

**Psychological Theories of Perception, Imagination and  
Mental Representation, and Twentieth Century Philosophies of  
Science.**

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*by*

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Submitted in accordance with the requirements for the  
degree of  
Doctor of Philosophy.

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June 1987.

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(Abstract.)

This thesis considers how real empirical knowledge is possible. Plato (like the Sophists, and modern relativists) believed that such knowledge is not possible, because, he argued, material sense organs are not capable of registering such things as existence and similarity. In reply, Aristotle deployed the concept of the imagination - a faculty which, in perception, integrates the deliverances of the various senses, and which also produces mental imagery.

What are imagination and imagery? Imagery was much studied in 19th century introspective psychology, but irresolvable disagreements arose over whether all mental contents are images. However, I reject the idea that views about imagery are largely conditioned by individual differences in vividness etc.. J.B. Watson, who had once claimed vivid images, inaugurated the Behaviorist movement with a denial that imagery exists at all. Subsequently, imagery was largely ignored by psychologists, until about 1960. It is argued, however, that Gestalt Psychology can be construed as a theory of the mechanism of imagination. After 1960 interest in imagery revived, particularly because it was found to have very powerful mnemonic effects. Later, other striking imagery effects were discovered - notably Shepard's "mental rotation", and

Kosslyn's "mental scanning" and image size effects.

The three currently extant types of theory of imaging are: the 'quasi-pictorial' theory, which descends to us from Democritus and Aristotle, through Descartes, Hobbes and Locke, to Kosslyn; the 'descriptive' theory, which is associated with the computer metaphor in psychology; and the 'perceptual activity' theory, which is most fully developed in the work of Neisser. It is argued that the first two of these are inadequate both to the experimental findings, and to explaining the imagination's epistemological function. Neisser's theory, which builds upon the perceptual theory of Gibson, does seem to be potentially able to explain these things, and I develop it to meet certain objections. We conclude by considering entity realism and the transformation of philosophical problems into scientific ones.

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