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Proceedings of the Annual Meeting of the Cognitive Science Society

Title

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Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 41(0)

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Publication Date

2019

Peer reviewed

The Role of Sensorimotor and Linguistic Information in the Basic-Level advantage

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Abstract

The basic-level advantage is one of the best-known effects in human categorisation. Traditional accounts argue that basic-level categories present a maximally informative or entry-level into a taxonomic organisation of concepts in semantic memory. However, these explanations are not fully compatible with most recent views on the structure of the conceptual system, which emphasise the role of sensorimotor (i.e., perception-action experience of the world) and linguistic information (i.e., statistical distribution of words in language) in conceptual processing. In a pre-registered wordpicture categorisation study, we hypothesised that our novel measures of sensorimotor and linguistic distance would contribute to categorical decision making, and would outperform traditional taxonomic levels (i.e., subordinate, basic, superordinate) in predicting the basic-level advantage. Results showed that, overall, our measures predicted the basic-level advantage at least as well as taxonomic level. Sensorimotor information best explained processing speed, whereas taxonomic level best explained participants choices.