

# Cross-Serial Dependencies and Similar Syntactic Structures in the Saarland Dialect

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Cross-serial dependencies in natural languages are structures where the dependency links of two groups of words are crossed in some way. For example the Swiss-German subordinate clause (1) has *the house* as an argument of *paint* while *Hans* is an argument of *help* (the colours mark dependencies between the verbs and the NPs). Therefore the dependency links are crossed. Because Swiss-German can have a principally unbounded number of crossed dependencies and the objects of the verbs are always marked by their case, Swiss-German can not be modelled by a context-free grammar [Shieber, 1985]. Dutch [Bresnan J., 1982] and Luxembourgish [Cinque et al., 2012] are two other languages known to have cross-serial dependencies. High-German always has to have the verbs at the end of a subordinate clause to be in the opposite order of the objects preceding them and therefore never has crossing-dependencies. Other German dialects like Swabian and some forms of Bavarian can have verb orders which do not have classical crossed dependencies, but differ from the standard nonetheless [Cinque et al., 2012]. In those dialects the least embedded verb can cross its dependencies with all other verbs by appearing first after the object cluster, but the other verbs occur in the order that is typical for High-German (similar to Example 3).

- (1) ...mer **em Hans** **es Huus** **hãlfed** **aastriche**  
...we Hans-DAT the house-ACC helped paint  
”...we helped Hans paint the House”

During a lecture on formal grammars a fellow student of mine mentioned hearing patterns, similar to the Swiss-German example, in conversation with speakers native to Saarland. This started a discussion on the topic of the existence of cross-serial dependencies in Saarländisch. For the end-term project of that lecture I tried to answer this question.

As part of this end-of-term project I conducted a pilot study (N=14) with the purpose of proving or disproving the existence of cross-serial dependencies in the Saarland dialect. The participants had to rate sentences with cross-serial patterns (like 2) and cross-serial adjacent patterns (like 3) as grammatical or not grammatical. The patterns like (3) are more akin to the structures found in Bavarian and Swabian. After grading the sentence the participants had to answer a short question to test whether they had mapped the correct objects to the corresponding verbs. I also tested for

random answers by including sentences that were clearly ungrammatical because of missing objects. The rating of the sentences was inconclusive and did neither confirm nor deny the existence of cross-serial dependencies in Saarländisch. The comprehension questions on the other hand were answered correctly 95% of the time and the ungrammatical sentences were rated as ungrammatical with only one exception. This indicates at least, that the structures are easily and intuitively understood by speakers of Saarländisch.

(2) ...mir        **die Kinner**        **em Hans**    **es Haus**    **losse** **hälfe** **anstreiche**.  
...we-NOM the children-ACC Hans-DAT house-ACC let    help paint.  
”...we let the children help paint Hans’ house.”

(3) ...mir        **die Kinner**        **em Hans**    **es Haus**    **losse** **anstreiche** **hälfe**.  
...we-NOM the children-ACC Hans-DAT house-ACC let    paint        help.  
”...we let the children help paint Hans’ house.”

The goal of my Bachelor’s thesis is to find an answer to the question whether the Saarland dialect has cross-serial dependencies or not. To that end I will conduct another study. This study might have to differentiate between speakers of the two main dialects of Saarländisch (Moselle Franconian and Rhenish Franconian) in case one dialect does see cross-serial structures as grammatical and the other does not. Finding cross-serial dependencies would prove Saarländisch to be a non-context free language. To my knowledge the Saarland dialect would be the first dialect of High-German in a region with High-German as its first language that would be non-context-free.

## References

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