

Do children derive informativity inferences?

A speaker is generally expected to be interesting and to contribute novel content to a discourse (Kravtchenko & Demberg, 2020; Sedivy, 2003; Rohde, et al., 2021); when a speaker fails to do so, listeners may try to identify a communicative goal to reconcile their expectations for newsworthiness with the uninformative input they encounter. For example, a speaker who asks “please pass the yellow banana” may yield a contrastive inference: Since bananas are typically yellow, the mention of colour may prompt listeners to reason why the colour modifier was included and invite an inference that another non-yellow banana is present (Levinson, 2000, Sedivy 2003). This search for additional meaning encompasses cases where a seemingly trivial utterance (“the walls are blue”) invites further conclusions (e.g., that the walls have changed, a so-called *informativity inference*) via a similar reasoning process, whereby a speaker’s utterance is expected to comprise an informative and interesting contribution. However, content that is trivial to an adult may nonetheless be informative for children since children are still learning about the world. For example, the utterance “tigers have stripes” may be informative to a child and not violate conversational expectations, whereas for an adult such an utterance may be perceived as a strange contribution (Gordon & van Durme, 2013). Here we examine how children use speaker knowledgeability in interpreting utterances that violate informativity expectations (Morrisseau, et al., 2015; Moty & Rhodes, 2021; Tomasello & Akhtar, 1995).

Method. N=50 children (aged 5-10yrs M= 7;6 & N=35 adults) were introduced to a speaker “Suzy” who is telling her father about her day. Speaker knowledgeability was manipulated by the location that Suzy talked about, either a familiar location (school) or an unfamiliar location (the Prime Minister’s offices). Suzy made a statement (“I saw that the library walls are blue”), and participants were asked “What do you think the situation was like several months ago? Same or different?” Responding “different” suggests that participants are drawing an inference by searching for additional meaning that would license the trivial statement.

Results & Discussion. We analysed the binary responses (same/different). We replicate prior findings on Speaker Knowledge (Rees, et al. 2023): Across all ages, participants drew more inferences in the familiar than unfamiliar condition (Fig 1). As children get older, the inferencing rates decrease as their performance becomes more in line with adults’ performance, indicating a growing ability to engage with the task and reason about a speaker. This work demonstrates that listeners have pervasive expectations of cooperativity and if conversational contributions fail to satisfy these expectations, then adults and children will engage in sophisticated reasoning to reconcile the mismatch in informativeness.

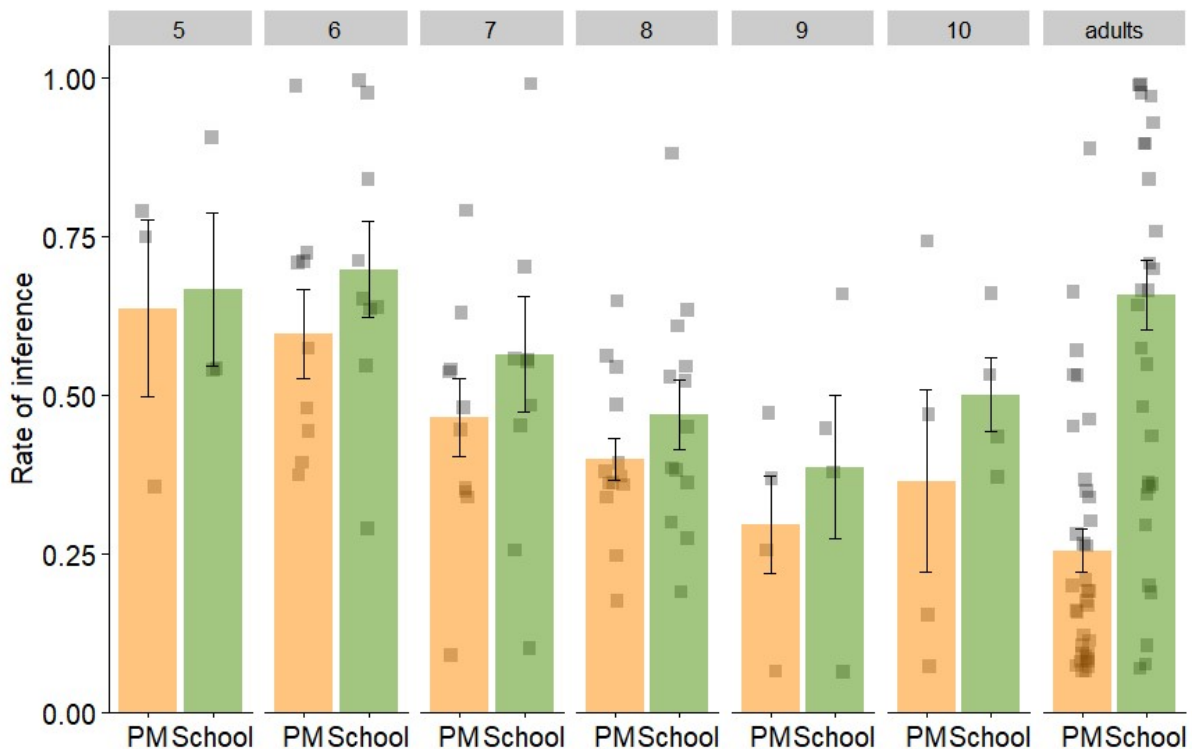


Figure 1. Proportion of “different” responses by location and age (in years). Responding “different” is consistent with an inference response.

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