This paper describes some of the pronunciation features of Thai speakers of English in New Zealand, based on the observation of Thai students during their language laboratory sessions in a pre-university English course. Regular pronunciation features and consistent patterns of sound replacement were observed, which seemed to be characteristic of, and contribute substantially to, the foreign accent of Thai speakers of English in New Zealand. By relating these features to the phonological system of Thai, it was found that interference in the form of differing phonetic representations of corresponding phonemes in English and Thai is a major source of pronunciation difficulty for Thai speakers of English. Equally significant are differences in distribution between phonemes in English and Thai. Thai problems with English stress and intonation are also discussed. Tabular displays of English and Thai phonemes as well as diagrams indicating Thai allophonic replacements for English phonemes are given. (Author/ FWB)
PRONUNCIATION FEATURES OF THAI SPEAKERS OF ENGLISH

Jack Richards

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This paper describes some of the pronunciation features that have been observed among Thai speakers of English in New Zealand.¹

The pronunciation of 15 Thai students - native speakers of the standard dialect of Thai - was studied during their language laboratory sessions on a pre-university English course. Regular pronunciation features and consistent patterns of sound replacement were observed, and these seem to be characteristic of, and contribute substantially to, the foreign accent of Thai speakers of English in New Zealand. These features were then compared with the phonological system of Thai, in an attempt to relate them to previous language experience.

The method of presentation of examples is as follows. A New Zealand phoneme is selected, then an allophone of the phoneme as it is used by a New Zealand speaker is contrasted with the pronunciation of the Thai speaker.² (Although variant pronunciations of the English examples given might occur with New Zealand speakers, the contrast with the pronunciation of the Thai speaker is still clear.) For example, selecting the New Zealand phoneme /i/, the paper will proceed: “/i/ Where this occurs, as in [jip], it becomes [fip].” The first pronunciation is that of the New Zealand speaker, and the second approximates the pronunciation of the Thai speaker. The relevant feature or features of Thai phonology which could account for this pronunciation is then given, using T for “Standard Thai” and the notation in Figure I. Thus; “an allophone of T /t̥/ or /t̄/ is substituted.”

Figure I is arranged to contrast the phonemes of English and Thai. It might appear that the phonemes of Thai could be subtracted from the phonemes of English (since there are more English phonemes) and the remainder would be the main area of phonological difficulty for the Thai learner of English, but the case is not quite so simple. Figure I does not indicate the amount of phonetic correspondence or difference between phonemes which occur in both languages. For instance, it does not reveal that there is a considerable difference between the degree of voicing used to distinguish voiced and voiceless labial and dental plosives in English and Thai. We could expect the Thai speaker of English to give English voiced and voiceless plosives the same phonetic characteristics as they have in Thai.

Mother tongue interference in the form of differing phonetic representations of corresponding phonemes in English and Thai is a major source of pronunciation difficulty for the Thai speaker of English. Equally significant and also non-predictable from

¹ This paper is adapted from an essay presented as part of the requirements for the degree of Master of Arts in English at Victoria University in 1966. I am grateful to Professor L.F. Brosnahan for helpful comments on many aspects of the paper, and also to my chief informant on standard Thai, Miss Pinyalok Sayanikhodol.
² The phonemic and broad phonetic notations used are some taught by Professor L.F. Brosnahan.
FIGURE 1
English and Thai Phonemes

<table>
<thead>
<tr>
<th>CONSONANTS</th>
<th>VOWELS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLABIAL</td>
<td></td>
</tr>
<tr>
<td>LABIO-</td>
<td></td>
</tr>
<tr>
<td>DENTAL</td>
<td></td>
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<tr>
<td>ALVEOLAR</td>
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<tr>
<td>POST-</td>
<td></td>
</tr>
<tr>
<td>ALVEOLAR</td>
<td></td>
</tr>
<tr>
<td>PALATAL</td>
<td></td>
</tr>
<tr>
<td>VELAR</td>
<td></td>
</tr>
<tr>
<td>GLOTTAL</td>
<td></td>
</tr>
<tr>
<td>PLOSIVE</td>
<td>E</td>
</tr>
<tr>
<td>AFFRICATE</td>
<td>T</td>
</tr>
<tr>
<td>FRICATIVE</td>
<td>T</td>
</tr>
<tr>
<td>NASAL</td>
<td>T</td>
</tr>
<tr>
<td>LATERAL</td>
<td>T</td>
</tr>
<tr>
<td>TRILL</td>
<td>T</td>
</tr>
<tr>
<td>SEMIVOWEL</td>
<td>T</td>
</tr>
</tbody>
</table>

Abbrev. H. 1962. 12. Tones are not relevant to this investigation.
Figure 1, is the interference due to the differences in distribution between phonemes in English and Thai. Figures 2 and 3 present these differences through a representation of English and Thai syllable types.

**FIGURE 2**

**English Syllable Types**

\[ \begin{align*}
C; V; CV; C^V; VC; VC^C; C^V C; C^V C; CVC. \\
C & = \text{any consonant} \\
V & = \text{any vowel} \\
C^C & = \text{consonant cluster}
\end{align*} \]

**FIGURE 3**

**Thai Syllable Types**

1. \[ (C_1 \ (C)) \, V \, (C_2) \]
2. \[ (C_1 \ (C)) \, V_1 \, V_2 \, (C_2) \]

\[ \begin{align*}
C_1 & = \text{any consonant} \\
C & = (l \text{ in the clusters } (k^l k l p^l p l) \\
& (r \text{ in the clusters } (k^r k r p^r r p r t r) \\
C_2 & = \text{nasals, stops, semivowels, } \\
& \text{but } /w/ \text{ only after single or geminate } /i e \ a \ o \ a/ \text{ and } /ia/, \text{ and } /j/ \text{ only after single or geminate } /a a u o o/ \text{ and } /ia ua/. \\
V & = \text{any vowel except for limitations imposed by final } /w j/ \]

**VOWELS**

**Syllable type 1**

\[ V = \text{any vowel except when } V_2 \text{ is different} \]

**Syllable type 2**

\[ V_1 = \text{any vowel except for limitations imposed by final } /w j/ \\
V_2 = (a) \, V_1 \text{ doubled} \]

(b) /a/ as the second element in the clusters /ia ia ua/

Particular pronunciation features can now be illustrated.

A. Vowels

Thai has nine vowel contrasts in contrast to eleven for New Zealand English. The number of contrasts made by the Thai speaker of English is reduced in the following ways.

1. /ɪ/. When this occurs, as in [fɪp], it becomes [fip]. An allophone of T /ɪ/ or /i/ is substituted.

2. /ʊ/. When this occurs, as in [hʊt], it becomes [hʊt]. An allophone of T /ʊ/ is substituted.

3. /u/. When this occurs, as in [pʊl], it becomes [pʊl]. Thai has one high back vowel, T /u/ as opposed to the contrast /u/ : /u/ in New Zealand English, and an allophone of the Thai phoneme is substituted.

4. /3/. When this occurs, as in [b3d], it becomes [b3d]. An allophone of T /ɜ/ is substituted.

B. Diphthongs

Thai has phonemically short and long vowels, (Figure 3). Some New Zealand diphthongs are replaced by simple long vowels.

1. /eɪ/. When this occurs, as in [pleɪ], it becomes [pleɪ]. Thai has /e/ and /ee/ but not /e/ gliding onto /j/. An allophone of the long unglided T /ee/ is substituted.

2. /aɪ/. In syllable final position this is not a problem since /a/ plus /ɪ/ is among the range of possibilities in Thai (Figure 3). But /a/ plus /ɪ/ plus final consonant does not occur in Thai. When this combination occurs in English, as in [mɑːt], the second element of the diphthong is omitted, and a simple long vowel substituted. This is an allophone of T /aa/. Thus [mɑːt] becomes [mɑːt].

3. /ɔɪ/. This is not a problem in syllable final position. When followed by a final consonant or consonant cluster, however, the second element of the diphthong is omitted. Thus [vɔːd] becomes [vɔːd] through the substitution of an allophone of T /oo/.

4. /ɔw/. This ai is not a problem in final position, but as with /aɪ/ and /ɔɪ/ a long unglided vowel is used when the diphthong is followed by final consonants or clust-

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6. Not all speakers make all the substitutions recorded here, but when substitutions occur they follow these patterns.
ers. Thus [kəwat] becomes [kɔ:t] through the substitution of an allophone of T /oɔ/.  

5. /ak/. Again, only a problem with final consonants and clusters. Thus [haws] becomes [hɔ:s] through the substitution of an allophone of T /a/.  

6. /cr/. When this occurs, as in [drə], it becomes [drə] through the substitution of an allophone of T /e/.  

7. /ur/. When this occurs, as in [fur], it becomes [fɔ:] through the substitution of an allophone of T /oo/.  

8. /ɔr/. When this occurs as in [mɔr], it becomes [mɔ:] through the substitution of an allophone of T /oɔ/.  

C. CONSONANTS  

(a) Single consonants occurring initially and medially.  

These are grouped together here since the same patterns of substitution were observed for single initial and medial consonants. Usually the Thai speaker resolves them by regarding them as the first element of the following syllable.  

1. /tʃ/, /dʒ/, /ʃ/, /ʒ/. Thais reduce the contrasts involved in these phonemes to contrasts of aspiration alone. Thai has only two phonemes T /c/ and T /c/ in contrast to English /tʃ/, /dʒ/, /ʃ/ and /ʒ/, and allophones of the two Thai phonemes are substituted for allophones of the four English phonemes. The process is as follows.  

An allophone of T /c/ is substituted for [tʃ] as in [tʃæp]. But allophones of T /c/ have less aspiration than allophones of English /tʃ/, and the decrease in aspiration leads the native English speaker to interpret it as an increase in voicing, hence as an allophone of /dʒ/. Thus the Thai speakers pronunciation of chop sounds like [dʒæp].  

Thai informants noted that they hear allophones of /dʒ/ as allophones of T /c/. But allophones of T /c/ have more aspiration than allophones of English /dʒ/ and the native English speaker interprets the increase in aspiration as a mark of the voiceless /tʃ/. Thus the Thai speakers pronunciation of jam sounds like [tʃæm].  

Likewise allophones of T /c/ are substituted for allophones of English /ʃ/, so the native English speaker interprets the Thai pronunciation of shop as [dʒæp] and he interprets the Thai pronunciation of measure as [mætʃə] because of the use of an allophone of T /c/. (See Figure 5).  

2. /v/. When this occurs, as in [vəli], it becomes [vəli] through the substitution of allophones of T /w/.  

3. /θ/. When this occurs, as in [θæj], it becomes [tθæj] or [sθæj] through the substitution of allophones of T /θ/ or T /s/.
4. /ð/ When this occurs, as in [ðə], it becomes [də] through the substitution of allophones of T /d/.

5. /z/. When this occurs, as in [zu], it becomes [su] through the substitution of allophones of T /s/.

6. /l/ and /r/. Although some linguists recognize T /l/ and T /r/ as distinct phonemes in Standard Thai, many Thais use the allophone of T /l/ and T /r/ in free variation. A similar free substitution of one for the other occurs in the use of allophones of English /l/ and /r/. Thus [rθ∅] becomes [lθ∅] and [law] becomes [row].

7. /b/, /g/, /d/. The tendency is for Thai speakers to use less voicing than a native English speaker, for allophones of these phonemes. Thai utilizes aspiration together with voicing, to yield three categories for labial and dental plosives, but aspiration alone to contrast the velar plosives. The degree of voicing used to distinguish the voiced and voiceless labial and dental plosives in both languages has been shown to differ significantly.

(b) Final Consonants

In final position Thai has only nasals, stops, and with certain restrictions, semi-vowels. Phonetically, all final consonants in Thai are unreleased. The tendency with English final consonants is to omit them, or to replace them with a small class of unreleased consonants.

1. /d/, /t/, /tʃ/, /ðʒ/, /ʃ/, /ʒ/, /θ/, /ð/, /s/, /z/. Allophones of these phonemes, when not omitted, are replaced by an unreleased voiceless dental plosive.

2. /b/ and /p/. Allophones of these phonemes, when not omitted, are replaced by an unreleased voiceless bilabial plosive.

3. /k/ and /g/. Allophones of these phonemes, when not omitted, are replaced by an unreleased voiceless velar plosive.

4. /f/ and /v/. Allophones of these phonemes, when not omitted, are replaced by an unreleased voiceless bilabial plosive.

5. /l/. Allophones of this phoneme are replaced by allophones of /n/. This is due to orthographic interference. The Thai phoneme /n/ in final position is symbolized in the Thai orthography by the same symbol as for Thai initial /l/.

A transliteration of English spelling into Thai alphabetic notation produces [n] for final orthographic English “l”.

(c) Consonant Clusters

Figure 3 assigns the following consonant clusters to Thai: /k'w, k'l, k'r, k'w, k'l, k'r, p'l, p'r, pl, pr, b'r, tr/. In Thai spelling many additional consonant clusters

are indicated, but these represent what in speech is either a single consonant, or the consonants of two syllables with an unwritten vowel between them. Thai speakers of English often reduce English consonant clusters to a single consonant, or else expand them to two syllables through the intrusion of \([\text{a}]\). Thus \([\text{kant}]\) becomes \([\text{kan}]\) and \([\text{wortst}]\) becomes \([\text{wortst}]\). The substitutions are not consistent enough to allow generalization.

The pronunciation features discussed so far can now be summarized diagrammatically.

### FIGURE 4

**VOWEL SUBSTITUTIONS**

<table>
<thead>
<tr>
<th>English phoneme</th>
<th>Replaced by allophones of Thai</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ɪ/</td>
<td>T /i/ or T /i/</td>
</tr>
<tr>
<td>/ʊ/</td>
<td>T /u/</td>
</tr>
<tr>
<td>/ɔ/</td>
<td>T /u/</td>
</tr>
<tr>
<td>/ɜ/</td>
<td>T /ɪ/</td>
</tr>
</tbody>
</table>

### FIGURE 5

**DIPHTHONG SUBSTITUTIONS**

<table>
<thead>
<tr>
<th>English diphthong</th>
<th>Replaced by allophones of Thai</th>
</tr>
</thead>
<tbody>
<tr>
<td>/eɪ/</td>
<td>T /ee/</td>
</tr>
<tr>
<td>/æ/</td>
<td>T /aa/</td>
</tr>
<tr>
<td>/oʊ/</td>
<td>T /oo/</td>
</tr>
<tr>
<td>/oʊ/</td>
<td>T /oo/</td>
</tr>
<tr>
<td>/eə/</td>
<td>T /ee/</td>
</tr>
<tr>
<td>/aʊ/</td>
<td>T /aa/</td>
</tr>
<tr>
<td>/oʊ/</td>
<td>T /oo/</td>
</tr>
<tr>
<td>/ɔr/</td>
<td>T /oo/</td>
</tr>
</tbody>
</table>

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FIGURE 6
CONSONANT SUBSTITUTIONS

<table>
<thead>
<tr>
<th>English Consonants</th>
<th>Replaced by allophones of Thai</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Initially &amp; Medially</td>
</tr>
<tr>
<td>/b/, /p/</td>
<td></td>
</tr>
<tr>
<td>/d/</td>
<td></td>
</tr>
<tr>
<td>/g/, /k/</td>
<td>T /k/</td>
</tr>
<tr>
<td>/tʃ/, /ʃ/</td>
<td>T /ch/</td>
</tr>
<tr>
<td>/ʒ/</td>
<td>T /乔/</td>
</tr>
<tr>
<td>/ʃ/</td>
<td>T /乔/</td>
</tr>
<tr>
<td>/v/</td>
<td>T /w/</td>
</tr>
<tr>
<td>/θ/</td>
<td>T /s/ or /t/</td>
</tr>
<tr>
<td>/ð/</td>
<td>T /d/</td>
</tr>
<tr>
<td>/s/</td>
<td></td>
</tr>
<tr>
<td>/z/</td>
<td>T /s/</td>
</tr>
<tr>
<td>/l/</td>
<td>T /r/</td>
</tr>
<tr>
<td>/r/</td>
<td>T /l/</td>
</tr>
</tbody>
</table>

D. INTONATION AND STRESS

Thai is a tone language in which pitch is fundamental to the meaning of each word. It does not use pitch as it is used in English, that is, as a highly organized contrastive system with a limited number of contrastive levels controlling the formation of intonations that carry shades of meaning. Intonation in Thai is "an essentially continuous ungraded phenomenon."11 Thai speakers of English are generally hesitant about using English intonation patterns. Their intonation tends to be flat and unvaried. Similarly stress plays no distinctive value in Thai, and Thai speakers tend to give stress no distinctive value in English. They stress syllables more or less equally, giving their English the characteristics of a syllable-timed, rather than a stressed-timed, rhythm.

BIBLIOGRAPHY


