At-issue: Non-Restrictive Relative Clauses
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Outline: Recent studies (e.g. Schlenker 2009, Koev 2013, Jasinskaja 2016) have challenged the view that non-restrictive relative clauses (NRRCs) are inherently projective and non-at-issue (e.g.McCawley 1982, Potts 2005, Simons et al. 2010). This talk presents the results of two experiments in German on NRRCs embedded in *if*-clauses. The results confirm a claim of Schlenker (2009) that NRRCs can contribute conjunctively to the at-issue meaning of their matrix clause giving rise to embedded readings. This embeddability is dependent on position, discourse structure and other pragmatic factors.

Experiments: In a first questionnaire, with 62 German native speakers and 18 items, we tested the availability of embedded readings depending on the CLAUSE-TYPE of the embedded construction (NRRCs, "and"-conjunctions, V2-parenthesis) and the PREDICATE TYPE (event vs. state). Each item consisted of a little context-story and a target sentence. The participants had to judge whether the target sentence was appropriate as part of a summary of the information given by the story. The stories were constructed such that both the wide-scope reading and a potential modal subordination reading of the target sentences were explicitly ruled out. For example in (1) it is unclear, whether Gerd can be saved even if he reaches Dr. Meier, since we don't know whether Dr. Meier has got the right anti-dot available. Thus, if the participants only got a wide-scope or modaly subordinated reading (similar to (1-d)), according to which Gerd is saved as soon as he reaches Dr. Meier (because in this case Dr. Meier will for sure inject him the right anti-dot), they were expected to reject the target as part of a summary of the context. Only if the participants interpreted the NRRC as contributing conjunctively to the antecedent of the *if*-clause (such as the conjunction in (1-b)), were they expected to accept the target sentence as an appropriate summary of the context-story. (1-a) to (1-c) give an example for a test item with event-predicate type in the three clause-type conditions of the first experiment. In a second follow-up experiment with 22 participants and 12 items, we directly compared the interpretation of sentence-internal NRRCs (1-a) and the corresponding matrix clauses in sentence-final position ((1-d)), again each with event and state predicate.

(1)   **Story:**
      Gerd wurde von einer Schlange gebissen und hat nur wenig Chancen zu überleben. Denn das Gift wirkt schnell tödlich. Wenn überhaupt, kann er nur noch Dr. Meier erreichen, der ganz in der Nähe wohnt. Ob dieser jedoch über das äußerst seltene Gegengift verfügt, ist mehr als ungewiss. Nur falls Dr. Meier ihm noch rechtzeitig das richtige Gegengift verabreicht, kann er gerettet werden. *(Gerd got bitten by a snake. There is only little chance that he will survive. The dot is quite deadly. His only chance is to reach Dr. Meier in time, who lives close by. But its quite unlikely that Dr. Meier has got the anti dot, Gerd needs. Only if Dr Meier gives him the anti dot in time, can Gerd be saved.)*
      Target-Sentence:
      a.   Wenn Gerd rechtzeitig Dr. Meier erreicht, der ihm das passende Gegengift verabreicht, kann er gerettet werden. *(If Gerd reaches Dr. Meier in time, who gives him the right anti-dot, can he be saved)*
      b.   Wenn Gerd rechtzeitig Dr. Meier erreicht und der ihm das passende Gegengift verabreicht, kann er gerettet werden. *(If Gerd reaches Dr. Meier in time and*

he gives him the right anti-dot, can he be saved)

    c.   Wenn Gerd rechtzeitig Dr. Meier erreicht (der verabreicht ihm das passende Gegengift), kann er gerettet werden. *(If Gerd reaches Dr. Meier in time (he gives him the right anti-dot), can he be saved)*

    d.   Wenn Gerd rechtzeitig Dr. Meier erreicht, kann er gerettet werden. Er gibt ihm das passende Gegengift. *(If Gerd reaches Dr. Meier in time, can he be saved. He will give him the right anti-dot.)*

Results: The results of both experiments indicate that NRRCs with event predicate can indeed be interpreted as truly embedded. In the first experiment, we found a highly significant effect of CLAUSE TYPE ($p < 0.001$) as well as a significant effect of PREDICATE TYPE ($p < 0.001$). NRRCs with event predicates got overall acceptance rates about 49 percent, lower than the corresponding and-conjunctions (0.92), but significantly higher than the corresponding matrix-clause-parenthesis (0.21). NRRCs with state predicate, by contrast, rated nearly as low (0.25) as the corresponding matrix-clause parenthesis. A highly significant contrast ($p < 0.001$) between NRRCs with event predicate and the corresponding matrix clause parenthesis indicates that the observed embeddability is not only a discourse effect or a last resort repair strategy but the result of a structural embedding of the NRRCs. The results of the follow-up experiment confirmed these effects. The NRRC with event predicates rated significantly ($p < 0.001$) higher (0.51) than those with state predicates (0.29) and significantly higher than the postponed matrix clauses (0.09), on which a variation of the predicate type had no effect.

Analysis: The findings challenge the assumption that NRRCs are inherently projective and non-at-issue. We will briefly sketch an analysis according to which NRRCs are always attached low to their head-DP by a tentative relation that is locally abstracted from. If the NRRC is in situ, this relation is projected to the matrix-level, where it is instantiated by a suitable discourse relation. If the NRRC is extraposed, the NRRC is moved from its DP-modifying position, where it leaves a trace, to the right edge of a clause, where the trace is bound and at the same time the missing connective is instantiated by conjunction. In the in situ case, the NRRC is interpreted as an independent speech act and various factors such as the position of the NRRC (Koev 2013) and discourse structure (Jasinskaja 2016) will decide whether this speech act is currently at-issue or not. In the latter case the NRRC is interpreted as contributing locally to the at-issue-content of the matrix clause. We will discuss two options why the predicate-type of an NRRC might affect the availability of embedded readings: (i) An NRRC can be interpreted semantically with low scope only if its proposition is anaphorically dependent on the proposition expressed by the matrix clause. Coordinating discourse relations make anaphoric use of an event described in a preceding proposition. (ii) Event predicates allow the NRRC to stand in a coordinating discourse relation (Asher/Lascarides 2003) to the proposition expressed by the matrix clause and are thus more easily conjoinable to the matrix proposition than NRRCs with subordinating discourse relations. We are evaluating a third experiment, designed to disambiguate between the two options.The results will be presented, too.

References: Asher, N. & Lascarides, A. (2003). Logics of Conversation. Cambridge University Press./ Jasinskaja, K. (2016). Salience and (not-)at-issue status of subordinate clauses. In: Proceedings of SuB 2016, 111-112./ McCawley, J.D.(1982). Parentheticals and discontinuous constituent structure. In: Linguistic Inquiry, 13(1): 91–106. / Koev, T. K. (2013). Apposition and the Structure of Discourse. PhD thesis, Rutgers./ Potts, C. (2005). The logic of conventional implicatures. Oxford University Press./ Schlenker, P. (2009). Supplements without bidimensionalism. In: Proceedings of the Amsterdam Colloquium. / Simons, M. et al. (2010). What projects and why. In: Proceedings of SALT, 20, 309–321.