Evidence for Distinct Factive and Non-Factive Mentalization Systems in Adults and Infants

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Abstract

Despite extensive research on mentalization, few studies target the representations and the cognitive systems that underlie different mental state attributions. In two eye-tracking experiments with adults (n=32) and 19-month-old infants (n=24), we examined whether factive (knowledge, ignorance) and non-factive (false belief, true belief) mental state attributions belong to seperate representational systems, relying on the assumption that transfer within-system should occur faster than between-systems. Participants watched animated videos of an agent tracking a hidden ball that could hide in two locations, requiring mental state attribution updates from non-factive to either another non-factive or to a factive mental state. Saccadic reaction times (SRTs) to the ball's reappearance were measured. Results showed that both adults and infants had faster SRTs when updates occurred between two non-factive mental states compared to updates between a non-factive and a factive mental state. This supports the existence of distinct systems for factive and non-factive mental state attribution.

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