

DISSERTATION ABSTRACT

The Structure of Thought

Many philosophers adhere to a linguistic model of thought according to which cognition is dominated by conceptual representations—representations that are composed of concepts in much the way that a sentence is composed of words. When one inspects the empirical literature in the cognitive sciences, however, a very different picture of the mind emerges. Cognitive scientists appear to traffic in a wide variety of representational kinds, including not just sentence-like representations, but imagistic representations, map-like representations, and analog magnitude representations. My dissertation explores and ultimately defends this pluralistic model of the structure of thought.

I begin the dissertation by explaining how I understand the notions of thought and conceptuality. Very roughly, I hold that thoughts are contentful mental states of a subject that causally and inferentially mediate between perception and action, facilitate learning, and are stored in memory. I argue that thoughts are appropriate objects of scientific investigation, possessed by animals and humans alike. Whether thoughts are conceptual, I argue, is largely a question about their structure—in particular, about whether thoughts are structurally analogous to sentences. I discuss two prominent theories that maintain that thoughts are conceptual in this sense: the Fregean theory that thoughts have conceptually structured *contents*, and the Fodorian theory that thoughts have conceptually structured *vehicles*.

Armed with an understanding of thought and conceptuality, I consider several arguments that philosophers have advanced in favor of the thesis that thoughts must be conceptual. These include the arguments that thoughts must be conceptual to explain how thinkers can: (1) produce an infinite number of thoughts, (2) reidentify particulars over time, (3) obey certain closure conditions with respect to the thoughts they can think, (4) speak and understand natural language, and (5) engage in inference. I argue that only the last two of these arguments have the tendency to show that any thoughts are conceptual, and moreover, that even these two “successful” arguments only show that *some* thoughts are conceptual—particularly some thoughts of the linguistically and logically competent. These arguments thus leave the door open to the possibility that many thoughts—perhaps even the vast majority of thoughts—are nonconceptual.

Having cleared space for the possibility of nonconceptual thoughts, I employ two strategies to argue for their actuality. First, I demonstrate that there are essential properties of conceptual thought that are not instantiated by all thoughts. For example, insofar as thoughts are conceptual, the concepts from which they are composed should be capable of recombining freely like the words in a sentence. Thus, if you can think that Amy is funny and that Bob is gracious, you should also be capable of thinking that Amy is gracious and that Bob is funny. I argue that so-called *analog magnitude thoughts*, which represent magnitudes such as number, time, distance, and rate, fail to exhibit this property of free recombining. We thus have reason to deny that analog magnitude thoughts are conceptual.

Second, I isolate properties of thoughts that are best explained on the assumption that they are nonconceptual. For example, several experiments have shown that when thinkers try to remember the location of an object they privilege geometric cues over cues such as color, smell, and texture. On the assumption that these thinkers use sentence-like representations to encode the location of objects, there is no immediate reason to expect this result. But on the assumption that thinkers use map-like representations this is exactly what one would predict. Anytime an object is represented on a map, the object’s location relative to the geometry of the environment is automatically encoded. You cannot use a map to represent an object without also representing the object’s geometric position.

The existence of nonconceptual thought sheds light on several topics in the philosophy of mind. For instance, philosophers who hold that perceptual experiences must have conceptual content are often motivated by the claim that perceptual experiences must have the same kind of content as thought, which they assume to be conceptual. However, if I am right that some thoughts are nonconceptual, this motivation is undermined. As another example, consider the question whether animals have thoughts. If we view all thought as conceptual, the minds of animals are bound to look mysterious: we either over-intellectualize their minds by attributing conceptual thoughts to them or we under-intellectualize their minds by denying that they have thoughts at all. By contrast, if we allow that some thoughts are nonconceptual, we give ourselves the resources to attribute thoughts to animals without ignoring the significant differences between their thoughts and our own.