

Scope Ambiguity without Covert Scope-Shift in the Acquisition of English

The relative scope of sentential negation and quantificational NPs has been extensively investigated in children ([1]). A locus of debate in this field is the availability of covert scope-shifting operations (QR, reconstruction) to preschoolers. We add a new dimension to the field by investigating scope ambiguity deriving from surface syntactic ambiguity. We examined children's relative scope interpretation of negation and adverbial clauses headed by *because*. Children exhibited an adult-like bias to interpret *because*-clauses outside the scope of negation, despite the fact that negation precedes the *because*-clause. Children's adult-like behavior with these structural ambiguities suggests that their non-adult behavior with covert scope-shift cannot be attributed solely to difficulties with negation.

Sentences like (1) exhibit a scope ambiguity. On one interpretation (1a: **BEC>NEG**) the *because*-clause takes scope over negation; on the other interpretation (1b: **NEG>BEC**) only the *because*-clause is negated, and the truth of the main clause is presupposed. This ambiguity reflects distinct surface hierarchical relations between negation and the *because*-clause ([2]). High-attachment of the adverbial clause yields **BEC>NEG** and low-attachment yields **NEG>BEC**. Adult psycholinguistic studies report a strong preference for the high-attachment, **BEC>NEG** interpretation ([3]).

We tested 24 English-speaking children (3;11–5;09, mean: 4;9) and 24 adults, using a TVJT. First, sentences like (2) were presented in the following conditions: (A) Pooh did not come to the swimming party and it was because he wanted to run instead; (B) Pooh did not come to the swimming party and the reason for his absence was not that he wanted to run. Both children and adults consistently accepted the sentence in the condition (A) that matched the **BEC>NEG** reading (Children: 91%; Adults: 100% acceptance), but they rarely accepted the same sentence in the condition (B) (Children: 8.3%; Adults: 0.0%). These results suggest (a) that both children and adults accessed **BEC>NEG** and (b) that their answers were not based solely on the truth of the main clause.

Secondly, sentences like (3) were presented in the following conditions: (C) Pooh did come to the party and the reason for his coming was not that he wanted swim; (D) Pooh did come to the party and it was because he wanted to swim. The condition (C) matched the **NEG>BEC** reading of the sentence, but both children and adults showed relatively low acceptance of the sentence (Children: 20.8%; Adults: 14.2%), indicating a difficulty in accessing **NEG>BEC**, even when the presupposition associated with that interpretation is appropriately met. In the condition (D), both children and adults correctly rejected the sentence (Children: 12.5%; Adults: 9.1%).

Overall, both children and adults patterned alike, exhibiting difficulty in accessing **NEG>BEC**. This pattern contrasts with children's non-adult behavior in cases involving covert scope-shift ([1]). Unlike these child-specific biases, the bias for **BEC>NEG** is maintained by adults. This suggests that different mechanisms are involved in children's interpretive biases within negative sentences: whatever properties are responsible for non-adult behavior in negative sentences involving covert scope ambiguities, they are distinct from those involved in negative sentences involving attachment ambiguities.

(493 words)

- (1) John didn't sell his bike because the gears were broken.
- a. [IP [IP John didn't [VP sell his bike]] [because the gears were broken]].
BEC>NEG: John didn't sell his bike, and it was because the gears were broken.
- b. [IP John didn't [VP [VP sell his bike] [because the gears were broken]]].
NEG>BEC: John sold his bike, but it was not because the gears were broken.
- (2) Pooh didn't come to the swimming party because he wanted to run.
- (3) Pooh didn't come to the swimming party because he wanted to swim.

References

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