

The Phonological Interference of Swatow in Standard Thai by Chinese Speakers in Bangkok

Janida Eiampailin
(North Bangkok College)
janida_20@hotmail.com

Abstract

This thesis is a study of the phonological interference of Swatow in Standard Thai by Chinese speakers in Bangkok. The objective of this study was to study the linguistic features of Swatow dialect that interfere with Standard Thai and study the role of education and gender in the interference of Swatow in Standard Thai. This research collected data from twelve informants who are Swatow Chinese speakers living in Bangkok, speaking Swatow as their mother tongue and over thirty-five years old. The twelve informants were divided into four groups: the first, primary educated female; the second, female with Bachelor's degrees; the third, primary educated males; and the fourth, males with Bachelor's degrees.

The results of the study were as follows: For the first group, consonant interference occurred with 14 phonemes, 2 initial consonants, 3 final consonants and 9 consonant clusters. Vowel interference occurred for 9 phonemes, but there was no tonal interference. For the third group, consonant interference occurred as for the first group. Vowel interference occurred for 4 phonemes and there was no tonal interference. For the fourth group, consonant interference occurred with 10 phonemes, 1 initial consonant and 9 consonant clusters, but there was no vowel or tonal interference. For the second group, consonant interference occurred with 6 phonemes, 1 initial consonant and 5 consonant clusters, but there was no vowel or tonal interference. The role of education has an effect on the interference; that is, more education less interference, less education more interference. Genders does not have an effect on the interference. The phonological interference observed in this study can be categorized as being of four types: phonetic, phonemic, allophonic and distributional. The results indicate that phonological interference decreases with higher education.

KEY WORDS : INTERFERENCE / SWATOW / STANDARD THAI /

Introduction

Chinese language is in The Sino-Tibetan family. According Suriya Ratanakul (1994) Chinese languages are divided into seven dialects; that is Mandarin, Wu, Hsiang, Kan, Hakka, Yueh (Yue or Cantonese), and Min. Swatow is a Southern Min dialect of Chinese language spoken in the western part of Guangtung that has ten districts ; Kik-Lo, Hong-Sung, Hui-Lai, Swatow, Phou-Leng, Nam-Or, Jiao-Pheng, Theng-Hai, Tio-Lo, Tie-Ang or Tio-Ang (Chai Vannachot, 1999). Chinese people immigrated from the western part of Guangtung to Thailand many years ago. The biggest Chinese community in Bangkok is "Yaowaraj". Nowadays, "Yaowaraj" becomes a Chinatown in Bangkok. The government hopes to turn " Yaowaraj", the home of the biggest overseas Chinese community in the world, into an internationally famous landmark.

Sukhumavadee Khamhiran (2000) says that interference happens when a bilingual person cannot speak both languages equally well and/or there is a degree of cultural interference involved. Interference can be divided into four types as follows: 1. Phonological interference can be divided into four sub-groups; that is, phonetic interference, phonemic interference, allophonic interference, and distributional interference 2. Morphological and Grammatical Interference 3. Lexical interference 4. Cultural interference

This paper focuses on the phonological interference of Swatow language in Standard Thai spoken by Swatow Chinese speakers in Bangkok. The location of this study is “Yaowaraj” of Bangkok, because most people in this area are Swatow Chinese descendants. Most of them speak Swatow Chinese dialect as their mother tongue.

The data is based on twelve informants who speak Swatow language as their first language and speak Standard Thai as their second language. Based on gender and education, the informants are divided into four groups; that is, group 1 is female and primary education, group 2 is female and Bachelor degree, group 3 is male and primary education, group 4 is male and Bachelor degree. All words exemplified in this paper are transcribed into phonetic symbols and translated into English.

The phonological analysis of Swatow and Thai languages are carried out using Phonemic approach. In addition, the Swatow and Thai tones were analysed by the computer program called PRAAT¹.

There are four parts in this paper: phonology of Swatow, phonology of Chinese Thai, the interference of Swatow in Standard Thai, and conclusion.

Phonology of Swatow

The phonology of Swatow presented below is based on the four groups of informants and divided into two parts, that is, syllable structure and phoneme class

a) Syllable structure

The syllable structure is not varied by the four groups of informants. The structure of the syllable is described in terms of a nucleus and periphery. The nucleus consisting of one vowel (V), a diphthong (VV), or a triphthong (VVV). The periphery is formed by an initial consonant, a final consonant and a tone. There are two major types of syllables: an open syllable and a closed syllable. An open syllable type is defined as a syllable which ends with any single vowel, a diphthong, or a triphthong. The full structure is C V (V) (V) ^{Tone}. Based on the nucleus, open syllables can be further divided into three sup-types as below:

¹ Praat is a program for speech analysis and synthesis created by Paul Boersma and David Weenink.

(<http://www.praat.org>)

Sup-type one: C V ¹⁻⁶

Examples:

/ʔi ¹ /	‘they’	/pe ² /	‘sick’
/ce ³ /	‘older sister’	ʔkhu [?]	‘go’
/ma ⁵ /	‘mother’	/no ⁶ /	‘six’

Sup-type two: C V V¹⁻⁶

Examples:

/ciə ¹ /	‘right side’	/mai ² /	‘no’
/ʔuə ³ /	‘I’	/chui ⁴ /	‘mouth’
/cuə ⁵ /	‘snack’	/ŋou ⁶ /	‘five’

Sup-type three: C V V V¹⁻⁶

Examples:

/puəi ¹ /	‘fly’	/jiəu ² /	‘hunt’
/ciəu ³ /	‘bird’	/kuəi ⁴ /	‘cross’
/phuəi ⁵ /	‘bark’	/chiəu ⁶ /	‘same’

A closed syllable type is defined as a syllable ending with a consonant. The final consonant can be a nasal consonant or stop consonant. The full structure is C V (V) (V) C^{Tone}. Based on finals, the closed syllable can be further divided into two sub-types as follows:

Sup-type one: C V (V) N¹⁻⁶

Examples:

C V N ¹	/kim ¹ /	‘gold’	C V N ²	/puŋ ² /	‘cooked rice’
C V N ³	/ʔim ³ /	‘rink’	C V N ⁴	/chui ⁴ /	‘stab’
C V N ⁵	/tam ⁵ /	‘wet’	C V N ⁶	/cuŋ ⁶ /	‘squeeze’
C V V N ¹	/ʔuəŋ ¹ /	‘turn’	C V V N ²	/kiəm ² /	‘spear’
C V V N ³	/kiəm ³ /	‘few’	C V V N ⁴	/huəŋ ⁴ /	‘to exchange’
C V V N ⁵	/ʔiəm ⁵ /	‘salt’	C V V N ⁶	/tiəŋ ⁶ /	‘electric’

Sup-type two: C V (V) (V) S^{2,5}

Examples:

C V S ²	/ʔaŋ ² /	‘duck’	C V S ⁵	/kak ⁵ /	‘throw’
C V V S ²	/poiŋ ² /	‘eight’	C V V S ⁵	/puəŋ ⁵ /	‘fall’
C V V V S ²	/khuəiŋ ² /	‘wide’	C V V V S ⁵	/guəiŋ ⁵ /	‘moon’

b) Phoneme Classes

There are three major classes of phonemes according to their function in the syllable: Consonants, Vowels and Tones. The consonant class is not varied by the four groups of informants but the vowel class is.

Consonant Phonemes

There are eighteen consonant phonemes in the Swatow spoken in Bangkok: / p , ph , b , t , th , k , kh , g , ʔ , m , n , ŋ , c , ch , s , h , l , j /. Consonants can

occur in syllable initial position. The consonants that can occur finally in a syllable are /p , k , ʔ , m , ŋ/. The consonant phonemes are displayed in chart 1.

Manner of Articulation		Point of Articulation					
		Labial	Alveolar	Palatal	Velar	Glottal	
Plosives (Stop)	Voiceless	Unaspirated	p	t-		k	ʔ
		Aspirated	ph-	th-		kh-	
	Voiced	b-			g-		
Nasals	Voiced		m	n-		ŋ	
Affricates	Voiceless	Unaspirated		c-			
		Aspirated		ch-			
Fricatives	Voiceless			s-			h-
Lateral	Voiced			l-			
Approximants	Voiced				j-		

Chart 1 Swatow consonant Phoneme chart.

The consonant phonemes that are followed by a dash can occur only in syllable initial position whereas those without a dash can occur both initially and finally in a syllable.

Vowel Phonemes

There are nine monophthong (six oral vowels and three nasalised vowels), thirteen diphthong (nine oral vowels and four nasalised vowels), and two triphthongs as in chart 2.

		Front Unrounded		Central Unrounded		Back Rounded	
		Oral vowel	Nasal vowel	Oral vowel	Nasal vowel	Oral vowel	Nasal vowel
Monophthongs	Close	i	ĩ	u		u	
	Close-mid	e				o	
	Open-mid		ẽ				
	Open			a	ã		
Diphthongs	Close	iə iu io	iõ iō			uə ui	uõ uō
	Close-mid					oi ou	oĩ oī
	Open-mid						
	Open			ai au			
Triphthongs		iəu				uəi	

Chart 2 The vowel phoneme of Swatow.

The number of vowel phonemes is varied by the four groups of informants. The first group of informants has the maximum number of vowel phonemes. The second and fourth groups of informants have the minimum number of vowel phonemes. They do not have all nasalised vowels found in the first group. The third groups of informants have all vowel phonemes except / \tilde{a} , $i\tilde{o}$, $i\tilde{o}$, $o\tilde{i}$ /. The number of vowel phonemes found in all four groups of informants can be seen below:

Vowels Informant groups	Monophthong		Diphthong		Triphthong
	Oral	Nasalised	Oral	Nasalised	Oral
1	6	3	9	4	2
2	6	-	9	-	2
3	6	2	9	1	2
4	6	-	9	-	2

Chart 3 The number of vowel phonemes found in all four groups of informants.

Tones

Swatow dialect has 6 tones: that is, Mid level tone, Low falling tone, High falling tone, Mid falling rising tone, High rising tone and Low rising tone as seen below:

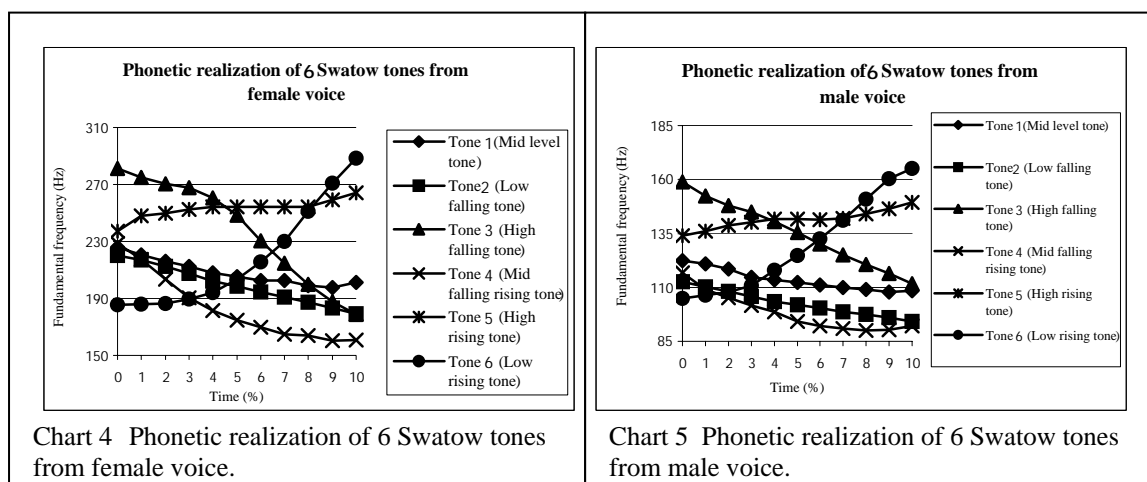


Chart 4 Phonetic realization of 6 Swatow tones from female voice.

Chart 5 Phonetic realization of 6 Swatow tones from male voice.

Phonology of Chinese Thai

Chinese Thai in this paper refers to the Thai language spoken by Chinese people.

The phonology of Chinese Thai presented below is based on the four groups of informants and divided into two parts; that is, syllable structure and phoneme class

a) Syllable structure

The syllable structure of the speeches of all informant groups is divided into two groups; that is, an open syllable and a closed syllable. An open syllable type is defined as a syllable which ends with any monophthong or a diphthong. The full structure is C (C) V V¹⁻⁵.

Examples:

/pi: ¹ /	‘year’	/kɛ: ² /	‘old’
/kha: ³ /	‘kill’	?lu:?	‘know’
/kha: ⁵ /	‘leg’		

A closed syllable is defined as a syllable ending with a consonant. The final consonant can be a nasal consonant or stop consonant. The full structure is C (C) V (V) C¹⁻⁵. The closed syllables ending with a nasal may take all five contrastive tones. That is C (C) V (V) N¹⁻⁵.

Examples:

/bin ¹ /	‘fly’	/kiŋ ² /	‘stick of tree’
/hɛ:ŋ ³ /	‘dry’	/luŋ ⁴ /	‘rainbow’
/sa:m ⁵ /	‘three’	/khwa:ŋ ³ /	‘throw’

The closed syllables ending with stop may take three contrastive tones. That is C (C) V (V) S^{2,3,4}.

Examples:

/nak ² /	‘heavy’	/tap ² /	‘liver’
/lu:k ³ /	‘child’	/nok ⁴ /	‘bird’
/pluək ² /	‘bark’		

b) Phoneme Classes

There are three major classes of phonemes according to their function in the syllable, that is, consonants, vowels and tones.

Consonant Phonemes

Consonant phonemes can be divided into two parts: that is, single consonants and consonant clusters. The second and fourth informant groups have the same number of single consonants as Standard Thai, i.e., twenty-one single consonants whereas other two groups have twenty single consonants except phoneme /r/. The twenty-one single consonants are displayed in chart 6 below.

Place of Articulation Manners of Articulation	Bilabial	Labio-Dental	Alveolar	Palatal	Velar	Glottal
	Stops					
Voiceless unaspirated	p		t		k	ʔ
Voiceless aspirated	ph-		th-		kh-	
Voiced unaspirated	b-		d-			
Affricates						
Unaspirated				c-		
Aspirated				ch-		
Fricatives		f-	s-			h-
Nasals	m		n		ŋ	
Lateral			l-			
Trill			r*			
Semivowels	w			j		

Chart 6 Single consonants in Chinese Thai

The consonant phonemes that are followed by a dash can occur only in syllable initial position whereas those without a dash can occur both initially and finally in a syllable. The consonant chart shows that the final consonants are the same as Standard Thai, i.e., /p, t, k, ʔ, m, n, ŋ, w, j/. However, phonetically, most informants in the first and third groups tend to pronounce the finals /p/, /t/ with /k/ and /n/ with /ŋ/ as exemplified below.

/lu:k³ hep²/ [lu:k⁷⁵¹ hek⁷²¹] ‘hail’ /khit⁴/ [khik⁷⁴⁵] ‘think’
 /hen⁵/ [heŋ¹⁵] ‘see’

Consonant clusters occur only in the initial position of a syllable. The second and fourth groups of Chinese informants who hold a Bachelor degree have the same clusters as Standard Thai, that is, /p, ph, t, k, kh/ as the first member of the clusters and /w, l, r/ as the second member. The clusters /pl, phl, phr, tr, kw, kl, kr, khw, khr/ are found mostly in the second informant group. The first and third groups of Chinese informants who have primary education use less clusters than other two groups because of the absence of clusters in their native language. They use only /k, kh/ as the first member of the clusters and /w/ as the second member. Therefore, the clusters that are absent in the first and third informant groups are pronounced as single consonants, which are the first members of the clusters. Sample words of clusters are given below.

			Groups 2, 4	Groups 1, 3
/pl/	/pla: ¹ /	/pa: ¹ /	‘fish’	/pr/ /sok ² ka ² prok ² / /sok ² ka ² pok ² / ‘dirty’
/phl/	/phlak ² /	/phak ² /	‘push’	/phr/ /phra ⁴ ʔa: ¹ thit ⁴ / /pha ⁴ ʔa: ¹ thit ⁴ / ‘sun’
/tr/	troŋ ¹ /	/toŋ ¹ /	‘straight’	/kw/ /kwa:ŋ ¹ / /kwa:ŋ ¹ / ‘deer’
/kl/	/klin ² /	/kin ² /	‘smell’	/kr/ /kra ² taj ² / /ka ² taj ² / ‘rabbit’
/khw/	/khwa:ŋ ³ /	/khwa:ŋ ³ /	‘throw’	/khl/ /khlo:n ¹ / /kho:n ¹ / ‘mud’
/khr/	/khraj ¹ /	/khaj ¹ /	‘who’	

Vowel Phonemes

Phonemically, the vowels spoken by all groups of Chinese informants are the same as Standard Thai as displayed in Chart 7.

Tongue position	Unrounded				Rounded	
	Front		Central		Back	
Close	i	i:	ɯ	ɯ:	u	u:
Mid	e	e:	ə	ə:	o	o:
Open	ɛ	ɛ:	a	a:	ɔ	ɔ:

Tongue position	Unrounded		Rounded
	Front	Central	Back
Close	i	ɯ	u
Open			

Chart 7 The vowel phonemes of Thai spoken by the Chinese people.

However, phonetically, some vowel phonemes are pronounced differently from Standard Thai vowels because of the influence of Swatow, the native language. That is, the vowel length of Swatow is non-contrastive, therefore some vowels are shortened by the first and third groups of informants and nasalised by the first group of informants. The long vowels that are shortened are [ɯ: , ə: , a: , ɔ: , o: , u:] and those that are nasalised are [ĩ: , ẽ: , ã:].

Tones

There are five tones in Chinese Thai; spoken by 4 groups of informants, that is; Mid level, Low falling, High falling, High rising and Low rising.

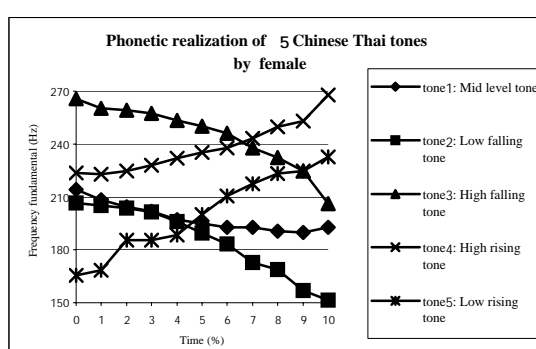


Chart 8 The phonetic realization of 5 Chinese Thai tones by female

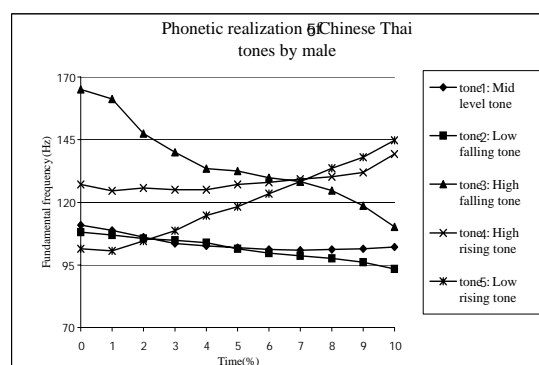


Chart 9 The phonetic realization of 5 Chinese Thai tones by male

Education and sex are also brought into the study as social variables which play an important role on the interference of Swatow language in Standard Thai. This study focuses on phonological interference which can be classified into three types; the consonant interference, vowel interference, and tonal interference as follows:

1. Consonant interference

- Initial consonants

Swatow has eighteen consonants where as Standard Thai has twenty-one. The consonants which are not found in Swatow are /d , r , w/ and the consonant which is not found in Standard Thai is /g/. Chinese Thai spoken by the first and third informant groups has twenty initial consonant. The phoneme /r/ is missing in these two informant groups but present in the second and fourth informant group. It should be noted that though the phoneme /r/ is found in the second and fourth informant group but its occurrence is inconsistent and infrequent.

Swatow does not have the initial consonants /d , r/, therefore the first and third informant groups who have primary education replace the Standard Thai /d/ with [l]. All informant groups replace the Standard Thai /r/ with [l]. Though the consonant /r/ is present in the second and fourth informant groups, it is sometimes replaced by [l] because of its inconsistent and infrequent occurrence.

The interference of single consonants in syllable initial position is shown below:

Examples:

ST → CT	Examples			
	Phonemic	Phonetic		Meaning
		Standard Thai (ST)	Chinese Thai (CT)	
/d/ → [l-]	/du:t ² /	[du:t ²¹]	[lu:t ²¹]	‘suck’
	/dtuŋ ¹ /	[dtuŋ ³³]	[ltuŋ ³³]	‘pull’
/r/ → [l-]	/riəp ³ /	[riəp ⁵¹]	[liəp ⁵¹]	‘smooth’
	/rɔ:n ⁴ /	[rɔ:n ⁴⁵]	[lɔ:ŋ ⁴⁵]	‘hot’

- Final consonants

Swatow has five final consonants /p , k , ʔ , m , ŋ/ whereas Standard Thai has nine final consonants /p , t , k , ʔ , m , n , ŋ , w , j/. Chinese Thai spoken by all informants groups has the same number of final consonants as Standard Thai but the consonants /p, t, n/ occur inconsistently and infrequently in the first and third informant groups. The three final consonants are replaced by [k , ŋ] respectively. For example in below

ST → CT	Examples			
	Phonemic	Phonetic		Meaning
		Standard Thai (ST)	Chinese Thai (CT)	
/-p/ → [-k]	/lu:k ³ hep ² /	[lu:k ⁵¹ hep ²¹]	[lu:k ⁵¹ hek ²¹]	‘hail’
/-t/ → [-k]	/pet ² /	[pet ²¹]	[pek ²¹]	‘duck’
	/cet ² /	[tset ²¹]	[tsek ²¹]	‘seven’
	/chet ⁴ /	[tshet ⁴⁵]	[tshek ⁴⁵]	‘wipe’
/-n/ → /-ŋ/	/kin ¹ /	[kin ³³]	[kiŋ ³³]	‘eat’
	/khon ⁵ /	[khon ¹⁵]	[khoŋ ¹⁵]	‘feather’
	/lin ⁴ /	[lin ⁴⁵]	[liŋ ⁴⁵]	‘tongue’
	/len ³ /	[len ⁵¹]	[leŋ ⁵¹]	‘play’
	/fon ⁵ /	[fon ¹⁵]	[foŋ ¹⁵]	‘rain’

- Initial consonant clusters

Swatow has no consonant clusters whereas Standard Thai has eleven consonant clusters /pl , pr , phl , phr , tr , kw , kl , kr , khw , khl , khr/. Chinese Thai spoken by the second and fourth informant groups has all eleven consonant clusters though some consonant clusters are inconsistent and infrequent. That is, the second informant group inconsistently and infrequently use the consonant clusters /pl , pr , phl , phr , kl/ whereas all eleven consonant clusters are inconsistent and infrequent in the fourth informant group. Chinese Thai spoken by the first and third informant groups has only /kw , khw/. Owing to the absence of consonant clusters in Swatow, most informants pronounce consonant clusters in Standard Thai with only the first members of the clusters. The first and third informant groups have only consonant clusters /kw , khw/ therefore they pronounce the rest of consonant clusters in Standard Thai with single consonants. The second informant group has all eleven consonant clusters but due to the inconsistent and infrequent use of /pl , pr , phl , phr , kl/, these five consonant clusters are pronounced with the first single consonants. The fourth informant group also has all eleven consonant clusters but due to the inconsistent and infrequent occurrence of nine consonant clusters /pl , pr , phl , phr , tr , kl , kr , khl , khr/, these nine clusters are pronounced with single consonants as summarized below:

ST → CT	Examples			
	Phonemic	Phonetic		Meaning
		Standard Thai (ST)	Chinese Thai (CT)	
/pl/ → [p-]	/pluək ² / /pla: ¹ /	[pluək ²¹] [pla: ³³]	[pʉək ²¹] [pa: ³³]	‘bark’ ‘fish’
/pr/ → [p-]	/sok ² ka ² prok ² /	[sok ²¹ ka ²¹ prok ²¹]	[sok ²¹ ka ²¹ pok ²¹]	‘dirty’
/phl/ → [ph-]	/phlak ² / /phlu: ¹ /	[phlak ²¹] [phlu: ³³]	[phak ²¹] [phu: ³³]	‘push’ ‘betel’
/phr-/ → [ph-]	/phrik ⁴ thaj ¹ / /phaŋ ⁴ can ¹ /	[phrik ⁴⁵ thaj ³³] [phaŋ ⁴⁵ can ³³]	[phik ⁴⁵ thaj ³³] [phaŋ ⁴⁵ caŋ ³³]	‘red pepper’ ‘moon’
/tr-/ → [t-]	/troŋ ¹ /	[troŋ ³³]	[toŋ ³³]	‘straight’
ST → CT	Examples			
	Phonemic	Phonetic		Meaning
		Standard Thai (ST)	Chinese Thai (CT)	
/kl-/ → [k-]	/daj ³ klin ² / /klaj ¹ / /klaj ³ /	[daj ⁵¹ klin ²¹] [klaj ³³] [klaj ⁵¹]	[lai ⁵¹ kin ²¹] [kaj ³³] [kaj ⁵¹]	‘smell’ ‘far’ ‘near’
/kr-/ → [k-]	/kraŋ ² taj ² /	[kraŋ ²¹ taj ²¹]	[kaŋ ²¹ tai ²¹]	‘rabbit’
/khl-/ → [kh-]	/khla:j ⁴ / /khlo:ŋ ¹ / /khla:n ¹ /	[khla:j ⁴⁵] [khlo:ŋ ³³] [khla:n ³³]	[kha:j ⁴⁵] [khlo:ŋ ³³] [kha:n ³³]	‘resemble’ ‘canal’ ‘crawl’
/khr-/ → [kh-]	/khrok ⁴ / /khraj ¹ /	[khrok ⁴⁵] [khraj ³³]	[khok ⁴⁵] [khaj ³³]	‘mortar’ ‘who’

2. Vowel Interference

a) Vowel shortening

The vowel length of Swatow is non-contrastive. Some vowels are shortened by the first and third group of informants who have primary education. That is, the vowels [ɯ: , ə: , a: , u: , o: , ɔ:] are pronounced as [ɯ , ə , a , u , o , ɔ] by the first group of informants. The third groups of informants shorten only the four vowels /ɯ , a , u , ɔ/. For example:

ST→ CT	Phonemic	Thai	Swatow	Meaning
		Phonetic	Phonetic	
/tʉ:/ → [tʉ]	/jʉ:n ¹ /	[jʉ:n ³³]	[jʉ:n ³³]	‘stand’
	/fʉ:n ¹ /	[fʉ:n ³³]	[fʉ:n ³³]	‘firewood’
/ə:/ → [ə]	/də:n ¹ /	[də:n ³³]	[lə:n ³³]	‘walk’
/a:/ → [a]	/pa:k ² /	[pa:k ²¹]	[pa:k ²¹]	‘mouth’
/a:/ → [a]	/sa:k ² /	[sa:k ²¹]	[sa:k ²¹]	‘pestle’
/u:/ → [u]	/lu:k ³ /	[lu:k ⁵¹]	[lu:k ⁵¹]	‘child’
/o:/ → [o]	/khaw ³ pho:t ³ /	[khaw ⁵¹ pho:t ⁵¹]	[khaw ⁵¹ pho:k ⁵¹]	‘corn’
/ɔ:/ → [ɔ]	/mɔ:k ² /	[mɔ:k ²¹]	[mɔ:k ²¹]	‘mist’
	/thɔ:n ¹ /	[thɔ:n ³³]	[thɔ:n ³³]	‘gold’

b) Vowel nasalisation

The nasalised vowels [ĩ:], [ẽ:] and [ã:] in Swatow has influenced the pronunciation of Thai vowels by the first group of informants. This group of informants pronounces /i:/, /ɛ:/ and [a:] as [ĩ:], [ẽ:] and [ã:] respectively.

For example:

ST→CT	Phonemic	Thai	Swatow	Meaning
		Phonetic	Phonetic	
/i:/ → [ĩ:]	/thi: ³ /	[thi: ⁵¹]	[thĩ: ⁵¹]	‘at’
/ɛ:/ → [ẽ:]	/ke: ² /	[ke: ²¹]	[kẽ: ²¹]	‘old’
/a:/ → [ã:]	/pa: ² /	[pa: ²¹]	[pã: ²¹]	‘forest’
	/fa: ⁴ /	[fa: ⁴⁵]	[fã: ⁴⁵]	‘sky’

3. Tonal Interference

There are six tones in the Swatow and five tones in Standard Thai. Chart 10 below present a comparison between Swatow and Standard Thai. The tonal comparison shows that all informant groups replace the Standard Thai tone 1 (mid level tone) with the Swatow tone 1 (mid level tone) when speaking Chinese Thai. The Standard Thai tone 2 (low falling tone), tone 3 (high falling tone), tone 4 (high rising tone) and tone 5 (low rising tone) are the same as Swatow tone 2 (low falling tone), tone 3 (high falling tone), tone 5 (high rising tone) and tone 6 (low rising tone) respectively. All informant groups pronounce Chinese Thai tone 2 as low falling, tone 3 as high falling, tone 4 as high rising and tone 5 as low rising respectively. Likewise, in tone 5 (high rising tone), it is found that there are some degrees of interference. The tonal shapes of all informant groups are the same but the fundamental frequencies of tones are different due to the difference of voice quality of each informant. However, this difference is insignificant.

Swatow		Standard Thai	
/1/	Mid level tone [33]	/1/	Mid level tone [33]
/2/	Low falling tone [21]	/2/	Low falling tone [21]
/3/	High falling tone [51]	/3/	High falling tone [51]
/4/	Mid falling rising tone [312]		
/5/	High rising tone [45]	/4/	High rising tone [45]
/6/	Low rising tone [15]	/5/	Low rising tone [15]

Chart 10 Comparison of Swatow and Standard Thai tone.

Conclusion and discussion

1. The Phonological interference

The phonological interference of Swatow in Standard Thai by Chinese speakers in Bangkok can be summarized as follows:

1.1 Phonetic interference

The phonetic interference of Swatow in Standard Thai is vowel interference that can be divided into two groups; vowel shortening and vowel nasalisation. Swatow language does not have vowel length distinction as in Standard Thai. So, when Swatow Chinese people speak long vowel in Standard Thai, they shorten it. The vowel shortening interference is found among the informants who have primary education. The vowels [u:, ə:, a:, u:, o:, ɔ:] are pronounced as [u', ə', a', u', o', ɔ'] by female informants who have primary education and [u', a', u', ɔ'] by male informants who have primary education respectively.

For the vowel nasalisation, Swatow language has nasalised vowel, but Standard Thai has clear vowel. When Swatow Chinese people speak Standard Thai, they sometimes use nasalised vowel in Standard Thai. The vowel nasalisation interference occurs in open syllable and is found among the female informants with primary education. The vowels /i:/, /ɛ:/ and /a:/ are pronounced as [ĩ:], [ẽ:] and [ã:] respectively.

1.2 Phonemic interference

The phonemic interference of this research is found in the consonant cluster. Swatow language does not have consonant clusters, so most informants pronounce consonant clusters in Standard Thai with only the first member of the clusters. The female and male informants with primary education have only consonant clusters /kw, khw/ therefore they pronounce the rest of consonant clusters in Standard Thai with single consonants. The female informants with bachelor degree have all eleven consonant clusters but they sometimes pronounce consonant clusters /pl, pr, phl, phr, kl/ as single consonants. The second members of consonant clusters are dropped in casual conversation. The male informants who have bachelor degree also have all eleven consonant clusters but they sometimes pronounce consonant clusters /pl, pr, phl, phr, tr, kl, kr, khl, khr/ as single consonants. The second members of consonant clusters are dropped in casual conversation.

1.3 Allophonic interference

The allophonic interference of this research found in the initial consonant, that is; Swatow language does not have /d/ and /r/, so they replace the Standard Thai /d/ with [l] and /r/ with [l] respectively.

1.4 Distributional interference

The distributional interference of this research is found in the final consonant. The final consonant of Swatow does not have /p/, /t/ and /n/, so the female and male informants having primary education replace them with /k/ and /ŋ/ respectively in Standard Thai. The female and male informants who have bachelor degree do not have distributional interference

In addition, the researcher found that nasalisation of nasalised vowels is weakening so the researcher thinks that in the future the nasalised vowel will be replaced by oral vowel, for example, the word /fĩ⁶/ means 'full' and /tĩ⁶/ means 'young brother'. Some informants pronounce /tĩ⁶/ as /fĩ⁶/, because they think this two words have the same pronunciation and their meanings are determined by the context.

2. The role of education degree on the interference of Swatow language in Standard Thai.

The researcher found that the interference is caused by education degree, because the informants who have primary education have more interference than informants who have Bachelor's degree. In this study, the researcher examined the interference by focusing only on word level. Therefore, the results of the study would probably be a case study.

3. The interference of Swatow language in Standard Thai and gender.

The researcher found that the gender does not cause interference. Both female and male informants with primary education have the most interference and those with bachelor degree have the least interference. So the gender is not the cause of interference of Swatow language in Standard Thai.

Acknowledgement

I would like to express my deepest gratitude to my advisor Professor Dr. Somsong Burusphat, Associate Professor Dr. Amon Thavisak, Assist. Prof. Sukhuma-Vadee Khamhiran and Assist. Prof. Payau Charoenchai. This thesis submitted in partial fulfillment of the requirements for the degree of Master of faculty of graduate studies at Mahidol university.

Reference

- Crystal, David. (1987). Chinese Cultural Studies: The Chinese Languages and Alphabet. *The Cambridge Encyclopedia of Languages*. Cambridge: Cambridge University Press. Date 23/2/43
- . (1992). Languages in China. Available:
<http://www.indiana.edu/~easc/pages/easc/curriulum/china/1995/geography/lesson6/r2.htm>
Date 8/10/45 <http://www.acc6.its.Brooklyn.cuny.edu/~phalsall/texts/chinlng2.html>
- Janida Eiampailin. (2004). *The Phonological interference of Swatow in Standard Thai by Chinese speakers in bangkok* Nakhorn Pathom: M.A. thesis in Linguistics. Faculty of Graduate Studies, Mahidol University.
- Napharat Maneerat. (1983). *The Tae Chew Chinese Language of Nakhorn Pathom*. Nakhorn Pathom: M.A. theisis in Department of Oriental Languages. Faculty of Graduate Studies, Silpakorn University.
- Norman, J. (1988). *CHINESE*. Cambridge: Cambridge University Press.
- Pratoom Wongwantanee. (1984). *A phonology of Hakka, with comparison with Swatow*. Nakhorn Pathom: M.A. thesis in Linguistics. Faculty of Graduate Studies, Mahidol University.
- Preecha Sukgasame. (1988). *Phonological interference between Kuay and Northeastern Thai in Surin*. Nakhorn Pathom: M.A. thesis in Linguistics. Faculty of Graduate Studies, Mahidol University.
- Wichet Atchariyasucha. (1982). *A Phonological study of Swatow of Chinese as spoken in Bangkok with comparisons to Thai*. Nakhornprathom: M.A. thesis in Linguistics. Faculty of Graduate Studies, Mahidol University.
- Sukhumavadee Khamhiran. (2000). *Linguistic Approach*. Nakhornprathom : Institute of Language and Culture for Rural Development. Mahidol university.
- Suriya Ratanakul. (1994). *Lanuguages in Southeast Asia. Part I, 2* Printed : Institute of Language and Culture for Rural Development. Mahidol university.