Labial velarization in Southern Vietnamese: Variable or regular? Case study: pronunciation of /kwo:k/
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The typological uniqueness of labial velarization in Vietnamese exists initially in the fact that the phenomenon of doubly-articulated labial velar stops and nasals is exceptionally rare in Asia. Second, occurring only in word’s final position, it goes against the cross-linguistic tendency towards labial velarization in word’s initial position or prevocalic position (Hajek 2008). In Vietnamese, labial velars are only found in coda position after rounded vowels as in ‘bung’ /bu:\ŋ/ [bu:ŋm] (belly/ stomach). In other words, back rounded vowels are followed by labial-velars, while unrounded vowels precede velars.

What still sparks controversy surrounding doubly-articulated labial velarization in Vietnamese is whether its degree of constriction is variable or regular. In Thompson (1959) and Thompson (1991), the degree of constriction varies according to vowel height. However, the direct observation of Hajek (2008) raised doubts about variability in labial velarization, reporting that no vowel height conditioned variability in labial closure was noted. My present study, with experimental investigation, seeks to address, first of all, the question of whether or not the degree of constriction of labial velarization is variable. If there is variability, this study will find out if the reason is phonological or phonetic.

In addition, so far, no serious attempt has been made to explore the pronunciation exception of “quốc” /kwo:k/ (country), which represents the only case of [w] before a back rounded vowel followed by a velar. In Northern and Southern Vietnamese, it is unexpectedly pronounced [kwok] and [wok] respectively, having no labial velarization [kp] in its final position. More interestingly, Thompson (1965) reports that the spelling of /kwo:k/ has undergone several changes in orthography since “quốc ngữ” (Vietnamese national language script) was invented. Even now, its spelling is still a topic of linguistic debate in an effort to improve Vietnamese national language script. Why the exception of “quốc” exists and whether its pronunciation has changed because of too complicated co-articulation of [w] and [kp] are still gaps in literature. This is the second motivation behind the present study.

To address the above research questions, I am carrying out a visual experiment to measure lip rounding/spreading and lip closure. Three participants (one male and two females) born and raised in the South of Vietnam will be asked to read 37 words including rounded or unrounded vowels followed by velars or labial velars in coda position. The interval between stimuli is four seconds. I will record the sounds and take one video tape from the front, making the participants’ heads at fixed position. With the collected data, the distance between two lips will be measured (from the top of upper lip to the middle of lower lip). Finally, I will measure the degree of lip rounding/spreading and observe cheek puffing.

I hypothesize that in Southern Vietnamese, gradient labial velarization found in coda position depends on vowel height, and that the lip rounding feature of back rounded vowel spreads to labial velars. Another hypothesis is that the pronunciation exception of /kwo:k/ can serve as a test case for the first hypothesis. There can be two possibilities in the surface form of /kwo:k/:. Firstly, phonologically speaking, words beginning with [w] in Southern Vietnamese may allow only one labial feature per word. Therefore, in /kwo:k/, labialization can only be realized at the onset, rather than in the coda. Secondly, phonetically speaking, the unexpected surface realization of /kwo:k/ can be the result of phonetic effect in co-articulation of /kw/ and /ok/. The findings of this study are to enhance our understanding of doubly-articulated labial velarization in general and labial velarization in word’s final position in Southern Vietnamese in particular.

References
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