

## **Lexical and stress effects on vowel-to-vowel coarticulation in Tatar**

Jenna Conklin  
Purdue University

Vowel-to-vowel coarticulation is a phonetic process occurring when one vowel triggers slight assimilatory shifts in the articulation of a neighboring vowel. In addition to language-specific particulars of vowel and consonant articulation, factors like stress, vowel inventory, prosody, and vowel harmony may play a role in shaping coarticulatory patterns. This study looks at vowel-to-vowel coarticulation in Tatar, a language with palatal vowel harmony, by examining disharmonic lexemes. Acoustic analysis of vowel formants is used to determine the degree and direction of coarticulation in disharmonic Tatar words with four combinations of vowels. It was hypothesized that Tatar coarticulation would be stronger in the anticipatory (right-to-left) direction due to the combined effect of stress and vowel harmony; however, this prediction was not upheld. Instead, results suggest that vowel-to-vowel assimilation in Tatar, a harmonizing language, differs from coarticulation found in non-harmonizing languages in two fundamental ways. First, the strongest assimilatory effects are lexical: one target word shows a tendency to assimilate in the carryover (left-to-right) direction, two in the anticipatory direction, and another simply displays less overall assimilation. Second, unlike coarticulation in non-harmonizing languages, assimilation in Tatar disharmonic lexemes varies in size from negligible coarticulation, to large coarticulatory effects, to complete assimilation: thus, the vowel-to-vowel assimilatory effects in Tatar are far larger and more variable than those typically found in non-harmonizing languages. The discussion will explore how Tatar's status as a harmonizing language influences its assimilatory profile, as well as considering the possible implications of the complete acoustic assimilation found in some disharmonic lexical items on the future development of the Tatar harmony system.