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The acquisition of double word-initial consonant clusters in Polish and English: a markedness account

The acquisition of consonant clusters in different word positions has been the subject of several studies dealing with the acquisition of e.g. #sC consonant clusters (cf. Yavas 2006; Marecka and Dziubalska-Kołaczyk 2014) as well as obstruent-liquid and sibilant-obstruent consonant clusters (cf. Fikkert and Freitas 2004). In order to predict in which order consonant clusters are acquired by children, researchers have applied various markedness models. This paper uses two such models, i.e. the Sonority Sequencing Principle (cf. Giegerich 1992) and the Net Auditory Distance (cf. Dziubalska-Kołaczyk 2009), to investigate which model accounts better for the productions of double word-initial consonant clusters by Polish and American children. In addition, the aim of the study was to analyze cross-linguistic differences in the acquisition of these consonant clusters, focusing on those consonant clusters which emerge first.

The data analyzed in the study comes from the transcripts of Wawrzon's (a Polish-acquiring boy) and Alex's (an English-acquiring boy) recordings which are available online on the CHILDES database. The productions in three stages of acquisition (2;1-2;2, 2;6-2;7, 3;1-3;2) were analyzed. The study used approximately three times more data from Alex than Wawrzon due to two facts: a) Alex's productions were often incomprehensible to the transcriber; and b) the English lexicon is built of more than three times fewer double word-initial consonant clusters than the Polish lexicon (cf. Cruttenden 2001; Dziubalska-Kołaczyk 2002).

The study reported Wawrzon's: a) exceptionally successful production of the /r/ consonant; b) good production of the /s/+stop consonant clusters (higher correctness rate when producing the /sp/ consonant cluster than the /st/ consonant cluster (cf. Marecka and Dziubalska-Kołaczyk 2014: 42); c) simultaneous acquisition of the consonant clusters comprised of stops and those comprised of fricatives; As far as the acquisition of English phonotactics is concerned, the study indicated Alex's: a) more successful production of the sC clusters than those whose one element is a liquid in the second stage of acquisition; b) poor production of the /kɹ/ consonant cluster.

Finally, although the Net Auditory Distance has turned out to serve by far as a better markedness model for describing Polish phonotactics than the Sonority Sequencing Principle (cf. Marecka and Dziubalska-Kołaczyk 2014: 40), both models failed to predict the acquisition of English consonant clusters. The study showed that the order of the acquisition of phonotactics is not a universal feature and it cannot be fully predicted by markedness models. This explains why the Net Auditory Distance, which defines language-specific features as opposed to language universals, makes more precise predictions concerning the acquisition of consonant clusters. [418 words]

References:

Cruttenden, Alan. 2001. *Gimson's Pronunciation of English*. (6th edition.) London: Arnold.

Dziubalska-Kołaczyk, Katarzyna. 2002. *Beats-and-Binding Phonology*. Frankfurt am Main: Peter Lang.

Dziubalska-Kołaczyk, Katarzyna. 2009. "NP Extension: B&B Phonotactics", *Poznań Studies in Contemporary Linguistics* 45, 1: 55-71.

Fikkert, Paula and Maria João Freitas. 2004. “The role of language-specific phonotactics in the acquisition of onset clusters”, Leonie Cornips – Jenny Doetjes (eds.): 58-68.

Giegerich, Heinz J. 1992. *English phonology: An introduction* . Cambridge: Cambridge University Press.

Marecka, Marta and Katarzyna Dziubalska-Kołaczyk. 2014. “Evaluating the models of phonotactic constraints on the basis of the sC cluster acquisition data”, *Language Sciences* 46: 37-47.

Yavas, Mehmet. 2006. “Sonority and the acquisition of #sC clusters”, *Journal of Multilingual Communication Disorders* 4, 3: 159-168.