Clausal organisation and the choice of referring expressions

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How does the structuring of the discourse influence the choice of referring expressions? Research has shown that the more linguistic material intervenes between a referring expression and its antecedent, the more explicit referring expressions (e.g., repeated names rather than pronouns) tend to be produced (Ariel, 1990; Givón, 1983). This suggests that as the intervening linguistic material increases, the accessibility of the antecedent decreases, affecting the choice of referring expression. What is less clear is how the effect of referential distance is modulated by the structural relationship between the antecedent sentence and the intervening material. Three written sentence completion experiments investigated this.

Kameyama (1998) argued that discourse structure is strictly clause-based, such that the referent should be more accessible when it was mentioned in the immediately preceding clause than in an earlier clause, but this should not be modulated by the specific structure of the clauses. Experiment 1 tested this possibility. Participants produced a new sentence following two separate sentences (1a) or coordinated clauses (1b).

1 a. Rachel discovered the cave. Douglas was lying on the beach.
    b. Rachel discovered the cave and Douglas was lying on the beach.

We examined how they referred to the person in either the first (NP1) or second clause (NP2). If discourse structuring is strictly clause-by-clause, fewer pronouns (relative to names) should be used for NP1 than NP2 and this recency effect should be the same in (1a) and (1b). However, the results showed that the recency effect was significantly larger when referring to entities mentioned in a separate sentence (1a) than a coordinated clause (1b).

Experiment 2 investigated whether the level of syntactic embedding of the preceding sentence affects the choice of referring expression. Researchers have argued that entities in a main clause are more accessible than those in a subordinate clause (Cooreman & Sanford, 1996; Miltsakaki, 2002; Morrow, 1985), so the recency effect may be smaller when NP2 is in an embedded subordinate clause (2a) than a coordinated clause (2b).

2 a. Rachel explored the cave while Douglas was lying on the beach.
    b. Rachel explored the cave and Douglas was lying on the beach.

Our results confirmed this prediction: Whereas participants produced more pronouns (and fewer names) when referring to NP2 than NP1 following (2b), there was no such recency effect following (2a).

Experiment 3 further investigated the effect of syntactic embedding by reversing the order of the main and subordinate clause (3).

3 a. Rachel explored the cave while Douglas was lying on the beach.
    b. While Rachel explored the cave, Douglas was lying on the beach.

In addition to a main effect of recency, we also found a main effect of clausal status (main/subordinate), with significantly more pronouns for entities mentioned in the main than the subordinate clause.

Together, the results suggest that the choice of referring expression is determined by the linear distance between the antecedent and the referring expression as well as the level of syntactic embedding of the preceding sentence.

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