

Linguistic and non-linguistic salience in children's processing of discourse reference in dynamic scenes

Juhani Järvikivi, Language Acquisition and Language Processing Lab,
Norwegian University of Science and Technology

Since the first study by Trueswell, Sekerina, Hill, and Logrip (1999), the visual world eye tracking paradigm has advanced the study of children's language processing. In particular, recent research using this paradigm has inquired into the linguistic sources of information that young children use when comprehending discourse reference online. These studies have revealed that already 3-year-olds tend to show sensitivity to the same factors than adults, namely discourse prominence (topic continuity), subjecthood and first-mention, binding constraints as well as verb-based semantic factors such as implicit causality and transitivity. However, less is known about how information structure cues like topicalization and focusing affect children's referential processing.

Typically, visual world studies have used procedures with static stationary scenes with either all of the critical referents or none of them (the blank screen paradigm) are present when the critical expression in the spoken input is encountered. Beginning with the seminal study by Tanenhaus and colleagues (1995), these studies have shown that online language comprehension, such as syntactic ambiguity resolution and anticipation of argument structure relations, is affected and modulated by the information available in the visual context. Perhaps surprisingly, prior evidence suggests that unlike adults children rely mainly on linguistic information when resolving ambiguities.

I will briefly review the recent literature on children's online processing of reference. I will then discuss our recent research where we have used dynamic scenes in investigating the effects of information structure cues, focusing and topicalization, in 4-year-old children's spoken pronoun comprehension. I will further introduce our ongoing research investigating the relationship between linguistic and non-linguistic information, visual action, in unbalanced visual world settings, where either of the critical characters, the more salient subject or less salient object, are visually present or absent at the critical moment when a pronoun needs to be resolved.