

Children’s use of syntactic information in resolving ambiguous topic structures

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Mandarin is a topic-prominent language where the subject, the object, or both can be moved to the sentential left periphery to form single-topic structures (OSV) or double-topic structures (SOV). Thus, structural ambiguities might arise when two nominal elements appear in sentence-initial positions. For example, (1) is ambiguous between a double-topic reading (1a) and a single-topic reading (1b). Interestingly, syntactic cues can distinguish between the two readings: the topic particle *ne* between N1 *xiaogou* ‘dog’ and N2 *shujia* ‘bookshelf’ (Type 1 structure) indicates the double-topic reading, whereas *ne* between N2 *shujia* and the verb *ding* ‘nail’ (Type 2 structure) indicates the single-topic reading. This study investigates whether children can use such syntactic cues to resolve ambiguous topic structures as in (1).

(1) Xiaogou shujia ding hao le
dog bookshelf nail well ASP

a. ‘The dog has nailed the bookshelf.’ – double-topic reading

b. ‘The dog-shaped bookshelf, someone has nailed.’ – single-topic reading

Sixty 3-, 4-, and 5-year-old Mandarin-speaking children and 20 adults were tested using a picture selection task. On each trial, the participants saw visual stimuli containing two pictures, one representing a double-topic reading (left panel of Fig.1) and one a single-topic reading (right panel of Fig.1). At the same time, they heard either a Type 1 or a Type 2 structure. Their task was to point out which picture the spoken sentence was talking about. The prediction is that if children can use topic particles to disambiguate between the two readings, they should select the left panel of Fig.1 when hearing the Type 1 structure, and they should choose the right panel of Fig.1 when hearing the Type 2 structure.

The results show that hearing the Type 1 structure led all the four age-groups to consistently choose the pictures matched the single-topic reading. But hearing the Type 2 structure yielded divergent patterns, i.e., adults and 5-year-olds consistently chose the pictures representing the double-topic reading, but 3- and 4-year-olds did so significantly less often. The findings indicate that 3- and 4-year-olds exhibit a preference for the single-topic reading and have difficulties in using syntactic cues to arrive at the double-topic reading. We discuss the findings in relation to the Derivational Complexity Hypothesis by Jakobowicz (2011), and propose that children’s difficulties with the double-topic reading are due to the complex movement operations involved in the left periphery.

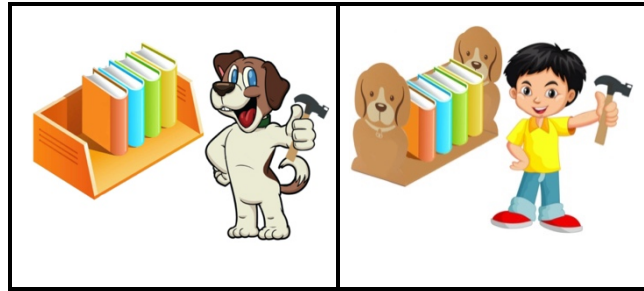


Fig.1. The example visual stimuli

Key words: child language acquisition; structural ambiguity; derivational complexity

Selected references

Jakubowicz, C. (2011). Measuring derivational complexity: new evidence from typically developing and SLI learners of L1-French. *Lingua*, 121, 339–351.