Effects of contrastive pitch accents on children's encoding of discourse

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What role do contrastive pitch accents play in children's discourse comprehension?. By 6 years of age children use contrastive accents during online comprehension to predict upcoming referents (Ito et al., 2014; Sekerina & Trueswell, 2012). But at this age, children's performance on offline tasks of accent comprehension is poor (e.g., Wells et al., 2004). This could reflect problems with these tasks: the offline judgments often involve making inferences about an unknown context ("I wanted chocolate and HONEY" which one didn't she get?). Or it could reflect a developmental stage in which the processing system uses pitch accents to make local predictions but fails to incorporate this information into discourse representations.

In this study, we adopted the task from Fraundorf et al. (2010), which allowed us to assess the effect of contrastive pitch accents on children's discourse interpretation, indirectly by testing their later memory of the discourse. In contrast with the prior offline studies, our tasks provided fully specified discourse contexts and involved no metalinguistic reasoning or postdiction. In the study phase, 5-year-olds (N=36) heard 12 different stories consecutively, one after another. Each story began with a context passage that established two contrast sets each consisting of two entities (*e.g.,* brother/father and scarf/hat). The context passage was followed by a target sentence describing a fact about two critical entities, one each from each contrast set (*e.g.,* She decided to give her brother the hat. He was very happy to get it.). In this critical sentence, we manipulated which of the two nouns had an L+H* contrastive pitch accent. The effect of the contrastive pitch accent was assessed relative to the baseline condition in which none of the critical nouns had a contrastive pitch accent. In the test phase, children's memory for each story was tested with an alternative question (*e.g., Did Annette give her brother the hat or the scarf?*). We found that children remembered these facts better when the item in question had been produced with a contrastive pitch accent earlier.

The findings show that by five children can integrate the information carried by contrastive pitch accents into their understanding of the discourse. This suggests that children's poor sensitivity to contrastive pitch accents in previous offline studies was due to task demands.

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