Phonological Sketch of English Loanwords in Thai

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1. Introduction

It is natural that in a language contact situation the two languages influence each other. Such linguistic influence can be seen in the borrowing of linguistic items by one language from another. Borrowing can occur at all levels of the structure of languages that are brought into contact, but the most common form of linguistic interference is represented by lexical borrowing or loanwords (Weinreich 1964: 1). Loanwords are words that move from a language with one set of well-formed conditions to a language with a different set, with the result that adjustments have to be made to meet the new constraints. Since the speaker is simultaneously trying to keep the word as close to its original form as possible, the changes are minimal (Yip

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บทคัดย่อ

การยืมคำ (word borrowings) คือการที่ภาษาใดภาษาหนึ่งนำคำจากอีกภาษาหนึ่งมาใช้ในระบบภาษาของตนเอง สัทวิทยา (Phonology) ของคำยืม (Loanwords) นับเป็นหัวข้อที่น่าสนใจหัวข้อหนึ่งทางด้านภาษาศาสตร์เนื่องจากปกติคำที่ยืมเข้ามานั้นมักจะมีหน่วยเสียง (Phonemes) ที่ต่างออกไปจากภาษาเดิม เพราะฉะนั้นหน่วยเสียงของคำยืมเหล่านั้นจึงจำเป็นต้องมีการเปลี่ยนแปลงเพื่อให้เข้ากับระบบหน่วยเสียงของภาษาใหม่

บทความเรื่องนี้จะชี้ให้เห็นถึงการเปลี่ยนแปลงทางด้านสัทวิทยาของคำยืมภาษาอังกฤษที่มีใช้อยู่ในภาษาไทยว่ามีการเปลี่ยนแปลงทางด้านหน่วยเสียงอย่างไรบ้างเมื่อเรายืมคำดังกล่าวเข้ามาใช้ เพื่อที่จะให้สอดคล้องกับสัทวิทยา และหน่วยเสียงในภาษาไทย

1993: 261). As generally known, when a language borrows words from other languages, the words do not come directly into that language with their native pronunciation. Loanwords borrowed from one language for use in another may sometimes have unfamiliar phonemes or sequences of phonemes and therefore may undergo either rearrangements of phonemes in the receiving language, or modification or adaptation through an integrative process of speakers of the borrowing language. In reproducing loanwords from another language, the speakers are said to make an **importation** if the words are partially adapted and recognizable by the native speakers, and a **substitution** if the words are completely adapted and thus are not recognizable by the native speakers (Lerdtadsin 1981: 22).

2. Theoretical Framework

This paper attempts to find generalizations of how Thai rules apply to English loanwords. The overall picture that I will present has basically two main strands to it. First, the output of Thai loanword phonology must consist of well-formed Thai syllables. Second, the output of Thai loanword phonology should be as close as possible to the donor language, which is English in this case. A list of rules, a statement of rule orderings (if any), exceptions, and different theoretical constructs will be employed to explain phonological changes of the pronunciation of Thai English loanwords.

3. Predictions

I made three predictions concerning Thai English loanwords.

1. Simplification of final clusters: Final clusters are not allowed in Thai. Therefore, the speakers are likely to make sound substitutions and omission to replace the sounds that do not exist in the language.

2. Short vowel insertion: Epenthesis is used to resegment English consonant clusters that are not allowed in Thai and make them conform to Thai phonology.

3. Sound substitutions for certain consonants for which there is no equivalent in Thai: Thai allows only nine consonants in final position as listed in the consonant inventory section. Thus English segments which do not exist in Thai or occur in an unacceptable position are substituted by Thai segments most closely approximating them.

4. Thai Phonology

A brief discussion of Thai phonology is provided here since it is the essence of this paper.

4.1. Chart I: Consonant Inventory (Khanitthanun 1990)

bilabial	labio-dental	alveolar	palatal	velar	glottal
p		t	c	k	ʔ
ph		th	ch	kh	
b		d			
	f	s			
m		n		ŋ	
w			y		
		r			
		l			

One thing should be emphasized about Thai consonants is the distinction between aspirated and unaspirated stops-Thai makes phonemic distinction between these two sets of phonemes.

Nine possible codas in Thai are: /p t k ʔ m n ŋ w y/.

All consonants can be onsets but the onset clusters are limited to the combination of voiceless stop (aspirated and unaspirated) and /l r w/ as following:

Chart II: Thai Onset Clusters

	p	ph	t	th	k	kh
l	pl	phl			kl	khl
r	pr	phr	tr	thr	kr	khr
w					kw	khw

4.2. Chart III: Vowel Inventory (Khanitthanun 1990)

	Front		Central		Back	
High	i	iː	ɨ	ɨː	u	uː
Mid	e	eː	ə	əː	o	oː
Low	æ	æː	a	aː	ɔ	ɔː

The diphthongs are /ia, iːa ,ɨa, ɨːa, ua, uːa/

Apparently, the length of vowel is phonemic in Thai as illustrated by these minimal pairs:

/ti/	'criticize'	vs.	/tiː/	'hit'
/pa/	'paste'	vs.	/paː/	'throw'

4.3. Syllable Structures

Thai syllable structures are as follows:

(i) CV(V) : /ka/ 'estimate', /kaː/ 'the crow'

(ii) CCV(V) : /phlu/ 'firework', /phluː/ 'betel'

(iii) CV(V)C : /wat/ 'temple', /waːt/ 'draw'

(iv) CCV(V)C : /phluk/ 'wake up', /phluːk/ 'to grow'

Each monosyllabic morpheme or each syllable of a

polysyllabic morpheme may be viewed as consisting of at least three obligatory phonemic segments: tone, onset, and nucleus, while the coda is optional. This paper, however, will deal with consonants only. /w/ and /y/ are consonants in Thai. Therefore, when they follow a vowel, it is illicit to have another consonant after them as they themselves are codas and there is no coda cluster in Thai. For example:

/yaːw/	'long'
/khaːy/	'sell'

5. Data and Results

Twenty Thai English loanwords that have been chosen to test the above predictions are:

1. /barandiː/	'brandy'
2. /satray/	'strike'
3. /witsakiː/	'whiskey'
4. /plaːtsatik/	'plastic'
5. /sakrip/	'script'
6. /lip/	'lift'
7. /lit/	'list'
8. /fim/	'film'
9. /faːm/	'farm'
10. /kaːt/	'card'
11. /kɔːp/	'golf'
12. /læp/	'lab'
13. /friːt/	'freeze'

14. /wik/	'wig'
15. /kho:t/	'code'
16. /wiw/	'view'
17. /futba:t/	'footpath'
18. /bin/	'bill'
19. /wayrat/	'virus'
20. /maykhro:we:p/	'microwave'

5.1. A list of rules

The twenty words above show that most English words usually cannot surface unchanged, because they have either too many consonants or the wrong kind of consonants. These excess consonants may change featurally, or epenthesis depending on Thai phonology. Following are the rules derived from twenty words above:

1. Epenthesis:	$0 \rightarrow a / C \_\_ C(C)$
2. Stopping:	$[-son] \rightarrow [-cont, -vcd] / \_\_ (C)\#$
3. Liquid deletion:	$[l, r] \rightarrow 0 / \_\_ (C) \#$
4. T-Deletion:	$t \rightarrow 0 / [-vcd, -son] \_\_ \#$
5. /l/ turns to /n/:	$[+lat] \rightarrow [+nas] / V \_\_ \#. (\$)$
6. C-Deletion after glides:	$C \rightarrow 0 /[glides] \_\_ \#$

5.2. Statement of Rule Orderings

There is no rule ordering from these selected words. The application of one rule does not preclude applying any of the other rules.

5.3. Prediction 1: Final Cluster Simplification

We are now back to the prediction made at the outset to see how the six rules above apply to the first prediction. English has as many as four consonants occurring in the final position, whereas, as mentioned above, Thai allows only one of these consonant phonemes /p t k m n ŋ y w ʔ/ to occur in that position. As a result, the adaptive process utilized by Thai speakers to adapt English postvocalic consonant clusters is to reduce two-, three-, and four-consonant clusters (the list contains only two consonant clusters) to one consonant. The reasonable way to deal with coda cluster is segment deletion or coda simplification. The four rules involved in final cluster simplification in Thai are: Liquid deletion, T-Deletion, Stopping, and C-Deletion after glides.

Liquid deletion: /l, r/ → 0 / __ C #. This can apply to the following Thai English loanwords:

/fim/	'film'
/faːm/	'farm'
/kaːt/	'card'
/gɔːp/	'golf'

One explanation for this deletion involves the salience of the sound. Silverman (1992) and Yip (1993) suggested that the deleted segment is usually perceptually non-salient, e.g. /l/ and /r/. Since the liquids are less salient than the following consonants, this lack of salience therefore renders them to deletion.

The next rule involving cluster reduction is Stopping: [-son] → [-vcd, -cont] / __ (C) #. This rule basically applies to both voiced

and voiceless fricatives and voiced stops. The following English words whose conditions fit this rule, therefore, have to change in order to conform with Thai phonology.

/lip/	'lift'
/lit/	'list'

Stated differently, the first segments of the coda cluster that are salient or perceived, are usually preserved while other segments are deleted. Since /f/ and /s/ are the first segments of these two words and are both salient, they are preserved. However, /f/ and /s/ are unacceptable codas in Thai. They, therefore, are replaced with /p/ and /t/ since these two share the same place of articulation.

The next rule involving cluster simplification is T-Deletion. /t/ will be deleted when it occurs finally after voiceless obstruent consonants.

/sakrip/	'script'
/lit/	'list'

However, it should be borne in mind that the /t/ in the word /lit/ 'list' is the result of the rule: [-son] → [-vcd, -cont] / ___ (C) #. One might argue that T-Deletion should be applied first, then followed by Stopping. However, this is not the case because /t/ will be deleted only after obstruent consonants-the environment of the rule T-Deletion is obvious. In the word /li/ 'list', this /t/ does not follow any voiceless obstruents, so it should remain. As a result, rule ordering does not have any effect on these two rules-either

one can apply first.

The last rule involving final cluster simplification is C-Deletion after glides. /y/ and /w/ are considered as consonants in Thai. Therefore, in the word /satray/ 'strike' /k/ is deleted because /y/ has already behaved like a consonant. If we put /k/ after /y/, then there will be a cluster at the end of the word, which is impossible in Thai. There are a few more words, which I did not include in the list, which can be used to illustrate this point:

/may/	'mile'
/ke:thaw/	'guesthouse'

In these words, glides /y/ and /w/ behave exactly like consonants, so there is no need to add another consonant after them.

5.4. Prediction 2: Short Vowel Insertion

Chart number two above suggests the possible combinations of initial consonant clusters in Thai. English clusters containing these combinations will not create a problem in articulation to Thai speakers. However, English clusters that have no Thai equivalent as: *tw, sl, sw, st, sk, sm, sn, spr, str, skr, spl,* etc., will be rearranged to conform with Thai consonant clusters. Thai employs short vowel insertion to deal with this phenomenon, that is, short vowel /a/ will be inserted to the unacceptable clusters due to the following rule:

$$0 \rightarrow a \; / \; C \_\_ \; C \; (C)$$

Therefore, the clusters like /br/ and /sk/ as in English words

'brandy' and 'whiskey' are epenthesized by /a/ to become /barandi:/ and /witsaki:/, for they are an unacceptable consonant cluster in Thai. In case of clusters of three, /a/ will be epenthesized between any two consonants of the three that are an unacceptable cluster in Thai. For example:

/satray/	'strike'
/sakrip/	'script'

/a/ is epenthesized between /st/ and /sk/ instead of /tr/ and /kr/ because the last two are the possible clusters in Thai.

However, there is an exception regarding this insertion. Words like /bre:k/ 'brake', /fri:/ 'free' are not epenthesized even though these two clusters are not acceptable in Thai. And this seems to create a problem to the speakers. Thais have a problem pronouncing a trill /r/ even in Thai words-the words like /rak/ 'love', /proːy/ 'spill' are always pronounced as /lak/ and /ploːy/ or /poːy/. They tend to replace it with /l/ or drop it. Therefore, when we borrow words that have a trill /r/, the speakers tend to replace it with /l/ or drop it. So the words like /bre:k/ 'brake' and /fri:/ 'free' are usually pronounced as /ble:k~be:k/ and /fli:~fi:/ in Thai.

5.5. Prediction 3: Sound Substitution

Some illicit codas are replaced by phonologically approximating phonemes of the Thai inventory. Thai allows only nine final consonants. Thus English segments that do not exist in Thai or occur in an unacceptable position are replaced by the Thai segments most closely approximating them.

Two rules involved this application are Stopping and /l/ → /n/.

Only voiceless stops can occur finally in Thai with respect to the stopping rule. It should be noted here that where English has voicing contrast finally, it is not detected in Thai. It is reasonable to assume that Thai speakers do not even detect differences such as voicing contrast at the final position, and thus the output is identical with the perceived input. All voiced stops, therefore, have to be devoiced when they occur finally, as in:

/kaːt/	'card'
/læp/	'lab'
/wik/	'wig'

The rule also applies to the following words:

/lit/	'list'
/lip/	'lift'
/friːt/	'freeze'
/futbaːt/	'footpath'
/səːp/	'serve'

However, there is an exception regarding the word /futbaːt/ 'footpath'. /b/ is a problematic sound here. There is no rule changing voiceless consonant into a voiced counterpart in Thai. This has to do with the coincidence of the word /baːt/ that means 'way' or 'path' in Thai. Therefore, when Thai borrows English word 'footpath', the word /baːt/ is automatically applied since the meaning is right to

the context.

The next rule is /l/ → /n/ as in:

/bin/	'bill'
/bɔn/	'ball'

The rule is simply that /l/ will become /n/ at the end of the syllable after a short vowel. However, /l/ will be deleted if it follows a long vowel or a diphthong as in:

/meː/	'mail'
/ʔænkɔːhɔː/	'alcohol'

All aspects of phonological changes are not covered in this paper owing to the limitation of time and inadequate resources, especially on Thai phonological studies. This study needs more investigation of other issues not mentioned here, such as tone and stress, changes of vowels. However, it is expected that this phonological sketch will at least capture a theoretical explanation of major changes of Thai English loanwords.

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