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Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 43(43)

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Publication Date

2021

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Revising the Scope of Linguistic Relativity: Language Influences Perception in Non-linguistic Tasks

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Abstract

According to linguistic relativity, the structure of a language influences its speaker's cognition. To examine the generalization to non-linguistic tasks, we compared Korean and German native speakers. In Korean, a grammatical distinction forces to discriminate between tight and loose spatial relations, while in German, this falls into one single semantic category. In visual priming and masking experiments, we found 1) direct and 2) indirect evidence for linguistic relativity. 1) Congruence effects in the discrimination of tight/loose spatial relations only for Korean speakers and 2) a reduced efficiency of metacontrast masking (which relies on spatial fit between stimulus and mask) for Korean speakers, as attention was automatically captured by varying distances, according to their grammar. With object-substitution masks (where tightness of fit does not play a role), Korean speakers no longer outperformed German speakers. In our study, the highly practiced characteristics of one's mother tongue affected attention and, hence, perception.