## **Edouard Machery**

Doing Without Concepts.
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In this valuable new study Edouard Machery proposes to 'rejuvenate the philosophy of concepts by steering it toward a new course' (Introduction). As such, readers may expect to find either an exciting novel theory of concepts or at least useful guidelines with which to improve or revise existing theories. However, very little of these is forthcoming. Instead, readers will find that the 'new course' Machery promises turns out to be the recommendation—and a drastic one at that—that the notion of 'concept' be altogether removed from the vocabulary of psychology. According to him, not only does the term 'concept' fail to refer to a natural kind term but it also helps perpetuate 'unproductive' and 'empty' controversies in the theorizing of concepts. Laying out this 'scientific eliminativist' argument constitutes the main thrust of his book.

Machery makes it clear at the outset that his main concern is with concepts in psychology. According to him, psychologists take concepts to be bodies of knowledge that are stored in long-term memory and are called up by default in cognitive processes such as categorization, learning and inductive reasoning (Chapter 1). Machery identifies three 'main paradigms' of concepts in contemporary psychology (Chapter 4). First, prototype theories take concepts to be bodies of knowledge about statistically relevant properties that members subsumed under the concept share. Next, exemplar theories, in contrast, claim that concepts convey knowledge about specific members. The third option, as espoused in theory-based theories, argues that concepts encode information about causal relations and domains.

All three paradigms take concepts to be bodies of knowledge, which Machery insists must be distinguished from the way philosophers understand concepts (Chapter 2). Philosophers tend to construe concepts as capacities to possess propositional attitudes and consequently, worry about such issues as concept individuation, possession conditions, and the semantics of concepts. Psychologists, on the other hand, do not share the same worries and, given their understanding of concepts, have an entirely different explanatory agenda. Since the two disciplines interpret the term 'concept' differently, Machery advises that many of the criticisms made by philosophers against psychological theories of concepts simply miss the point. To make their arguments relevant, he urges, philosophers must also take concepts to be bodies of knowledge.

Machery goes on to show that the 'received view' of concepts in psychology is flawed. Most psychologists maintain that the class of concepts can yield informative inductive generalizations. One reason why they think this is that they assume all

concepts (or most of them) exhibit the same kind of structure. Thus, the central debate in recent theorizing in the psychology of concepts focuses on what type of structure concepts are supposed to exhibit. Some theorists argue that all concepts are prototypes, whereas others support the exemplar or theory-based models. Machery argues that the debate is basically misguided, and he does this by establishing what he calls the 'Heterogeneity Hypothesis' with five tenets. Tenet One suggests that a person typically has multiple concepts with respect to any category (be it an object, an event, etc.). For example, a person has not only one but several distinct concepts of cats, that is, those of prototype, of an exemplar, and of theory of cats (Tenet Three). Although these concepts all refer to cats, they do not have many properties in common (Tenet Two) because, as mentioned, they encode different bodies of knowledge. Not surprisingly, then, each kind of concept is used in distinct cognitive processes (Tenet Four). For instance, there is much evidence to show that there is not one but three distinct processes involved when we categorize. More importantly, each process accesses only its own kind of concepts (Chapter 6).

The above-mentioned four tenets set the stage for Machery's eliminativist conclusion. Since there are several fundamental kinds of concepts, the term 'concept' does not pick out a natural kind. Moreover, the class of concepts, consisting of prototypes, exemplars and theories, yields very few non-trivial inductive generalizations. The term 'concept', in short, serves little purpose in psychology. Indeed, Machery argues that retaining the term could potentially even hinder our understanding of concepts and lead theorists on a wild goose chase for elusive definitions. Theorists should concentrate their efforts instead on more constructive projects like elucidating what fundamental kinds of concept there are and developing a more satisfactory classification of concepts. On these pragmatic grounds, therefore, Machery advocates expunging 'concept' from the vocabulary of psychology.

Doing Without Concepts makes an important contribution to the study of concepts. Not only does it provide a masterful and accessible review of current empirical research on concepts, more importantly it introduces novel and refreshing ways to think about concepts (e.g., the notions of conceptual pluralism and scientific eliminativism). There are, however, some key issues in the book that could have been more adequately addressed. For instance, according to Machery, an individual can have several concepts for a particular category because there is evidence to show that she possesses multiple coferential bodies of knowledge. However, without a more detailed treatment of coference—e.g., an account of the mechanisms involved—it is unclear whether Machery is justified in concluding that these bodies have nothing in common, a conclusion that is a crucial premise for his eliminativism. In light of ongoing debates concerning reference and conceptual identity, it may well be that these bodies of knowledge actually share, over and above contents specifically their own, some common abstract structure that is responsible for mediating causal relations required for determining reference. Not only would such a structure deserve to be called a 'concept' but it would also yield informative

inductive generalizations. Such a possibility thus represents one way in which Machery's argument for eliminativism would be undermined. Incidentally, it also shows that psychological theories are perhaps not as immune to philosophical criticisms (even if they spring from a different explanatory agenda) as Machery presumes them to be.

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