

Chapter 1

Object representation as a central issue in cognitive science

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1.1 Knowing objects

Philosophers of mind make a distinction between knowledge that is derived or mediated and knowledge that is immediate. Mortals must derive mediated knowledge whereas divine knowledge is immediate. Oddly enough, cognitive scientists interested in the nature of human object knowledge have their fair share of arguments about a rather similar distinction. Indeed, the question of where knowledge comes from has pervaded debates in object cognition since the field's inception. Do humans begin life privileged with the capacity to immediately detect and represent objects? Or is our object knowledge instead derived only as the result of prolonged experience in the external world? Are we simply able to perceive objects by watching their actions in the world, or do we have to act on objects ourselves in order to learn about their behavior? Finally, do we come to know all aspects of objects in the same way, or are some aspects of our object understanding more epistemologically privileged than others?

Thankfully, over the past few decades, psychologists interested in the development of object knowledge have made remarkable empirical headway even in the face of this philosophical controversy. Such empirical headway is in large part due to a growing interest in the origins of object knowledge among psychologists outside the developmental sphere. Indeed, researchers in disciplines as varied as vision science, comparative cognition, and cognitive neuroscience have added to the investigational furor surrounding the origins of human object knowledge. The result is a veritable explosion of work in this area, with each field taking on the classic problem of object representation from different but often equally important perspectives.

This volume aims to provide a snapshot of the current state of this comparative research explosion, with an emphasis on the current results shaping our theories of the origins of human object understanding. In particular, the

