Christian DiCanio

The Phonetics of Laryngealization in Takean Thong Chong

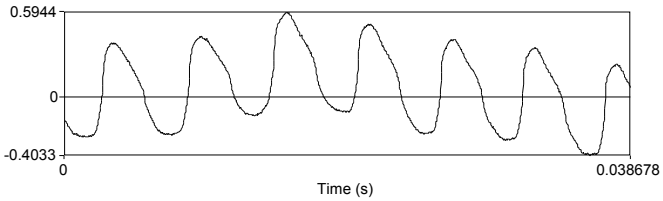
Phonetics: Phonation Type

Chong is a typologically interesting Mon-Khmer language, having a 4-way phonation-type contrast (Thongkum, 1987, 1991). Of the phonation types which contrast in language, only 2 or 3 usually contrast. In Chong, words occur with one of four phonation types. In this talk I will present both acoustic and laryngographic data from a previously undescribed dialect of Chong, Takean Thong.[1] Data from 7 speakers (3 male, 4 female) are examined.

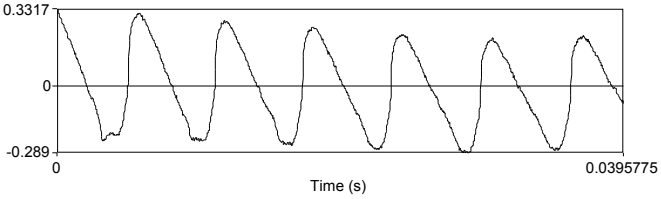
In contrast to previous phonetic descriptions of other Chong dialects, this dialect contains a 4-way register contrast involving modal, tense, breathy, and breathy-tense phonation. Of additional interest in this language is the cross-classification of pitch contours with laryngealization, the articulatory-timing of the phonation types, and the classification of this language with respect to other languages showing large degrees of laryngeal complexity. With respect to pitch, high pitch occurs with tense phonation while low pitch occurs with breathy phonation. Modal vowels have mid-level falling pitch contour while breathy-creaky vowels have a high-low falling pitch. Perceptually the pitch differences are quite small and the phonation type differences are quite noticeable.

While many languages have breathy or creaky phonation, "breathy-tense" phonation has not been described in the literature. This register involves increased medial tension of the vocal folds with a lax anterior adduction. Vocal fold tension occurs toward the word's onset, which is shown by a shorter open than closed glottal period length in the laryngographic data in (1). Breathiness is timed toward the end of the word, shown by the longer open than closed glottal period length in (2).

(1) Breathy-Tense Phonation: Speaker 3: Vowel Onset (Open-Closed 0.84:1)



(2) Breathy-Tense Phonation: Speaker 3: Vowel Offset (Open-Closed 1.14:1)



[1] Data in this paper was collected as fieldwork by this author.

This preliminary data suggests that speakers may use a combination of voice qualities and time them in such a way as to create a phonatory contrast. Similar to tone languages, Chong has a "phonation" contour which contrasts with level breathy and tense phonation types and the modal falling-tone contour.

In the languages of the world, phonation type may or may not cross-classify with a tonal system. In Chong, it cross-classifies with some pitch differences to create a complex set of phonological contrasts that are tonally and laryngeally distinct. While it is rare for languages to contrast phonation type, those languages which have such contrasts usually limit them to a 2-way or 3-way contrast. A larger set of contrasts is extremely rare, occurring only in Chong and perhaps !Xóõ. Laryngeal complexity is not uncommon among Mon-Khmer languages (Huffman, 1976) and Otomanguean languages (Silverman, 1997). Research on languages involving such complex laryngeal patterns informs our knowledge of the behavior of vocal fold vibration, the phonetics of tone, and the range of possible laryngeal contrasts.

(446 Words)

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