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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, 44(44)

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Publication Date

2022

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Peer reviewed

Another person's perspective biases how 14-month-olds' detect mislabeling of hidden objects

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Abstract

The N400 is an ERP component sensitive to semantic violations. Here, we probed if infants' detection of a mismatch is subject to an altercentric bias: a bias by another person's perspective. We hid the object in a box at the time of labelling, so its representation had to be maintained. Exp.1 established that 14-month-olds detect when an occluded object is labelled incorrectly ($t(27)=2.12$, $p=0.043$). Exp.2 included a perspective mismatch, and labelling was always incongruent for the infant, but in 50% congruent for the other. We found a reduced N400 for the congruent-for-other trials ($t(33)=-2.19$, $p=.036$), indicating an altercentric influence on infants' semantic mismatch detection. Exp.3 probes whether infants detect any incongruence from their perspective when the labelling is always consistent for the other. Preliminary analyses ($n=22$ out of 34 pre-registered) show no effect of congruency from infants' perspective, suggesting that congruency for the other may override infants' own mismatch detection.