

An Initial Description of Tone in 'Cho

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1. Introduction

In this paper I will give a description of phonological tone in 'Cho (/ʔkxòu/ or /ʔkxò/), also known as Müün, or Ng'Mèen, a Southern Kuki-Chin language of Southern Chin State, Myamar. Previous treatments dealing with this dialect have not marked tone for various reasons (e.g. Jordan (1967), So-Hartmann (1988)), and the traditional orthography lacks a recognized system of tonal diacritics. The primary goal here is to describe the system and note its characteristics.

The present description is based on the language of Sít Hmòì village, Mìndàt¹. For this study, tone was notated from recorded word lists and short sections of monologue. It was also marked on all of the Jordan dictionary entries, the main reference source on 'Cho, and further compared with narrated sections of the gospel of Matthew.

'Cho has four tones that are discernable to the native speaker, but only three of these are widespread and in a mutually contrastive relationship. These three are; high, low, and rising. A falling tone is found restricted to some question words and elsewhere, essentially as the result of morphological assimilation and intonation. Furthermore, a high tone on long vowels is in a contrastive relationship with a high tone on short vowels, and so this distribution will also be considered. Finally, there is a pattern of tonal *sandhi* exhibited on items from several grammatical categories. In such cases the original tone ends up as a high tone. Examples of each of these phenomena will now follow.

2.1 Orthography:

The 1935 traditional orthography will be employed here.² However, we have modified it in the following ways for increased precision:

1. By abandoning the use of 'o' and 'aw' to represent [o], and solely employing 'o'. The use of each is interchangeable in the writing system, and they are not distinguished by our informant.
2. By including tonal markers as follows³:

/a/	High level short (HS)
/à/	Low (level) (L)
/á/	Rising (low to high) (R)

Similarly, high long vowels will be marked with a double vowel.

/aa/	High level long
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The following table is made up of examples of all four categories.

Table 2 Four Phonemic Distinctions

HIGH LONG	HIGH SHORT	LOW	RISING
<i>m'sii</i> 'to wash'	<i>m'si</i> 'soak'	<i>m'sì</i> 'metal', 'saliva'	<i>m'sí</i> 'seed'
<i>khoong</i> 'opened up (path)'	<i>khong</i> 'attach carry straps'	<i>khòng</i> 'to beat'	<i>khóng</i> 'trap made of a l'
<i>ghuu</i> 'collection of veges'	<i>ghu</i> 'wipe'	<i>ghù</i> 'a corner'	<i>ghú</i> 'to miscarry'
<i>chüü</i> 'to call'	<i>chü</i> 'get lost'	<i>chǜ</i> 'speak'	<i>chǘ</i> 'loin cloth, pants'

More examples of the three tones are in Table 3 below.

Table 3 Three Phonemic Tones

HIGH SHORT	LOW	RISING
<i>phui</i> 'to transplant'	<i>phùi</i> 'carry on head'	<i>Phúi</i> 'Place name'
<i>khet</i> 'claw, scratch'	<i>khèt</i> 'difficult'	<i>khét</i> 'not exactly'
<i>bit</i> 'pluck'	<i>bìt</i> 'to plug up'	<i>bít</i> 'a kind of sparrow'
<i>lam</i> 'road, path'	<i>là̀m</i> 'an arm span'	<i>lám</i> 'bland'
<i>'pang</i> 'grab, hold'	<i>'pàng</i> 'wall'	<i>'páng</i> 'the back'

2.2 Vowel Length:

As mentioned above, vowel length is only distinguished on the high tone, (in all but glottal-final syllables). The following are representatives of closed syllable items.

Table 4 Vowel Length

HIGH LONG	HIGH SHORT
<i>kaap</i> 'a crow'	<i>kap</i> 'to collapse'
<i>chääk</i> 'to be on the look out'	<i>chäk</i> 'knock on'
<i>deep</i> 'to give way underweight'	<i>dep</i> 'to smash, shatter'
<i>düük</i> 'to swallow'	<i>dük</i> 'to pinch, pamper'
<i>geet</i> 'a disease, a carbuncle'	<i>get</i> 'to roll up'
<i>aan</i> 'opening the mouth'	<i>an</i> 'edible leaves of plants'
<i>saam</i> 'to prepare great quantity'	<i>sam</i> 'to be too short / low'
<i>siin</i> 'to jump over'	<i>sin</i> 'this'
<i>vuun</i> 'to do something together'	<i>vun</i> 'skin'
<i>zoon</i> 'flying'	<i>zon</i> 'to point at with a finger'
<i>Maang</i> A man's personal name	<i>Mang</i> A woman's personal name

Length is also distinguished on high tones in open syllables. The following are examples of some of these before the past tense particle *tee*.

1. *Lo tee cì* ' (He) came.'
2. *Loo tee cì* ' (He) killed (it).'

Furthermore, the length of the vowel of an open syllable also effects the morphophonemic process of resyllabification in which the initial consonant of a following item is attached to the preceding morpheme. A long syllable blocks this process as seen below.

3. 'Chìim òm tu cì /ʔkxìm òm tuk kì / '(He) slashed (him) with a knife'
 4. Tuu cì /tuu kì/ '(He) gave (him) something to drink'
 5. Lo cì /lok kì/ 'He came'
 6. Loo cì /loo kì/ 'He killed (it).'

In this way the long vowel high tone is systematically contrasted with the short vowel high tone, and thus in a distributed paradigmatically with the others tones. These tones will be labelled henceforth as high long (HL), and high short (HS).

2.3 The Falling Tone:

A tone falling from H to L is also perceptible in 'Cho. It is found 1) as the result of assimilations, 2) on some question words, and 3) as the product of intonation⁴. The following table contains some examples of assimilations that result in the falling tone. They are notated here with a double vowel for the sake of convenience.

Table 5 Assimilations:

ITEM	ORIGINAL FORM	GRAMMATICAL STATUS
<i>Kaa</i>	<i>kä kà</i>	NEGATIVE + 1 st P
<i>Cee</i>	<i>ci + nè</i>	NON-FUT. + PT ⁵ = QUOTATIVE
<i>Caa</i>	<i>ci + à</i>	NON-FUT. + PT = ADJ. ATTRIBUTIVE
<i>Vaang</i>	<i>vaai + ?</i>	PT + ? = 'let me V'

In the first three examples of the above table, the assimilation of HS and L result in a falling tone. The final item *vang*, is synchronically non-transparent, but probably the result of assimilation, as the following examples suggest.

7. *Ip vaang.* 'Let me sleep' (PC)⁶
 8. *Ni ip vaai* 'Let's (DUAL) sleep.' (PC)

Since at this stage it is not clear from what *vang* is derived, it will not be considered further here.⁷

Similar to the above sound change, a falling tone derived from an HS and a falling tone also becomes a falling tone. One such example is *cuung* 'therefore, in that case' which is the abbreviation of the demonstrative 'that' and the conditional postposition *ung*⁸. The falling tone can also be found as the result of other sound changes, such as the items in the following table.

Table 6 Other Sound Changes

ITEM	NUMERAL
<i>Nii</i>	Dual Person Numeral
<i>Mii</i>	Plural Person Numeral

The above two examples are the pronominal numerals *ní* 'dual' *mí* 'plural', that occur here with a falling tone only when preceded by the assimilation of *nàmi nà* > *nàa* (2nd PPl. & 1st P.Sg.) as the following

examples of *mii*, and *maa* show, The case is identical for *nii*, and *naa*.

9. *Nangmí nòh kei àm nàa mii pe cì.*

'You (pl) gave it to me.' (PC).

10. *Nangmí nòh kei àm nàa maa pe cì.*

'You (pl) gave it to me.' (PC).

Both of the above examples have the same gloss, but there is an optional change of the vowel from *mii* to *maa* in the second example (both falling). In these cases the falling tone is a resultant change assumed to be triggered by the preceding assimilation.

Finally we turn to question words. Of all question words looked at, only the following were found to have falling tone.

Table 7 Non-Abbreviations

ITEM	GLOSS
<i>iivaai</i>	'why, for what reason / don't'
<i>Hngaam</i>	'where'
<i>Hooi</i>	'where'

The following are examples sentences of each.

11. (À) *iivaai à Mindat à nà hteit ci ang ?*

'For what purpose did you go to Mindat.' (PC)

12. *'Chim à hngaam*

'Where is the knife.' (PC)

13. *Nang cù à-hooi-(à) ka, nàh lo ci ang ?*

'Where do you come from ?' (PC)

In summary then, only the above examples of the falling tone have been discovered from the data so far investigated. The falling tone is seen to be limited in distribution, the product of assimilation or alteration by adjacent sound changes, and most importantly, not found in systematic contrast with other tones. Clarification of the individual processes involved will be relegated to later research.

3. Tone Sandhi:

In 'Cho there are four grammatical items that exhibit tonal variation. The tone becomes HS from either an L in three of these cases, or from an R in one. We will now look at these in the following order.

1. The Postposition *cùh*
2. The Verb-Final Particle *cì*
3. The Inchoative Verb-Final Particle *lò*
4. The Personal Numerals *ní*, and *mí*

3. 1. The Postposition *cùh*:

The following is a list of the main case postpositions in 'Cho.

Table 8⁹

POSTPOSITION	FUNCTION
<i>nòh</i>	Agentive
<i>cùh</i>	Contrastive
<i>àm</i>	Dative
<i>òn</i>	Instrumental
<i>ka</i>	Ablative
<i>à</i>	Locative / Genitive

Of all of the above items, only *cùh* is exceptional in its tonal behavior. *Cùh* undergoes tone change according to the tone of the preceding item. It behaves in the following way, with examples following.

1. It is L in isolation and most other environments (i.e. before HS, HL, or R).
2. It changes from L to HS before L.

Following H:

14. *Kà măt nòh, kà măt cùh kà ploh cì.*
'I hurt myself.' (G 35)

15. *Àni cùh ghìng cì.*
'He is alive.' (G 17)

Following R:

16. *À nú nòh à htá cùh m'hniì cì.*
'A mother loves her child.' (G 17)

17. *Pá cùh hteit cì*
'(My) father has gone.' (PC)

Cùh changes from L to HS before L.

18. *'Chàng cùh kă ni cì.*
'Men are not good.' (G 14)

19. *Htù thài cùh kà hleih cì.*
I bought a new shirt.(PC)

20. *Kong 'dăm gùi cùh om ci gùi.*
There are many big tigers. (PC)

21. *Kei nòh hlèi cùh kà ngón cì.*
I killed a mithon. (PC)

22. *Hlèi nòh ng'vòng cùh phièk cì.*
A mithan destroyed the fence. (PC)

Verb Final Particles

Similar behavior is also seen on two verb final particles. The following is a list of the main verbal particles.

Table 9 Verb Final Particles

PARTICLE	FUNCTION
<i>cì</i>	Non-future (?)
<i>tee</i>	Past tense
<i>khaai</i>	Future
<i>lò</i>	Inchoative
<i>zah</i>	Imperfect
<i>pìi / püi</i>	Perfect

Of these, only *cì*, and *lò* undergo tonal sandhi. The tone change is identical in behavior to that of *ci* above. We look now at each individually:

3. 2 The Non-Future *Cì*:

Cì is L in isolation and in most environments (when preceded by a R, HS or HL). The following are examples of this.

23. *À 'däm nòh m'chüt cì.* (G 13)

'The big one managed it.'

24. *Bi (nòh) nà m'zái cì* (PC)

'Work makes me tired.'

However, it becomes HS before a verb with L verb.

25. *À bǎ` cùh kà zùm cì.* (G 13)

'I have consideration for the honest.'

Finally, *cì* becomes an HS in most cases when it is placed non-final. That is, in subordinate clauses:

26. *Lo cì cùh kà hmat cì.* (G 13)

'I know the one who comes'

27. *Zòì cì nòh m'gu cì.* (G 13)

'The seller steals.'

28. *Kà pién cì cùh, nà ng'zak cì ang ?*

'Did you hear what I said ?' (G 27)

29. *Go òn im co cì gùì.* (G 14)

'They build houses with bamboo material'

The same applies when it is followed by a particle as the following examples illustrate. In this case, they are followed by the numerals *goi* 'plural', *gùì* 'dual'.

30. *M'cài tu ng'kiu cì goi* (G 36)

'They lecture one another.'

31. *Nganí nòh keini àh ngùì nà sàng goi cì goi*

'They (DUAL) asked us (DUAL) for money.' (PC)

However, in the following example of direct speech it remains L.

32. *Hteit cì cee nà kìn vaai* (PC)

You must say that he has gone.

Similarly, the inchoative particle *lò* is L in isolation, and in most environments (when preceded by an R or H), and HS when preceded by L.

33. *Mùmchà Théing òn käämah lò ci.* (Matt 1:18)

'(She) was with child by the Holy Spirit.'

34. *Àni cùh pámihtá à htá lò khaai.* (Matt 1: 21)

She will bear a baby boy.

But as above, when preceded by an L verb, it becomes HS.

35. *Màng lo ci.* (PC)

'He turned and faced this way.'

In contrast to *ci*, *lò* does the same mid-sentence.

36. *Tuhbäih ng'tüi lo ci à Jew chàng gùì à ghangpùghang cùh à hooi ang ?* (Matt 2: 2)

'Where is the child who has been born king of the Jews ?'

37. *Hteit lò ci hleih kà hgnuh ci.*

'I saw him about to go.' (PC)

Furthermore, *lò* does not effect *ci* in the same way as other verbs do¹⁰.

38. *Ng'düi lò ci.*

'He stood up.'

To summarize, the L to HS after L rule is a widespread one found on grammatical items of different function. *Cì* undergoes tonal change when in sentence-final position of the matrix clause, but not after the inchoative particle. In contrast to *ci*, *lò* undergoes tonal change in all positions. That is, at all times it is in tonal contrast with its preceding verb. The final case of tonal sandhi will now be considered.

3. 4 Dual and Plural Personal Numerals: *mí* / *ní*

There are two personal numerals in Chò shown in Table 10, and that have already been seen in previous examples.

Table 10 Numerals

NUMERAL	FUNCTION
<i>Ní</i>	Dual Person Numeral
<i>Mí</i>	Plural Person Numeral

Ní and *mí* exhibit change in the following way.

1. R in non-abbreviated form (ie. when not functioning in verbal agreement).
2. HS when followed by *cùh*, or (other) non-case postpositions.

They are R in most environments. That is for example, before a phrase boundary.

39. *Keini, kani hteih khaai.*

'We (DUAL) shall go.' (G 32)

40. *Keimi, kami nom ci.* (G 31)

'We (PL.) have protested.'

R immediately before case postpositions.

41. *Nikni nòh, ni m'chiut khai.* (G 32)

'We (you & I) will manage it.'

42. *Keini à ló.* (PC)

'Please come to us.'

43. *Ngani nòh nikni àm, nà pe goi ci goi..*

They (DUAL) gave it to us (DUAL). (PC)

44. *Keini àm nà pe goi ä`.*

'You gave it to us.' (PC)

45. *Keini òn hteit tu ci.*

'He (too) went with us.' (PC)

However, they become HS when followed by *cùh*.

46. *Ngani cùh kà chiù goi ci.*

'I called them both.' (G 33)

47. *Keimi cùh, nà ú gùì ci gùì.*

'They hate us.' (G 31)

48. *Ngami cùh nà tüih gùì ci ang.*

'Did you send them off ?' (G 33)

And also when followed by a non-case postposition.

49. *Nani mät goi cùh kà níng tüih goi khaai.*

'I shall see you (yourselves) both off.' (G 35)

50. *Keini hngih cùh, kani nom ci.* (G 31)

We (DUAL) complained.

51. *Nikni hngih nòh, ni m'chiut khaai.* (G 32)

'We (PL.) have protested.'

52. *Keimi gùì, kami nom ci.* (G 31)

'We (DUAL) shall manage it.'

53. *Keimi 'Chò gùì nòh, lo kami bi ci.* (G 32)

'We Chin people cultivate hill fields.'

54. *Mikmi chàng gùì cùh, mi sìh zop khaai.* (G 32)

'We men, we must all die.'

4. Conclusion

A summary of tonal sandhi may be tabulated as follows.

Table 9 Distribution of Tonal Variation

GRAMMATICAL ITEM	TONE	TONAL BEHAVIOR
Contrastive <i>cùh</i>	L	HS when preceded by L item
Inchoative <i>lò</i>	L	HS when preceded by an L verb
Non-future <i>cì</i>	L	HS when preceded by an L verb in sentence-final position
Personal Numerals <i>mí, ní</i>	R	HS when followed by <i>cùh</i> or other non-case postpositions

In this paper we have seen that 'Chò has three main tones (H, L, R), one distinction of vowel length (HI HS), and one restricted non-phonemic tonal distinction F: the falling tone. Tonal sandhi occurs on restricted grammatical items and is triggered by the tone of the preceding item.

References:

- Jordan, Father Marc. 1969. Chin Dictionary and Grammar: Southern Chin Hills People's Language Monograph. .
- Lehman, F.K. 1975. Wolfenden's non-pronominal a-prefix in Tibeto-Burman. In Linguistics of Tibeto-Burman Area. 2.1: 19-44.
- So-Hartmann, Helga. 1988. Notes on the Southern Chin Languages. In Linguistics of the Tibeto-Burn Area. Volume 11:2.98-119 .

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² The following is an outline of the phonemic values for each symbol.

Consonants:

Orthography	Phonemic Value
b, d	voiced ingressive stops / b, d /
p, t, k, c	unaspirated stops (vcd, vcl) / p, t, k, c /
ph, th, kh	voiceless aspirated stops / p', t', q' /
v, z, g	voiced fricative / v, ʒ (/j/), ʒ /
s, gh, h	voiceless fricatives / s, x, h /
ht, ch	voiceless affricates / tʰ, kx /
ki	voiced velar affricate / kʎ /
hm, hn, hng	voiceless nasals / m̥, n̥, ŋ̥ /
m, n, ng	voiced nasals / m, n, ŋ /
hl	voiceless lateral approximant / l̥ /
l	voiced lateral approximant / l /
-h	Syllable-final glottal stop / ʔ /
‘	Syllable-initial glottal stop / ʔ /

Vowels:

e, i, u	High vowels / i, ɛ, u /
ä, ü, o	Mid vowels / e, a, o /
a	Low vowel / a /

Compare the above with So-Hartmann (1988:105-106), and Lehman (1975).

³ Except for long vowels, these are devised by Kíui Ghú`ng Maang and Father Paulinus Maang Ha Gei.

⁴ We will not look at intonation examples here.

⁵ PT stands for 'particle', the individual status of each being outside the scope of this paper.

⁶ From this point on the source of all items will be given as follows: 'D' being from the Jordan Dictionary, 'G' from the Jordan Grammar with page numbers following. 'PC' refers to data collected by Personal Communication.

⁷ It should be noted that a similar velar nasal stop is found in a similar environment. That is, *ip kóng* 'I'm going to sleep', *ip kò* 'let's (you and me) sleep.'

⁸ The CONDITIONAL *ung* is homophonous with the locative *ung*.

⁹ The above table itself is from Jordan, although grammatical terms have been slightly altered (G 16).

¹⁰ *Ng'düí lò ci* with a final HS is pragmatically marked.