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Which mindreading for ostensive communication? An Event-Related Potentials (ERPs) study of how the brain processes communicative and informative intentions

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Abstract

According to the ostensive-inferential model (OC), human communication is characterized by two different types of intentions: communicative intention (CI) and informative intention (II). In its classical formulation, the processing of those intentions are considered prerogative of adult humans. In recent years, a deflationist perspective on OC has emerged: This new approach suggests that basic forms of OC can be observed in both human infants and non-human primates. Classical perspectives posit the hypothesis of high-level inferential mindreading for both CI and II. Conversely, deflationary perspectives associate basic forms of mindreading with basic forms of OC. We present an ERPs study on OC. Three primary findings emerged, relating to the amplitude of two early components, P100, N170, and one later component, LC1. This suggests that the detection of intentions occurs within 200-millisecond. We address the empirical and theoretical implications of these findings within the context of a deflationary perspective on OC.