

The role of morphonotactics and preferability in the processing of derived words in children with DLD in Croatian

Morphonotactics refers to the interface between phonotactics and morphotactics (1). The distinction between phonotactic clusters occurring within a morpheme and morphonotactic ones which emerge across morpheme boundaries bears theoretical and psycholinguistic implications given the important information they carry. Studying consonant clusters relies on the principles of Beats-and-Binding (B&B) phonotactics (2) and Strong Morphonotactic Hypothesis (SMH; 1). The latter account claims that morphonotactic clusters are more salient, and that the effect of synergy between morphology and phonology manifests itself in acquisition and processing; i.e. morphonotactic clusters are acquired earlier and processed more accurately and more rapidly than phonotactic clusters. Claims have been made that this applies to morphologically rich languages, such as Croatian. Previous studies in Croatian have attested it for acquisition (3; 4) and for processing (5) in typically developing populations.

The aim of the study is to investigate the role of morphonotactics and preferability at the level of sublexical and lexical processing of derived words in children with developmental language disorder (DLD) who, by definition, have substantial difficulties in learning the implicit rules of their L1 and processing morphological information, and typically developing (TD) children. The results will be compared with the results of the study performed with 71 adult Croatian speakers in which identical materials and procedures were used.

This is an ongoing study with two experiments. An auditory sequence targeting experiment (AST) and lexical decision task (LDT) will be conducted to test sublexical and lexical processing. In the AST, participants indicate whether the visually presented consonant cluster appeared in the word they had previously heard. In the LDT they have to decide whether the visually presented string of letters is a real Croatian word. Clusters within the stimuli were controlled for type (phonotactic vs. morphonotactic) and preferability (preferred vs. non-preferred; the calculation being based on Net Auditory Distance (NAD; 6). To test the influence of these factors on performance (reaction time and accuracy) in each group of participants, a repeated measures ANOVA will be conducted. The performance of the two groups will be compared, as well.

The results are expected to shed light on the developmental component of morphonotactic and preferability effects in processing, as well as to identify the differences in the role of morphological information in TD and DLD children.

Keywords: Developmental language Disorder; Morphonotactics; Preferability; Morphological Processing

References

- (1) Dressler, W. U., & Dziubalska-Kołaczyk, K. (2006). Proposing mophonotactics. *Rivista di Linguistica* 18(2), 249–266.
- (2) Dziubalska-Kołaczyk, K. (2002). *Beats-and-binding phonology*. Frankfurt/Main: Peter Lang.
- (3) Kelić, M., & Dressler, W. U. (2019). The development of morphonotactic and phonotactic word-initial consonant clusters in Croatian first-language acquisition. *Suvremena Lingvistika [Contemporary Linguistics]*, 45(2), 179–200.
- (4) Kelić, M., Matić Škorić, A., & Palmović, M. (2023). Croatian (mor)phonotactic word-medial consonant clusters in the early lexicon. *Poznan Studies in Contemporary Linguistics*, 59(1), 95-116. <https://doi.org/10.1515/pscl-2022-2005>
- (5) Matić Škorić, A., Kelić, M., Pavlinušić Vilus, E., & Palmović, M. (submitted). *Journal of Psycholinguistic Research*.
- (6) Dziubalska-Kołaczyk, K., Pietrala, D., & Aperliński, G. (2014). *The NAD Phonotactic Calculator – an online tool to calculate cluster preference in English, Polish and other languages*. Available at: <https://wa.amu.edu.pl/nadcalc/>