

Children's Pronoun Resolution: Effects of Attentional Prominence

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In this study, we examine the role of attentional orienting in children's pronoun resolution in the context of narratives. Children's allocation of attention can be modulated through a brief visual cue [1]. While previous research has studied the effect of attentional orienting on pronoun resolution (e.g., [2]), the broader narrative has not been taken into consideration. Conversely, work on pronoun resolution in narratives has not considered attentional orienting [3]. The present work seeks to fill this gap by implementing a cueing and eye-tracking methodology [4] in a narrative context.

Forty-two typically developing monolingual German children between 4;0 and 9;0 years (22 girls, 20 boys, mean age = 7.0 years, SD = 1.3 years) listened to 16 short stories, each consisting of five successively appearing pictures featuring two male characters (*Figure 1*), while their eye gaze was tracked. In picture 1, a character A is introduced and performs an action in picture 2. In picture 3, a character B appears and performs an action (picture 4) while being referred to with a full noun phrase, rendering it as discourse prominent (e.g., [5]). Picture 5 is accompanied by a sentence containing a pronoun compatible with both male characters (e.g., "He is happy"). Children were asked to indicate the character the pronoun referred to. Before picture 5, for half of the stories, an uninformative red dot appeared for 700 ms at the position where character A was to appear (cueing condition), directing the children's attention to the less prominent entity. Since reading and writing conventions in German speakers result in a literacy-related left-first preference in event descriptions [6], the position of character A was counterbalanced. We hypothesized that attentional orienting through cueing would modulate children's pronoun resolution. Therefore, we expected more references to the less prominent character A when cued.

Results indicates an interaction between *cueing* and *position* ($p = 0.003$). Attentional cueing increases the resolution of the ambiguous pronoun in favor of character A, when it is positioned on the right side ($p = 0.02$), interfering with the expected pronoun resolution. Cueing of character A on the left-hand side was not significant. This suggests that attentional cueing can override the pronoun resolution preference, namely assigning the ambiguous pronoun to character B, as expected by both spatial position [6] and discourse prominence [5]. Results show that directing children's attention can modulate their pronoun resolution in narrative contexts, indicating an interplay between discourse prominence and attentional prominence in children's pronoun resolution.

References

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Figures

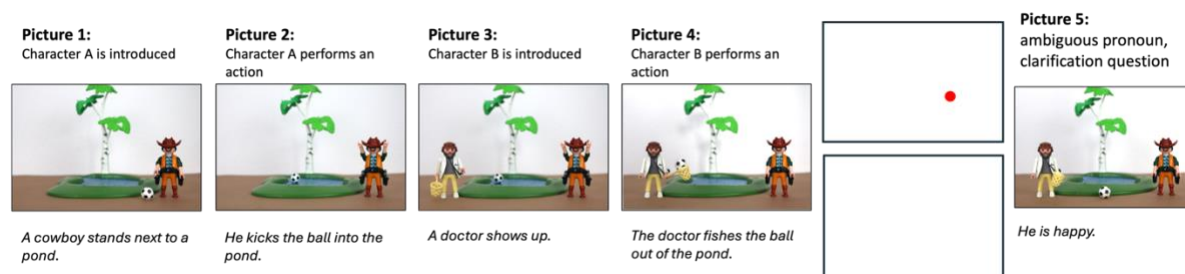


Figure 1: Example trial