The role of information structure in anaphora resolution

Saveria Colonna1, Sarah Schimke2, Barbara Hemforth3, Lars Konieczny4 & Joël Pynte3

1University of Geneva, 2MPI for Psycholinguistics, Nijmegen, 3CNRS & University of Provence, 4University of Freiburg

Introduction

Regarding the choice of the antecedent of the pronoun in ambiguous cases as "John hit Peter when he...", cross-linguistic differences between German and French have been reported:

- In German, a preference was found to bind the pronoun to the first noun in the matrix clause irrespective of syntactic function or thematic role which may be a preference for the antecedent in the default topic position (Konieczny & Hemforth, 2001; Hemforth et al., 2005).

- On the contrary, in French, a preference for the second noun and object of the matrix clause was observed, apparently indicating that information structure has no influence (Hemforth et al., 2004; 2005). However, without context, the tendency to interpret the first noun as the topic might be weaker in French than in German, which has less word order restrictions.

The Present Study

To test the relative weight of syntactic roles and information structure in French, written questionnaires were used to measure interpretation preferences for four conditions:

- N1 topic and subject
  1. Pierre a giffé Jean quand il était jeune.
  2. Jean a giffé Pierre quand il était jeune.

- N1 topic and object
  1. Pierre, Jean a giffé quand il était jeune.
  2. Jean, Pierre a giffé quand il était jeune.

- Method Questionnaire: Each sentence was followed by a sentence fragment to complete eliciting the preferred referent (e.g., "..... était jeune")

- Results
  1. Overall, the pronoun was bound to N2 (56.6%) significantly more often than chance level (t(63)=3.35, p<.001; t(27)=6.3, p<.0001), this confirms the general preference for the second noun observed in French.
  2. There was no main effect of the syntactic roles (F3,60<2).
  3. A main effect of the information structure was found (F3,60)=21.6, p<.0001; F2(2,7)=13.9, p<.001). The general tendency in French to bind the pronoun to N2 is even stronger when N2 is the non-focused element of the sentence (3-4).
  4. A significant interaction between information structure and syntactic roles (F3,60)=.64, p<.05; F2(2,7)=11.3, p<.01) reveals that the N2-preference can be reversed when N1 is the topic and the object of the sentence (2).

- Conclusion and future research
  1. The results show that focusing an element by a cleft-construction blocks the binding of the pronoun to this element regardless of its syntactic role. Information structure thus has an influence in French, but only when it is clearly marked by a syntactic construction.
  2. In absence of clear marking of the information structure, there is a general preference for the object.
  3. Note, however, that the preferential antecedent for the pronoun was also the more local antecedent. Indeed, even in condition (2), N1 is the local antecedent because it reappears as the clitic pronoun "I" after N2.
  4. In order to disentangle the influence of information structure and locality, we plan to investigate the binding preference of the ambiguous pronoun in sentences like (5) in which the topic "Pierre" is not the most local antecedent.
  5. Moreover, this test sentence (5) will also permit to test if not only the cleft structure but also the (topic-marking) dislocation structure employed in (5) can override the object-tendency. To test this, the subject has to be dislocated, as in (5). It is however only possible in spoken French (Lambrecht, 1994).

References