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.

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