

Book review

Braddon-Mitchell, D., & Jackson, F. (2007). *Philosophy of Mind and Cognition, an Introduction*. Victoria (Australia): Blackwell

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Geert-Jan A. Boudewijnse

*Psychology Department of McGill University, Montreal, Quebec, Canada*

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David Braddon-Mitchell's and Frank Jackson's *Philosophy of mind and cognition* is written as an introductory textbook. Philosophy, of course, is not the actual study of the subject. The book, then, does not report factual data about the mind and the mind's ability to acquire knowledge by processes like perception and reasoning, and it neither tells about specific research methods that could be used to learn more about the mind and its processes. The book introduces in understandable language some schools of thought that have dominated the philosophical debate about the mind for the last decennia. In their discussions the authors make also clear to which school they feel allied to, namely common-sense functionalism. 'Common' refers to what we have in common; what everyday individuals assume and think. 'Sense' refers to good judgment. 'Functionalism' is the theory that analysis and explains a thing, in this case the human mind, according to the function it performs. There are different components recognized in a structure, and functionalists are interested which function each component fulfills. They are, however, not interested how the component fulfills its function. Common-sense functionalism, then, is the research project that analyses and explains the mind by starting with the terms that are used in regular, day-to-day speech to say something about the working of the human mind.

Two approaches are widely used to introduce the philosophy of mind. One approach is historical; we are given a sketch of the views of some of the great scholars of the past. The good side of this approach is that the reader hears about concepts that have been used in the past; also concepts that are ignored today but still could be valuable.

The other side of the historical approach, however, is that concepts are explained which have rightfully been discarded. Examples of these concepts from the physical sciences are 'ether' and 'phlogiston.' An example from the field of psychology could well be 'soul.' The other approach is the one chosen by this book. The reader learns about current views and, as a consequence, the reader learns only about the concepts that are in use nowadays. The advantage for someone who wants to learn more about the modern-day debate is clear; the reader is spared outdated concepts and outdated trains of thought. The disadvantage, however, is that the reader will not learn of concepts that could well be useful but are at this moment simply out of fashion.

The 19th-century saw the rise of psychology and that just after Darwin had convinced the scientific world that survival of the fittest coupled with sexual selection can explain many natural phenomena including the emergence of all of today's human psychological characteristics. Hence, the founding fathers of psychology argued for the establishment of a new science just when it became clear that psychological characteristics are a product of biological processes. The reasons given to start a new science were: (1) the subject of psychology (the human mind) is importantly different from the subject of the physical sciences and (2) the research methods that can be utilized in the physical sciences cannot be employed in the study of the mind. The argument about the distinction between the two subjects went as follows. The physical sciences study objects and processes whose results can be observed by everyone; for instance, everyone can see the effect of magnets on one another. However, no-one sees the human mind; we know about the state of our own mind by experiencing hunger, happiness and so on. The founding fathers

E-mail address: [geertjan.boudewijnse@gmail.com](mailto:geertjan.boudewijnse@gmail.com)

pointed out that the subject matter of the physical sciences is open for outer perception while psychological phenomena are only open to one's own inner perception. The other argument, namely that the research methods of the two types of sciences differ, went as follows. The subject matter of the physical sciences, that is to say external objects and processes, can be carefully inspected and measured. This, however, is impossible with inner phenomena. We can only observe our inner phenomena much in the same way as when we sit in the train and observe the landscapes gliding by. But that is not the way physical scientists study their research objects. Hence, the methods that the physical sciences make use of cannot be applied to the study of the mind. Psychologists, then, must exploit different methods.

Physical scientists proceed by demarcating their study object and then they propose concepts that would explain their observations. With the mind, it seems, just the opposite is happening. We have concepts like desire, anger, hunger, love, perception, remembering, knowing, forgetting and so forth. However, we do not observe the mind. Indeed, for ages it was assumed that the mind was something immaterial and unobservable. And later on the mind became seen as an expression of the working of the brain. The brain is observable, but not its mind aspect. The experience of seeing a tree is only observable through inner perception by the person who does the seeing; not by the person who would measure the brain activity that goes on while someone sees a tree.

Over the ages scientists have used different concepts to explain phenomena. Aristotle used concepts like 'substance' and 'accidents;' Newton used 'mass' and 'gravity;' Einstein used 'energy' and 'field.' Hence, scientists have used very different notions to explain physical phenomena. They have been forced to look for new theories with new concepts because the old ones clearly failed to explain physical events. I do not see a similar evolution of concepts in psychology. Braddon-Mitchell and Jackson do not believe that an evolution of mental concepts is necessary. Instead, they argue that our everyday concepts to describe the mind must also be used by contemporary scientists.

The founding fathers of psychology proposed that the mind would be studied on its own terms. Psychologists would propose theories and concepts, test them out, and then revise their theories and concepts till a trustworthy knowledge of the mind was reached. The founding fathers of psychology accepted the gap between the physical and the mental sciences. They pointed out that an attempt could be made to overcome the separation only after the two types of sciences have reached a certain state of knowledge. Thus, first one must know more about the brain and also more about the mind before one can see how the two types of knowledge fit together.

However, science does not proceed according to the path set up by some 19th-century scholars. Soon after the founding of psychology as a separate discipline attempts have been made to integrate psychology in the physical sciences. A radically simple solution was the one advocated

by behaviorists: wipe out what gives psychology its reason of existence! Behaviorism banned the mind as direct study object and it banned also the method of inner perception. The difference between psychology and the physical sciences, of course, disappeared but to the price of studying the mind in accordance with the mind's characteristics.

It is now time to look closer what Braddon-Mitchell and Jackson say about common sense functionalism. They recognize three characteristics to which all functionalists would agree:

- “(a) They agree about the general shape of the right theory of mind. It has three parts . . . [T]here are input clauses – clauses that say what sorts of events cause mental states in people; output clauses – clauses that say what sorts of behaviours are caused by mental states; and internal clauses – clauses that describe the internal interactions of mental states.
- (b) They agree that mental states are inner states that occupy or fill the roles specified by those clauses.
- (c) They agree that one of the great strengths of functionalism is that it allows for what is known as **multiple realizability**. This is the idea that these roles could be filled or occupied by quite different kinds of things in different cases” (p. 48/49).

The example of a present day cash register may make the above quote clear. It has several functions, namely: to record the amount of the sale, to record the amount given, to have a place to store the moneys and to inform the cashier how much change must be returned to the client. The actual way this is done may vary from machine to machine. But every machine has these functions. The input clause is the client with the goods bought; the inner state is the calculation of the total of the merchandise and the difference with the amount given by the client; and the output clause is showing the amount to be given back with, at the same time, opening the cash drawer. The book argues that a similar model applies to the mind. There are input clauses like “bodily damage causes pain” (p. 52); output clauses like “pain causes bodily movement that relieves the pain and minimizes damage” (p. 52/53); and internal causes like “perception as of beer in front of one typically causes belief in beer in front of one” (p. 53). Hence, three phases are recognized: an input, an output and an intermediate phase. The input and output phases can be observed by everyone. The intermediate phase, on the other hand, cannot be observed by the naked eye. The intermediate phase happens in the brain and scientists have reached some knowledge about the brain's physical and chemical processes. The question is: how can our ordinary terms like 'pain' be linked to brain activity?

The authors argue that we all have an implicit knowledge of the mind, just like we have an implicit knowledge of the grammar of our mother tongue. In the case of grammar, our implicit knowledge is revealed by our ability to formulate correct sentences and to recognize grammatically

incorrect sentences. Our knowledge about the mind is revealed by our ability to predict our own behavior as well as of other people. These predictions are stated in terms of mental states. Hence, our commonly used mental terms are a window into the human mind. The authors conclude that “we have an implicit mastery of a detailed and complex scheme that interconnects inputs, outputs, and mental states” (p. 63). The authors make two claims. The first one is that our ordinary terms have proven to be useful and effective in understanding the mind and therefore these terms are a window to the human mind. Their second claim is that our every day terms can also be used to describe the processes going on at the intermediate phase. Braddon-Mitchell and Jackson formulate their second claim even more narrow and precise: “common-sense functionalism is a theory of the mind explicitly designed to be compatible with physicalism, indeed, to lead inevitably to physicalism given the empirical facts” (p. 61). That is, the authors claim that our day-to-day terms about the mind can also guide scientists in their attempt to understand the physical working of the intermediate phase. I want to say something more about their second claim but before I can do so, I must explain an interesting analogy that Braddon-Mitchell and Jackson come up with. They argue that:

“Intentional states are maps in the head . . . The suggestion is not, of course, that something that *looks* like a map is in the head, but rather, that the way head states represent is like the way maps represent.” (p. 181)

The belief that it will rain tomorrow is an intentional state as is the experience of feeling pain in one’s left foot. Thus, the authors believe that the mind would store this kind of phenomena like a map does. This calls for the question, how do maps represent? A map is a data-base that allows us to find in one spot the answer to many different types of questions. We can look up, for instance, how far Montreal is from Boston, what the fastest way is from Montreal to Boston, which city is the most north, Montreal or Boston. The answer to the questions regarding the dis-

tance between Montreal and Boston, the fastest route between these two cities and which one is most north are given at the same area of the map; there are not three sections with each giving the specific answer to just one question. A map, then, does not store information like a filing cabinet does. A filing cabinet would have three files with each file having the answer to only one question. A map has all the answers in a single file, so to speak.

Now, I want to implement the map model to the common-sense view that pain causes targeted, aim-oriented behavior. The experience of pain, the desire to get rid of pain, the belief system regarding the cause and treatment of the pain, the instructions to the motor neurons would all use the same map. But then, there is no simple, straightforward, one-to-one relationship between the mental functions we recognize like pain, desire, belief and behavior on the one hand, and the material realization in our head on the other hand. In the map-model the commonly used mental terms are not identifiable represented. In this model one may not assume that a belief is like Boston and a desire is like Montreal; that is identifiable points. In the analogy of the map, a belief and a desire could well be phenomena like a distance, the fastest route between two cities, or which city is situated most north. This implies, in my eyes, that our day-to-day terms like ‘belief’ and ‘desire’ will not lead to an insight in how the mind functions; nor will these terms lead to an insight how the physical structure of the brain functions.

Braddon-Mitchell and Jackson recognize that the concepts that are used to discuss the mind differ from those to discuss the brain. They recognize the gap that exists between our understanding of the mind and our understanding of the brain. They want to overcome this gap. However, I just do not see how everyday’s concepts like ‘pain,’ ‘belief’ and ‘desire’ can be transposed on physical concepts like ‘neurons,’ ‘synaptic cleft,’ ‘electrical conductance,’ ‘occipital lobe’ and so forth. I think that the founding fathers of psychology were right: have patience, develop knowledge in both fields and only when the time is right try to join the two fields. Not sooner.