

## The status of relative clause extractions in Swedish: data from an offline study

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Relative clause extractions generally yield so-called island effects (degraded judgments) across languages (Ross, 1967), (1). However, Swedish and the other Mainland Scandinavian languages comprise famous exceptions to this pattern (Engdahl and Ejerhed, 1982), cf (2):

- (1) \* Those books I know a girl that writes.
- (2) Såna böcker känner jag en tjej som skriver.  
such books know I a girl who writes

The origin of island effects is under debate. Sprouse et al. (2012) found superadditive effects in judgments of island violations in English – combined effects greater than the sum of the individual costs for extraction and complexity (island structure). Because no correlation was found between participants’ working memory (WM) span (measured via serial recall and n-back) and the superadditive effects, they concluded that island effects must be derived from violations of syntactic constraints rather than processing limitations. In contrast, Hofmeister et al. (2014) did find a correlation between WM span (measured via reading span) and superadditivity in a rapid serial visual presentation experiment. They also found superadditive effects in fully grammatical, but hard to process sentences, suggesting that processing factors do play a role in superadditivity and hence in island effects.

In our talk, we report on the results from an acceptability judgment experiment that was designed to look for superadditive effects in relative clause extractions in Swedish. We investigated the (super)additive effect of clause type (*that*-clause (3a), (3c), vs. relative clause, (3b), (3d)), and extraction type (short, (3a)–(3b), vs long, (3c)–(3d)). We also tested whether any such effects correlate with WM span, as measured via an n-back and a reading span task. As a control condition, we also included garden-path sentences and their non-garden-path counterparts, as the processing of garden-paths has been shown to correlate with performance on n-back (Novick et al., 2014).

- (3) a. Det var Anna som anmälde att en kille snattade såna chokladkakor  
it was Anna who reported that a guy stole such chocolate bars  
i godisaffären.  
from candy store-the
- b. Det var Anna som anmälde en kille som snattade såna chokladkakor i  
it was Anna who reported a guy who stole such chocolate bars from  
godisaffären.  
candy store-the
- c. Det var såna chokladkakor som Anna anmälde att en kille snattade i  
it was such chocolate bars that Anna reported that a guy stole in  
godisaffären.  
candy store-the
- d. Det var såna chokladkakor som Anna anmälde en kille som snattade i  
it was such chocolate bars that Anna reported a guy who stole in  
godisaffären.  
candy store-the

Unexpectedly, we found superadditive effects for the relative clause extractions, but no correlation with WM, and significantly different ratings for garden-path and non-garden-path sentences, but again no relation with WM. However, since there was no relation between the ratings of garden-paths and WM it is evident that the relation between offline acceptability judgements and WM measure is more complex than assumed in the literature. We therefore cannot conclude that the lack of correlation between the superadditive effect and WM for the extraction data is due to syntactic violations. Rather, we conclude that what causes superadditive effects is still an open question that requires further investigation.

## Referenser

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