The philosophy of mind has acquired new life from recent work in cognitive psychology, linguistics, and the information sciences. Scientists in these fields are addressing questions about thinking, perceiving, and imagining that were once thought to be the exclusive concern of (mentalist) philosophers. An extensive and often technical interchange between philosophers of psychology and cognitive psychologists is under way.

This volume is part of that interchange. Most of the papers were read or previewed at a conference on perception and cognition held at the University of Minnesota in June of 1975, co-sponsored by the Minnesota Center for Research in Human Learning and the Minnesota Center for Philosophy of Science. The rest appear by invitation of the editor.

The papers are grouped roughly according to subject matter. Papers in the first group (chs. 1-7) deal with imagery, mental representation, and perception; the second group (chs. 8-9) with difficulties in psycholinguistic models; the third group (chs. 10-12) with so-called functionalist models of thinking and consciousness. Papers in the fourth group (chs. 13-15) either discuss or present comprehensive theories of the relationship of mind to the rest of the world. The final paper (ch. 16) is both an introduction and a contribution to the theory of psychophysical measurement.

The nonspecialist may find it useful to read the papers in the order presented. The specialist will no doubt impose his or her own order.

Many of the papers deal, in one way or another, with computational, information-processing models of cognitive processes. A
cognizing organism is viewed as a "computer," that is, as the embodiment of a group of computational devices in a physical or biological system. To take a specific example, the multiplication table is a computational device embodied in my brain. More generally, rules (mechanisms) by means of which humans understand language, make deductive and inductive inferences, solve problems, perceive, and fantasize are computational devices embodied in human brains. The major function of the brain-computer is to process and utilize information about the organism and about its physical and social environment. Some of this information may have been genetically stored; but most of it is obtained through the organism's sensory systems, encoded, stored, and reorganized into hypotheses, or plans, that direct the behavior of the organism.

This computational, information-processing approach now dominates cognitive psychology, and has had a profound effect on philosophy of mind. Many philosophers now answer such questions as, "What are images?", "What is a belief?", and "What is consciousness?" as do the psychologists—by locating the cognitive object or process in the latest computer model of cognition. Thus, an image of a geometrical figure may be said to be a special system for storing geometrical information in and retrieving it from a brain. Some philosophers believe that the approach can be expanded to explain motivational, emotional, aesthetic, moral, and all other human and animal mental processes; and that with this expansion the last great metaphysical problem—that of the nature of the relation between mind and body—will have been solved, or dissolved. For a mind will have been shown to be a vastly complicated system of computational devices embodied in a brain; and there is no greater difficulty understanding the relation of the mind thus conceived to brain, than there is in understanding the relation of a computer program driving a computer to the electronic hardware of the computer being driven. Other philosophers, including some of the contributors to this volume, believe that there are insurmountable philosophical and scientific difficulties in the above approach, and that the "solution" it envisages is specious.

It is my hope that, in addition to offering useful papers on some fundamental topics concerning cognition and perception, this vol-
ume will assist in assessing the current status of the problem of mind and body.

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C. W. Savage
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