

Production Approaches to Stuttering

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Abstract. It is proposed that a usage-based approach to language learning might help explain why learners begin to stutter around the age of three. However, it is not clear how this proposal is explanatory, and why phonologically grounded proposals are dismissed out of hand. In fact, prosodic structures include higher-level language production units such as phonological phrases and phonological utterances, making these ideal units to investigate in a developmental model of language production that could apply to adult stuttering as well.

Keywords: Developmental stuttering, usage-based theory.

1. Savage and Lieven (2004, hence, S&L) suggest that problems of child stuttering may be best addressed by considering a usage-based approach to language learning. This framework assumes the children have little productive syntax before the age of late 3 or 4, where ‘syntax’ is used to mean productive use of verbs in multiple syntactic frames, or used with different tenses. The fact that the onset of stuttering around the age of 3 seems to coincide with the possible onset of syntactic productivity is then taken as evidence of children’s difficulties with the emergence of productive syntax.

2. There are several problems with this proposal. The first is that adults stutter too, yet they presumably have productive use of grammatical morphemes and verb argument structures. It is therefore not clear how a purely developmental proposal to these phenomena can account for the adult facts.

Second, if children only begin to access productive syntax around the age of 3 or 4, we might then expect ALL children to go through a stage of stuttering. However, although children (and adults) commonly exhibit some false starts in everyday speech, most are not classified stutterers. Thus, although increased grammatical complexity may present challenges for language production, it is not clear that usage-based approaches to these issues provided an explanatory theory for why stuttering should occur.

Third, S&L provide no evidence to support their claims, and few suggestions for how to test their proposal. Furthermore, given that stuttering typically appears on grammatical function items or at the onset of words, it is not clear how a usage-based approach to stuttering is relevant, since children are generally producing pre-lexical grammatical function items like articles around the age of two, and have an extensive vocabulary by the age of three.

3. Another problem with S&L’s proposal is the lack of willingness to consider possible alternatives, dismissing issues relating to prosodic words (PWs) as ‘theoretical’, even though they were developed to capture the structure of language (e.g., Selkirk 1984, Nespor & Vogel, 1986). However, there is a large and growing literature on children’s development of PW structures, all of which is grounded in the same longitudinal corpus ‘usage-based’ data that S&L advocate (e.g., Fikkert, 1994; Pater, 1997; Demuth & Johnson, 2003). Much of this research shows that frequency effects in the input help

explain the course early syllable and PW development (Levelt, Schiller & Levelt, 2000; Roark & Demuth, 2000), and that this is closely tied to the emergence of certain grammatical morphemes (e.g., Demuth, 2001; Lleó, 2001). Much of this research also shows that, as the complexity of larger, phonological phrases and phonological utterances increases, children's accuracy with PWs often regresses. In effect, there is a close connection between phonology, morphology and syntax, especially when it comes to early language production (cf., Demuth, 1996).

4. One possibility that might account for why only some children stutter, and why only a subset of these continue to stutter into adulthood, might have to do with the speed (or slowness) of lexical processing, including lexical access. As children become more fluent around the age of three, using a larger vocabulary and more complex syntactic constructions, this probably increases language processing demands, placing a strain on the production system. Much more research involving on-line lexical access and language processing abilities in both normally-developing and stuttering adults and children is probably needed to explore these issues more fully. Some of this has been done in exploring the language abilities of children with specific language impairment (SLI). I agree with S&L that a good developmental model of language production might help provide some clues as to problems stuttering. But an appreciation of both the theoretical and empirical issues regarding prosodic phonology and morphology, and how these play a role in both developing and adult production systems, should not be dismissed without serious investigation.

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