

Sensitivity to syntactic structure and contrastive stress in children's sentence continuation

In connected utterances, the choice of which referent to mention as the subject of a subsequent sentence depends on which element appears to be most salient and most accessible to the speaker (Arnold, 2008). Several linguistic cues might make an element salient and thus more accessible, such as animacy, syntactic position, grammatical function, prosodic stress. In the present study, we investigated when contrastive stress cue, position in syntactic structures (i.e., in cleft and pseudocleft) and grammatical function are exploited by children to decide which referent is more salient in a utterance and thus more likely to be assigned to subject position in a subsequent sentence.

Previous research indicates problems with specific prosodic cues, e.g., contrastive stress, at least until the age of five (e.g., Cutler & Swiney, 1987; Gualmini et al., 2002). However most of the previous studies focused on the comprehension of specific structures such as the focus operator 'only' in English. Thus, such evidence cannot be regarded as conclusive (e.g., Chen, 2010).

To determine to what extent Italian speakers make use of contrastive stress in order to decide which referent is more salient in a sentence, and more likely to become the subject of a subsequent utterance, we asked 4-, 5-, 6-year-olds, and adult speakers of Italian to generate a continuation of three types of sentences with the same surface order: (1) with default stress on the last NP (*la zebra bagna l'ippopotamo*; 'the zebra is soaking the hippo'), as assigned by the nuclear stress rule (cf. Chomsky & Halle, 1968; Cinque, 1993); (2) contrastive stress on the subject (*la ZEBRA bagna l'ippopotamo*; 'the ZEBRA is soaking the hippo'); (3) contrastive stress on the direct object (*la zebra bagna l'IPPOPOTAMO*; 'the zebra is soaking the HIPPO').

Participants as young as 5 years of age tended to mention next, as the subject of their sentence continuations, the referent that received contrastive stress in the previous utterance. This tendency was consistent in 6-year-olds and adults too. Conversely, 4-year-olds did not appear to rely on contrastive stress cue in order to decide which referent to mention next. Interestingly, 4-year-olds appeared to rely mostly on structural cues (syntactic and/or linear position), to determine which referent was most salient.

Then, we run a second experiment in which we investigated whether children were sensitive to syntactic structure in order to determine the most salient element. We used cleft and pseudocleft sentences, in which either the subject or the object were clefted (*E' l'ippopotamo che bagna la zebra*; 'it is the hippo that the zebra is soaking') or pseudoclefted (*Quella che l'ippopotamo bagna è la zebra*; 'the one that the hippo is soaking is the zebra'). Preliminary results show that children are sensitive to salience as determined by cleft as young as 4 years.

These results show that sensitivity to various syntactic cues is exploited earlier than sensitivity to contrastive stress. In line with previous studies, sensitivity to contrastive stress is not exploited verbally before five years of age, but seems to be present already at 4 years (Zhou et al., 2012a). However, sensitivity to prosodic cues is exploited verbally in speech act understanding (Zhou et al., 2012b). These contrasting findings will be discussed in the light of developmental change in the coordination of information from different sources and interfaces between prosody and other level of linguistic analysis.

References

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