

On-line accented pronoun interpretation in discourse context

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Abstract

Pronouns uttered with a pitch accent are said to switch reference from the most salient entity in the context to a less salient entity (e.g. Akmajian & Jackendoff, 1970; Smyth, 1994; Kameyama, 1999). For example, in the spoken utterance "John hit Bill, then HE hit George", adult listeners agree that accented "HE" refers to the less salient "Bill". However, most previous research has focused on strictly 'parallel' sequences such as these (e.g. Akmajian & Jackendoff, 1970; Smyth, 1994). In contrast, our own prior work has shown that adults have trouble interpreting accented pronouns in sequences which lack this parallelism (Venditti et al., 2002a; Venditti et al., 2002b). Here we directly compare discourse coherence relations and pitch accent.

Adult subjects viewed a scene containing male (animal) characters, and were asked to 'follow along' as a short story was presented auditorily. Eye movements were monitored, and who-did-what judgments were elicited at the end of each trial. Sequential utterances were either in a (a) 'parallel' or (b) 'narrative' relation (see Kehler, 2001 for details on coherence relations). In both contexts, the kangaroo (N1) is more salient than the elephant (N2) in the pre-target utterance; a simple salience-ranking hypothesis predicts that accented "HE" will refer to N2 in both cases.

The kangaroo tapped the elephant with a magic wand.

- (a) Then HE tapped the raccoon.
- (b) Then HE looked into the crystal ball.

Off-line judgments show that while unaccented pronouns in both conditions are interpreted as referring to N1, accented pronouns result in significantly more N2 responses in the parallel condition (a) than in the narrative condition (b). This suggests that the coherence relation between the sentences affects the interpretation of the accented pronoun. But at what point are listeners able to determine the type of coherence relation at work? Upon hearing the accented subject pronoun, the relation is still undetermined. An analysis of eye fixations in the target utterance suggests that both N1 and N2 are fixated early on, and a statistically significant preference for N2 in the parallel structure emerges at the verb offset. This suggests that listeners may have verb information available to them to aid in interpreting the accented pronoun. We propose an account of on-line accented pronoun interpretation which is driven by discourse relations among adjacent utterances.

References

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