BIRKBECK

UNIVERSITY OF LONDON

MRes PSYCHOLOGY

THE CONTRIBUTION OF DATA FROM COGNITIVE NEUROSCIENCE TO UNDERSTANDING HUMAN CATEGORISATION

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Abstract

Why are humans representing the world in categories? Is this process a result of innate constraints or is it acquired? Does language (verbal representations) mediate categorisation or is it rather a result of it?

In the present study I attempted to answer these questions by taking a look at recent data from neurocognitive studies of semantic processing and cases of semantic impairment. The most striking conclusion is the large variability of data, which is not easy to generalise. Several reasons may account for this situation: technological shortcomings (there is a need for more sensitive techniques), methodological shortcomings (inappropriate statistical analysis, uncontrolled stimuli) and a deficient problem definition. On the latter, the present study introduces a developmental dimension, differentiates between denotative and connotative information types, and places the discussion towards a context-sensitive driven theory of semantic categorisation within the framework of neuroconstructivism.

In addition, the present study stresses on the evidence for a distribution of processes, mechanisms and information in time and space, and accentuates the role of basal ganglia in categorisation. A particular attention is also paid to the role of the fusiform gyrus and hippocampus in learning and retrieving semantic information.

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