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Is Seeing Believing? The Role of Perception Verbs in False Belief Understanding in Autism

Abstract:
False belief understanding in children with Autism Spectrum Disorder (ASD) has long been linked to children's comprehension of mental verb sentential complements (I think that you ate the apple) (de Villiers, 2000; Hale and Tager-Flusberg, 2003; Tager-Flusberg 2000). As embedded clauses headed by a verb of cognition, these structures allow speakers to express belief propositions that may or may not be reflective of reality (Tager-Flusberg, 1997). However due to the abstract nature of mental verbs, this verb class has a late developmental trajectory of acquisition (Papafragou, Cassidy, and Gleitman, 2006), and this timeline may act as a confounding factor in the delayed detection of false belief understanding. Here, we present an alternative theoretical approach focusing on the easier acquired verbs of perception (sensory verbs such as see) as a proposed litmus of false belief understanding in ASD. Recent findings investigating English speaking children's production of these two verb classes have highlighted that perception verbs also take complement clauses although in smaller frequencies than mental verbs (I see that you ate the apple), but are produced in overall greater quantities early in age (Davis, Vijay, Yang, Landau, 2017; Davis and Landau, 2018; Davis and Landau (under revision)). In complement constructions, perception verbs have extended mental meanings, providing both sensory and cognitive information. We investigated Norwegian adult’s production of these verb classes through the Ringstad corpus of CHILDES and found that both perception and mental verbs in Norwegian also take on the sentential complement structure. The syntactic and semantic overlap of these verb classes suggests that children’s understanding of perception verb complements may be a tighter link to false belief understanding than mental verb complements. We also present on-going data from a study investigating this theory through verbal elicitation tasks and false belief tasks in 6-13 year old children with ASD, children at-risk for ASD, and neurotypical children. Together, our corpus data and on-going work suggest a novel route of exploration for false belief understanding in autism.

References:


