

## Chapter 4

### Phonological processes

Phonological processes pulled the languages in various directions. These complicate the relations among the languages, but they also help to explain some of the idiosyncratic violations of otherwise regular sound correspondences. Many of these processes can be seen as pushing words and phrases toward increasing lexicalization and grammaticalization. Words are joined into compounds. Some speech sounds assimilate to other speech sounds. Diphthongs are simplified to simple vowels, but other diphthongs are formed when adjacent vowels merge. All these processes can be seen when we compare the three languages for which we have data.

#### 4.1. Phonological processes within the languages:

##### 4.1.1. Assimilation

Assimilation is an articulatory adaptation of one sound to a nearby sound with regard to one or more features. One consonant may influence another, or one vowel may have an effect on another. Speech sounds influence their neighbors in all sorts of ways, and we find some examples of assimilation in our languages.

In Zeme, the voiceless stops become voiced if they are followed by a morpheme beginning with a voiced consonant as illustrated below:

/hap/ ‘shoot’ + /be/ (NOMZ) → /habbe/ ‘cry’

/sək/ ‘drink’ + /dəlei/ (Aspect) → /səgdəlei/ ‘drank’

/tət/ ‘go’ + /dəlei/ (Aspect) → /təddəlei/ ‘went’

/ret/ ‘bind’ + /dəlei/ (Aspect) → /reddəlei/ ‘binded’

/let/ ‘open’ + /dəlei/ (Aspect) → /leddəlei/ ‘opened’

/pat/ ‘come out’ + /dəlei/ (Aspect) → /paddəlei/ ‘comes out’

In Liangmai, if a word is ended with the voiceless unaspirated bilabial stop particularly /p/, the following aspectual morpheme /e/ becomes /be/ i.e. the voiced bilabial /b/ is inserted to become the homorganic consonant with the final consonant sound of the preceding word. It can also be stated that the insertion of the consonant voiced bilabial stop made the particular morpheme of CV syllable structure in the language as illustrated in the following examples.

/nap/ ‘paste’ + /e/ ‘aspect’ → /napbe/

/kap/ ‘cry’ + /e/ ‘aspect’ → /kapbe/

/čap/ ‘stand’ + /e/ ‘aspect’ → /čapbe/

/kep/ ‘shoot’ + /e/ ‘aspect’ → /kepbe/

/tap/ ‘break’ + /e/ ‘aspect’ → /tapbe/

If a word is ended with the voiceless unaspirated alveolar stop /t/, the following aspectual morpheme /e/ becomes /le/ i.e., the alveolar lateral /l/ is inserted to become the homorganic consonant with the final consonant sound of the preceding word. It can also be stated that the insertion of the consonant alveolar lateral /l/ made the particular morpheme of CV syllable structure in the language as illustrated in the following examples.

/tət/ ‘go’ + /e/ ‘aspect’ → /tətle/

/k<sup>h</sup>ət/ ‘one’ + /e/ ‘aspect’ → /k<sup>h</sup>ətle/

/gut/ ‘come in’ + /e/ ‘aspect’ → /gutle/

/pat/ ‘come out’ + /e/ ‘aspect’ → /patle/

/təčat/ ‘eight’ + /e/ ‘aspect’ → /təčatle/

If a word is ended with the voiceless unaspirated velar stop /k/ the following aspectual morpheme /e/ becomes /ge/ i.e., the voiced velar stop /g/ is inserted to become the homorganic consonant with the final consonant sound of the preceding word. Interestingly, it is also observed that the voiceless bilabial stop becomes voiced before the vowel sound. It can also be stated that the insertion of the voiced velar stop /g/ consonant made the particular morpheme of CV syllable structure in the language as illustrated in the following examples.

/<sup>n</sup>sak/ ‘itch’ + /e/ ‘aspect’ → /<sup>n</sup>sak ge/  
 /pak/ ‘run’ + /e/ ‘aspect’ → /pak ge/  
 /kəbak/ ‘pig’ + /e/ ‘aspect’ → /kəbak ge/  
 /sak/ ‘drink’ + /e/ ‘aspect’ → /sak ge/  
 /əriak/ ‘book’ + /e/ ‘aspect’ → /əriak ge/

If a word is ended with the bilabial nasal /m/, the following aspectual morpheme /e/ becomes /me/ i.e., bilabial nasal /m/ is inserted to become the homorganic consonant with the final consonant sound of the preceding word. It can also be stated that the insertion of the consonant bilabial nasal /m/ made the particular morpheme of CV syllable structure in the language as illustrated in the following examples.

/nám/ ‘smell’ + /e/ ‘aspect’ → /námme/  
 /dám/ ‘create’ + /e/ ‘aspect’ → /dámme/  
 /<sup>n</sup>čám/ ‘same’ + /e/ ‘aspect’ → /<sup>n</sup>čámme/  
 /k<sup>h</sup>ám/ ‘stop’ + /e/ ‘aspect’ → /k<sup>h</sup>ámme/  
 /čam/ ‘less’ + /e/ ‘aspect’ → /čamme/

If a word is ended with the alveolar nasal /n/, the following aspectual morpheme /e/ becomes /ne/ i.e., the alveolar nasal /n/ is inserted to become the homorganic consonant with the final consonant sound of the preceding word. It can also be stated that the insertion of the alveolar nasal consonant /n/ made the particular morpheme of CV syllable structure in the language as illustrated in the following examples.

/dan/ ‘cut’	+	/e/	‘aspect’	→	/danne/
/tət <sup>h</sup> án/ ‘deer’	+	/e/	‘aspect’	→	/tət <sup>h</sup> ánne/
/pəkun/ ‘corner’	+	/e/	‘aspect’	→	/pəkunne/
/čəbàn/ ‘rice’	+	/e/	‘aspect’	→	/čəbànnne/
/kəsán/ ‘new’	+	/e/	‘aspect’	→	/kəsánnne/

If a word is ended with the velar nasal /ŋ/, the following aspectual morpheme /e/ becomes /ŋe/ i.e., the velar nasal /ŋ/ is inserted to become the homorganic consonant with the final consonant sound of the preceding word. It can also be stated that the insertion of the velar nasal consonant /ŋ/ made the particular morpheme of CV syllable structure in the language as illustrated in the following examples.

/láŋ/ ‘cook’	+	/e/	‘aspect’	→	/láŋŋe/
/kúŋ/ ‘difficult’	+	/e/	‘aspect’	→	/kúŋŋe/
/pìŋ/ ‘scare’	+	/e/	‘aspect’	→	/pìŋŋe/
/saŋ/ ‘dry’	+	/e/	‘aspect’	→	/saŋŋe/
/čəmáŋ/ ‘dream’	+	/e/	‘aspect’	→	/čəmáŋŋe/

In Rongmei, if a word is ended with the voiceless unaspirated bilabial stop /p/, the following aspectual morpheme /e/ becomes /be/ i.e., the voiced bilabial /b/ is inserted to become the homorganic consonant with the final consonant sound of the preceding word. It can also be stated that the insertion of the consonant voiced bilabial stop made the particular morpheme of CV syllable structure in the language as illustrated in the following examples.

/nap/ ‘paste’	+	/e/ ‘aspect’	→	/nabbe/
/kəp/ ‘cry’	+	/e/ ‘aspect’	→	/kabbe/
/kep/ ‘shoot’	+	/e/ ‘aspect’	→	/kebbe/
/pəlúp/ ‘play’	+	/e/ ‘aspect’	→	/pəlúbbe/
/ <sup>n</sup> típ/ ‘tight’	+	/e/ ‘aspect’	→	/ <sup>n</sup> tíbbe/

If a word is ended with the voiceless unaspirated alveolar stop /t/, the following aspectual morpheme /e/ becomes /re/ i.e., the alveolar trill /r/ is inserted to become the homorganic consonant with the final consonant sound of the preceding word. It can also be stated that the insertion of the alveolar trill /r/ made the particular morpheme of CV syllable structure in the language as illustrated in the following examples.

/tət/ ‘go’	+	/e/ ‘aspect’	→	/tətre/
/ <sup>n</sup> dát/ ‘throw’	+	/e/ ‘aspect’	→	/ <sup>n</sup> dátre/
/ak <sup>h</sup> ət/ ‘one’	+	/e/ ‘aspect’	→	/ak <sup>h</sup> ətre/
/gut/ ‘comes in’	+	/e/ ‘aspect’	→	/gutre/
/pat/ ‘comes out’	+	/e/ ‘aspect’	→	/patre/

If a word is ended with the voiceless unaspirated velar stop /k/ the following aspectual morpheme /e/ becomes /ge/ i.e., the voiced velar stop /g/ is inserted to become the homorganic consonant with the final consonant sound of the preceding word. Interestingly, it is also observed that the voiceless bilabial stop becomes voiced before the vowel sound. It can also be stated that the insertion of the voiced velar stop /g/ made the particular morpheme of CV syllable structure in the language as illustrated in the following examples

/ <sup>n</sup> t <sup>h</sup> ák/	‘itch’	+	/e/	‘aspect’	→	/ <sup>n</sup> t <sup>h</sup> ágge/
/pak/	‘run’	+	/e/	‘aspect’	→	/pagge/
/jek/	‘dew’	+	/e/	‘aspect’	→	/jegge/
/t <sup>h</sup> ek/	‘pull’	+	/e/	‘aspect’	→	/t <sup>h</sup> egge/
/mèk/	‘absent’	+	/e/	‘aspect’	→	/mègge/

If a word is ended with the bilabial nasal /m/, the following aspectual morpheme /e/ becomes /me/ i.e., the bilabial nasal /m/ is inserted to become the homorganic consonant with the final consonant sound of the preceding word. It can also be stated that the insertion of the consonant bilabial nasal /m/ made the particular morpheme of CV syllable structure in the language as illustrated in the following examples.

/nàm/	‘smell’	+	/e/	‘aspect’	→	/nàmme/
/dám/	‘create’	+	/e/	‘aspect’	→	/dámme/
/sám/	‘fly’	+	/e/	‘aspect’	→	/sámme/
/k <sup>h</sup> em/	‘stop’	+	/e/	‘aspect’	→	/k <sup>h</sup> emme/
/ <sup>n</sup> çàm/	‘teach’	+	/e/	‘aspect’	→	/ <sup>n</sup> çàmme/

If a word is ended with the alveolar nasal /n/, the following aspectual morpheme /e/ becomes /ne/ i.e., the alveolar nasal /n/ is inserted to become the homorganic consonant with the final consonant sound of the preceding word. It can also be stated that the insertion of the alveolar nasal consonant /n/ made the particular morpheme of CV syllable structure in the language as illustrated in the following examples.

/dan/ ‘cut’	+	/e/	‘aspect’	→	/danne/
/ <sup>n</sup> t <sup>h</sup> àn/ ‘ask’	+	/e/	‘aspect’	→	/ <sup>n</sup> t <sup>h</sup> àanne/
/kəkùn/ ‘corner’	+	/e/	‘aspect’	→	/kəkùnne/
/kəčan/ ‘bright’	+	/e/	‘aspect’	→	/kəčanne/
/kət <sup>h</sup> án/ ‘new’	+	/e/	‘aspect’	→	/kət <sup>h</sup> áanne/

If a word is ended with the velar nasal /ŋ/, the following aspectual morpheme /e/ becomes /ŋe/ i.e., the velar nasal /ŋ/ is inserted to become the homorganic consonant with the final consonant sound of the preceding word. It can also be stated that the insertion of the velar nasal consonant /ŋ/ made the particular morpheme of CV syllable structure in the language as illustrated in the following examples.

/suaŋ/ ‘cook’	+	/e/	‘aspect’	→	/suaŋŋe/
/kúŋ/ ‘difficult’	+	/e/	‘aspect’	→	/kúŋŋe/
/pìŋ/ ‘scare’	+	/e/	‘aspect’	→	/pìŋŋe/
/sàŋ/ ‘bark’	+	/e/	‘aspect’	→	/sàŋŋe/
/ <sup>n</sup> bàŋ/ ‘block’	+	/e/	‘aspect’	→	/ <sup>n</sup> bàŋŋe/

### 4.1.2 Consonant deletion

The final consonant of the preceding morpheme is being deleted when it is followed by a morpheme beginning with a consonant in the Zeliangrong group of languages. More specifically, the alveolar consonant /t/ is being dropped when it is followed by another alveolar sounds such as /l/ (in Zeme and Liangmai) and /t<sup>h</sup>/ (in Rongmei) respectively. The same phonological process is frequently found in the case of verb and their imperative markers to make the imperative clause as illustrated in the following examples:

Zeme	/tət/ ‘to go’ + /lau/ ‘imp’	→	/təlau/	‘go’
	/pat/ ‘to come’ + /lau/ ‘imp’	→	/palau/	‘come’
Liangmai	/tat/ ‘to go’ + /lo/ ‘imp’	→	talo	‘go’
	/pat/ ‘to come’ + /lo/ ‘imp’	→	palo	‘come’
Rongmei	/tat/ ‘to go’ + /t <sup>h</sup> o/ ‘imp’	→	tat <sup>h</sup> o	‘go’
	/pat/ ‘to come’ + /t <sup>h</sup> o/ ‘imp’	→	pat <sup>h</sup> o	‘come’

### 4.1.3 Vowel deletion or clusterization

Most of the Tibeto-Burman languages have the tendency of dropping unstressed or reduced vowel to form -CC- clusters particularly in word medial positions of words. Likewise, Zeme, Liangmai and Rongmei languages have similar linguistic features to form clusters by dropping vowels in casual or spontaneous speech. More specifically, vowels are dropped in casual or spontaneous speech to form consonant cluster in the Zeliangrong group of languages. It is also observed that the first members of the cluster are obstruents and the second members of the cluster are liquids



as noted by Benedict (1972). The process of clusterization in Zeliangrong languages are illustrated in the following examples.

Zeme	/kəlum/	→	/klum/	‘pray’
	/kəreu/	→	/kreu/	‘ten’
	/pəlùŋ/	→	/plùŋ/	‘inside’
	/pəríŋ/	→	/príŋ/	‘smell’
	/čəkui/	→	/skui/	‘nine’
Liangmai	/pəlam/	→	/plam/	‘reason’
	/kəlaŋ/	→	/klaŋ/	‘fast’
	/čəkin/	→	/skin/	‘generation’
	/pəríŋ/	→	/prim/	‘smell’
Rongmei	/kəlúŋ/	→	/klúŋ/	‘inside’
	/kərim/	→	/krim/	‘smell’
	/pəlúp/	→	/plup/	‘play’
	/čəkiu/	→	/skiu/	‘nine’

#### 4.1.4. Epenthesis:

Some of the Tibeto-Burman languages of Northeast India have a common trait that they usually made insertion of transitional sounds particularly glide to break vowel clusters in their phonological structure without any etymological motivation. Likewise in Zeme, Liangmai and Rongmei, the semi-vowels /y/ or /w/ are inserted in between two vowels to break a cluster of two vowels as illustrated in the following examples:

Zeme	/piak/	→	/piyak/	‘cup’
	/kúa/	→	/kuwa/	‘wait’
	/sua/	→	/suwa/	‘boil’
	/rua/	→	/ruwa/	‘roam’
Liangmai	/k <sup>h</sup> ían/	→	/k <sup>h</sup> íyan/	‘sour’
	/kuan/	→	/kuwan/	‘plate’
	/suan/	→	/suwan/	‘boil’
	/luan/	→	/luwan/	‘flow’
	/ruan/	→	/ruwan/	‘roam’
Rongmei	/k <sup>h</sup> ían/	→	/k <sup>h</sup> íyan/	‘sour’
	/ <sup>n</sup> puan/	→	/ <sup>n</sup> puwan/	‘air’
	/suan/	→	/suwan/	‘weak’
	/ruan/	→	/ruwan/	‘roam’

#### 4.1.5 Monophthongization:

In Rongmei, the diphthong /iu/ becomes monophthong /u/, the high back rounded vowel as can be seen in the following examples.

- (a) /iu/ → /u/
- |         |   |        |          |
|---------|---|--------|----------|
| /piu/   | → | /pu/   | ‘father’ |
| /čəkiu/ | → | /čəku/ | ‘nine’   |
| /aniu/  | → | /anu/  | ‘us’     |

Like diphthong, the vowel sequence /ua/ also becomes monophthong /o/, the mid back rounded vowel in Rongmei as can be seen in the following examples:

- (b) /ua/ → /o/  
 /guak/ → /gok/ ‘pig’  
 /tuaŋ/ → /toŋ/ ‘belonging’  
 /suaŋ/ → /soŋ/ ‘boil’

This phonological process is prevalent in Liangmai too that the vowel sequence /ie/ becomes monophthong /e/ in the language. Nevertheless, this type of phonological process is totally absent in Zeme.

- (c) /ie/ → /e/  
 /<sup>n</sup>t<sup>h</sup>ien/ → /<sup>n</sup>t<sup>h</sup>en/ ‘play’  
 /bien/ → /ben/ ‘wear’  
 /<sup>n</sup>kien/ → /<sup>n</sup>ken/ ‘crossing’  
 /sien/ → /sen/ ‘shout’  
 /tien/ → /ten/ ‘work’  
 /pien/ → /pen/ ‘bloom’

## 4.2. Phonological processes across the languages:

### 4.2.1. Consonant shifting:

The voiceless alveolar fricative /s/ of Liangmai becomes the voiceless aspirated alveolar stop /t<sup>h</sup>/ in Rongmei as illustrated in the following examples.

<u>Liangmai</u>		<u>Rongmei</u>	<u>Gloss</u>
/si/	→	/t <sup>h</sup> ai/	‘know’
/su/	→	/t <sup>h</sup> eu/	‘start’
/siam/	→	/t <sup>h</sup> iam/	‘small’
/sou/	→	/t <sup>h</sup> ou/	‘who’
/kəsán/	→	/kət <sup>h</sup> an/	‘new’
/kəsum/	→	/kət <sup>h</sup> um/	‘three’
/sùn/	→	/t <sup>h</sup> un/	‘bamboo shoot’

The voiceless prenasalised alveolar fricative /<sup>n</sup>s/ of Liangmai becomes the voiceless aspirated alveolar stop /t<sup>h</sup>/ and sometimes the voiceless prenasalised aspirated alveolar stop /<sup>n</sup>t<sup>h</sup>/ in Rongmei as illustrated in the following examples.

<u>Liangmai</u>		<u>Rongmei</u>	<u>Gloss</u>
/ <sup>n</sup> súwan?/	→	/lət <sup>h</sup> uwan/	‘morning’
/ <sup>n</sup> sàn/	→	/ <sup>n</sup> t <sup>h</sup> an/	‘clean’
/ <sup>n</sup> sien/	→	/ <sup>n</sup> t <sup>h</sup> an/	‘light (ADJ)’.

Conversely, the voiceless aspirated alveolar stop /t<sup>h</sup>/ of Liangmai becomes the voiceless alveolar fricative /s/ in Rongmei as illustrated in the following examples.

<u>Liangmai</u>		<u>Rongmei</u>	<u>Gloss</u>
/t <sup>h</sup> am/	→	/sam/	‘hair’
/t <sup>h</sup> iu /	→	/suwan /	‘sing’

/t <sup>h</sup> aŋ/	→	/saŋ/	‘bark’
/t <sup>h</sup> uwak/	→	/suwak/	‘fetch’
/t <sup>h</sup> eŋ/	→	/seŋ/	‘long’
/t <sup>h</sup> un/	→	/sun/	‘squeeze’
/t <sup>h</sup> in/	→	/sin/	‘hold’
/t <sup>h</sup> o/	→	/so/	‘fry’
/t <sup>h</sup> oidam/	→	/soihyam/	‘blessing’

Similarly, the voiceless alveolar fricative /s/ of Liangmai becomes the voiceless alveolar affricate /č/ in Zeme as illustrated in the following examples:

<u>Liangmai</u>		<u>Zeme</u>	<u>Gloss</u>
/si/	→	/či/	‘know’
/su/	→	/ču/	‘start’
/siam/	→	/čei/	‘small’
/sou/	→	/čou/	‘who’
/saŋ/	→	/čaŋ/	‘thousand’
<sup>n</sup> /sak/	→	<sup>n</sup> /čak/	‘itch’
<sup>n</sup> /sàn/	→	<sup>n</sup> /či/	‘clean’
/kəsum/	→	/kəčum/	‘three’

Similarly, the voiceless alveolar affricate /č/ of Liangmai becomes the voiceless alveolar fricative /s/ in Zeme as illustrated in the following examples:

<u>Liangmai</u>		<u>Zeme</u>	<u>Gloss</u>
/ča/	→	/sa/	‘tea’
/čap/	→	/sap/	‘stand’

/čũ/	→	/su/	‘dig’
/čiu/	→	/seu/	‘hear’
/čũn/	→	/sui/	‘thought’
/kəčàk/	→	/təsàk/	‘hailstone’

The prenasalised voiceless alveolar affricate /<sup>n</sup>č/ of Liangmai becomes the prenasalised voiceless alveolar fricative /<sup>n</sup>s/ in Zeme as illustrated in the following examples:

<u>Liangmai</u>		<u>Zeme</u>	<u>Gloss</u>
/ <sup>n</sup> čam/	→	/ <sup>n</sup> sam/	‘equal’
/ <sup>n</sup> čòm/	→	/ <sup>n</sup> sòm/	‘drum’
/ <sup>n</sup> čat/	→	/ <sup>n</sup> sat/	‘name of a leaf’

The voiceless aspirated alveolar stop /t<sup>h</sup>/ of Liangmai becomes unaspirated voiceless alveolar stop /t/ in Zeme in word initial and middle position as illustrated in the following examples.

<u>Liangmai</u>		<u>Zeme</u>	<u>Gloss</u>
/t <sup>h</sup> a/	→	/ta/	‘fry’
/t <sup>h</sup> iu/	→	/teu/	‘pain’
/t <sup>h</sup> uwan/	→	/tua/	‘praise’
/t <sup>h</sup> in/	→	/tei/	‘take’
/t <sup>h</sup> am/	→	/tam/	‘hair’

/t <sup>h</sup> ùn/	→	/túi/	‘stick’
/t <sup>h</sup> eŋ/	→	/te/	‘long’
/tət <sup>h</sup> án/	→	/həti/	‘deer’
/tət <sup>h</sup> i/	→	/hətèi/	‘dog’

The alveolar nasal /n/ and the velar nasal /ŋ/ of Liangmai are dropped in Zeme consequently words frequently ends in open syllables in Zeme as illustrated in the following examples.

<u>Liangmai</u>		<u>Zeme</u>	<u>Gloss</u>
/ruwan/	→	/ruwa/	‘roam’
/zuwan/	→	/zuwa/	‘sell’
/k <sup>h</sup> uwan/	→	/kuwa/	‘wait’
/ <sup>n</sup> suwan/	→	/təçuwa/	‘ladder’
/buwaŋ/	→	/buwa/	‘crawl’
/suwaŋ/	→	/suwa/	‘boil’
/aruwaŋ/	→	/hərua/	‘gather’
/məluwaŋ/	→	/himluwa/	‘mountain’
/təzuwaŋ/	→	/həzuwa/	‘monkey’
/kəpuwaŋ/	→	/həpuwa/	‘elephant’
/pəruwaŋ/	→	/pəruwa/	‘empty’

The voiceless unaspirated velar stop /k/ of Liangmai becomes voiceless glottal fricative /h/ in Zeme in word initial and middle position as can be seen in the following examples.

<u>Liangmai</u>		<u>Zeme</u>	<u>Gloss</u>
/ka/	→	/ha/	‘white’
/kap/	→	/hap/	‘cry’
/kú/	→	/hu/	‘height’
/kəsán/	→	/həci/	‘new’
/kuŋ/	→	/huŋ/	‘difficult’
/čəkìn/	→	/rəhèi/	‘generation’

Conversely, the voiceless unaspirated velar stop /k/ of Zeme becomes the voiceless glottal fricative /h/ in Liangmai in word initial and middle position as illustrated in the following examples.

<u>Zeme</u>		<u>Liangmai</u>	<u>Gloss</u>
/ku/	→	/hú/	‘brave’
/kum/	→	/húm/	‘sweet’
/kui/	→	/hui/	‘cut’
/kun/	→	/hun/	‘burp’
/pəkam/	→	/pəham/	‘plain’



The voiceless unaspirated prenasalised velar stop /<sup>ʰ</sup>k/ of Zeme becomes voiceless prenasalised glottal fricative /<sup>ʰ</sup>h/ in Liangmai as illustrated in the following examples

<u>Zeme</u>		<u>Liangmai</u>	<u>Gloss</u>
/ <sup>ʰ</sup> kaŋ/	→	/ <sup>ʰ</sup> háŋ/	‘below’

The voiced bilabial semi-vowel /w/ of Liangmai becomes the voiced unaspirated velar stop /g/ in Rongmei in word initial and middle positions as illustrated in the following examples.

<u>Liangmai</u>		<u>Rongmei</u>	<u>Gloss</u>
/waŋ/	→	/guaŋ/	‘come’
/cəwaŋ/	→	/gùaŋ/	‘king’
/wi/	→	/gai/	‘good’
/pəwan/	→	/kəgan/	‘time’
/tiŋwaŋ/	→	/raguaŋ/	‘God’

The voiced unaspirated bilabial stop /b/ of Liangmai becomes voiced unaspirated velar stop /g/ in Rongmei as illustrated in the following examples.

<u>Liangmai</u>		<u>Rongmei</u>	<u>Gloss</u>
/bien/	→	/gan/	‘light/bright’
/buwaŋ/	→	/guwaŋ/	‘crawl’
/kəbui/	→	/guwai/	‘cow’
/kəbak/	→	/guwak/	‘pig’
/kəbíu/	→	/gu/	‘ginger’
/kəbun/	→	/gun/	‘snow’

The voiceless glottal fricative /h/ of Liangmai becomes the voiced unaspirated bilabial stop /b/ in Rongmei in initial and medial position of words as illustrated in the following examples.

<u>Liangmai</u>		<u>Rongmei</u>	<u>Gloss</u>
/hèn/	→	/beŋ/	‘dao’
/huwak/	→	/buwak/	‘brain’
/hum/	→	/bùm/	‘salty’
/čəhiu/	→	/bu/	‘moon’
/hú/	→	/báu/	‘brave’

#### 4.2.2 Vowel shifting:

The diphthong /iu/ of Liangmai becomes /eu/ in Zeme. It is to be noticed that the same phonological process is usually found in mono-syllabic words in both the languages as can be seen in the following examples:

<u>Liangmai</u>		<u>Zeme</u>	<u>Gloss</u>
/piu/	→	/peu/	‘father’
/tiu/	→	/teu/	‘eat’
/p <sup>h</sup> iu/	→	/p <sup>h</sup> eu/	‘search’
/ <sup>n</sup> kiu/	→	/ <sup>n</sup> keu/	‘extra’
/ <sup>n</sup> k <sup>h</sup> iu/	→	/ <sup>n</sup> k <sup>h</sup> èu/	‘cough’
/kiu/	→	/keu/	‘up’
/kəp <sup>h</sup> iu/	→	/kəp <sup>h</sup> èu/	‘spade’
/kəbíu/	→	/kəbeu/	‘ginger’
/əlíu/	→	/həleu/	‘girl’
/čəmíu/	→	/həmeu/	‘paddy’

Furthermore, the diphthong /iu/ of Liangmai becomes monophthong /u/ in Rongmei as illustrated in the following examples.

<u>Liangmai</u>		<u>Rongmei</u>	<u>Gloss</u>
/tiu/	→	/tu/	‘eat’
/p <sup>h</sup> iu/	→	/p <sup>h</sup> u/	‘search’
/kiu/	→	/ku/	‘comes up’
/p <sup>h</sup> iu/	→	/pu/	‘father’
/əp <sup>h</sup> iu/	→	/ <sup>n</sup> pu/	‘thin’
/əs <sup>h</sup> iu/	→	/ <sup>n</sup> su/	‘thick’
/diu/	→	/du/	‘far’
/hiu/	→	/hu/	‘teeth’
/čəhiu/	→	/bu/	‘month’
/niu/	→	/nu/	‘nose’
/kəb <sup>h</sup> iu/	→	/gu/	‘ginger’

The high front unrounded vowel /i/ of Liangmai becomes diphthong /ai/ in Rongmei as illustrated in the following examples.

<u>Liangmai</u>		<u>Rongmei</u>	<u>Gloss</u>
/zi/	→	/zai/	‘early’
/p <sup>h</sup> i/	→	/p <sup>h</sup> ai/	‘leg’
/di/	→	/dai/	‘big’
/li/	→	/lai/	‘pot’
/ki/	→	/kai/	‘house’
/ <sup>n</sup> ki/	→	/ <sup>n</sup> kai/	‘bite’
/bi/	→	/ <sup>n</sup> bai/	‘fart’
/əči/	→	/əčai/	‘elder brother/sister’
/si/	→	/t <sup>h</sup> ai/	‘know’