

CHAPTER 7

PHONOLOGICAL COMPARISON OF KIM MUN IN LAOS AND VIETNAM

7.1 Phonological Comparison

This section will provide a contrastive analysis of the phonemes in the Lao and Vietnam varieties of Kim Mun. Also included in this section are comparisons with Kim Mun varieties in China derived from previous research.

7.1.1 Consonantal Comparison

Between Lao and Vietnam Kim Mun, the Lao variety with twenty-one distinctive consonants does not differ much from the Vietnam variety, which also has twenty-one distinctive consonants. The four major places of articulation in Lao and Vietnam Kim Mun concurs with the research of Mao (2004) and Liu, et. al. (1998) who documented labial, alveolar, alveolo-palatal, and velar places of articulation in Chinese Kim Mun.

Table 27. Comparison of Inventory of Phonetic Consonants (Laos and Vietnam)

Place Manner	Labial	Pre- Palatal	Palatal	Post- Palatal
Oral Stops	p	t	t̟	k
	b	d	d̟	g
Fricatives	f	θ	s	h
	v	ð		
Nasal Stops	m	n	ɲ	ŋ
Lateral Approximants		l	ɭ	
Central Approximants			j	w

Table 27 documents all the consonants discovered between the two varieties, which will be discussed below.²³ The shaded sections mark the two distinctions between the two varieties. The differences being the voiced counterpart of the Lao dental fricative that Vietnam Kim Mun is lacking and the Vietnam voiced alveolo-palatal lateral that Lao Kim Mun is lacking. Furthermore, both varieties of Kim Mun contain phonemes that rarely occur, i.e. the voiced fricatives /v, ð/, the voiceless fricatives /f, h/, and the alveolo-palatal lateral approximant /ɭ/. A larger corpus from both varieties could clarify the status and distribution of such phonemes. Also, in order to decide if the sounds are an outcome of borrowing from neighboring languages a phonological and lexical comparison with these languages is

²³ The major places of articulation labeled pre-palatal and post-palatal are phonological categories not phonetic categories.

necessary. This would exceed the limited framework of this study and is for future studies.

7.1.1.1 Plosives

Both varieties have a set of voiced and voiceless plosives in four major places of articulation, i.e. labial, alveolar, alveolo-palatal, and velar. The plosives occur syllable-final in both varieties, with the exception of the alveolo-palatal plosive for both varieties and without a velar final stop for Vietnam Kim Mun. Lao Kim Mun has a final velar plosive, but it is rare. It is possible that Kim Mun is in the process of losing the final velar plosive.

The voiced and voiceless labial and alveolar plosives are realized with stiff voice in both Lao and Vietnam Kim Mun. This is in line with the conditions documented in Edmondson's (2004) study of Sui and in that found in Thai where bilabial and alveolar stops have stiff voice (Ladefoged and Maddieson 1996). For Lao Kim Mun, this laryngeal setting is also observed with alveolo-palatal voiced and voiceless plosives.

7.1.1.2 Fricatives

The labiodental fricatives /f, v/ appear in both Lao and Vietnam Kim Mun and while they rarely occur in either variety, they were also documented in Hainan, Yunnan, and Guangxi Kim Mun. The voiced dental fricative /ð/

only occurs in Lao Kim Mun, and only four times at that. There are no cognates in the data to compare between the Lao and Vietnam varieties, but since the voiceless dental fricative /θ/ is quite frequent it can be postulated that Vietnam Kim Mun does have the voiced equivalent. It is possible it is just as rare as it is in Lao Kim Mun and did not surface in the data.

A closer look at other Kim Mun varieties found in China suggests another possible explanation. It may be postulated that the voiced dental fricative is missing in Vietnam Kim Mun because it has merged with the voiced alveolar stop /d/, analogous to data from China. In cognates from Yunnan Kim Mun the fricatives /θ, ð/ are realized as the affricates /tθ, dð/ (Mao 2004), and in cognates from Hainan Kim Mun the fricatives /θ, ð/ are realized as the plosives /t, d/ (Shintani 1990). This demonstrates that in some varieties of Kim Mun the fricatives /θ, ð/ are changing to affricates or stops. For Vietnam Kim Mun, it is especially the voiced dental fricative that would undergo this sound change since voiceless fricatives are preferred in both Lao and Vietnam Kim Mun.

7.1.1.3 Nasals

Both varieties share the same set of nasals, including the rare occurrence of the velar nasal /ŋ/ as a syllable onset. Along with plosives and

approximants, nasals can fill the coda position of a syllable in both varieties, which is consistent with the Hainan, Yunnan, and Guangxi Kim Mun finals.

7.1.1.4 Approximants

In each variety the approximants can occur as initial or medial consonants of a syllable onset, which is consistent with data from Yunnan Kim Mun (Mao 2004) but in contrast to Hainan Kim Mun (Shintani 1990) where the central approximants /w/ or /j/ are not found syllable-initial. It is also partially in contrast with the Guangxi variety (Mao 2004) where only the palatal approximant /j/ can occur syllable-initial. In both Lao and Vietnam Kim Mun syllable-final approximants occur as codas. The alveolo-palatal lateral only occurs once in Vietnam Kim Mun and there are no cognates to compare between the two varieties.

7.1.1.5 Summary of Lao and Vietnam Kim Mun Consonants

The consonants in the Lao and Vietnam varieties of Kim Mun have a direct one to one correspondence, as illustrated in Table 28.

Table 28. Summary of Lao and Vietnam Kim Mun Consonants

Segment	Lao Kim Mun	Vietnam Kim Mun	Gloss
/p/	/kja ²¹ /	/kja ³³ /	bear
/b/	/bwe ¹³ /	/be ³⁵ /	dream
/t/	/ta ³¹ /	/ta ³³ /	to bite
/d/	/da: ³⁵ /	/de: ⁵² /	to fly
/tʰ/	/tʰa:w ¹¹ /	/tʰa:w ³³ /	to fry
/ɬ/	/ɬa:w ¹³ /	/ɬa:w ³⁵ /	wind
/k/	/kjo ³¹ wɔm ⁵³ /	/kjo ¹¹ /	to swim
/g/	/guj ⁵³ /	/guj ²¹⁴ /	clothing/shirt
/f/	/gjaŋ ³³ fa: ³¹ /	/fa: ¹¹ /	flower
/v/	/van ¹³ /	/ven ³⁵ /	cloud
/θ/	/θɔŋ ³⁵ /	/θɔŋ ⁵² /	blanket
/ð/	/tʰə.ðaj ³³ /	N/A	tools
/s/	/səm ⁵³ /	/sem ²¹⁴ /	gold
/h/	/hɔp ³⁵ jin ³⁵ bja:t ³¹ /	/hɔp ⁵² jin ²¹⁴ /	to smoke
/m/	/maj ³⁴¹ /	/maj ³⁴¹ /	to buy
/n/	/nu ³³ /	/nu ⁴⁴ /	milk
/ŋ/	/ŋin ³³ /	/ŋin ³³ /	to eat
/ŋ/	/tuŋ ³⁴¹ /	/tuŋ ³¹ /	pig
/l/	/la: ³⁵ /	/la: ⁴⁴ /	moon
/ʎ/	N/A	/ʎu ³¹ to ²¹⁴ /	sickle
/j/	/ja ⁵³ /	/ja ²¹⁴ /	I
/w/	/daw ³³ /	/da:w ³³ /	salt

The only two consonants that do not appear in cognates between the two varieties are the voiced alveolo-palatal lateral approximant /ʎ/, which only occurs in the Vietnam variety in one instance, and the voiced dental fricative /ð/, which only occurs in the Lao variety in four instances.

7.1.2 Vowel Comparison

Vietnam and Lao Kim Mun both have nine vowels. The Vietnam variety has three front vowels /i, e, ε/ two central vowels /e, a/, and the three back vowels /u, o, ɔ/. The Lao variety only differs in the opening degree of the non-open central vowel; where the Vietnam variety has a near-open central vowel, the Lao variety has a mid central vowel /ə/.

The distinctive vowels found between the two varieties are represented in Figure 7. Lao Kim Mun, marked with squares, has front vowels close to cardinal quality and slightly lowered back vowels while Vietnam Kim Mun, marked with circles, has retracted front vowels and back vowels close to cardinal quality.²⁴ Other than these differences in pronunciation, the vowel systems of the Lao and the Vietnam varieties of Kim Mun are identical.

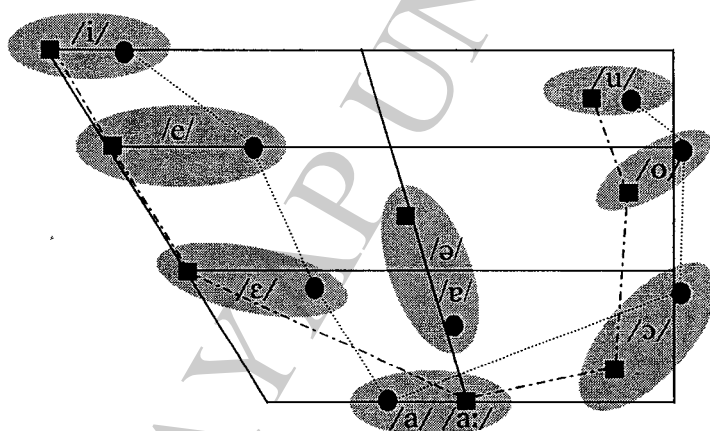


Figure 7. Distributional Comparison of Lao and Vietnam Kim Mun Vowels

²⁴ Based on auditory impression.

It appears that Lao and Vietnam Kim Mun have a slightly more complicated vowel system than the Hainan, Yunnan, and Guangxi varieties with a symmetrical three front vowel – three back vowel system. The varieties in Laos and Vietnam have two additional central vowels.

Both Lao and Vietnam Kim Mun demonstrated a restricted environment on the close-mid and open-mid front vowels /e/ and /ɛ/. Especially Lao Kim Mun seems to demonstrate a vowel merger taking place. This also seems to have taken place in other Kim Mun varieties, such as in Guangxi, China (Mao 2004), Hainan, China (Shintani 1990), and Yunnan, China (He 1999 and Liu, et. al. 1998).

7.1.2.1 Vowel Length

Despite a vast number of syllables in both varieties containing vowel length, neither variety could provide an ample supply of examples of contrast, which is consistent with Mao and Chou's (1972) findings. Both varieties have environmentally conditioned long and short vowels, namely vowel length neutralization, with only the word final syllable demonstrating vowel length. The open central vowel /a/ was found to not be affected by this neutralization. Lao Kim Mun contained three examples of contrast for the open central vowel while Vietnam Kim Mun only contained one example of

contrast. A former vowel length distinction might have been reduced to the open central vowel, with even this contrast possibly disappearing.

7.1.2.2 Summary of Lao and Vietnam Kim Mun Vowels

The vowels in the Lao and Vietnam varieties of Kim Mun usually have a direct one to one correspondence with the exception of the open central unrounded vowel /a/, as illustrated in Table 29.

Table 29. Summary of Lao and Vietnam Kim Mun Vowels

Vowel Correspondence	Lao Kim Mun	Vietnam Kim Mun	Gloss
/i/ - /i/	/θi ³⁵ /	/θi ⁵² /	red
/e/ - /e/	/bwe ¹³ /	/be ³⁵ /	dream
/ɛ/ - /ɛ/	/tɛŋ ³³ /	/tɛŋ ⁴⁴ /	frog
/ə/ - /ɐ/	/səm ⁵³ /	/sem ²¹⁴ /	gold
/a/ - /a/	/tap ³¹ /	/tap ³³ /	to bite
/a/ - /ɐ/	/kjap ²¹ /	/kjɛp ³³ /	bear
/u/ - /u/	/nu ³³ /	/nu ⁴⁴ /	milk
/o/ - /o/	/nɔ ³¹ /	/nɔ ¹¹ /	you (pl)
/ɔ/ - /ɔ/	/θɔŋ ³⁵ /	/θɔŋ ⁵² /	blanket

Among cognates, the open central unrounded vowel /a/ in the Lao variety can occur as either the open central unrounded vowel /a/ or the near-open central unrounded vowel /ɐ/ in the Vietnam variety. It is uncertain as whether this is semantically, morphologically, or phonologically motivated. A larger corpus is needed to analyze the reason behind this sound alteration.

7.1.3 Tonal Comparison

Both Lao and Vietnam Kim Mun have eight tones as demonstrated in Table 30, which is close with the number of tones listed in the Hainan variety, but less consistent with the large amount of tones listed in the various Yunnan varieties and the Guangxi variety.

Table 30. Tone Contour Comparison between Lao and Vietnam Kim Mun

Variety	Level			Contour					Complex	
	High	Mid	Low	High Falling	Mid Falling	Low Falling	Mid Rising	Low Rising	Rising Falling	Falling Rising
Laos		/33/	/11/	/53/	/31/	/21/	/35/	/13/	/341/	
Vietnam	/44/	/33/	/11/	/52/	/31/		/35/		/341/	/214/

While Vietnam Kim Mun has three level tones, Lao Kim Mun only has two level tones. However Lao Kim Mun has three falling tones while Vietnam Kim Mun has only two falling tones. Both varieties have a mid rising tone, but where Lao Kim Mun has a low rising tone, Vietnam Kim Mun has a falling rising tone. With initial voiced plosives, the Lao Kim Mun low rising tone can resemble the Vietnam Kim Mun falling-rising tone, but other than this, one is a clear low rising tone and the other is a clear falling-rising tone. Among cognates, the mid and low tones in Lao Kim Mun often occur as the high and mid tones in Vietnam Kim Mun, respectively. The high falling tone in Lao Kim Mun often occurs as the falling rising tone in Vietnam Kim Mun. The mid falling tone in Lao Kim Mun often occurs as either the low or

the mid falling tone in Vietnam Kim Mun. The two rising tones in Lao Kim Mun, mid rising and low rising, often occur as high falling and mid rising in Vietnam Kim Mun, respectively. The one tone that usually occurs on the same cognates in both varieties is the mid rising-falling tone. To summarize this, see Table 31.

Table 31. Summary of Lao and Vietnam Kim Mun Tones

Tone Correspondence	Lao Kim Mun	Vietnam Kim Mun	Gloss
/33/ - /44/	/ɬim ³³ /	/ɬim ⁴⁴ /	thorn
/11/ - /33/	/ma: ¹¹ /	/ma: ³³ /	grass
/53/ - /214/	/səm ⁵³ /	/səm ²¹⁴ /	gold
/31/ - /11/	/guŋ ³¹ /	/guŋ ¹¹ /	sky
/31/ - /31/	/nɔm ³¹ /	/nɔm ³¹ /	leaf
/21/ - /33/	/bə.ɬam ²¹ /	/ɬa:m ³³ /	night
/35/ - /52/	/mə.nɔj ³⁵ /	/mɛ.nɔj ⁵² /	sun
/13/ - /35/	/van ¹³ /	/vɛn ³⁵ /	cloud
/341/ - /341/	/maj ³⁴¹ /	/maj ³⁴¹ /	to buy

Other than a shift from mid or low tones in Lao Kim Mun to high or mid tones in Vietnam Kim Mun, there is no obvious systematic relationship connecting pitch height or contour between the two varieties.

7.2 Syllable Structure Comparison

The syllable templates of both varieties are very similar. Lao and Vietnam Kim Mun words are made up by one major syllable or a combination of one possible minor syllable and up to three or four major syllables. The most frequent word length is one to two syllables in both varieties with a word

structure of (C.)C₁(C₂)V(C₃)T, with the non-distinctive vowel in the possible word-initial minor syllable not being marked.

7.2.1 Major Syllable

Both varieties demonstrate three open templates and three closed templates. The most common syllable template in both varieties is the C₁V C₃T. The most basic template in both varieties is a preglottalized vowel. There are no examples in the data of a complex coda, however both varieties demonstrate a complex onset. The coda in both varieties can be filled with either a voiceless plosive (labial or alveolar), nasal (labial, alveolar, or velar), or central approximant (labial or palatal). Lao Kim Mun can also have a final voiceless velar plosive.

7.2.2 Minor Syllable

Both varieties were found to have minor or pre-syllables. While Downer (1961) mentions that pre-syllables are a feature of Yao languages, this feature was not expected in that it was not documented for any of the Chinese varieties.

7.2.3 Consonant Clusters

Both varieties have consonant clusters, with almost the same limited number of initial and medial consonants. This is consistent with the Chinese

varieties, though the C_1 position in Lao Kim Mun is more restricted than the Chinese varieties. Lao Kim Mun recorded only labial and velar plosives in the C_1 position, whereas Vietnam Kim Mun contained one occurrence of the alveolar plosive filling the initial position of a consonant cluster. The Chinese varieties also documented a few non-plosive segments filling the C_1 position in a consonant cluster (Mao 2004). Vietnam Kim Mun also had examples of cluster-initial alveolar plosives, while Lao Kim Mun had no such examples. Between the Lao and Vietnam varieties the medial consonant in clusters can only be an approximant /w, l, j/, which is consistent with the previous studies on Chinese Kim Mun.

7.2.4 Consonant – Vowel Sequences

Each of the two front vowels /e, ε/ in both Lao and Vietnam Kim Mun has a more restricted environment than other vowels. Besides this there are no other clear limitations between the two varieties.

7.2.5 Syllable Onset – Tone Patterns

There are no clear limitations between syllable onsets and tones in either variety, though both varieties showed more restriction among tones occurring on non-plosive syllable onsets, which reflects the fact that both

varieties have a higher functional load on plosives than on non-plosive segments.

7.2.6 Vowel – Tone Patterns

There are no clear limitations between vowels and tones in either variety.

7.2.7 Coda – Tone Patterns

There are no clear limitations between the coda and tones in the two varieties, though both varieties usually have a tendency for final plosives to occur with contour tones. In the case of the Lao variety, final plosives only occur with contour tones.

7.3 Summary

Since there were no significant differences between Vietnam and Hainan Island varieties of Kim Mun (Shintani 1990), it was assumed there should be no significant differences between Laos and Vietnam either, especially considering that Laos and Vietnam have had more language exposure to each other as bordering neighbors than Vietnam and Hainan Island. Lao and Vietnam Kim Mun are indeed quite similar on a segmental, suprasegmental and phonotactic level. There are clear segmental correspondences between the cognates of the two varieties. On the lexical level the two varieties do

have some differences. A lexical comparison is needed for future Kim Mun studies.

As expected, both Lao and Vietnam Kim Mun have similar consonantal systems with similar consonant clusters and a high functional load on tones. What deviated from the previous research on the Chinese varieties are the vowels of the two varieties under study. The vowel systems of both varieties contain more vowel phonemes than was documented in Hainan, Yunnan, or Guangxi. Regarding vowel length and number of tones, there was no clear forecast possible. Both of these issues were addressed in this research and both the Lao and Vietnam varieties were consistently the same. Vietnam and Lao Kim Mun exhibited vowel length with only few examples of contrast, and both had only eight tones in comparison to the plethora of tones documented by previous researchers in Yunnan and Guangxi Kim Mun. Two phenomena that were not foreseen also appeared in the analysis of both varieties, namely vowel length neutralization and minor syllables.

Finally, both varieties exhibited stiff plosives as expected. Unlike the segments discovered on Hainan Island (Shintani 1990) and Guangxi (Mao 2004), the stiff segments in Lao and Vietnam Kim Mun are clearly voiced and voiceless. Furthermore, this study documents in the Lao and Vietnam

varieties that the voiced and voiceless stiff plosives extend further than the labial and alveolar stops documented by Shintani (1990) and Mao (2004) to alveolo-palatal stops in Lao Kim Mun. And as was expected, the stiff voice segments do not contrast with other phonation types in the data, but are rather an areal feature documented for neighboring languages such as Thai.

PAYAP UNIVERSITY