

# **A psycholinguistic perspective on the relevance of discourse structure to anaphora resolution**

## **Abstract**

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The interpretation of discourse anaphora plays a central role in natural language processing applications. It is a well-known fact that a variety of linguistic factors influence the accessibility of information that is required for the successful resolution of anaphora. In the present talk this issue shall be approached from a psycholinguistic perspective. I present an empirical study that investigates inasmuch discourse structural information affects the way intersentential anaphora are resolved. The study aims at an empirical verification of the so-called Right Frontier Constraint first proposed by Polanyi (1988). Following this constraint, it is hypothesized that potential antecedents of an anaphor that are placed at the right frontier of a discourse unit can be accessed more easily than antecedents being placed somewhere else. In other words, readers are more likely to resolve anaphora that are perceived as discourse-structurally salient. This hypothesis were examined in a questionnaire study. Participants (N=36) received written experimental passages of six lines each that contained a pronominal anaphor in the last line and two potential antecedents in the preceding text, one introduced in the first, one in the fourth line of a passage. Antecedents' relative position to the right frontier was manipulated through the discourse relation between the first and the second antecedent and through the filler information interposed between the second antecedent and the anaphor. The two potential antecedents either had the same or different grammatical gender. In the latter case only the first antecedent was gender congruent to the anaphor. Participants' task was to name the anaphor's antecedent. Results show that in case of unequal gender antecedents, participants almost always chose the gender congruent first antecedent, irrespective of its position relative to the Right Frontier. In case of equal gender antecedents choice patterns point to an influence of an antecedent's position relative to the Right Frontier. Alternative theoretical approaches such as centering theory or situational models cannot account for the found results. The findings in the same gender antecedent condition are therefore interpreted as an effect of the Right Frontier Constraint. The results in the different gender condition, however, point to possible limitations of the Right Frontier Constraint in anaphor resolution.

## Reference

Polanyi, L. (1988). A formal model of the structure of discourse. *Journal of Pragmatics* 12: 601-638.