

Relative Clause Production in German

Introduction It has been observed by many that there is an asymmetry between extracting from an object position ((1a)) and from a subject position ((1b)) of a relative clauses in languages like Italian, English and German (Arosio et al. (2012), Novogrodsky and Friedmann (2006) among many others). Friedmann et al. (2009) propose that this is due to the relativized minimality: Assuming that the head of relative clause raises from the base-generated position within the relative clause to the head position, children cannot raise the relative clause head with [+NP] feature over an intervening NP with the same feature. Belletti (2014) argues that in production, too, children have difficulties producing object relative clauses because of the relativized minimality effect, and hence, they use various strategies to avoid extracting from the object position.

This approach brings up an interesting question: do semantic features that NPs are composed of, such as number and gender, matter for the relativized Minimality? Adani et al. (2010) observe that mismatches in number or gender has an affect on the ease of comprehension of relative clauses differently in Italian children, namely, that a mismatch in number, but not gender, facilitates the comprehension of object relatives. The study by Belletti et al. (2012), on the other hand, observe that gender mismatch facilitates the comprehension of object relatives in Hebrew but not in Italian, suggesting that features may have different effects in different languages. In the present paper, we compare the elicited production of object relative clauses with head and the subject, matched or mismatched in number, in German.

Experiment 37 (4;6-8;0) monolingual German speaking children were tested with matched condition, and 45 children (5;0-8;7) were tested with mismatched condition. The difference in age between two groups was not significant ($p=0.7569$). In the matched condition, both the head of the relative clause and the relative clause internal argument were singular (as in (2a)). In the mismatched condition, the head of the relative clause was plural, while the relative clause internal argument (subject or object) was singular (as in (2b)). Participants heard a story about either two boys/two girls or two groups of children, in which two children/two groups were involved in two different activities, as in (3). The participant's task was to complete the sentence after *Ich möchte lieber der Junge/das Mädchen sein* 'I'd rather be the boy/girl' or *Ich möchte lieber bei den Kindern sein* 'I'd rather be with the children'. The experiment was adapted from Novogrodsky and Friedmann (2006) and Belletti and Contemori (2010).

In both the number matched and the mismatched group, there were 20 items each. 10 items elicited subject relatives (SR), and 10 items elicited object relatives (OR).

Results The rate of target responses doesn't differ significantly between the matched and mismatched conditions. But differences between the two conditions emerge when we consider the error types, as shown in figure (4). For the matched condition, the most frequent error type is the role reversal error (i.e. subject and object of the relative clauses are reversed, or in other words an SR, rather than an OR, is produced). In the number mismatched group, role reversal errors are rare, and instead, it is the filled gap error that is the most frequent error type. When children filled the gap, they do so in the expected position (post-subject) 92.1% of the time, showing that they are aware of where the extraction site should be. Most of the gaps were filled with a definite DP (exact copy of the head of the relative clause).

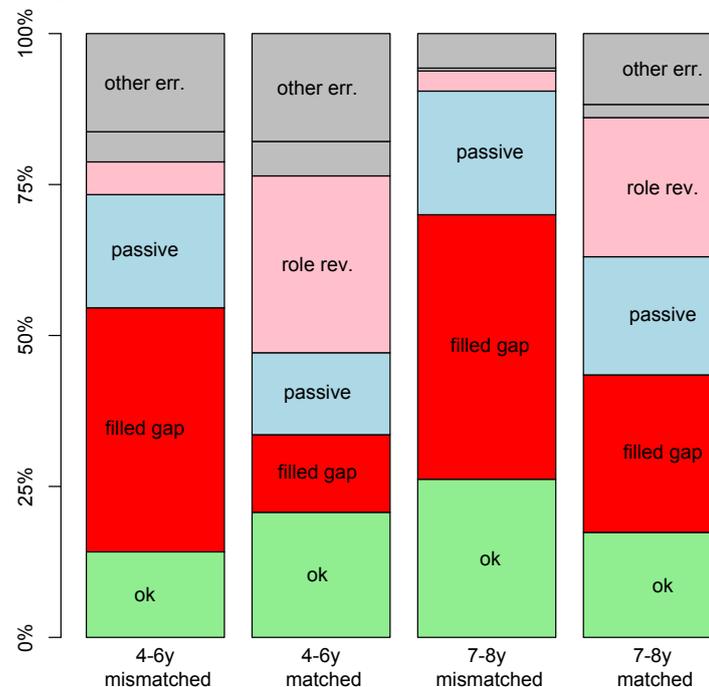
Discussion While at first glance the German data don't show an effect of relativized minimality, the detailed look shows evidence for relativized minimality. Specifically, relativized minimality in the matched condition blocks object relativization, and therefore theta role reversal occurs. But in the mismatched condition, the filled gap construction though ungrammatical in adult German is used by children to express an object relative.

We furthermore suggest that filled gaps are due to violation of a relativized minimality violation for the +NP feature. In sum, then, while violation of relativized minimality for the +Sg and +NP features is ungrammatical, a violation only for +NP can be overcome by a filled gap.

- (1) a. das Mädchen, das der Junge _____ schubst
 the girl that the.Nom boy pushes ('the girl that the boy is pushing')
- b. das Mädchen, das _____ den Junge Schubst
 the girl that the.Acc boy pushes ('the girl that is pushing the boy')
- (2) a. Das Mädchen, das der Papa umarmt.
 the girl that.Neut the.Masc.Nom Papa hugs ('the girl that the father hugs')
- b. Die Kinder, die der Papa umarmt.
 the children, that.Pl the.Masc.Nom Papa hugs ('the children that the father hugs.')
- (3) a. Matched condition story: There are two girls. The father hugs one girl, and the grandfather hugs the other girl. Which girl would you rather be?
- b. Mismatched condition story: There are a lot of children. The father photographs some children, and the father hugs some children. With which children would you rather be?

(4)

Types of Response in German Child Relative Clause Production



Selected References

- F. Adani, H.K.J. van der Lely, M. Forgiarini, and M.T. Guasti. Grammatical feature dissimilarities make relative clauses easier: A comprehension study with Italian children. *Lingua*, 120:2148–2166, 2010.
- F. Arosio, K. Yatsushiro, M. Forgiarini, and M.T. Guasti. Morphological information and memory resources in the acquisition of German relative clauses. *Language Learning and Development*, 3(4):340–364, 2012.
- A. Belletti. Notes on passive object relatives. In *Functional Structure from Top to Toe: The Cartography of Syntactic Structures*, volume 9, pages 97–114. Oxford University Press, 2014.
- A. Belletti and C. Contemori. Intervention and attraction: On the production of subject and object relatives by Italian (young) children and adults. In J. Costa, A. Castro, M. Lobo, and F. Pratas, editors, *Proceedings of GALA 2009*, pages 39–52, 2010.
- A. Belletti, N. Friedmann, D. Brunato, and L. Rizzi. Does gender make a difference? comparing the effect of gender on children’s comprehension of relative clauses in Hebrew and Italian. *Lingua*, pages 1053–1069, 2012.
- N. Friedmann, A. Belletti, and L. Rizzi. Relativized relatives: Types of intervention in the acquisition of a-bar dependencies. *Lingua*, 119:67–88, 2009.

Selected References

- Flavia Adani, Heather K.J. van der Lely, Matteo Forgiarini, and Maria Teresa Guasti. Grammatical feature dissimilarities make relative clauses easier: A comprehension study with Italian children. *Lingua*, 120:2148–2166, 2010.
- Fabrizio Arosio, Kazuko Yatsushiro, Matteo Forgiarini, and Maria Teresa Guasti. Morphological information and memory resources in the acquisition of German relative clauses. *Language Learning and Development*, 3(4):340–364, 2012.
- Adriana Belletti. Notes on passive object relatives. In *Functional Structure from Top to Toe: The Cartography of Syntactic Structures*, volume 9, pages 97–114. Oxford University Press, 2014.
- Adriana Belletti and Carla Contemori. Intervention and attraction: On the production of subject and object relatives by Italian (young) children and adults. In João Costa, A. Castro, Maria Lobo, and F. Pratas, editors, *Proceedings of GALA 2009*, pages 39–52, 2010.
- Adriana Belletti, Naama Friedmann, Dominique Brunato, and Luigi Rizzi. Does gender make a difference? comparing the effect of gender on children’s comprehension of relative clauses in Hebrew and Italian. *Lingua*, pages 1053–1069, 2012.
- Naama Friedmann, Adriana Belletti, and Luigi Rizzi. Relativized relatives: Types of intervention in the acquisition of a-bar dependencies. *Lingua*, 119:67–88, 2009.
- Rama Novogrodsky and Naama Friedmann. The production of relative clauses in syntactic SLI: a window to the nature of the impairment. *Advances in Speech-Language Pathology*, 8(4):364–375, 2006.