

Where Ellipsis Meets *Wh*-movement: Sluicing in early grammar

Ellipsis (meaning without sound) poses an extreme ‘poverty of the stimulus’ problem for language acquisition. A first step in addressing that problem is to determine at what age children understand (and use) different kinds of ellipsis. The child’s development of VP ellipsis has been studied in a number of languages, but there has been far less investigation of sluicing, a CP headed by a *wh*-phrase where the TP has gone missing, e.g. *Someone wrote this paper, but I don’t know who* __. In this paper, we present a study of English-speaking children’s comprehension of sluiced sentences, aiming to enrich the sparse literature in this area. Our results also have implications for competing syntactic and semantic/pragmatic theories of the structure of (adult) sluices.

Using a modified TVJ task that paired sentences such as (1) designed to elicit ‘yes’ (Figure 1)/ ‘no’ (Figure 2) responses, we tested English-speaking 3-6-year olds on their ability to recover the elided material, i.e. whether they obeyed the ‘antecedent condition’ on sluicing. Additionally, to correct for a potential confound in a previous study of sluicing (Lindenbergh et al. 2014), which may have allowed children to arrive at the correct meaning of the sluice by interpreting the two clauses independently (‘two-clause strategy’ as in (2)), our pictures had a third character who was not the agent of the stated action (e.g. the washer in Figure 2). Each child got 29 test items

Finally, previous studies (Wood 2009; Lindenbergh et al. 2014) tested only subject sluices (1); we also included object sluices (3) (with the same 3-character control, see Figures 3-4). It is independently known that young children have greater difficulty with object *wh* extraction than subject *wh* extraction (e.g. Friedmann et al. 2009), possibly an intervention effect. Our prediction is that this asymmetry will extend to sluices, viz. children will perform better with subject sluices. If our expectation is met, it would provide strong support for syntactic theories of sluicing that posit that the ellipsis site has a fully articulated (but unpronounced) TP structure from which the *wh*-phrase is extracted (6) (e.g. Ross 1969; Merchant 2001), as opposed to semantic/pragmatic theories that posit no such structure (e.g. Culicover & Jackendoff 2005).

Our preliminary results (from 15 5- and 6-year olds), in Table 1, show first that children at this age easily understand sluiced sentences (over 93% correct in all sluice conditions), and moreover, that they are not relying on a “two-clause strategy”. Additionally, among our 5-year olds we also found a trend towards better performance on subject (vs. object) sluices, suggesting that children have the same (possibly intervention-induced) difficulty here as they show with other instances of *wh*-movement. We are currently testing 3- and 4-year olds whom we expect to show a much stronger subject-object asymmetry. Interestingly, our 6-year olds show a slight trend in the opposite direction – they do better with object sluices. This is reminiscent of the locality effect seen in adults presented with ambiguous sluices (5) where they prefer to associate the *wh*-phrase remnant (*which ones*) with the object antecedent (*silly examples*) rather than the subject (*some linguists*) (Frazier & Clifton 1998). This locality bias in on-line processing might be evident in children as young as 6.

(1) I can see that someone is brushing Ben, can you see who? (subject sluice)



Figure 1. 'Yes' scenario for (1)



Figure 2. 'No' scenario for (1)

(2) Someone is brushing Ben. Can you see someone (who is not Ben)? "2-clause strategy"

(3) I can see that Ben is washing someone, can you see who? (object sluice)



Figure 3. 'Yes' scenario for (3)



Figure 4. 'No' scenario for (3)

(4) Someone is brushing Ben, can you see [CP who [TP ~~who~~ is brushing Ben]

Table 1: Percent correct subject and object sluices (transitive verbs)

Age	Subject sluice (e.g. 1)	Object sluice (e.g. 3)
5-year olds	100%	93%
6-year olds	96%	98%

(5) A few linguists gave some silly examples, but I don't remember *which (ones)*.

References

- Culicover, P. & Jackendoff, R. 2005. *Simpler Syntax*. Oxford: Oxford University Press
- Frazier, L. & Clifton, C. 1998. Comprehension of sluiced sentences. *Language & Cognitive Processes* 13. 499-520
- Friedmann, N., Belletti, A. & Rizzi, L. 2009. Relativized relatives: Types of intervention in the acquisition of A-bar dependencies. *Lingua* 119:67-88.
- Lindenbergh, C., van Hout, A. & Hollebrandse, B. 2015. Extending Ellipsis Research: The acquisition of sluicing in Dutch. *BUCLD* 39.
- Merchant, J. 2001. *The Syntax of Sluicing*. Oxford: Oxford University Press.
- Ross, J. 1969. Guess Who? Proceedings of CLS 5. Chicago Linguistics Society.
- Wood, G. C. 2009. The Identity of Silence: Acquiring the Identity Condition on Sluicing. *Newcastle Working Papers in Linguistics*, 15: 138-150.