

# Phonology of Plang

Debbie Paulsen

## ***1. Language Relationship and Location***

Plang is a Mon-Khmer language of the Palaungic branch and Waic sub-branch. Diffloth (1982) places Plang in the Bulang sub-division of Waic along with Samtao. Upon initial investigation, the Kontoy dialect of Plang is between 71% and 59% lexically similar to a broad sample of Wa languages (Hopple 1988).

There are many dialects of Plang, ranging along a spectrum from mutually intelligible to definitely not mutually intelligible. In the village of Huay Nam Khun in Chiang Rai province of Thailand, there are at least 6 different dialects of Plang spoken. For additional information on Plang dialect variation and comparisons see Paulsen 1992a and Svantesson 1988.

The Plang are predominantly located in an area of southwestern Yunnan, China called Sipsongpanna (Xishuangbanna). According to the 1984 brochure "Yunnan Province", Plang (there spelled Bulang) speakers number 58,318 in Yunnan. A few Plang are also located in Burma near Kengtung and in northern Thailand.

The Kontoy dialect is spoken in a village called Kontoy by the Plang and Manmai by the Chinese. The village is located west and slightly south of Jinghong in Sipsongpanna. The Kontoy dialect is also spoken by several hundred people in Huay Nam Khun in Chiang Rai, Thailand. The people themselves say there are about 6,000 Plang in China, 1,000 in Burma, and 1,000 in Thailand. Kontoy is the dominant dialect of Plang in the village of Huay Nam Khun, and the people say it is the largest Plang village in their area in China as well. Other Plang dialects southwest of Jinghong include Yungmoy, Konphre, Singting, Choklo, Manpik, Konmak, Chemlang, Konri, and Roching.

A brief sketch of the phonology of Kontoy Plang is also found in Paulsen 1992a.

## 2. Syllable Types and Word Structure

The general syllable types found in Plang are monosyllabic or sesquisyllabic, a main syllable plus a half-weight presyllable. The presyllable is very limited as to what consonants and vowels can occur. The predominant type of presyllable consists of initial consonants k, c, t, s, p, p<sup>h</sup>, r, l, and h, and the vowel is usually [ə]. Another type of presyllable is a syllabic (or presyllabic) nasal. All voiced nasals can occur as presyllables.

There are also a few consonant clusters that can occur in the main syllable of a word. The second element of the cluster can be either [l], [r], or [w]. The [l] occurs with unaspirated [k] and [p], and the [r] occurs with aspirated [k<sup>h</sup>] and [p<sup>h</sup>].

There are also morphemes that consist of only a syllabic nasal. These are attached to other morphemes in a variety of ways. See Section 9 on Morphophonemics for more detailed discussion.

Words can be of the syllable types mentioned above or can arise from compounding. Both monosyllabic and sesquisyllabic morphemes can be compounded to make words or doublets.

Ex. c<sup>h</sup>i? + ʃi? = c<sup>h</sup>ʃi?  
month rain rainy season

kəluŋ + kəle? = kəluŋkəle?  
flat like this flatland

## 3. Interpretation of Ambiguities

The only ambiguous segments in Plang are final diphthongs ending in an i, [j], or u [w]. These are the only vowel glides in the language except for a transitional [ə] (see the vowel [o] under Vowels). All other syllables are closed (except a few particles). Therefore these semivowel segments are interpreted to be final consonants. In this analysis, the syllable types are limited to C(L)VC, NCVC, and CəC(L)VC, except for a few particles that have CV.

## 4. Consonants

### a. Phonemes

The consonant phonemes of Kontoy Plang are as follows.

|                |                |                |                |   |
|----------------|----------------|----------------|----------------|---|
| p              | t              | c              | k              | ʔ |
| p <sup>h</sup> | t <sup>h</sup> | c <sup>h</sup> | k <sup>h</sup> |   |
|                | f              | s              |                | h |
| m              | n              | ɲ              | ŋ              |   |
| ɱ              | ɳ              | ɽ              |                |   |
|                | l              |                |                |   |
|                | ʎ              |                |                |   |
|                | r              |                |                |   |
| w              |                | j              |                |   |
|                |                | ɟ              |                |   |

Consonants which can occur in syllable final position are:

|   |   |   |   |   |
|---|---|---|---|---|
| p | t | c | k | ʔ |
|   |   |   |   | h |
| m | n | ɲ | ŋ |   |
|   | l |   |   |   |
| w |   | j |   |   |

As was mentioned previously, only [l], [r] and [w] can occur as second elements in a consonant cluster, [l] occurring with [p, k] and [r] occurring with [p<sup>h</sup>, k<sup>h</sup>]. The [w] only occurs in clusters with [k]. The alveolar and palatal stops never occur in consonant clusters.

## b. Phonetic Description

Phonetic descriptions of the consonant phonemes and their positional variants are given below. All consonant sounds are made with egressive lung air.

/p/ m\_\_ - [b] voiced bilabial stop  
elsewhere - [p] voiceless unaspirated bilabial stop

All voiceless unaspirated stops become voiced to some degree when following a nasal of the same point of articulation. The degree of voicing of the segment can vary from fully voiced to slight prevoicing of a voiceless stop. This is also true at morpheme boundaries (see section 9, Morphophonemics).

/p<sup>h</sup>/ [p<sup>h</sup>] voiceless aspirated bilabial stop

/t/ n\_\_ - [d] voiced alveolar stop  
elsewhere - [t] voiceless unaspirated alveolar stop

/t<sup>h</sup>/ [t<sup>h</sup>] voiceless aspirated alveolar stop

/c/ ɲ\_\_ - [ɟ] voiced palatal stop  
elsewhere - [c] voiceless unaspirated palatal stop

/c<sup>h</sup>/ [c<sup>h</sup>] voiceless aspirated palatal stop

/k/ [k] voiceless unaspirated velar stop  
following a [ŋ] there is pre-voicing but rarely to the point of being a voiced velar stop.

/k<sup>h</sup>/ [k<sup>h</sup>] voiceless aspirated velar stop

/ʔ/ [ʔ] voiceless glottal stop

/f/ [f ~ ɸ] free variation between voiceless labiodental fricative and voiceless bilabial fricative (the labiodental fricative occurring more frequently)

/s/ \_\_ V. - [s<sup>h</sup>] voiceless aspirated alveolar flat fricative  
elsewhere - [s] voiceless alveolar flat fricative

/h/ [h] voiceless glottal fricative

/m/ [m] voiced bilabial nasal

|      |                   |   |
|------|-------------------|---|
| /n/  | [n]               | voiced alveolar nasal   |
| /ɲ/  | [ɲ]               | voiced palatal nasal  |
| /ŋ/  | [ŋ]               | voiced velar nasal  |
| /m̥/ | [m̥]              | voiceless bilabial nasal  |
| /n̥/ | [n̥]              | voiceless alveolar nasal  |
| /ɲ̥/ | [ɲ̥]              | voiceless palatal nasal   |
| /l/  | [l]               | voiced alveolar lateral   |
| /l̥/ | [l̥]              | voiceless alveolar lateral  |
| /r/  | [r]               | voiced retroflexed alveolar approximant   |
| /w/  | initial - [v ~ β] | free variation between voiced labiodental fricative and voiced bilabial fricative (the labiodental fricative occurring more frequently) |
|      | k__ & final - [w] | voiced labiovelar semivowel   |
| /j/  | [j]               | voiced palatal semivowel  |
| /j̥/ | [j̥]              | voiceless palatal semivowel   |

These phonemes and their positional variants are exemplified in the follow data samples.

|                   |                                 |       |                       |                |
|-------------------|---------------------------------|-------|-----------------------|----------------|
| /p/               | [p] initial                     | as in | [pa <sup>1</sup> c]   | 'make food'    |
|                   | [p] before [l]                  |       | [pliŋ]                | 'build'        |
|                   | [p] final                       |       | [pəp]                 | 'difficult'    |
|                   | [p] presyllable                 |       | [pəsoh]               | 'charcoal'     |
|                   | [b] following [m]               |       | [numbəl]              | 'evening'      |
| /p <sup>h</sup> / | [p <sup>h</sup> ] initial       | as in | [p <sup>h</sup> en]   | 'cotton cloth' |
|                   | [p <sup>h</sup> ] before [r]    |       | [p <sup>h</sup> rɛʔ]  | 'jungle'       |
|                   | [p <sup>h</sup> ] presyllable   |       | [p <sup>h</sup> əlok] | 'mortar'       |
|                   | [p <sup>h</sup> ] following [m] |       | [mp <sup>h</sup> rɔh] | 'blow (dust)'  |
| /t/               | [t] initial                     | as in | [tik]                 | 'crack'        |
|                   | [t] final                       |       | [ɲɔt]                 | 'shade'        |
|                   | [t] presyllable                 |       | [tənen]               | 'movie'        |
|                   | [d] following [n]               |       | [ndo <sup>1</sup> ]   | 'tumpline'     |

|                   |                                    |                                    |                          |
|-------------------|------------------------------------|------------------------------------|--------------------------|
| /t <sup>h</sup> / | [t <sup>h</sup> ] initial          | as in [t <sup>h</sup> em]          | 'more'                   |
|                   | [t <sup>h</sup> ] presyllable      | [t <sup>h</sup> a <sup>h</sup> uɿ] | 'rice bowl'              |
|                   | [t <sup>h</sup> ] following [n]    | [nt <sup>h</sup> əl]               | 'wall'                   |
| /c/               | [c] initial                        | as in [cuɿʔ]                       | 'to visit'               |
|                   | [c] final                          | [po'c]                             | 'pick, pluck'            |
|                   | [c] presyllable                    | [cəiɕt]                            | 'good'                   |
|                   | [ɕ] following [ɲ]                  | [ɲɕuk]                             | 'stab'                   |
| /c <sup>h</sup> / | [c <sup>h</sup> ] initial          | as in [c <sup>h</sup> iʔ]          | 'weather'                |
|                   | [c <sup>h</sup> ] following [ɲ]    | [ɲc <sup>h</sup> ɔk]               | 'lame'                   |
| /k/               | [k] initial                        | as in [kaʔ]                        | 'fish'                   |
|                   | [k] before [l]                     | [klun]                             | 'python'                 |
|                   | [k] before [w]                     | [kwal]                             | 'to bark'                |
|                   | [k] final                          | [kak]                              | 'branch'                 |
|                   | [k] presyllable                    | [kət <sup>h</sup> ʔ]               | 'hole'                   |
|                   | [ <sup>9</sup> k] following [ŋ]    | [ŋ <sup>9</sup> kòŋ]               | 'mountain'               |
| /k <sup>h</sup> / | [k <sup>h</sup> ] initial          | as in [k <sup>h</sup> uɿm]         | 'mixture'                |
|                   | [k <sup>h</sup> ] before [r]       | [k <sup>h</sup> rɔŋ]               | 'bowl'                   |
|                   | [k <sup>h</sup> ] presyllable      | [k <sup>h</sup> av <sup>h</sup> l] | 'blanket'                |
|                   | [k <sup>h</sup> ] following [ŋ]    | [ŋk <sup>h</sup> òm]               | 'area in front of house' |
| /ʔ/               | [ʔ] initial                        | as in [ʔaruʔ]                      | 'to lie'                 |
|                   | [ʔ] final                          | [ʔaruʔ]                            | 'to lie'                 |
| /f/               | [f ~ φ] initial                    | as in [faʔ ~ φaʔ]                  | 'monkey'                 |
|                   | [f ~ φ] following nasal            | [ŋfeh ~ ŋφeh]                      | 'sneeze'                 |
| /s/               | [s] initial                        | as in [sɔm]                        | 'put in'                 |
|                   | [s] presyllable                    | [səʔuɿl]                           | 'warm'                   |
|                   | [s <sup>h</sup> ] before breathy V | [s <sup>h</sup> ʔʔ]                | 'sick'                   |
| /h/               | [h] initial                        | as in [hiŋ]                        | 'clever'                 |
|                   | [h] final                          | [läh]                              | 'to tell'                |
|                   | [h] presyllable                    | [həreh]                            | 'seven'                  |
| /m/               | [m] initial                        | as in [mun]                        | 'enjoyable'              |
|                   | [m] final                          | [pàm]                              | 'to chew'                |
|                   | [m] presyllable                    | [mpɕŋ]                             | 'to roast'               |

|      |                       |       |                      |                     |
|------|-----------------------|-------|----------------------|---------------------|
| /n/  | [n] initial           | as in | [naŋ]                | 'locative'          |
|      | [n] final             |       | [rɔ̃n]               | 'hot'               |
|      | [n] presyllable       |       | [nsɔp]               | 'squeeze'           |
| /ɲ/  | [ɲ] initial           | as in | [ɲum]                | 'delicious'         |
|      | [ɲ] final             |       | [paɲ]                | 'to sell'           |
|      | [ɲ] presyllable       |       | [ɲjuk]               | 'to stab'           |
| /ŋ/  | [ŋ] initial           | as in | [ŋɔ̃ <sup>1</sup> ]  | 'fire'              |
|      | [ŋ] final             |       | [caŋ]                | 'tasteless'         |
|      | [ŋ] presyllable       |       | [ŋkàt]               | 'turban'            |
| /m̥/ | [m̥] initial          | as in | [m̥al]               | 'dry rice field'    |
| /ɱ/  | [ɱ] initial           | as in | [ɱaj]                | 'hate'              |
| /p̥/ | [p̥] initial          | as in | [p̥ap]               | 'difficult'         |
| /l/  | [l] initial           | as in | [luj]                | 'to miss, think of' |
|      | [l] consonant cluster |       | [plaj]               | 'liquor'            |
|      | [l] final             |       | [mpʌl]               | 'earring'           |
|      | [l] presyllable       |       | [lɔ̃pun]             | 'four'              |
|      | [l] following nasal   |       | [nlɔ̃k]              | 'to throw'          |
| /ʎ/  | [ʎ] initial           | as in | [ʎiʔ]                | 'rain'              |
|      | [ʎ] following nasal   |       | [nʎʌt]               | 'deaf'              |
| /r/  | [r] initial           | as in | [ruŋ]                | 'horn'              |
|      | [r] consonant cluster |       | [k <sup>h</sup> rɪh] | 'bear'              |
|      | [r] presyllable       |       | [rɔ̃wun]             | 'in five days'      |
|      | [r] following nasal   |       | [nrʌŋ]               | 'shiver'            |
| /w/  | [v ~ β] initial       | as in | [vʌj]                | 'tiger'             |
|      | [w] medial            |       | [rɔ̃wun]             | 'in five days'      |
|      | [w] final             |       | [tiw]                | 'to walk'           |
|      | [w] following [k]     |       | [kwəl]               | 'to bark'           |
| /j/  | [j] initial           | as in | [juŋ]                | 'village'           |
|      | [j] final             |       | [luj]                | 'to miss, think of' |

/j/ [j] initial as in [jɯk] 'ear'

### c. Contrast

Contrasting similar segments are shown by the following pairs.

|                         |                      |                              |
|-------------------------|----------------------|------------------------------|
| /p/ - /p <sup>h</sup> / | [pɰt] 'spade'        | [p <sup>h</sup> ɰt] 'feel'   |
| /t/ - /t <sup>h</sup> / | [tem] 'write'        | [t <sup>h</sup> em] 'more'   |
| /c/ - /c <sup>h</sup> / | [cuʔ] 'visit'        | [c <sup>h</sup> uʔ] 'fight'  |
| /k/ - /k <sup>h</sup> / | [kɔk] 'bite'         | [k <sup>h</sup> ɔk] 'pigpen' |
| /ʔ/ - /h/               | [ʔiŋ] 'dung'         | [hiŋ] 'clever'               |
| /p/ - /f/               | [paɟ] 'excess'       | [faɟ] 'rattan'               |
| /t/ - /s/               | [tɰʔ] 'hand'         | [s <sup>h</sup> ɰʔ] 'louse'  |
| /f/ - /w/               | [faɟ] 'rattan'       | [vaɟ] 'sibling-in-law'       |
| /m/ - /n/               | [mɔk] 'cut (fields)' | [nɔk] 'look at'              |
| /n/ - /ɲ/               | [nàʔ] 'sour'         | [ɲàʔ] 'house'                |
| /ɲ/ - /ŋ/               | [ɲàʔ] 'house'        | [ŋàʔ] 'itch'                 |
| /m/ - /m̥/              | [mak] 'like'         | [m̥ak] 'areca'               |
| /n/ - /ɲ/               | [naj] loc. 'there'   | [ɲaj] 'hate'                 |
| /ɲ/ - /ɲ̥/              | [ɲùm] 'delicious'    | [ɲ̥um] 'youth'               |
| /l/ - /ɭ/               | [laʔ] 'tea'          | [ɭaʔ] 'leaf'                 |
| /l/ - /r/               | [laʔ] 'tea'          | [raʔ] 'play'                 |
| /r/ - /ɭ/               | [raʔ] 'play'         | [ɭaʔ] 'leaf'                 |
| /m/ - /w/               | [mɰʔ] 'you (sg)'     | [vɰʔ] 'wave hand'            |
| /j/ - /ɲ/               | [jèp] 'close (eyes)' | [ɲèp] 'eyelid'               |
| /j/ - /j̥/              | [jòk] 'lift'         | [j̥uk] 'ear'                 |



## 5. Vowels

A characteristic of Kontoy Plang which effects vowel quality is register. Since register and vowel quality are interrelated in Plang, register will be discussed in this section as well.

The vowels of Plang can be grouped into two register sets. The first register is characterized by a normal, clear voice quality whereas the second register is characterized by a breathy phonation type. For a further description of phonation types and their manifestations see Henderson 1952.

### a. Phonemes

The vowel phonemes of Kontoy are as follows.

|   |     |   |
|---|-----|---|
| i | u   | u |
| e | (ə) | o |
|   | a   | o |

All vowels occur in clear register. In breathy register, [u] does not occur, and there is only a two way contrast between /ɨ/ and /ɔ/ in the back rounded vowels.

All vowels (except /i/ and /i/) have a high front off-glide before palatal stops.

There is one other vowel that exists, namely [ə]. The schwa only occurs in presyllables.

### b. Phonetic Description

Throughout this paper breathy voice quality is written with the IPA symbol for breathiness, a dieresis below the vowel, [V]. Vowels of both phonation types are voiced.

The vowel phonemes and their variants can be characterized by the following descriptions.

/i/ [i] clear high front unrounded vowel

/i/ \_\_k - [A<sup>i</sup> ~ ɛ] free variation between breathy mid central unrounded vowel with high

front unrounded off-glide and lax mid front unrounded vowel

elsewhere - [i] breathy high front unrounded vowel

- /e/ [e] clear mid front unrounded vowel  
 /e̤/ [e̤] breathy mid front unrounded vowel  
 /a/ [a] clear low central unrounded vowel  
 /a̤/ [a̤] breathy mid central unrounded vowel  
 /u/ [u] clear high back unrounded vowel  
 /u/ [u] clear high back rounded vowel  
 /ṳ/ [ṳ] breathy high back rounded vowel  
 /o/ \_\_1 - [o<sup>3</sup>] clear mid back rounded vowel with mid central unrounded off-glide  
 elsewhere - [o] clear mid back rounded vowel  
 /o/ \_\_velar - [ɔ̤] breathy low back rounded vowel  
 [ɔ̤] breathy mid back rounded vowel  
 /ɔ/ [ɔ] clear low back rounded vowel

Vowels often fluctuate in Kontoy Plang. Though the above description reflects the main variants of vowel phonemes, all vowels tend to vary in tenseness and, to some degree, height, particularly in the breathy register.

Examples of each of these phonemes and their variants are shown in the following data.

- /i/ [i] as in [pĩʔ] 'to win'  
 /i̤/ [ɰ<sup>i</sup> ~ ɛ̤] before k as in [lɰ<sup>i</sup>k ~ lɛ̤k] 'pig'  
 [i̤] elsewhere [s<sup>h</sup>i̤ʔ] 'louse'  
 /e/ [e] as in [met] 'to fish'  
 /e̤/ [e̤] as in [p<sup>h</sup>rɛ̤ʔ] 'jungle'  
 /a/ [a] as in [sat] 'to comb'  
 /a̤/ [a̤] as in [pɰ̤m] 'fence'  
 /u/ [u] as in [t<sup>h</sup>uj] 'Thai'

|     |                            |       |                     |                 |
|-----|----------------------------|-------|---------------------|-----------------|
| /u/ | [u]                        | as in | [ɲùm]               | 'delicious'     |
| /ɯ/ | [ɯ]                        | as in | [pùk]               | 'calf of leg'   |
| /o/ | [o <sup>3</sup> ] before l | as in | [ɲo <sup>3</sup> l] | 'fire'          |
|     | [o] elsewhere              |       | [so <sup>1</sup> c] | 'whistle'       |
| /ɔ/ | [ɔ] before velars          | as in | [cɔ̀ŋ]              | 'foot'          |
|     | [ɔ] elsewhere              |       | [kɔ̀c]              | 'sunlight'      |
| /ɔ/ | [ɔ]                        | as in | [mɔ̀n]              | 'to eat snacks' |

### c. Contrast

Data showing contrast between these vowel phonemes are given below.

|            |                     |               |                     |                |
|------------|---------------------|---------------|---------------------|----------------|
| /i/ - /i̥/ | [piʔ]               | 'you (3+)'    | [piʔ]               | 'bamboo flute' |
| /i/ - /e/  | [ɲriʔ]              | 'long pole'   | [ɲreʔ]              | 'acre'         |
| /e/ - /e̥/ | [sem]               | 'Shan'        | [sɛm]               | 'bird'         |
| /a/ - /ḁ/ | [hak]               | 'skin'        | [hʌk]               | 'hair'         |
| /a/ - /ɯ/  | [pa <sup>1</sup> c] | 'make (food)' | [pu <sup>1</sup> c] | 'fall'         |
| /ɯ/ - /u/  | [pùk]               | 'to dip'      | [pùk]               | 'to paint'     |
| /u/ - /ɯ/  | [pùk]               | 'to paint'    | [pùk]               | 'calf of leg'  |
| /u/ - /o/  | [pun]               | 'four'        | [pon]               | 'to eat meat'  |
| /o/ - /ɔ/  | [po <sup>1</sup> c] | 'to pick'     | [pɔ̀c]              | 'to wear'      |
| /o/ - /ɔ/  | [toŋ]               | 'to trap'     | [toŋ]               | 'dark'         |

## 6. Tone

### a. Tonemes

There are only two contrastive tones in Kontoy Plang - high and low. These both have positional variants dependent on the type of syllable final consonant.

The high tone is a nearly level high pitch when closed by an obstruent, whereas sonorant finals manifest a high rising pitch. Similarly, the low tone has a low level pitch on obstruent final syllables and a low falling pitch on sonorant final syllables.


Throughout this paper high pitch is unmarked and low pitch is marked by a grave accent ( $\grave{V}$ ).


There is no contrastive pitch on presyllables.


Other variations in the tones occur due to intonation patterns. See section 7 on Intonation for more detailed discussion.


## b. Phonetic Description

Examples of the pitch contours can be drawn as shown.

high - obstruent final |  |  
[fa $\grave{?}$ ] 'monkey'

low - obstruent final |  |  
[pùk] 'to paint'

high - sonorant final |  |  
[fam] 'sticky'

low - sonorant final |  |  
[pùŋ] 'to speak'

## c. Contrast

The following sets of data show contrast between the various pitches of the language.

|                                |                             |                            |
|--------------------------------|-----------------------------|----------------------------|
| [high] - [low] obstruent final | [pi $\grave{?}$ ] 'you (3+) | [pǐ $\grave{?}$ ] 'to win' |
| sonorant final                 | [tcm] 'write'               | [tèm] 'short (height)'     |
| obstruent final                | [kòt] 'cold'                | [kòt] 'old aged'           |
| sonorant final                 | [laj] 'squirrel'            | [làj] 'letter'             |

## 7. Intonation

Plang exhibits strong intonational patterns that contrast in meaning. There are two types of intonation found: 1) patterns that distinguish between statement and question type sentences and 2) patterns that reflect an emotion or attitude of the speaker. The second category has not been studied in depth, so at this point no correlation has been made between specific patterns and emotion expressed. This section focuses on the first category of intonation patterns.

Generally an utterance ending with a high rising pitch denotes a statement, whereas a high sharp fall at the end denotes a question. The latter may occur with or without the use of question particles.

An example of contrastive intonation patterns:

|                       |   |                       |
|-----------------------|---|-----------------------|
| [soma <sup>a</sup> c] |  | 'Have you eaten yet?' |
| [soma <sup>a</sup> c] |  | 'Eaten already.'      |

There are variations in the actual pitch levels of the intonation patterns as conditioned by lexical tone. For a more detailed analysis of Plang tone, intonation and their interaction, see *Tone and Intonation in Plang* (Paulsen, 1991).

## 8. Stress

Stress is not contrastive on a lexical level. In all sesquisyllabic words the stress placement is on the main, i.e., final, syllable.

In longer utterances, such as sentences, the final syllable of the utterance receives the greatest stress. The final syllable in any pause group is significantly different from the rest of the utterance in manifesting tone, determining statement/question intonation, and receiving stress.

## 9. Morphophonemics

Morphophonemics is manifest in almost every sentence of a Plang discourse. It is so extensive that it requires a paper of its own. In this paper it will only be discussed briefly.

Grammatical particles are the main participants in morphophonemic variation. These small, generally CV type, syllables are greatly influenced by their environment. They are also

very widely used. Thus morphophonemic variation is abundant. A few examples of variation in particles follows. For a fuller discussion of Plang particles and their morphophonemic variants see Paulsen 1992b.

Several particles exist which consist merely of a syllabic nasal in a reduced form (i.e. locative, negative, future, and an occasional causative). These syllabic nasals assimilate to the point of articulation of following stops. An example of this is:

|          |                |
|----------|----------------|
| /m-pon/  | 'not eat meat' |
| /n-tah/  | 'not stay'     |
| /ɲ-ɲəŋ/  | 'not know'     |
| /ŋ-kə̀t/ | 'not think'    |

Depending on the phonemic environment, they can also attach to a previous morpheme by becoming, phonemically, a final nasal on a glottal final syllable. For example:

|          |              |             |                |
|----------|--------------|-------------|----------------|
| /kiʔ     | kə̀nang huɪ/ | → /kin huɪ/ | 'they will go' |
| they(3+) | future       | go          |                |

Another case of morphophonemics is found in the reflexive/possessive and benefactive particles /re/ and /rə/, respectively. These particles have four variations depending on the final consonant of the preceding syllable in connected speech. The /r/ initial form is the base form as it occurs in all environments in slow, careful speech. But in rapid speech, /re/ becomes /le/ following a final /l/, /ne/ following any nasal, and /te/ following any voiceless stop (all final stops being voiceless ones). The same is true for /rə/. An example is:

|         |                    |      |                              |                       |
|---------|--------------------|------|------------------------------|-----------------------|
| /sək    | k <sup>h</sup> rəʔ | re/  | → /sək k <sup>h</sup> rə̀re/ | '(I) wash my clothes' |
| launder | clothes            | poss |                              |                       |

|      |       |      |                |                  |
|------|-------|------|----------------|------------------|
| /huɪ | ɲal   | re/  | → /huɪ ɲal le/ | 'go to my field' |
| go   | field | poss |                |                  |

/h̄am re/ → /h̄am ne/ 'I bathe self'  
bathe refl

/ik re/ → /ik te/ 'my older brother'  
older brother poss

The final particle /ka/ also undergoes morphophonemic change. This is a negative question marker, meaning that the question is voiced in the negative, for example 'You don't want to go?'. Following a velar nasal the /k/ becomes a *ŋ* in rapid speech.

/n ceŋ ka/ → /n̄ceŋŋa/ 'It's not expensive?'  
neg expensive question

Palatals also create much morphophonemic variation. The final particle /ac/, which is a completive particle, has an alternate /jac/ following a final palatal stop /c/. And in one instance it has the form /joc/ following the morpheme /hoc/ meaning 'to finish', resulting in /hocjoc/ 'finished already'.

Another palatal which varies in a morphophonemic environment is in the particle /jen/ 'truly'. Following voiceless stops it has the form /cen/.

/ɲum jen/ → [ɲum jen] 'truly delicious, very delicious'  
delicious truly

/k<sup>h</sup>ak jen/ → [k<sup>h</sup>ak cen] 'truly diligent, very diligent'  
diligent truly

These are just a sampling of the variety of morphophonemic alternations that take place in Plang.

**PYU Working Papers  
in Linguistics**

**Focus on Phonology**

Volume 1  
1996

edited by  
Debbie Paulsen

**Payap University Graduate Linguistics Department**

**Chiang Mai, Thailand**