Prosodic cue production in case-ambiguous sentences

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Prosody is central to successful communication. Prosodic cues (e.g. pause, duration, pitch) are used for sentence comprehension and thereby hold the potential to serve as an important source of information for syntactic ambiguity resolution. In locally case-ambiguous sentences (e.g. DasNOM/ACC Kind sucht derNOM Mann, *The man looks for the child*), prosodic cues can facilitate sentence interpretation because they help to identify the thematic role of the first constituent (*das Kind*) before the structurally disambiguating morphological cue (*der*) is encountered (Weber et al., 2016). In globally ambiguous sentences (e.g. DasNOM/ACC Kind sucht dieNOM/ACC Frau, *The child looks for the woman/The woman looks for the child*) the impact of prosodic cues for disambiguation is less clear (Snedeker & Trueswell, 2003; Grünloh et al., 2011). In both structures, prosodic cues can serve to establish a prominence relation between the two arguments of the verb and thus to distinguish between agent and patient of the verb. Crucially, prosodic cue production in cases of (morpho-)syntactic ambiguities is highly variable between speakers (e.g. Cangemi et al., 2015; Clifton et al., 2002; Peters et al., 2005). Additionally, the production of prosodic cues is subject to external factors of the communicative situation (e.g. different interlocutors, situations) (Biersack et al., 2005; Huttenlauch, 2016).

In our current study, we investigate the production of prosodic cues in semantically reversible (i) locally case-ambiguous SVO and OVS sentences (LOC), and in (ii) globally case-ambiguous sentences (GLOB):

(i) SVO: DasNOM/ACC Kind ruft nun denNOM Vater. (The child now calls for the father.)
OVS: DasNOM/ACC Kind ruft nun derNOM Vater. (The father now calls for the child.)

(ii) SVO/OVS: DasNOM/ACC Kind ruft nun die ACC/NOM Oma. (*The child now calls for the granny/The granny now calls for the child.*)

In two production experiments, 21 LOC and GLOB, for which semantic reversibility has been judged by 72 naïve participants, will be tested. The sentences will be produced by German adults in five different conditions with varying adressees or background noise: addressing (a) a young adult (baseline condition), (b) a child, (c) a non-native young adult, (d) an elderly person, and (e) a young adult in a noisy environment. At the beginning of each condition block, the adressee presents themself in a video clip. The written stimulus-sentence(s) will be presented on screen, each with two black-and-white line-drawings, depicting the SVO and the OVS version of the stimulus sentence, respectively. When presenting the LOC, the target sentence and the matching picture are highlighted; for the GLOB, the target picture is highlighted. Speakers will be instructed to utter the target sentence in such a way that a listener would know as accurately and early as possible which of the two pictures matches the target sentence.

We will present the results of our acoustic analyses at the conference, which will allow us to determine the most prominent prosodic cues, used by speakers in locally and globally ambiguous structures. Furthermore, we will identify possible variabilities and regularities of prosodic cue production for syntactic disambiguation in different communicative contexts and between speakers.

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