

Split-Antecedent Relative Clauses and the Symmetry of Predicates

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Outline: Split-antecedent constructions as in (1) constitute one of the trickiest puzzles for the analysis of (non-)restrictive relative clauses (NRCs/RRCs). Moltmann [1992] assumes that split antecedents (SpAs) are only possible if the two antecedent phrases occur within the conjuncts of a coordinate structure and have identical grammatical functions as in (1). This generalization excludes the sentence in (2), but it also wrongly excludes (3), from Hoeksema [1986].

- (1) A man_i entered the room and a woman_j went out [who_{i,j} were quite similar].
- (2) *A man_i saw a woman_j [who_{i,j} had danced together].
- (3) We always let those boys_i play with those girls_j [who_{i,j} know one another from elementary school].

A possible reason for the contrast between (2) and (3) might be that in the latter case the two antecedents are related by a symmetric predicate. According to Winter [2016], transitive symmetric predicates have to be analyzed as unary collective predicates. This might favor a SpA construal. In this talk, we will present the results of two experiments in German investigating this effect of symmetry of the matrix clause predicate on the acceptability of NRCs and RRCs with SpAs.

Experiments: In a first questionnaire, with 36 participants, we tested the acceptability of SpAs depending on the TYPE of the relative (RRC vs. NRC) and the SYMMETRY (\pm symmetric) of the matrix predicate relating the two heads of the SpA. All items had definite DPs as antecedents for the SpA with one antecedent-DP forming the subject and the other the object of a transitive matrix clause predicate. Overall, we tested 12 items in 6 conditions (NRC/RRC* \pm Symmetry) distributed over a Latin square design.

- (4) a. *Letzte Woche hat sich mein Hausarzt mit meinem Heilpraktiker **gestritten**, die einander sonst übrigens sehr schätzen.* (Last week, my doctor quarreled with my non-medical practitioner, who by the way normally appreciate each other.) (NRC/+SYMM)
- b. *Letzte Woche hat mein Hausarzt meinen Heilpraktiker **beleidigt**, die einander sonst übrigens sehr schätzen.* (Last week, my doctor insulted my non-medical practitioner, (...)) (NRC/-SYMM)
- c. *Letzte Woche hat sich derjenige Hausarzt mit demjenigen Heilpraktiker **gestritten**, die einander sonst sehr schätzen.* (Last week, the doctor quarreled with the non-medical practitioner, who normally appreciate each other.) (RRC/+SYMM)
- d. *Letzte Woche hat derjenige Hausarzt denjenigen Heilpraktiker **beleidigt**, die einander sonst sehr schätzen.* (Last week, the doctor insulted the non-medical practitioner, (...).) (RRC/-SYMM)

In a second questionnaire, with 45 different participants, we tested 12 items with symmetric predicates and manipulated, additionally to the RC-TYPE, the WORD ORDER of the matrix clause such that in one condition both head DPs of the relative stood adjacent (+Adjacency) in the middle-field of the clause (as in (4)), whereas in a second condition, the two antecedents were separated by an auxiliary in V2 position (as in (5))(-Adjacency). In both questionnaires, the test-items were tested in comparison to 9 positive and 9 negative control items.

- (5) Mein Hausarzt hat mit meinem Heilpraktiker gestritten, die einander sonst übrigens sehr schätzen. (*Last week my doctor quarreled with my non-medical practitioner, who by the way normally appreciate each other.*) (NRC/-ADJ)

Results: In the first experiment, we found a significant effect of RC-TYPE and a significant effect of SYMMETRY, such that NRCs rated better than RRCs and for both types SYMMETRY of the matrix predicate significantly improved the acceptability of the SpA construal. The ratings show a clear downstep-pattern. While NRCs with symmetric matrix predicate rated as more or less acceptable (3.5 on a scale from 0 to 5), lower than the positive controls (4.3) but significantly higher than NRCs with non-symmetric matrix predicate (2.9), the RRCs with symmetric got marginal acceptance rates (2.5) and RRCs with non-symmetric predicate rated nearly as low (2.1) as the negative controls (1.9). These findings were confirmed by the second experiment, in which the ratings were comparable to those of the symmetric conditions in the first experiment. Here, we found again a significant effect of RC-TYPE. WORDORDER, by contrast, did not affect the acceptability of our test-sentences.

Discussion: Our findings relate directly to insights in Winter [2016]. Winter argues that the semantic interpretation of transitive symmetric predicates like “A quarrels with B” can be reduced to unary predicates such as “[A and B] quarrel” with a collective head. This is not possible for non-symmetric predicates. The acceptability of NRCs with SpAs was sensitive to the symmetry of the predicate. If we assume that the relation between an NRC and its antecedent is primarily semantic in nature, the collective semantic argument of symmetric predicates can serve as the antecedent for an NRC. For non-symmetric predicates, no such plural antecedent is directly provided by the predicate, which accounts for the lesser acceptability of such cases. The second experiment showed that the availability of such a collective antecedent does not require the two constituents of this collective to be within the same domain of a clause. This, again, strengthens the semantic rather than syntactic nature of how the NRC is connected to its antecedent. While a SpA is not fully acceptable in (4-b), discourse anaphoric paraphrases such as (6) are generally assumed to be acceptable [Moltmann, 1992]. This indicates that the relation between an NRC and its antecedent is a clause-internal phenomenon.

- (6) ... Sonst schätzen sie einander sehr. (Normally, they appreciate each other.)

The judgments for RRCs in our data were overall rather marginal and significantly lower than those for NRCs. This might indicate that RRCs can only find an antecedent that is inside an overt nominal constituent. Because of the relatively high complexity of the RRC readings, we do not exclude, however, that RRCs with SpAs are acceptable in different types of examples.

Conclusions: Our study confirms that SpAs are possible at least with NRCs and shows that symmetry of the matrix predicate can remedy examples in which the two antecedents of a SpA are neither overtly conjoined nor have identical grammatical functions. This accounts for some disagreement we find in the literature and gives us new insights both in the semantics of symmetric predicates and the semantics of NRCs.

References: Hoeksema, J. (1986). An account of relative clauses with split antecedents. In M. Dalrymple et al. (eds.), *Proceedings of the West Coast Conference on Formal Linguistics*, 5, 68–86. / Moltmann, F. (1992). *Coordination and Comparatives*. PhD, MIT. / Winter, Y. (2016). The reciprocity-symmetry generalization. In C. Piñón (ed.), *Empirical Issues in Syntax and Semantics (CSSP)*, 11, 245–274.