Studying emergence and mastery in the development of morphonotactic and phonotactic word-initial and word-medial consonant clusters in Croatian first language acquisition

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Introduction: Dressler and Dziubalska–Kołaczyk (2006) introduced the theoretical distinction between morphonotactics and phonotactics. The interaction of morphonotactics with phonotactics affects the acquisition and processing of consonant clusters, as claimed by the Strong Morphonotactic Hypothesis (SMH). However, the research results are mixed, and this hypothesis might be restricted to the systems of rich morphology.

Aims: The aim of this talk is to present two studies focusing to development of morphonotactic and phonotactic word-initial and word-medial consonant clusters in Croatian first language acquisition: first Author & Author (2019) investigating word-initial consonant clusters and second, Author, Author & Author (2022) investigating word-medial consonant clusters. Both studies relied on principles of Natural Morphology, the Beats & Binding model of phonotactics and investigated the recent propositions of SMH.

Methods: In both studies the longitudinal corpora of three Croatian children (age period from 0;10 to 3;02) was analysed (Croatian Corpus of Child Language, Kovačević 2002). First, all word-initial consonant clusters (1st study) and word-medial consonant clusters (2nd study) were singled out and described as purely phonotactic, purely morphonotactic or both, with the age of emergence. Second, clusters were classified as preferable or non-preferable according to the Net Auditory Distance, in respect to their type and the age of appearance. In the first study, Author & Author in accordance with Berman (2004) introduced a new criterion for identifying the acquisition of a cluster within a longitudinal acquisition study: full mastery, which meant the time when either a morphonotactic consonant cluster or its homophonous phonotactic cluster are consistently produced correctly by the child. In the 2nd study, the clusters were analysed separately for the period before 20 MoA and after this important milestone (Gershkoff-Stowe 2002; Hoff and Naigles 2002; Storkel 2009).

Outcomes: Study of word-initial consonant clusters in Croatian using the new method showed that the three investigated Croatian children acquired morphonotactic clusters earlier than homophonous phonotactic clusters. Morphonotactic clusters were mastered before, even when homophonous phonotactic clusters emerged first. The study of word-medial clusters showed a clear pre-dominance of morphonotactic clusters in one out of three subcorpora. Developmentally, an increase in all three cluster types was observed and generally all clusters were predominantly less preferred. Early emerging phonotactic clusters appeared to be mostly preferred, while the first morphonotactic clusters comprised less preferred combinations, with a gradual increase in the preferability. Discussion and conclusion: The results of the 1st study indicate that the interplay between phonology and morphology aids mastering the consonant clusters, while the results of 2nd study partially corroborated the SMH, suggesting that further exploration of this hypothesis in different languages and using different approaches is needed.