a solution to this problem (and also suggests a way out of the problem of the infinite regress of image

perceivers mentioned above. A digital computer is a device one knows to be rule-governed, for the rules are inserted by us as part of the program. In the digital computer, some operations are accomplished "automatically," by hard-wired circuitry, and not via the application of any represented rules. Minsky (1967) describes two primitive operations 'add 1' and 'subtract 1 or if register = 0, jump to the *n*th (where *n* is indicated) instruction'; he then shows that these two operations will suffice for the power of a universal Turing machine. In a commercial digital computer, the operations referred to in the rules that one programs into the computer are ultimately defined in terms of such primitive operations, the terms for which constitute a "machine language" that the machine is *built* to use, in the sense that when a primitive instruction appears in the appropriate register, the hard-wired circuitry accomplishes the operation. There is no regress because the machine's primitive operations are not rule-governed. The claimed solution, then, is that there are mental operations analogous to the primitive operations of the computer, and also mental operations analogous to the programmed operations, the latter being composed of the former in the mind as in the computer.

The fallacy in the argument in the paragraph before last can be blamed on the assumption that all reasoning is rule-governed (causally controlled by mentally represented rules). Some reasoning is "automatic" in the manner of the primitive operations of digital computers. Alternatively, one could hold on to the claim that all reasoning is rule-governed and blame the unsoundness of the argument on the premise (implicit in the sentence "It is hard to see how The Rule could be involved here . . .") that a rule can govern reasoning only via an application that itself involves reasoning. Sometimes a rule causally controls reasoning "automatically," in the way the machine language command "ADD 1" causes the representation in a register to change, by the operation of hard-wired circuitry, and not by any process involving reasoning.

I have left out many issues that are closely related to those described above, among them perception, memory, attention, intentionality, innate ideas, conceptual development (such as issues arising from the work of Jean Piaget and Lawrence Kohlberg) and the foundations of artificial intelligence. But had these been described in more detail, the picture of philosophy of psychology sketched here would be even more skewed toward cognitive psychology. Psychology is a very fragmented field—cognitive psychology, mathematical psychology, and social psychology, for example, have little in common; those who work in or know about one rarely have much expertise in the other. I have given little indication of the interest and activity in topics on the borderline of psychology with physiology, such as split brains (Nagel, 1971; Puccetti, 1973); mathematical psychology; traits (Alston, 1976); noncognitive states of mind; and the foundations of social psychology (Harre and Secord, 1973). The emotions, especially, have been the topic of a veritable flurry of books and articles (Solomon, 1976; Thalberg, 1977; Rorty, forthcoming) on such topics as the intentionality of the emotions; whether emotions are voluntary; whether the expression of an emotion is part of the emotional state; the relation of emotions to character traits; and problems in the cross-cultural identification of the emotions.

The discussion above is also misleading in that it scants what might be called traditional philosophy of mind, including such topics as mind-body identity, other minds, privacy, consciousness, and the like. Some philosophers might consider this omission fortunate, appealing to the idea that philosophy of mind has as little to do with philosophy of psychology as metaphysics has to do with philosophy of

physics. On the contrary, however, I see good reason to count philosophy of mind as part of philosophy of psychology (rather than conversely, as is commonly supposed). For one thing, as I have argued above, most of the problems in philosophy of psychology simply *are* versions of traditional problems. Second, even rather rarefied problems in philosophy of mind such as the status of "qualia" often have rather more direct relations to central conceptual issues in psychology than one might think at first glance. For example, functionalism (the view that mental states are functional states, states defined by their causal role) is currently the dominant view of the nature of mind. While some philosophers regard functionalism as providing a foundation for representational theories of belief (Harman, 1973; Fodor, 1979); others think functionalism counts against representational theories of belief (Stalnaker, 1976). The latter group regards the claim that belief is a functional state as a *rival* of the claim that belief is a relation to a sentence in the language of thought (see Field, 1978, for a critique of such arguments). At least there is wide agreement among philosophers of radically different points of view that functionalism is *relevant* to the foundations of psychology. The problems of qualia are in turn relevant to functionalism because there is reason to think that two states can be functionally identical, even though one lacks and the other has qualitative character (Block and Fodor, chapter 20; Block, chapter 22); hence qualia are the basis for an argument that functionalism is false. Of course, there is a great deal of disagreement about this matter (Shoemaker, chapter 21; Block, 1980). Dennett has gone so far as to argue that qualia can be explained by psychological models of the sort currently in vogue in cognitive psychology (Dennett, 1978).

Traditional philosophy of mind is often taken to include issues that more properly belong in metaphysics (personal identity) or epistemology (some issues about sense data), but the other issues in philosophy of mind, the ones that are genuinely about the mind, seem best classified as part of philosophy of psychology, even though some of them are related to empirical issues in a very abstract way.

The variety of problems in the philosophy of psychology is sufficiently great that no single anthology on the subject could possibly be comprehensive. The best one can do is pick a few topics and cover them in moderate depth. Inevitably, many major issues must be entirely omitted. Thus, for example, this anthology has no part devoted to problems of perception or to whether children's conceptual systems differ from those of adults. I have tried to pick disparate topics that at the same time fit together coherently.

All of the parts have something to do with empirical psychology, although part one, "Behaviorism," part two, "Reductionism and Physicalism," and part three, "Functionalism," could as easily fit into a book on traditional philosophy of mind. The first two parts overlap considerably with the third; indeed, Putnam's "Brains and Behavior" (chapter 2) and "Philosophy and Our Mental Life" (chapter 7) and much of Boyd's introduction to part two and Field's "Mental Representation" (see volume 2, part one) could have been included in "Functionalism" with some justice. The issues raised there lead naturally into those in "Mental Representation" (volume 2, part one), since one of the plausible answers to the question of what makes mental representations represent is their functional role. Although they are not all in the same part, the articles by Nagel (chapter 11), Shoemaker (chapter 21), and Block (chapter 22) are a natural group, since they are all concerned with problems of consciousness. "Mental Representation" and "Imagery" (volume 2, parts one and two) go naturally together, images and mental language being the

leading candidate mental representations. The issues discussed in "Mental Representation" have natural applications in "The Subject Matter of Grammar" and "Innate Ideas" (volume 2, parts three and four). The former is about the issue of whether grammars are theories of mental representations, and the latter is about the issue of whether (or to what degree) our mental representations of grammar are innate.

Notes

1. Actually, the 'g' in the "soft" cases is deleted, and the 'n' is velar.

2. I am indebted to a discussion with Hartry Field and David Hills.

References

Alston, W. 1976. "Traits, Consistency, and Conceptual Alternatives for Personality Theory." *Journal for the Theory of Social Behavior* 5, no. 1: 17-48.

Anscombe, G. E. M. 1974. "Comment on Professor R. L. Gregory's Paper." In S. C. Brown, ed., *Philosophy of Psychology.* New York: Barnes and Noble.

Block, N. 1976. "Fictionalism, Functionalism, and Factor Analysis." In R. S. Cohen, C. A. Hooker, and A. C. Michalos, eds., *PSA 1974. Boston Studies in Philosophy of Science,* vol. 32. Dordrecht: Reidel.

——— 1978. "Troubles With Functionalism." In C. W. Savage, ed., *Minnesota Studies in the Philosophy of Science.* Vol. 9. Minneapolis: University of Minnesota Press. Reprinted as chapter 22, this volume.

——— 1980. "Are Absent Qualia Impossible?" *Philosophical Review* 89.

Block, N., and G. Dworkin. 1974. "IQ, Heritability and Inequality." *Philosophy and Public Affairs* 3, no. 4: 331-409; 4, no. 1: 40-99.

Block, N., and J. A. Fodor. 1972. "What Psychological States Are Not." *Philosophical Review* 81: 159-181. Reprinted as chapter 20, this volume.

Brown, S. C., ed. 1974. *Philosophy of Psychology.* New York: Barnes and Noble.

Carroll, L. 1895. "What the Tortoise Said to Achilles." *Mind* 4: 278-280.

Cummins, R. 1975. "Functional Analysis." *Journal of Philosophy* 72: 741-764. Reprinted in part as chapter 12, this volume.

Dennett, D. 1969. *Content and Consciousness.* London: Routledge & Kegan Paul.

——— 1977. "Review of Fodor's *The Language of Thought.*" *Mind* 86: 265-280.

——— 1978. "A Cognitive Theory of Consciousness." In C. W. Savage, ed., *Minnesota Studies in the Philosophy of Science.* Vol. 9. Minneapolis: University of Minnesota Press.

——— In press. "Why a Computer Can't Feel Pain." *Synthese.*

Field, H. 1978. "Mental Representation." *Erkenntniss* 13: 19-61.

Fodor, J. A. 1975. *The Language of Thought.* New York: Crowell.

——— 1978. "Computation and Reduction." In C. W. Savage, ed., *Minnesota Studies in the Philosophy of Science.* Vol. 9. Minneapolis: University of Minnesota Press.

——— 1979. "Propositional Attitudes." *Monist.*

——— 1980. "Methodological Solipsism." *Behavioral and Brain Sciences.*

Gregory, R. L. 1974. "Perceptions as Hypotheses." In S. C. Brown, ed., *Philosophy of Psychology.* New York: Barnes and Noble.

Harman, G., 1973. *Thought.* Princeton: Princeton University Press.

——— 1975. "Language, Thought and Communication." In K. Gunderson, ed., *Language, Mind, and Knowledge. Minnesota Studies in Philosophy of Science.* Vol. 7. Minneapolis: University of Minnesota Press.

Harre, R., and P. Secord. 1973. *The Explanation of Social Behavior.* Oxford: Blackwell.

Kosslyn, S., and J. Pomerantz. 1977. "Imagery, Propositions, and the Form of Internal Representations." *Cognitive Psychology* 9: 52-76.

Kuhn, T. S. 1964. "A Function for Thought Experiments." In *Mélanges Alexandre Koyré, II, L'aventure de l'esprit.* Paris: Herman.

Minsky, M. 1967. *Computation.* Englewood Cliffs, N.J.: Prentice-Hall.

Nagel, T. 1971. "Brain Bisection and the Unity of Consciousness." *Synthese* 22: 396-413.

Neisser, U. 1967. *Cognitive Psychology.* New York: Appleton-Century-Crofts.

——— 1976. *Cognition and Reality.* San Francisco: Freeman.

Puccetti, R. 1973. "Brain Bisection and Personal Identity." *British Journal for the Philosophy of Science* 24: 339-355.

Rorty, A. Forthcoming. *A Natural History of the Emotions.*

Savage, C. W. 1970. *The Measurement of Sensation.* Berkeley and Los Angeles: University of California Press.

Savage, C. W., ed. 1978. *Perception and Cognition: Issues in the Foundations of Psychology. Minnesota Studies in the Philosophy of Science.* Vol. 9. Minneapolis: University of Minnesota Press.

Schachter, S., and Singer, J. E. 1962. "Cognitive, Social and Physiological Determinants of Emotional States." *Psychological Review* 69: 379-399.

Shepard, R., and J. Metzler. 1971. "Mental Rotation of Three-Dimensional Objects." *Science* 171: 701-703.

Shoemaker, S. 1975. "Functionalism and Qualia." *Philosophical Studies* 22: 291-313. Reprinted as chapter 21, this volume.

Sober, E. 1976. "Mental Representations." *Synthese* 33: 101-148.

Solomon, R. 1976. *The Passions.* New York: Doubleday, Anchor.

Stalnaker, R. 1976. "Propositions." In A. McKay and D. Merrill, eds., *Issues in the Philosophy of Language.* New Haven: Yale University Press.

Thalberg, I. 1977. *Perception, Emotion and Action.* Oxford: Blackwell.

Wollheim, R., ed. 1974. *Freud.* New York: Doubleday, Anchor.

Part One

Behaviorism