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A Cross-Linguistic Comparison of Adults' Sensitivity to *Fit*

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Introduction

Findings in the area of language and thought suggest that speakers' sensitivity to spatial relations is influenced by the semantics of their native language. We propose that a more nuanced understanding of this phenomenon can be attained by considering nonlinguistic factors that may also affect this sensitivity. Specifically, we propose that even in the absence of linguistic support, speakers maintain robust sensitivity to concepts that are privileged in that they are perceptually obvious or conceptually meaningful.

We take as an example the dimension *fit* (*tight* versus *loose*). The linguistic contrast of interest involves differences in English and Korean terms for the spatial relations *tight containment*, *loose containment*, *tight support*, and *loose support* (e.g., Choi & Bowerman, 1991). Prior research has suggested that infants are sensitive to both the support-containment distinction (e.g., Casasola & Cohen, 2002; McDonough, Choi, & Mandler, 2003) and the tight-loose distinction (Casasola & Cohen, 2002; Hespos & Spelke, 2004; McDonough et al, 2003), but that adults show language-specific patterns of sensitivity. Specifically, English speakers—whose language requires mention of support and containment but not fit in the description of spatial relations—show reduced sensitivity to fit as compared to Korean speakers, whose language does require mention of fit (Hespos & Spelke, 2004; McDonough, et al, 2003).

Although compelling, this research has assumed that tight and loose relations draw attention to the overarching concept *fit* with equal force. In prior work (Norbury & Waxman, under review), we have presented evidence that tight relations draw attention to fit more powerfully than loose relations. Using a similarity judgment task (described below), we demonstrated that English speakers do maintain sensitivity to fit, but only when tight relations and not loose relations are highlighted. We have suggested that this result stems from the perceptual and conceptual coherence of tight relations as opposed to loose relations.

Thus, the sum of prior research suggests that both linguistic and nonlinguistic factors affect adults' sensitivity to fit. In the current study, we continue to investigate the nature of adult sensitivity by asking whether the tight-loose asymmetry is present in speakers of Korean—a language that encourages attention to fit.

Method

The goal the current study was to ascertain whether Korean speaking participants attend to fit more in cases where tight rather than loose relations are highlighted by (in this case)

serving as the base of a comparison. Participants were native speakers of Korean; they also spoke English.

Following Hespos and Spelke's (2004) paradigm, participants first viewed a base scene that depicted one of the four relevant relations (Tight In, Tight On, Loose In, Loose On), and then rated the similarity of two test scenes (Loose In, Tight In), one of which matched the base scene in terms of fit and one of which did not.

The relation between the two ratings for any given trial was an index of participants' attention to fit during that trial. If participants attend to fit, the similarity rating for the test scene that matches the base scene in terms of fit should be higher than the rating for the test scene that does not. If the tight-loose asymmetry is present, participants should demonstrate attention to fit when a tight relation but not a loose relation appears in the base scene.

Results

As with the English speakers in our prior work, attention to fit was evident in the trials that featured a tight relation in the base scene but not in those that featured a loose relation. Further, attention to fit varied reliably across trials, with greater attention in the trials that had a tight base relation.

Discussion

It appears that tight relations are privileged for Korean speaking adults as they are for English speaking adults. These findings suggest a conceptual advantage to tight relations that is resistant to the influence of language. However, cross-linguistic differences may appear in terms of the power of loose relations to draw attention to fit. We are investigating this possibility by investigating how the tight-loose asymmetry manifests in monolingual Korean speakers.

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