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Languages and People of the Eastern Himalayan Region (LPEHR)

A Phonological Sketch of Maring

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Abstract

This paper presents a phonological sketch Maring, a Tibeto-Burman language spoken in southeastern part of Manipur in Northeast India. It begins by highlighting some of the previous works done in Maring. Then it goes on to describe the phonemic inventory of the consonants, vowels and tones, as well as the syllable structure and the phonotactics. The paper also highlights some prevalent morphophonological processes occurring in the language. In the absence of a standard writing system, many disyllabic words are becoming monosyllabic both in the spoken form as well as in written form. This sometimes leads to form consonant clusters. Thus, this paper attempts to describe the sound system of Maring and bring forth some of the prevalent sound changes happening in the language. This will be helpful to the community for developing orthography and grammars, and for those working on the phonology, sound change, historical linguistics etc of the lesser known and less described languages of Northeast India.

Keywords

Maring, Phonology, Tibeto-Burman, Northeast India

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A Phonological Sketch of Maring[†]

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1 Introduction

Maring is a Tibeoto-Burman language spoken in the southeast eastern part of Manipur, India. Its ISO 639-3 code is nng[1] and Glottocode is mari1415[2]. The name 'Maring' is derived from an autonym 'Meiringba' or 'Maringa', which means "people who keep fire alive or unquenched" (Kanshouwa 2016:2; 2020:56). As per the 2011 Census of India, Maring has a population of about 26,424, from around 68 villages scattered mostly in Tengoupal district and a few in Chandel, Thoubal, and Senapati. Maring is an under described and under-documented language. Its classification at lower level is still uncertain as it shares affinity with many neighboring languages such as Tangkhul, Meiteilon and Kuki-Chin etc (see Kanshouwa 2020:57). Every Maring village has their own way of speaking. But in general, Maring can be roughly divided into five varieties. They are Khoibu (Uipo), Ramyang (Mongmi) Daklhangnga, Khotlhaiya, and Marimchiya. This paper is a preliminary sketch of the sound system of Maring based on the variety spoken in Machi village, located at Tengnoupal district of Manipur. Section 1 gives a brief demographic overview of the language. Section 2 highlights some of the research done on the phonology of Maring varieties. Section 3 briefly talks about the data and method of collection. Section 4 presents the phonemic inventories of the consonants, vowels, and tones. Section 5 discusses the syllable structure including the phonotactics distribution and consonant clusters etc. Section 6 highlights some of the morphophonological processes occurring in the language. The paper ends with a summary in section 7.

2 Previous research

Marrison (1967:357-358) presented a brief phonological inventory of Maring as having twenty consonants, five vowels and five diphthongs.[3] The consonants are p, t, c, k, pʰ/f, tʰ, kʰ, b, d, j, s, h, m, n, ŋ, w, l, r, y. The vowels are i, u, e, o, a, and the diphthongs are ui, oi, ai, au, ei. There was no mention of tone, and the vowel /ə/ was absent presence. Marrison noted the correspondence between /pʰ/ and /f/ but did not clarify whether they are allophonic or merely orthographic variation (Namkung 1996:246). Later, Ningomba (1978:1) identified twenty-five segmental phonemes and two suprasegmental phonemes. The segmental phonemes are the consonants p, t, c, k, pʰ, tʰ, kʰ, b, d, m, n, ŋ, l, l̥, s, h, r, w and y, and the vowels i, e, ə, a, o, and u. The two suprasegmental phonemes are the falling and the rising tones. Ningomba indicates <c> as pre-palatal, and <l̥> as voiceless alveo-dental lateral, phonemic in the dialects of Lampiya, Lamlong and Machi, but is an allophone of lateral /l/ in Khoibu (Ningomba1978:

[†]I am grateful to Rev. K. Moses for providing me with the primary data, and to Kowarson Kansouwa for the help in compiling and verifying the overall data. I am also grateful to Vijay D'Souza for commenting on the initial draft of this paper, and to the anonymous reviewer for the insightful suggestions. Last but not the least, I thank Kellen for commenting on and editing the final improved version of the paper.

[1] https://www.endangeredlanguages.com/lang/5668

[2] https://glottolog.org/resource/languoid/id/mari1415

[3] His data was based on the Grierson's description of Maring, see (Grierson 1903: 472-476).

xv).

Laishram (2013, 2014(a), 2014(b), 2015), further discusses in detail the sound system of Khoibu (Uipo), a sister language of Maring, including tone consonant clusters and syllabic structure. He identified 24 phonemes, out of which 18 are consonants and 6 are vowels, and three tones – high, mid and low. Sagolsem (2016) on the other hand noted the occurrence of twenty-one consonants, with the addition of /g/, /dʰ/ and /gʰ/. The examples for /dʰ/ and /gʰ/ were limited to one word each, i.e., *gadʰa* and gʰo, of which *gadʰa* is a loan word from Hindi. Whereas the three examples for g- i.e., *gəm*, *həigəna*, *seg*, seems more like misrepresentation of the phoneme /k/. A further study by Sæbø (2020, 2021) identified four tones, (and van Dam has shown five tones (pc., 2024)), instead of three mentioned in earlier research. Sæbø also described the phoneme /t͡s / as affricate instead of palatal /c/. Kanshouwa (2016) identified twenty-seven phonemes in Maring, of which eighteen are consonants, six are vowels and the remaining three are suprasegmental tones, high, low and mid. This paper will describe them in detail. An overview of phonological work done in Maring is highlighted in Table 1 below.

	Consonants	Vowels	Diphthongs	Tones
Marrison (1967)	20	5	5	
Ningomba (1978)	19	6		2
Laishram (2014)	18	6	7	3
Sagolsem (2016)	21	6	6	3
Kanshouwa (2016)	18	6	5	3
Sæbø (2020)	18	6	8	4

Table 1 – Overview of Maring (and Khoibu) phonology from existing research

Apart from these works, mention can be made of the grammar written by two native speakers (non-linguist) in Maring speakers. The first one is *Maringa Besik Karamaar (Basic Grammar of Maring)* written and published by Makunga Kodaarkhum[4]. The second one is *Maring Grammar and Composition* written by M. Moshining Kansou in 2009.

3 The data

This study builds on the author's M.Phil dissertation and Ph.D thesis. The primary data was collected from Machi village, located between 24°30'30" N and 94°08'35" E, during the summers of 2015 (June-July), and the winters of 2015 (December) and 2016 (January), and occasionally through WhatsApp in between 2020-2022. The data collection was based on Abbi's (2001) manual and the SPPEL (2016) handbook. It comprises of around 611 words and 473 sentences. The chief consultant was Rev. K. Moses, aged 52, male. However, additional data were also collected from other men and women. Data was collected using the elicitation method and were crossed check for verification.

4 Phonemic inventories

4.1. Consonants

Maring has eighteen consonants occurring at five contrastive places of articulation and seven distinctive manners of articulation, see table 2. The places of articulation are bilabial, alveolar, palatal, velar, and glottal. The manners of articulation are plosives, nasals, trills, fricatives,

[4]Year of publication not mentioned in the book.

affricates and approximants. All the consonants are categorized as distinct phonemes since they occur in contrastive distribution.

	Bilabial		**Alveolar**		**Palatal**	**Velar**		**Glottal**
Plosive	p	b	t	d		k		
Aspirated plosive	ph		th			kh		
Nasal		m		n			ŋ	
Trill			r					
Fricative			s					h
Affricate			t͡s					
Approximant		w			j			
Lateral			l					

Table 2 – Maring consonant chart

4.1.1. Plosives

The Plosives in Maring make a three-way laryngeal contrast namely, voiced, voiceless, and aspirated. They occur at five places of articulation, i.e., at bilabial, alveolar, palatal, and velar. The plain voiceless stops are /p/, /t/, and /k/. The voiced stops are /b/ and /d/. There is no voiced counterpart of /k/, i.e., /g/ is absent in Maring. The aspirated stops are /pʰ-/, /tʰ-/, and /kʰ-/. All these plosive sounds are distinct phonemes occurring in contrast with their specific counterparts. Examples of the minimal pairs of the plosives occurring in contrastive distribution are given below:

/p/	/pʰ/	/b/
pəm ‘embrace’	*pʰən* ‘tie’	*maibəŋ* ‘front/ ahead’
pawa ‘father’	*pʰa* ‘get/reach’	*ban* ‘branch’
pepe ‘fourth daughter’		*be* ‘beans’
pi ‘give’	*pʰi* ‘clothes’	*bi* ‘place’
puŋ ‘wall clock’	*pʰuŋ* ‘drum’	*buŋ* ‘hill’
tʰəipok ‘citrus latipes’	*pʰor* ‘blessing’	*bok-hiŋ* ‘oak tree’

Table 3 – Bilabial plosive onsets

/t/	/tʰ/	/d/
təŋ ‘big’	*tʰəŋ* ‘next’	*dəŋ* ‘bundle’
tar ‘dry’	*tʰaŋ.tran* ‘mosquito’	*dar* ‘gong’
te.te ‘first daughter’	*tʰer* ‘touch’	*dəi* ‘other’
tiŋ ‘stretch’	*mər.tʰiŋ* ‘clean’	*diŋ* ‘dirty’
tuŋ ‘cat’	*tʰuŋ* ‘bridge’	*mə.dul* ‘swallow’
to.to ‘second sister’		*doŋ* ‘cease/stop’

Table 4 – Coronal plosive onsets

/k/	/kʰ/
mə.kət ‘offer/bring’	*kʰət* ‘one’
ka ‘climb’	*kʰa* ‘bitter’
kep ‘cup’	*kʰer* ‘new’
kinni ‘sun’	*kʰin* ‘time’
kuŋ ‘river’	*kʰuŋ* ‘sound(v)’
koko ‘second son’	*kʰor* ‘peel (n)’

Table 5 – Velar plosive onsets

4.1.2. Nasals

Maring has three nasal sounds. They occur in three positions, i.e., bilabial, alveolar and velar, and are all voiced. They are voiced bilabial /m/, voiced alveolar /n/ and voiced velar /ŋ/. All the nasal consonants occur in the initial and final position. However, the occurrence of velar nasal /ŋ/ in initial position is less frequent. Examples of the nasal sounds occurring in contrastive distribution are given below:

/m/	/n/	/ŋ/
kʰə.məŋ ‘black’	*nəŋ* ‘you’	*ŋək.na* ‘surprise’
mal.na ‘similar’	*nal* ‘slippery’	*ŋal* ‘fight’
ənme ‘meat’	*nem* ‘short’	*əŋŋi* ‘yesterday’
tʰimi ‘man/people’	*nini* ‘father’s sister’	*niŋa* ‘tomorrow’
mu ‘know/see’	*nu* ‘wife’	*huŋ* ‘come’
məu ‘daughter in law’	*nəuwahəi* ‘mango’	*kʰə.ŋəu* ‘white’

Table 6 – Nasal onsets

4.1.3. Fricatives and affricates

Maring has two fricatives occurring at the alveolar and glottal position, and one affricate occurring at alveolar position. They are voiceless alveolar fricative /s/ and the voiceless glottal fricative /h/, and voiceless alveolar affricate /t͡s/. Examples showing the contrastive occurrence of these three phonemes are given below:

/s/	/h/	/t͡s/
səl ‘husband	*həl* ‘cow’	*mə.t͡səl* ‘forehead’
sa ‘hot’	*ha* ‘teeth’	*t͡sa* ‘paddy’
sirim ‘mithun’	*hi* ‘blood’	*t͡si* ‘thatch’
su ‘wash/pound’	*hu* ‘who’	*t͡sucu* ‘breast’
suŋ ‘extract’	*huŋ* ‘come’	*t͡suŋ* ‘extract’
səi ‘song’	*həi* ‘fruit’	*t͡səi* ‘stick’

Table 7 – Fricative and affricate onsets

4.1.4. Approximants

Maring has two approximants. They are labiovelar approximant /w/, and palatal approximant /j/. These two approximants are glides and behave as a semi-vowel in between consonants. Examples showing their contrastive occurrence are shown below.

/w/	/j/
wa 'bird'	*ja* 'animal'
nəpawa 'man'	*nəpuija* 'woman'
tʰewa 'rabbit'	*tʰi.ja* 'right hand'
kə.wa 'go'	*kə.ja* 'possible'

Table 8 – Approximant onsets

4.1.5. Liquids

There are two liquid sounds in Maring. They are alveolar trill /r/ and alveolar lateral /l/. Examples of the two sounds occurring in contrastive distinction are shown below:

/l/	/r/
ləl 'wealth'	*ral* 'war
pal 'fence'	*par* 'flower'
tʰleŋ 'loose fitting'	*reŋ* 'use'
liŋ 'grow/plant(v)'	*riŋ* 'green/ alive'
lo 'buy'	*ro* 'enough
luŋ 'seed'	*ruŋ* 'root'
lui 'finish'	*rui* 'rope'
ləu 'field'	*rəu* 'roast

Table 9 – Liquid onsets

4.2. Vowels

4.2.1. Monophthongs

Maring has six monophthongs. They are /i/, /e/, /a/, /ə/, /u/ and /o/, see Table 10. Given below are the descriptions of the vowels in terms of the features rounded or unrounded, high, mid or low, and the point of articulation, whether the tongue is placed back, front or central. /i/ is high, front, unrounded vowel. /e/ is mid, front, unrounded vowel. /ə/ is mid, center, unrounded vowel. /a/ is low, central, unrounded vowel. /u/ is high, back, rounded vowel. /o/ is mid, back rounded vowel. The presence of high, mid and low vowels is a typological pattern of the Tibeto-Burman languages.

	Front	**Center**	**Back**
High	*i*		*u*
Mid	*e*	*ə*	*o*
Low		*a*	

Table 10 – Maring vowel chart

All the vowels occur in contrastive distribution. The following examples show their occurrence in contrastive distribution:

/i/	/e/
ŋa-lip 'fish scale'	*lep lep* 'often/frequently'
pi 'give'	*pepe* 'third daughter'
bi 'place'	*be* 'beans'
tʰi.mi 'people'	*ən.me* 'meat'
hiŋ 'tree'	*hek* 'hear'

Table 11 – Front vowels

/a/	/ə/
tar 'dry'	*tər.ra* 'old people'
məi-hal 'charcoal'	*həl* 'cow'
mal-na 'similar/same'	*məl* 'guest'
maŋ 'lost'	*məŋ* 'drink'

Table 12 – Central vowels

/u/	/o/
um 'beat'	*om* 'sit'
jur 'sour'	*jor* 'sell'
bu 'ask'	*bo* 'bud'
lu 'head'	*lo* 'buy'
hu 'who'	*ho* 'leg'

Table 13 – Back vowels

Based on the minimal pairs given above, we establish that the six vowels of Maring are distinct phonemes. All of them occur at syllable initial, medial, and final position, except for /ə/, whose occurrence in final position is quite rare.

4.2.2. Diphthongs

Apart from the six monophthongs, Maring also has six diphthongs. They are /əi/, /ai/, /oi/, /ui/, /əu/, and /ao/[5]. The first four diphthongs converge towards high front vowel /i/, whereas the fifth one converges towards back front vowel /u/ and the last one converges towards back mid vowel /o/. See direction of vowel glide shown below:

[5] An anonymous reviewer commented that these diphthongs are better analyzed as glide-vowel sequences like /ow/, /aw/ and /oj/ for instance. Since, the underlying structure of diphthongs are subjected to inter- and intra-language variation and treatment; and based on evidence found in Uipo (Khoibu) from Sæbø (2020, 2021) and Singh (2013, 2014), I have treated them as diphthongs for now.

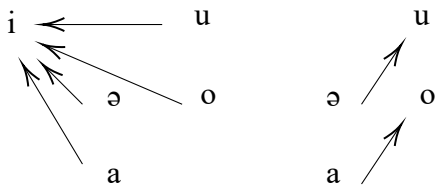

Figure 1 – Direction of vowel glide towards /i/, /u/ and /o/

The following are examples of vowel vowel-glides towards /i/.

/əi/	/ai/	/ui/	/oi/
kəi ‘my’	*kai* ‘our’	*rui* ‘cane’	*roi* ‘coriander’
nəi ‘your’	*nai* ‘pus’	*rə.hui* ‘dust’	*hoi* ‘be/ become’
mə.ləi ‘tongue’	*lai lai* ‘different’	*mui-nəm* ‘aroma’	*moi* ‘yes’
məi ‘fire’	*mai* ‘face’	*lui* ‘finish’	
səi ‘song’	*sai* ‘rice’	*napuija* ‘woman’	

Table 14 – Vowel glides towards /i/

The following are examples of vowel vowel-glides towards /u/ and /o/.

/əu/	/ao/
kəu ‘what’	*kao* ‘bag’
ləu ‘field’	*lao* ‘laugh’
nəu.wa-həi ‘mango’	*nao* ‘child’
kən.tʰəu ‘awake/ rise up’	*tʰao* ‘oil’
rəu ‘burn/ roast’	*mə.rao* ‘red’

Table 15 – Vowel glides towards /o/ and /u/

Note that all the monophthongs occur in closed and open syllables, but the diphthongs occur in only in the open syllables.

4.3. Tone

Maring is a tonal language. Every change in tone can bring about a change in the meaning of a word. The Tibeto-Burman languages of Northeast India have tones ranging from two to four (Bareh 2013:48). In Maring there are three lexical tones. They are high (ˊ), mid (-) and low (‘). Examples of the tonemic contrast are given below in table 3.

Rising	Level	Falling
t͡sá ‘paddy’	*t͡sā* ‘eat’	*t͡sà* ‘go’
pá.wa ‘father’	*rə.pā* ‘thin’	*pà* ‘read’
wá ‘bird’	*wā* ‘go’	*kə.wàr* ‘bright’
já ‘animal’	*tʰi.jā* ‘right side’	*jà* ‘melt’
kə.mé ‘night/dark’	*mē.mē* ‘fourth/fifth son’	*ən.mè* ‘meat’
t͡sí ‘fear’	*t͡sīm* ‘righ/correct’	*t͡sì* ‘thatch’
sá ‘hot’	*mə.sā* ‘night’	*t͡sim-sà* ‘make/ construct’
kʰá ‘hit/beat’		*kʰà* ‘bitter’
tʰúŋ ‘cook’		*tʰùŋ* ‘close’

Table 16 – Maring tonemic chart

This section highlights the tones occurring only at the surface level. It does not discuss the underlying tonogenesis. So, there is room for further investigation on the tonal behaviour of words in an isolated case, and within phrase and sentence level.

5 Syllable structure

Maring morphemes are usually monosyllabic. The syllable consists of a vowel with one or more consonants. Disyllabic or multisyllabic words are formed by compounding two or more morphemes. Maring syllable canonically consists of an onset, nucleus and coda (see the following subsections for details). But there some few words without codas. They are the open syllables. The syllable canon of Maring syllable is given below:

[(C1) (C2) V1 (V2) (C3)] T

The smallest syllable type consists of a single vowel V1, which is the obligatory nucleus. C1 is an optional onset, all consonants can occur in this position (see §5.1.1). The second consonant C2 is also optional and is usually a liquid, i.e., /l/ or /r/ (see §5.1.4. on consonant clusters for C2 examples). V2 comprises of an optional vowels usually /i, u, o/. C3 is an optional coda restricted to voiceless stops, voiced nasals and liquids (see §5.1.3).

Based on the above syllable canon, there are seven types of syllable structure occurring in Maring. They are V, VC, CV, CVV, CVC, CCV and CCVC. Table 17 shows the examples of the different types of syllable structures in Maring. The occurrence of similar syllable structures is also observed in Khoibu (Laishram 2014(a): 4768).

Syllable structure	Examples
V	*a* ‘he/she/this’, *e* ‘defecate’
VC	*uk* ‘stomach’, *ən* ‘curry’, *um* ‘beat’
CV	*mu* ‘see’, *wa* ‘bird’, *t͡si* ‘horn’, *pi* ‘give’
CVV	*həu* ‘sound’, *mai* ‘face’, *yui* ‘water’
CVC	*hut* ‘hand’, *pʰor* ‘blessing’, *luŋ* ‘seed’, *kuŋ* ‘river’
CCV	*kʰwa* ‘bamboo’, *pʰri* ‘yeast’
CCVC	*truŋ* ‘tree trunk’, *tʰluŋ* ‘stone’, *krat* ‘sharp’, *pʰrul* ‘snake’

Table 17 – Examples of syllable structures in Maring

5.1. Phonotactic distribution

This section will present the types of phonotactic constraints found in Maring, i.e., the systemic organization of phonemes, their distribution and restriction in forming words.

5.1.1. Onset position

All the consonants occur at onset position. See examples below:

/p/	*pi* 'give'	*pək* 'to stick'	*pum* 'whole'
/pʰ/	*pʰi* 'cloth'	*pʰək* 'mat'	*pʰuŋ* 'drum'
/b/	*pʰəl.bi* 'winter'	*bak* 'bat (animal)'	*bu* 'ask'
/t/	*mit.ti* 'salt'	*təŋ* 'big'	*tul* 'alcohol'
/tʰ/	*tʰi.mi* 'man'	*kaŋ-tʰək* 'ceiling'	*tʰur* 'snow'
/d/	*mən.di* 'small'	*rə.dai* 'dew'	*dun.pu* 'God'
/k/	*kim* 'colour'	*kə.mek* 'itch'	*kum* 'year'
/kʰ/	*kʰin* 'time'	*kʰek* 'peel(v)'	*mə.kʰu* 'cough'
/t͡s/	*t͡sim* 'house'	*t͡sak* 'rice(cooked)'	*t͡sai.tsim* 'weather'
/m/	*min* 'name'	*mərke* 'parrot'	*wa-mul* 'feather'
/n/	*kə.ni* 'able'	*nəm* 'push'	*nim* 'low'
/ŋ/	*ŋəm-ri* 'reason'	*tʰi.ŋa* 'fish'	*ŋal* 'fight'
/s/	*sim* 'sweet'	*səm* 'hair'	*rulsum* 'a neckpiece'
/h/	*hiŋ* 'tree'	*həl* 'cow'	*wa-hoŋ* 'peacock'
/l/	*la* 'song'	*ləm* 'road'	*luŋ* 'seed'
/r/	*rit* 'heavy'	*rə.məi* 'cloud'	*mə.rəŋ* 'father sister's husband'
/w/	*nu.wi* 'mother'	*nə.pawa* 'man'	*tʰe.wa* 'rabbit'
/j/	*jui* 'water'	*ja* 'animal'	*hut-juŋ* 'wrist'

5.1.2. Nucleus

All vowels occur as nucleus in Maring. Refer section 4.2.1 for examples.

5.1.3. Coda position

In Maring only eight consonants occur at coda position. The consonants occurring in the coda position are limited to unaspirated voiceless plosives, *-p*, *-t*, *-k*; nasals *-m*, *-n*, *-ŋ*, and liquids *-l* and *-r*. The remaining sounds do not occur at coda position. They are the aspirated /pʰ/, /tʰ/ and /kʰ/, the voiced plosives /b/ and /d/, the fricatives /s/ and /h/, the approximant /j/ and /w/[6]. Examples of consonants occurring at the coda position are given below.

Plosives

/-p/	*mit-kə.kʰəp* 'blink'	*t͡səp* 'cry'	*ŋa-lip* 'scale (of fish)'
/-t/	*kʰət* 'one'	*sat* 'cut'	*mə.lit* 'leech (water)'
/-k/	*tʰlak* 'add'	*sək-tʰi* 'ugly'	*liŋlik* 'shirt'

[6]In continuation with footnote 5, the reviewer commented if that /-w/ and /-j/ can occur as codas. The occurrence of glide codas is a general pattern in Thadou and other Kuki chin languages (see Mortensen 2023; Lotven et al 2019). A further in-depth study on phonotactic restrictions and diachronic changes, beyond the scope of this paper, is needed for better understanding of diphthongs and glide codas in Maring.

Nasals

/-m/	*pam* ‘like’	*tʰim* ‘full’	*pum* ‘round’
/-n/	*t͡sən* ‘run’	*bən* ‘branch’	*bun* ‘pour water’
/-ŋ/	*taŋ* ‘pull’	*kaŋ* ‘burn’	*buŋ* ‘hill’

Lateral and trill

/-l/	*rəl* ‘wealth’	*hul-tsa* ‘chase’	*tul* ‘alcohol’
/-r/	*dar* ‘gong’	*pur* ‘ditch/hole’	*tʰir* ‘iron’

5.1.4. Consonant clusters

Tibeto-Burman languages of Northeast India usually have initial clusters but do not have final clusters. Initial consonant clusters consist of C^1C^2 sequence, of which the first consonant is usually a voiceless stop, and the second is either the liquid /l/ or /r/. This is a typologically marked feature of most Tibeto-Burman languages of the region (Bareily 2013). Likewise, in Maring consonant clusters are found only at the syllable initial position. There is no cluster at the syllable final position. There are eight consonant clusters in Maring. They are /pʰl/, /pʰr/, /tl/, /tr/, /tʰl/, /tʰr/, /kʰl/, and /kʰr/. In all the clusters, the first consonant is a voiceless stop, and the second consonant is a liquid sound, see examples given in Table 18. A further analysis at dialectal level (Kanshouwa 2023) shows that the occurrence of /pʰl/, /pʰr/, /tl/, /kʰl/, and /kʰr/ are limited to few words, and are specific to certain dialects of Maring. Whereas clusters like /tr/, /tʰl/, and /tʰr/ are prevalent in Maring (Kanshouwa 2023).

Clusters	Examples
/pʰ/ + /l/	*pʰli* ‘four’
/pʰ/ + /r/	*pʰrul* ‘snake’, *pʰri* ‘yeast’
/t/ + /l/	*tlim* ‘spirit’, *tlou* ‘language’
/t/ + /r/	*tran* ‘fly’, *truŋ* ‘tree trunk’ *in-triŋ* ‘soot’
/tʰ/ + /l/	*tʰlim* ‘shadow’, *thləu* ‘work’, *thlan* ‘grave/ tomb’
/tʰ/ + /r/	*tʰrai* ‘god/ deity’, *tʰruk* ‘six’
/kʰ/ + /l/	*kʰlak* ‘ladder’, *kʰluŋ* ‘insect’, *t͡su-kʰruk* ‘bamboo spoon’
/kʰ/ + /r/	*kʰril* ‘intestines’, *kʰrum* ‘worship’, *kʰrəŋ* ‘fast’

Table 18 – Consonant clusters in Maring

Besides these eight clusters, there are also other pseudo clusters formed because of schwa deletion (see section 6.1. below) both in the speech form (the articulation) and in the written form (orthography). Those clusters are *km*, *kn*, *kr*, *kw*, *kʰm*, *kʰw*, *ml*, and *sm* etc. For instance, the word ‘dark/night’ in Maring is phonetically pronounced as *kəme*, however, it is written as *kme* most of the time. Similarly, the words ‘bright’ and ‘arrow’ though pronounced as *kə.war* and *mə.la* is usually written as *kwar* and *mla*. Similar formation of (pseudo) cluster is also observed in the causative marker *-kjər* (Kanshouwa 2021). One of the reasons for this is the inability of the Maring speakers to differentiate the sounds */ə/* and */a/* in the orthography. Since Maring orthography is based on Roman script, /a/ is simply used as it is. However, there is no orthographic representation for */ə/*. So, most of the time it is omitted both in writing and speaking as speakers are aware that it is not */a/*. Such gap in orthography sometimes leads to dialectal change and variation.

5.1.5. Rhymes

The rhyme is important for determining the tonal behaviour in KC languages (Haokip 2019:96). Table 19 represents the combinatorial possibilities between the six nuclei *e, i, a, ə, o, u* and the codas *-p, -t, -k, -m, -n, -ŋ, -l, -r* in Maring.

	p	***t***	***k***	***m***	***n***	***ŋ***	***l***	***r***
e	*ep*	*et*	*ek*	*em*	*en*	*eŋ*	*el*	*er*
i	*ip*	*it*	*ik*	*im*	*in*	*iŋ*	*il*	*ir*
a	*ap*	*at*	*ak*	*am*	*an*	*aŋ*	*al*	*ar*
ə	*əp*	*ət*	*ək*	*əm*	*ən*	*əŋ*	*əl*	*ər*
o	*op*	*ot*	*ok*	*om*	*on*	*oŋ*	*ol*	*or*
u	*up*	*ut*	*uk*	*um*	*un*	*uŋ*	*ul*	*ur*

Table 19 – Rhymes in Maring

5.1.6. Phonotactic constraints

Based on the occurrence and distribution of the consonants, a table showing the phonotactic constraints in Maring is given in Table 20.

C1	C2	V1	V2	C3	T
p, pʰ, b, t, tʰ, d, k, kʰ, t͡s, m, n, ŋ, l, r, s, h, w, j	*l, r*	*i, e, ə, a, o, u*	*i,o, u*	*p, t, k, m, n, ŋ, l, r*	High Mid Low

Table 20 – Phonotactic distribution of syllable constituents.

The constraints can be explained further as:

1. All syllables have a nucleus and a tone.
2. There are no geminates.
3. All the consonants occur at onset position, but not at the coda position. /b/, /d/, /t͡s/, /s/, /h/ and /w/ do not occur at final position.
4. Consonant clusters are formed only at the syllable initial position.
5. The first consonants of the clusters, i.e., C_1, are either voiceless or aspirated plosives. The second consonants, i.e. C_2, are either /l/ or /r/.

6 Morphophonological processes

6.1. Schwa deletion

Schwa deletion is a prevalent feature in many Tibeto-Burman languages (Matisoff:1973). In Maring schwa can be deleted in a fast speech if it is occurring as a sesquisyllable. In sesquisyllabic words, a stressed major syllable is preceded by a short unstressed C or CV minor syllable i.e., prefix C or CV + root CV or CVC (Haokip 2019:98; Lotven et al. 2020:15, 22). Usually, the vowel of the prefix is schwa. The schwa of such minor syllable gets deleted to form a (pseudo) consonant cluster (Lotven 2020:23). See examples below:

kə + *war* → ***kw****ar* 'bright'

kʰə + *məŋ* → ***kʰm****əŋ* 'black'
kʰə + *wa*→ ***kʰw****a* 'bamboo'

tʰə + *luŋ* → ***tʰl****uŋ* 'stone'

tʰə + *rai* → ***tʰr****ai* 'deity'
pʰə + *li* → ***pʰl****i* 'four'
kʰə + *j* → *tʰləwaj****kʰj****iŋ* 'holy spirit'

6.2. Free variation

Free variation is observed between /l̥/ and the cluster /tʰl/ at syllable initial position depending upon the choice of the individual speaker. Ningomba (1978:12) classified the voiced alveo-dental /l/ and the voiceless alveo-dental [l̥] as two different phonemes. But there are instances where speakers pronounce the cluster *tʰl-* and *l̥-*in place of each other, and sometimes even as /l-/. A more in-depth study comparing these lateral sounds is required to affirm their distinction. Examples showing the free variation of *tʰl-* ~ *l̥-* ~ *l-* are given below:

tʰlən→ *l̥ən* 'sweat'

kət.tʰlak→ *kət.l̥ak* 'to put at higher places'

na-tʰlung→ *na-l̥ung*→ *na-lung* 'nose'

tʰlung→ *l̥ung*→ *lung* 'stone'

tʰləu → *l̥əu* →*ləu* 'work/job'

6.3. Assimilation

Maring exhibits total contact regressive assimilation based on voicing assimilation rule. This affects the formation of perfect aspect *-kur*and genitive case marker *-jəi*, depending upon the sound of the vowels and the consonants that end the word. For instance, if a verb ends with /*k*/, the perfect aspect will become *-kur*, but if it ends with /*m*/, /n/, /ŋ/ or /l/ the perfect aspect will become *-mur*, *-nur*, *-ŋur* and *-lur* respectively, see examples given in Table 21. In the case of verbs ending with vowels, the assimilated forms take on the features front and back of vowels and change to their corresponding semi-vowels accordingly. For example, in Table 22, if verbs end with front vowels /i/ and /e/, then *-kur* change to *-jur,* but if the verbs end with back vowels, *-kur*will change to *-wur*.

Source word	Assimilation	Output	Glossary
lum + *kur*	*k* → *m/m_*	*lummu-ra*	'warmed'
um + *kur*	*k* → *m/m_*	*ummur-ra*	'beaten'
mən + *kur*	*k* → *n/n_*	*mənnur-ra*	'caught'
lal+ *kur*	*k* → *l/l_*	*lallu-ra*	'wronged'
huŋ + *kur*	*k* → *ŋ /ŋ_*	*huŋ-ŋur-ra*	'retuned'

Table 21 – Assimilation of verbs ending with consonants

Source word	Assimilation	Output	Glossary
pi + kur	*k → j/i_*	*pi-jur-ra*	'given'
me + kur	*k → j/e_*	*me-jur-ra*	'darken'
pa + kur	*k → w/a_*	*pa-wur-ra*	'read'
su + kur	*k → w/u_*	*su-wur-ra*	'washed'
lo + kur	*k → w/o_*	*lo-wur-ra*	'hot'

Table 22 – Assimilation of verbs ending with vowels

Likewise, if a noun word ends with /k/, then the genitive marking will be -kəi, but if it ends with /*m*/, /n/, /ŋ/ or /l/ the genitive marker will become *-məi*, *-nəi*, *-ŋəi* and *-ləi* respectively, see examples given in table 10. But if the nouns end with vowels, the genitive marker changes either to *-jəi* or *-wəi* depending on the feature front and back of the vowels, see examples in table 11. A detailed study of the rule and phonological notation of assimilation in Maring is given in Kanshouwa (2020).

Source word	Assimilation	Output	Glossary
tolkʰəm + jəi	*j → m/m_*	*tolkʰəm-məi*	Tolkham's
modun + jəi	*j → m/m_*	*modun-nəi*	Modun's
kəruŋ + jəi	*j → n/n_*	*kəruŋ-ŋəi*	king's
pol + jəi	*j → l/l_*	*pol-ləi*	Paul's
patər + jəi	*j → r/r_*	*patər-rəi*	grandfather's

Table 23 – Assimilation of nouns ending with consonants

Source word	Assimilation	Output	Glossary
nini + jəi	*j → i/i_*	*nini-jəi*	aunt's (father sister)
papa + jəi	*j → a/a_*	*papa-jəi*	father's
tete + jəi	*j → e/e_*	*tete-jəi*	eldest sister's
toto + jəi	*j → o/o_*	*toto-wəi*	second sister's
hu + jəi	*j → u/u_*	*hu-wəi*	whose

Table 24 – Assimilation of nouns ending with consonants

7 Summary and conclusion

This paper presents a preliminary phonological analysis of Maring spoken in southeastern part of Manipur in Northeast India. There are eighteen consonant phonemes, six vowel phonemes, six diphthongs and three tones. The consonants are /p-/, /pʰ-/, /b-/, /t-/, /tʰ-/, /d-/, /k-/, /kʰ-/, /s-/, /h-/, /t͡s-/, /m-/, /n-/, /ŋ-/, /l-/, /r-/, /w-/, and /j-/. There are three sets of stops: voiceless, voiced and aspirated. This is a prevalent feature of most Sino-Tibetan languages (Hongkai 2016). The vowels are *i, e, a, ə, o* and *u* and the diphthongs are /əi/, /ai/, /əu/, /ao/, /oi/ and /ui/. The tones are high, mid and low. The sounds in Maring are dominated by alveolar sounds, which happens to be a characteristic feature of Indian languages (Yogatama 2012:14). All the consonants occur at syllable onset. But the consonants in coda position are restricted to the three unaspirated voiceless stops, /p/, /t/ and /k/; three nasals /m/, /n/ and /ŋ/, and the liquids /l/ and /r/. As for the nucleus, it is always occupied by a vowel, or diphthong, with or without coda. Maring words are

either monosyllabic or disyllabic. And most disyllabic words have the tendency to becoming monosyllabic in fast speech. This leads to the formation of many consonant clusters. Maring has eight consonant clusters and is still in the process of forming more (pseudo) clusters. This is a case of language change, which further leads to variation among the speakers. Maring is less described and has very few literary works. There is no standardized writing system. The language is susceptible to change and variation due to contact with other communities. The language already has around five regional variations despite the small population size of the speakers (Kanshouwa 2023).

This study offers a preliminary insight on the phonology of Maring. There are many limitations, as well as scope for further in-depth analysis of the prosodic features such as stress, intonation patterns etc, and in terms of sound change and variation, which the author hopes to carry out in the future. Nevertheless, this study will be helpful for those working on the sound systems of Tibeto-Burman languages spoken in Northeast India.

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