PHONETIC NOTES ON SOME SIAMESE CONSONANTS

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For the past three years I have had the good fortune to work with over sixty Thai university teachers in basic phonetic research on their own Standard Thai idiolects. This research was conducted in classes on General Articulatory Phonetics which I have been teaching five hours a week for periods of eighteen weeks. All the teachers were speakers of Standard Thai (Siamese); this is the dialect under consideration in this paper. The basic data for this paper arose from the keen observations of the teachers concerning the production of the Siamese consonants in their individual idiolects. I wish to take this opportunity to thank each of my students for what insights I have into Thai phonetics. Any mistakes in this paper are, of course, my own and not those of my students.

My overall approach to phonetics has been to follow the English phonetic tradition of not rigidly separating phonetics from phonology. In describing the phonetic processes involved in the production of Thai consonants I have used the traditional method based on that of Pike (1943) and Abercrombie (1967). In this paper I have found it necessary to distinguish three styles of speech: first, a very slow, careful tempo of speech; second, a moderate tempo of speech; and third, a fast tempo of speech. Unless otherwise stated, all the phonetic statements will refer to sounds produced in a moderate tempo of speech.

Although the main features of Siamese phonetics have been known for some years, a more careful survey of the literature reveals a surprisingly large number of divergent descriptions of some Siamese consonants. The Siamese syllable initial consonant sounds represented by the symbol achment mark have been described as frontal palatal (Kruatrachue, 1960); palatalized apical dental (Thaweesomboon, 1969); palato-alveolar (Richards, 1966); and voiced palatal (Fowler and Israsena, 1952). I have not observed any of these pronunciations of achment mark either in Siamese or in other Thai dialects. In fact, the description of Siamese achment mark as a palatal stop or affricate is misleading. Palatal stops do occur in some Southeast Asian language, e.g. Yao, but I have not observed them in Siamese. Perhaps the authors e.g. (Abramson, 1962) who have used the term palatal have intended it to mean prepalatal or alveolo-palatal without stating such as the case. It is hoped that this paper, based on work with a large number of informants, will help to clarify some of these practical phonetic problems that scholars are confronted with in the literature.
**VOICELESS ASPIRATED STOPS AND AFFRICATES**

All aspirated stops and affricates occur only syllable initially in Siamese and are produced with pulmonic egressive airstream mechanisms. In the production of Siamese aspirated stops and affricates, the articulation is usually lax and is followed by fairly heavy aspiration.

In fast sloppy speech, the aspirated stops and affricates sometimes lose their stricture of complete closure and become glottal fricatives. A voiced glottal fricative ː occurs between vowels and voiceless glottal fricative ː elsewhere. e.g.

\[
\begin{align*}
\text{ditʂʰáːn} & \quad \rightarrow \quad \text{diːfán} \\
(\text{female speaker}) & \\
\text{kʰɔːŋ kʰɛːai} & \quad \rightarrow \quad \text{hɔŋ kʰai} \\
\text{Whose is it?} & \\
\text{tʰaːŋ niː} & \quad \rightarrow \quad \text{haŋ niː} \\
\text{This way.} &
\end{align*}
\]

The following table shows the voiceless aspirated stops and affricates and their phonetic variants.

**Table #1 Voiceless Aspirated Stops and Affricates**

<table>
<thead>
<tr>
<th>A. Passive articulator(s)</th>
<th>lip</th>
<th>teeth &amp; gumridge</th>
<th>gumridge</th>
<th>back of gumridge</th>
<th>soft palate</th>
<th>soft palate &amp; lip</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. Active articulator(s)</td>
<td>lip</td>
<td>tip &amp; blade</td>
<td>tip</td>
<td>blade</td>
<td>back of tongue</td>
<td>back of tongue &amp; lip</td>
</tr>
<tr>
<td>C. Secondary articulators</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. Name summarizing (A), (B), and (C)</td>
<td>bi-labial</td>
<td>denti-alveolar</td>
<td>apico-alveolar</td>
<td>alveolo-palatal</td>
<td>dorso-velar</td>
<td>labialized dorso-velar</td>
</tr>
<tr>
<td>E. Phonetic Symbol(s)</td>
<td>pʰ</td>
<td>tʰ</td>
<td>tɕʰ</td>
<td>kʰ</td>
<td>kʰ</td>
<td></td>
</tr>
<tr>
<td>F. Phonetic Variants</td>
<td>tʰ</td>
<td>tʰ</td>
<td>ɕ</td>
<td>kxʰ</td>
<td>kxʰ,f</td>
<td></td>
</tr>
</tbody>
</table>


\( \text{p}^h \) represents a voiceless aspirated bilabial stop. For all of the informants this appears to be the only pronunciation that commonly occurs. This sound occurs only syllable initially in Siamese.

\[ \textit{p}^h\text{i}: \quad \text{“ghost, spirit”} \]

\( \text{t}^h \) represents a voiceless aspirated apico-alveolar stop. This sound occurs only syllable initially in Siamese. This is the most common pronunciation before all vowels except close front vowels.

\[ \textit{t}^h\text{ä:m} \quad \text{“to ask”} \]

\( \text{t}^h \) a voiceless aspirated denti-alveolar stop. This is the common pronunciation before close front vowels.

\[ \textit{t}^h\text{i}: \quad \text{“time”} \]

\( \text{t}^h \) a voiceless aspirated apico-dental stop. This pronunciation is very rare and was observed in the speech of only one speaker before close front vowels.

\[ \textit{t}^h\text{i}: \quad \text{“time”} \]

\( \text{t}^h \) represents a voiceless aspirated alveolo-palatal affricate. This sound is made with the blade of the tongue forming a stricture of complete closure just behind the gumridge. There is no lip rounding. In this paper alveolo-palatal is the same as lamino-prepalatal. All alveolo-palatal sounds could be described as lamino-prepalatal. This sound occurs only syllable initially in Siamese.

\[ \textit{t}^h\text{ä:m} \quad \text{“bowl”} \]

\( \text{c} \) a voiceless alveolo-palatal fricative. This is a very rare variant that occurred initially in a few words in the speech of only three of the more than sixty informants.

\[ \textit{c}^{\text{iӨnmai}} \quad \text{“Chiengmai”} \]

\( \text{k}^h \) represents a voiceless aspirated dorso-velar stop. This sound occurs only syllable initially in Siamese.

\[ \textit{k}^h\text{ä}: \quad \text{“to kill”} \]

\( \text{kx}^h \) a voiceless aspirated dorso-velar affricate. This pronunciation is common initially in emphatic speech.

\[ \textit{kx}^h\text{ä}: \quad \text{“to kill”} \]

\( \text{k}^h \) represents a voiceless aspirated dorso-velar labialized stop. This sound occurs only syllable initially in Siamese.

\[ \textit{k}^h\text{ä}: \quad \text{“right (side)”} \]
\( k^h \) a voiceless aspirated dorso-velar labialized affricate. This is a common pronunciation initially in emphatic speech.

\( k^h:\) "right (side)"

\( f \) a voiceless labio-dental fricative. This is a common variant pronunciation in the speech of some speakers. It is considered low class pronunciation by most educated Siamese speakers.

\( f:\) "right (side)"

\( f \) a voiceless labio-dental velarized fricative. This is an occasional variant pronunciation in the speech of some speakers. This pronunciation is considered low class speech by educated Siamese speakers.

\( f:\) "right (side)"

**VOICELESS GLOTTALIZED STOPS AND AFFRICATES**

Siamese voiceless glottalized stops and affricates are pronounced with simultaneous oral and glottal closures. The release of the oral and glottal closure is usually simultaneous, so that the glottal release is not heard. These sounds are all produced with pulmonic egressive air-stream mechanisms. They are not ejectives since the upward movement of the larynx is too slight to change the pressure of the air in the mouth and pharynx sufficiently to produce an ejective. Catford (1939) has described these type sounds as *glottalized pulmonic pressure stops and affricates* and ejectives are described as *glottalic pressure stops and affricates*.

In the production of Siamese glottalized stops and affricates the articulation is usually quite tense with a firm closure between the active and passive articulators. In the release phase of these consonants there is usually a clear sharp onset of the following vowel.

In fast sloppy speech voiceless glottalized stops and affricates sometimes become nasals. e.g.

\[ t^h \text{am} \ ?\text{pen} \ b:\rightarrow t^h \text{ammen} \ b:\ (or) \ t^h \text{amp} \ b:\ \]

(He) does it like crazy.

\[ d\text{i:m\text{u\text{\=n}}}\text{kan} \rightarrow \ d\cdot m\text{\=u\text{\=n}\text{\=n}}\]

One might just as well . . . .

\[ ?\text{k\=anb\=an} \rightarrow \ \=n\text{\=anb\=an} \]

Housework, homework.