

February 9, 2010

## **WEEK 4: MODELS OF LANGUAGE DEVELOPMENT**

### **MODULARITY MATCHING MODEL (MMM)**

- a debatable background assumption (cf. Crain & Thornton 1998: 5): linguistic theory is not ‘pure’ and children’s performance data are not ‘messy’ — “children’s performance should parallel their linguistic competence” (p. 7); see e.g. Chomsky (1965)

MMM (C&T, reviewed in Drozd 2004 with peer-commentaries and reactions):

- (i) the language faculty is a separate module within human cognition, as a consequence of which “the construction of syntactic and semantic representations of sentences is not influenced by general cognitive mechanisms — the mechanisms that are used to represent and process real-world knowledge [ . . . ]” and
- (ii) “the child’s language-processing system is essentially the same as that of an adult”
- so: well before they reach their fifth year, children have a command of grammar that meets adult standards in most respects

As Drozd (2004: 440) observes in his review of C&T (Crain & Thornton 1998):

C&T make no effort to compare Modularity Matching to alternative models of adult language processing or language performance (see e.g. Tanenhaus & Trueswell 1995 for review) or children’s language processing or language performance (e.g. Berwick & Weinberg 1984, MacWhinney 1987) or alternative approaches to learnability (e.g. Tesar & Smolensky 2000). Instead, they opt for comparing Modularity Matching to the ‘Competing Factors’ model, a fictitious model which assumes “no notion of grammaticality in any absolute sense” (pp. 33–34) and for which “the grammatical module does not have any special status” (p. 36). C&T’s list of Competing Factors advocates includes Paul Bloom, Jane Grimshaw, Helen Goodluck, Tom Roeper, Jill de Villiers, Barbara Lust, Dana McDaniel, and Cecile McKee, none of whom would endorse the model. [...]

Nor do C&T discuss arguments against fundamental assumptions of Modularity Matching. There are by now well-articulated and compelling arguments for the view that the absence of environmental evidence, universality, and early emergence, C&T’s three hallmarks of innate specification (p. 10; Crain 1991), are insufficient as diagnostics of innate mechanisms (e.g. Elman *et al.* 1996). There are also compelling arguments that Fodor’s (1983) Modularity Hypothesis, which C&T adopt, is unlikely to provide an accurate description of the organization of the language performance system (e.g. Marslen-Wilson & Tyler 1989, Elman *et al.* 1996, Jackendoff 2000). Moreover, it has become increasingly clear that the classical Principles and Parameters Theory of UG (Chomsky, 1981) has a rather poor track record as a theory of language acquisition (see Fodor 1998 and Tomasello 2000 for recent discussion).

**CHILD DATA AND CONTINUITY VS INPUT MATCHING**

Look at some language productions from English-speaking children (°).

*Medial wh*

(1) ° What do you think what pigs eat?

This is not an option for English, but several other languages, such as German:

- (2) a. **Was** glaubst du **was** Schweine essen?  
 What believe you what pigs eat  
 b. **Was** glaubst du essen Schweine?  
 c. **What** do you think pigs eat?

*Auxiliary repetition*

- (3) a. What **doesn't** Big Bird like?  
 b. ° What **does** Big Bird **doesn't** like?

What's going on here?

- (4) a. **Doesn't** Grover like the ice cream?  
 b. ° **Does** Grover **doesn't** like the ice cream?
- (5) a. What **can't** Elmo jump over?  
 b. ° What **can** Elmo **can't** jump over?  
 b'. ° What **does** Elmo **can't** jump over?

*More on wh-questions*

- (6) a. ° What **does** the Spaceman **doesn't** like?  
 b. ° What food **that** the Spaceman **doesn't** like?
- (7) a. **Whose elephant** do you think jumped the best?  
 b. **Who** do you think's **elephant** jumped the best?
- (8) a. **Which dog** do you think the boy took for a walk?  
 b. # **Which** do you think **dog** the boy took for a walk?

*Inalienable possession*

- (9) a. Every **frog** who has a **baby** takes it to the pond.  
 b. Every **man** who has a **snowplow** uses it to push snow.

- *donkey-sentences*: (i) Every farmer who owns a donkey feeds it.  
 (ii) If a farmer owns a donkey, he (always) feeds it.

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