

The role of prosody in the acquisition of relative clause meaning

Petra Schulz (Goethe-University Frankfurt)

Little is known about how children acquire the semantic properties restrictivity vs. appositivity of relative clauses (RCs). In many syntactic approaches appositive RCs are attached higher in the syntactic tree and/or involve additional movement steps compared to restrictive RCs (e.g., Lehmann 1984, Kayne 1994, del Gobbo 2003). From a semantic perspective restrictive interpretations are generally analyzed as intersections of properties (e.g., Heim & Kratzer 1998). Appositive interpretations are assumed to involve either additional semantic dimensions (e.g., Potts 2005), or different compositional modes such as anaphoric links via E-type pronouns compared to restrictive RCs (e.g., Demirdache 1991, del Gobbo 2003). Thus, appositive RCs could be seen as the more complex structure in terms of semantic and syntactic composition, suggesting later acquisition of appositivity than of restrictivity in RCs.

A number of cues have been suggested that help identify appositive interpretations of RCs and hence could assist children in their acquisition task (e.g., discourse markers like *ja* 'by the way', choice of *which* as pronoun in English, proper noun as RC head). More recently, Potts (2005) argued that the so-called *comma intonation*, i.e. a non-integrated prosodic contour of the RC (Emonds 1976), indicates an appositive RC reading. To capture this effect of prosody, Potts proposes a *comma feature* that triggers a shift in interpretation, causing the RC to be interpreted as a conventional implicature. In languages like German, where both ARCs and RRCs are introduced by the same type of relative pronoun, comma intonation could be crucial in detecting the different readings, especially in structurally and contextually ambiguous contexts. However, corpus analyses (e.g., Birkner 2008) as well as first experimental studies on the prosodic realization of RCs in German indicate that non-integrated prosody may not constitute a reliable cue for not-at-issue interpretations (Schubö et al. 2015). Accordingly, the role of prosody, as well as the influence of other potential cues including presence of discourse markers, on the interpretation of RCs is still unclear both for acquisition and for adult comprehension.

In this talk I report on a series of comprehension experiments, using picture-selection and acceptability judgment, to test the interpretation of restrictive and appositive RCs in children and adults. We examined whether prosody (integrated, i.e. RC set off by pauses, stress on head noun and within the RC, cf. Selkirk 2005; or non-integrated, i.e. head and RC in one intonation phrase with main stress on the RC) and presence of discourse adverbs (*ja* 'by the way') were used as cues for the different readings. A total of 250 children aged 3 to 6 and 60 adults participated in the experiments. 3-year-old children strongly preferred the appositive over the restrictive reading of RCs. 4- to 6-year-olds, in contrast, exhibited a strong preference for the restrictive reading. Importantly, in the children groups we found no influence of prosody and discourse particle on the interpretation of RCs (Koch et al. 2013, Schulz 2015, Schulz et al. 2017, Trabandt 2016). In the adults, prosody and discourse markers were found to affect their choice of interpretation only marginally (Thiel et al. 2017).

The results of the experiments demonstrate that prosody alone is not a sufficient cue to trigger appositive interpretations of ambiguous RCs in either children or adults and hence cannot play a major role in the acquisition process. We argue that in general, acquisition of RC semantics proceeds in a step-wise fashion with mastery of the semantically less complex restrictive RCs starting at age 4. The 3-year-olds' preference of appositive RCs is proposed to reflect their interpretation as independent clauses rather than as 'real' appositive RCs (Schulz 2017).