Passives in first language acquisition: What causes the delay?

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In this paper I evaluate the claim that semantic difficulties underlie young English-acquiring children's poor performance on the passive construction. I will propose an account of children's comprehension of the passive that rests on the prototypicality of subjects being agents and objects being patients, arguing against the view that difficulty with passives results from an inability to form A-chains.

Several accounts of child passives assume that children initially depend heavily on semantics to unpack the syntax of their language. Semantic bootstrapping (Pinker, 1984) claims that children rely on canonical notions of subject and object in their interpretation of all sentences. Such a strategy works well, considering that syntactic roles and semantic/thematic roles often line up, resulting in prototypical agent subjects (Dowty, 1991) and patient/theme objects. However, the passive results in a syntactic-semantic "mismatch." As predicted by this approach, children who have not yet acquired the relevant syntax interpret reversible passives (1a) as if they were active sentences, taking the first NP to be the agent (1b) (Bever, 1970; Maratsos, 1974; Mills, 1985).

(1) a. Bob was kissed by Jill
    b. Bob kissed Jill

In contrast, Wexler and colleagues (Borer and Wexler, 1992; Babyonyshev et al., 2001) hypothesize that children are unable to interpret the passive until non-trivial (subject-object) A-chains have matured in their grammar.

If failure on basic passives is due to problems overcoming a syntax-semantics mismatch, rather than trouble with A-chains, children should perform better on passives when prototypical θ-role mapping is not violated. Passives embedded under raising-to-object verbs (EPs; shown in (2)) allow us to examine this proposal by circumventing violations of canonical roles in argument mapping.

(2) Mary wanted/needed Bob$_i$ [t_i to be kissed t_i by Jill]

Here, semantic objects surface as syntactic objects (i.e., *Bob* is both the patient of *kiss* and object of *want*). In contrast, if trouble with the passive indeed results from a deficiency regarding non-trivial A-chains, children should do equally poorly on EPs, which involve movement from the object to the subject of the embedded clause, and secondarily to the object of the matrix clause.

I tested this hypothesis with 32 children (ages 4-5) using a truth-value judgment task. A pretest indicated that the 5-year-olds, but not the 4-year-olds, had mastered basic (non-embedded) passives. As predicted by the mismatch account, however, both groups performed significantly above chance on interpreting EPs (4s: 75% correct, 5s: 79% correct, both $p<0.01$). These data dovetail with independent evidence that children have no trouble with A-chain formation (Köppe, 1994; Fox and Grodzinsky, 1998; Guasti, 2002), as well as with adult aphasia studies indicating that processing load increases with non-canonical θ-role ordering (Caplan and Hildebrandt, 1988).

Taken together, children's performance on basic passives and EPs provides strong support for the proposal that passive interpretation by young children hinges on the match between syntactic and

thematic roles, not the ability to form A-chains. These results are especially striking considering the greater syntactic complexity (and thus processing load) of EPs in comparison to basic passives.

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