

# **Coarticulation patterns in onset-vowel sequences: Evidence from Polish and Romanian EMA data**

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A review of previous research suggests that models of articulatory correlates of syllable structure do not sufficiently take the segmental composition of the syllable into account. In this talk we report on our work investigating on the basis of Polish and Romanian to which extent onset-vowel organization depends on cluster composition. We hypothesize that coarticulation resistance of the vowel-adjacent consonant in #C<sub>1</sub>C<sub>2</sub>V clusters determines differential degrees of cluster-vowel overlap. We present two approaches investigating this hypothesis: First, we apply the well-established temporal lag measurements which compare changes to onset-vowel timing in corresponding singleton and cluster onsets (i.e. C<sub>2</sub>V vs. C<sub>1</sub>C<sub>2</sub>V). The expectation is that overlap increases between singleton and cluster condition. Secondly, we determine onset-vowel overlap in terms of tongue body position differences during the vowel in the same conditions (C<sub>2</sub>V and C<sub>1</sub>C<sub>2</sub>V, respectively), i.e. we use the degree of contextual vowel variability as an index of onset-vowel overlap change. We predict that onset overlap increases as a function of onset complexity only if C<sub>2</sub> is of low coarticulation resistance. For Polish, we found in both analyses the expected interaction of onset-vowel organization and coarticulation resistance of C<sub>2</sub>, i.e. singleton:cluster changes in onset-vowel overlap increased with decreasing coarticulation resistance of the vowel-adjacent consonant. We also extend the current analyses to Romanian, for which we also contrast tauto- and heterosyllabic clusters.