'Characteristics of non-pre-vocalic ejectives in Yakima Sahaptin'

Sharon Hargus   Virginia Beavert
University of Washington   University of Oregon
sharon@uw.edu

There is by now a fair amount of information about the characteristics of ejectives before vowels (e.g. Chipewyan (Hogan 1976), Witsuwit'en (Wright, Hargus, and Davis 2002)). In those languages, ejectives only occur before vowels. But even in languages in which ejectives occur pre-consonantally (e.g. Montana Salish, Flemming, Ladefoged, and Thomason 1994), there is a dearth of information about the characteristics of ejectives in these contexts.

Sahaptin contrasts voiceless unaspirated stops and ejectives before consonants, including voiceless ones, and word-finally. We discuss the phonetic characteristics of the difference between these sounds in minimal and near-minimal pairs such as the following:

['piɬtχanuk] 'place (pl.) under'   ['piɬt'χanuk] 'recently'

[ʃaˈpatk'i] 'movie, TV'   [ʃaˈpat'ki]   'clicked, bolted'

[jiqˈjiq] (creaky sound)   [jiq'ˈjiq'] (especially creaky sound)

All data comes from second author, who is a native speaker of the Yakima (Yakama) dialect of Sahaptin. Some of our data are some of the sound files accompanying Beavert and Hargus 2009, and some were specially recorded for this project.

We examined three type of ejectives in contrast with voiceless unaspirated counterparts: stops ([p' t' k' q'] vs. [p t k q]), labialized stops ([kʷ qʷ] vs. [k q]), and affricates ([ts' tʃ' tɬ'] [ts tʃ tɬ]). For the pre-consonantal contrast, the sole difference between all three types of sounds appears to be amplitude of the release burst (stops) or fricative portion (of affricate), measured as peak amplitude of burst/fricative relative to a vowel reference point in the word of the same vowel quality, length and accent. For the word-final contrast, ejectives have longer as well as louder release bursts. We will compare our findings with instrumental studies of non-pre-vocalic ejectives in Tlingit (Maddieson, Smith, and Bessell 2001) and Ahtna (Tuttle 2015).

References

Beavert, Virginia, and Sharon Hargus. 2009. *Ichishkíin Sínwit Yakama/Yakima Sahaptin Dictionary*. Toppenish and Seattle: Heritage University and University of Washington Press.

Flemming, Edward, Peter Ladefoged, and Sarah Thomason. 1994. 'Phonetic Structures of Montana Salish.' *UCLA Working Papers in Phonetics* 87 (Fieldwork Studies of Targeted Languages II):1-33.

Hogan, John T. 1976. 'An Analysis of the Temporal Features of Ejective Consonants.' *Phonetica* 33:275-284.

Maddieson, Ian, Caroline L. Smith, and Nicola Bessell. 2001. 'Aspects of the Phonetics of Tlingit.' *Anthropological Linguistics* 43:135-176.

Tuttle, Siri G. 2015. 'Stem-Final Ejectives in Ahtna Athabascan.' In *Laryngeal Features of Native American Languages*, ed. by Matt Coler, Leo Wetzels and Heriberto Avelino. Leiden: Brill. 51-70.

Wright, Richard, Sharon Hargus, and Katherine Davis. 2002. 'On the categorization of ejectives: data from Witsuwit'en.' *Journal of the International Phonetic Association* 32:43-77.