

TONAL RULES FOR ENGLISH LOANWORDS IN THAI*

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0. INTRODUCTION

In cases of contact between two languages, we often find that one language will borrow words from the other. The borrowing language normally adapts the loanwords, to a greater or lesser degree, to fit into its phonological system. Depending on the extent to which the modifications the loanwords undergo are phonologically (or phonetically) motivated, we have external evidence in support of the psychological reality of the sound patterns of the borrowing language, as well as evidence that bears on models of speech production and perception. Much of the linguistics research to date on loanword phonology has focussed exclusively on the borrowing of segmental features, and the particular modifications they undergo in the mapping process from the donor language to the borrowing language.

There has been comparatively little research done on the borrowing of suprasegmental features and, in particular, on the borrowing of pitch contours. Egerod (1959) provided tonal correspondences from the Chaochow and Chaozhou dialects of Chinese to Thai. And more recently, Maddieson (1977) discussed Hausa loanwords in Gwari, Nupe and Kpan. In both the Egerod and Maddieson studies, the donor language was a tone language and the borrowing language was a tone language.

Since it is commonly known that pitch is the principal feature underlying the perception of tone as well as one of the most important dimensions (others include length, loudness, vowel quality) underlying

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the perception of stress, it is of much theoretical interest to investigate cases of language contact in which the donor language is a stress language and the borrowing language is a tone language, or vice versa. One interesting case in South-east Asia involves contact between the parent language of the Tai language family and Indic, Khmer and Indonesian languages sometime during the 14th century. In this borrowing situation, Proto-Tai was the borrowing language; Indic, Khmer and Indonesian were donor languages. Among Tai historical-comparativists, Proto-Tai is generally considered to be a tone language, having three tonal categories A, B and C associated with those syllables not ending in a stop segment; Indic, Khmer and Indonesian languages at this stage of historical development are all considered to be non-tonal. The manner in which Indic, Khmer and Indonesian loanwords were adapted into Proto-Tai suggest underlying phonological factors determined the tonal representation of syllables in loanwords borrowed from non-tonal languages. Benedict (1942:598), in his investigation of the possible genetic affiliation between Tai and Indonesian languages, commented that it is probably significant that almost all Thai roots that have correspondences in Indonesian languages are classified under the Proto-Tai tonal category A. In his historical-comparative survey of the Tai language family, Gedney (1967) too noted that syllables ending in a sonorant segment in Indic and Khmer loanwords were all assigned Proto-Tai tone A when adapted to the Tai parent language. He goes on to suggest that "tone A was the normal level tone, with tones B and C so markedly different from it as never to be used in pronouncing the syllables of words borrowed from a toneless language."

More recently, Court (1975), in his study of the language contact situation between the Satun dialect of Thai, the tonal borrowing language, and Malay, the non-tonal donor language, also found evidence of phonological factors mediating between the stress and intonational patterns of a non-tonal language, and the tonal representation of these suprasegmental dimensions in a tonal language. In particular, he reported that the high rising-falling tone is assigned to syllables ending in a sonorant segment that occur in phrase-final positions, and that the high level tone is assigned elsewhere. Court suggests that the high rising-falling tone of the Satun Thai dialect is the most suitable tone for representing the falling intonation nucleus of Malay loanwords because of its high starting point, as compared to the two other falling tones in the Satun Thai tonal inventory, both of which have lower starting points.

One other study (Kiu 1977) of a borrowing situation between a tonal language and a non-tonal language involves Cantonese and English. Again, the tonal language, Cantonese, is the borrowing language; the stress language, English, is the donor language. In bisyllabic English loanwords, Kiu reported two different tonal patterns that correlate with two different stress patterns. Bisyllabic loans with stress on the first syllable ($\acute{S}S$) are represented tonally in Cantonese with the high falling tone, or the high level tone, a common sandhi variant in non-phrase final position, on the first syllable, and the high rising tone on the second syllable ($S^{53}S^{35}$ or $S^{55}S^{35}$); bisyllabic loans with stress on the second syllable are represented tonally in Cantonese with the mid level tone on the first syllable, and the high level tone on the second syllable (S^3S^{55}). While the second bisyllabic tonal pattern (S^3S^{55}) correlates nicely with the bisyllabic English stress pattern ($S\acute{S}$), it is hard to account for the first tonal pattern ($S^{53}S^{35}$ or $S^{55}S^{35}$) in terms of the pitch contours associated with the bisyllabic stressed-unstressed pattern ($\acute{S}S$). The fact that the high rising tone occurs on the second syllable in these loanwords suggests that non-phonetic factors are also at work in converting stress patterns into tonal patterns. Perhaps, the high rising tone serves to indicate that the word is clearly a foreign item in the Cantonese lexicon.

This paper investigates yet another case of language contact between a tone language and a stress language - this time between (Standard) Thai, the national language of Thailand, and English. In this contact situation, Thai is the borrowing language, English the donor language. The aim of the paper is to formulate the rules for converting the stress and intonational patterns of English into Thai tonal categories, and to determine the extent to which the resultant tonal patterns can be accounted for in terms of the pitch contours associated with the English stress patterns. The manner in which the segmental properties of English loanwords are modified will be mentioned only where it is relevant to our discussion of tone and syllable structure. For a more detailed discussion of segmental modifications of English loanwords in Thai, see Henderson (1951).

1. THAI TONES/SYLLABLE STRUCTURE

Thai has five contrastive lexical tones: mid (), low (`), falling (^), high (') and rising (ˇ). These tones are illustrated below in the familiar Chao (1930) tone letters.

(1)	naa	↘	32	<u>mid</u> falling	'field'
	naà	↘	21	<u>low</u> falling	(a nickname)
	naá	↘	51	<u>high</u> falling	'face'
	naá	↗	45	<u>high</u> rising	'aunt'
	naá	↗	24	<u>low</u> rising	'thick'

Constraints on the distribution of these lexical tones depend on syllable structure. All five tones may occur on syllables ending in a long vowel or sonorant segment (CV:, CV:C_f, CVC_f where C_f = m n ŋ w j, hereafter, 'smooth' syllables). On syllables that consist of a long vowel followed by a non-sonorant segment (CV:C_f where C_f = p t k, hereafter, 'long checked' syllables), only the low and falling tones are permitted. On syllables that consist of a short vowel followed by a non-sonorant segment (CVC_f where C_f = p t k ?, hereafter, 'short checked' syllables), only 'short' variants of the low and high tones are allowed. Of particular relevance for the assignment of tones to English loanwords is that the high tone may not occur on long checked syllables in the native Thai vocabulary.

The constraints on the distribution of tones in English loanwords, while not identical to those that apply to native Thai lexical items, also depend on syllable structure. Each syllable of an English loanword is assigned a tone. On smooth syllables, only the mid and falling tones are permitted; the low, high and rising tones do not occur on smooth syllables in English loanwords. On long checked syllables, the low and high tones occur, but not the falling tone. The occurrence of the high tone on long checked syllables in English loanwords is at variance with native Thai syllable structure constraints on the distribution of tones. As mentioned above, the high tone is prohibited on long checked syllables in native Thai vocabulary (cf. Henderson 1949). On short checked syllables, both the short low and high tones may occur. In addition to these syllable structure constraints, we will see that tonal distribution in English loanwords further depends on the position of the syllable within a word.

2. ENGLISH LOANWORDS

2.1. MONOSYLLABLES

The assignment of tones to monosyllabic English loanwords depends on syllable structure alone; syllables interpreted as smooth as assigned mid tone, syllables interpreted as checked, short or long, are assigned high tone.