An Initial Description of Tone in ‘Cho

Nolan, Stephen

1. Introduction
In this paper I will give a description of phonological tone in ‘Cho (/ʔkʰəʔ/ or /ʔkʰə/), also known as Müün, or Ng’Mèen, a Southern Kuki-Chin language of Southern Chin State, Myanmar. 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 Hmòi village, Mindât¹. 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)
   /a/       Low (level) (L)
   /á/       Rising (low to high) (R)

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

   /aa/       High level long

The following table is made up of examples of all four categories.
Table 2 Four Phonemic Distinctions

<table>
<thead>
<tr>
<th>HIGH LONG</th>
<th>HIGH SHORT</th>
<th>LOW</th>
<th>RISING</th>
</tr>
</thead>
<tbody>
<tr>
<td>m'sii ‘to wash’</td>
<td>m'si ‘soak’</td>
<td>m'si ‘metal’, ‘saliva’</td>
<td>m'si ‘seed’</td>
</tr>
<tr>
<td>khoong ‘opened up (path)’</td>
<td>khong ‘attach carry straps’</td>
<td>khong ‘to beat’</td>
<td>khong ‘trap made of a leg’</td>
</tr>
<tr>
<td>ghuu ‘collection of vege’</td>
<td>ghu ‘wipe’</td>
<td>ghù ‘a corner’</td>
<td>ghù ‘to miscarry’</td>
</tr>
<tr>
<td>chüü ‘to call’</td>
<td>chü ‘get lost’</td>
<td>chü ‘speak’</td>
<td>chü ‘loin cloth, pants’</td>
</tr>
</tbody>
</table>

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

Table 3 Three Phonemic Tones

<table>
<thead>
<tr>
<th>HIGH SHORT</th>
<th>LOW</th>
<th>RISING</th>
</tr>
</thead>
<tbody>
<tr>
<td>phui ‘to transplant’</td>
<td>phuí ‘carry on head’</td>
<td>Phuí ‘Place name’</td>
</tr>
<tr>
<td>khét ‘claw, scratch’</td>
<td>khêt ‘difficult’</td>
<td>khêt ‘not exactly’</td>
</tr>
<tr>
<td>bit ‘pluck’</td>
<td>bit ‘to plug up’</td>
<td>bit ‘a kind of sparrow’</td>
</tr>
<tr>
<td>lam ‘road, path’</td>
<td>làm ‘an arm span’</td>
<td>làm ‘bland’</td>
</tr>
<tr>
<td>‘pang ‘grab, hold’</td>
<td>‘pàng ‘wall’</td>
<td>‘páng ‘the back’</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>HIGH LONG</th>
<th>HIGH SHORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>kaap ‘a crow’</td>
<td>kap ‘to collapse’</td>
</tr>
<tr>
<td>chööök ‘to be on the look out’</td>
<td>chök ‘knock on’</td>
</tr>
<tr>
<td>deep ‘to give way underweight’</td>
<td>dep ‘to smash, shatter’</td>
</tr>
<tr>
<td>dööük ‘to swallow’</td>
<td>dök ‘to pinch, pamper’</td>
</tr>
<tr>
<td>geet ‘a disease, a carbuncle’</td>
<td>get ‘to roll up’</td>
</tr>
<tr>
<td>aan ‘opening the mouth’</td>
<td>an ‘edible leaves of plants’</td>
</tr>
<tr>
<td>saam ‘to prepare great quantity’</td>
<td>sam ‘to be too short / low’</td>
</tr>
<tr>
<td>siin ‘to jump over’</td>
<td>sin ‘this’</td>
</tr>
<tr>
<td>vuun ‘to do something together’</td>
<td>vun ‘skin’</td>
</tr>
<tr>
<td>zoon ‘flying’</td>
<td>zon ‘to point at with a finger’</td>
</tr>
</tbody>
</table>

Maang A man’s personal name | Mang 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 ci  ‘(He) came.’
2. Loo tee ci  ‘(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 proceeding morpheme. A long syllable blocks this process as seen below.
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 intonation. 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>
<thead>
<tr>
<th>ITEM</th>
<th>ORIGINAL FORM</th>
<th>GRAMMATICAL STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaa</td>
<td>kà kà</td>
<td>NEGATIVE + 1st P</td>
</tr>
<tr>
<td>Cee</td>
<td>ci + nè</td>
<td>NON-FUT. + PT = QUOTATIVE</td>
</tr>
<tr>
<td>Caa</td>
<td>ci + à</td>
<td>NON-FUT. + PT = ADJ. ATTRIBUTIVE</td>
</tr>
<tr>
<td>Vaang</td>
<td>vaai + ?</td>
<td>PT + ? = 'let me V'</td>
</tr>
</tbody>
</table>

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

7. Ip vaang.
'Let me sleep' (PC)

8. Ni ip vaai
'Let's (DUAL) sleep.' (PC)

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

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. The falling tone can also be found as the result of other sound changes, such as the items in the following table.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>NUMERAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nii</td>
<td>Dual Person Numeral</td>
</tr>
<tr>
<td>Mii</td>
<td>Plural Person Numeral</td>
</tr>
</tbody>
</table>

The above two examples are the pronominal numerals mì ‘dual’ mì ‘plural’, that occur here with a falling tone only when preceded by the assimilation of nàmì 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 ci. ‘You (pl) gave it to me.’ (PC).
10. Nangmí nòh kei àm nàa maa pe ci. ‘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 a falling tone.

Table 7 Non-Abbreviations

<table>
<thead>
<tr>
<th>ITEM</th>
<th>GLOSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iivaai</td>
<td>‘why, for what reason / don’t’</td>
</tr>
<tr>
<td>Hngaam</td>
<td>‘where’</td>
</tr>
<tr>
<td>Hooi</td>
<td>‘where’</td>
</tr>
</tbody>
</table>

The following are examples sentences of each.

11. (À) iivaai à Mindât à nà hteit ci ang ?
   ‘For what purpose did you go to Mindat.’ (PC)

12. ‘Chîm 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 ci
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>
<thead>
<tr>
<th>POSTPOSITION</th>
<th>FUNCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>nòh</td>
<td>Agentive</td>
</tr>
<tr>
<td>cùh</td>
<td>Contrastive</td>
</tr>
<tr>
<td>àm</td>
<td>Dative</td>
</tr>
<tr>
<td>òn</td>
<td>Instrumental</td>
</tr>
<tr>
<td>ka</td>
<td>Ablative</td>
</tr>
<tr>
<td>à</td>
<td>Locative / Genitive</td>
</tr>
</tbody>
</table>

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:

   ‘I hurt myself.’ (G 35)  
15. Ànì cùh ghìng ci.  
   ‘He is alive.’ (G 17)

Following R:

16. Á nù nòh à hú cùh m’hnìi ci.  
   ‘A mother loves her child.’ (G 17)  
17. Pá cùh hteit ci  
   ‘(My) father has gone.’ (PC)

Cùh changes from L to HS before L.

18. ‘Chàng cùh kà ni ci.  
    ‘Men are not good.’ (G 14)  
    I bought a new shirt. (PC)

    There are many big tigers. (PC)  
    I killed a mithon. (PC)

22. Hlèì nòh ng’vòn cùh phiek ci.  
    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

<table>
<thead>
<tr>
<th>PARTICLE</th>
<th>FUNCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>cì</td>
<td>Non-future (?)</td>
</tr>
<tr>
<td>tee</td>
<td>Past tense</td>
</tr>
<tr>
<td>khai</td>
<td>Future</td>
</tr>
<tr>
<td>lò</td>
<td>Inchoative</td>
</tr>
<tr>
<td>zah</td>
<td>Imperfect</td>
</tr>
<tr>
<td>pii / pui</td>
<td>Perfect</td>
</tr>
</tbody>
</table>

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 ‘dăm nòh m’chúi cì. (G 13)
   The big one managed it.

24. Bi (nòh) nà m’zài cì (PC)
   ‘Work makes me tired.’

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

25. À bă’ cuh 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. Zòi cì nòh m’gu cì (G 13)
   ‘The seller steals.’

28. Kà pién cì cùh, nà ng’zak ci ang? (G 27)
   ‘Did you hear what I said?’

29. Go ön im co ci gùi. (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’, guì ‘dual’.

30. M’căù tu ng’kiu ci goi (G 36)
    ‘They lecture one another.’

31. Ngi nòh keini àh ngûi nà sãng goi ci goi
    ‘They (DUAL) asked us (DUAL) for money.’ (PC)

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

32. Hteit ci cee nà kîn 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 L or H), and HS when preceded by L.

33. Mùmchà Théing ônica kūmah lò ci. (Matt 1:18)
   ‘(She) was with child by the Holy Spirit.’

34. Àni cūh pámihtà à hta 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. Tuhbāih ng’tüi lo ci à Jew chàng gùi à ghängpūghang cūh 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 do.

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. Ci undergoes tonal change when in sentence-final position of the matrix clause, but not after an inchoative particle. In contrast to ci, lò undergoes tonal change in all positions. That is, at all times it is a tonal contrast with its preceding verb. The final case of tonal sandhi will now be considered.

3. 4 Dual and Plural Personal Numerals: mì / nì

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

Table 10 Numerals

<table>
<thead>
<tr>
<th>NUMERAL</th>
<th>FUNCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>nì</td>
<td>Dual Person Numeral</td>
</tr>
<tr>
<td>mì</td>
<td>Plural Person Numeral</td>
</tr>
</tbody>
</table>

nì and mì exhibit change in the following way.

1. R in non-abbreviated form (i.e., when not functioning in verbal agreement).
2. HS when followed by cūh, or (other) non-case postpositions.
They are R in most environments. That is for example, before a phrase boundary.

39. **Keimí, kàni hteih khaai.**  
   ‘We (DUAL) shall go.’ (G 32)  
40. **Keimí, kàni nom ci.** (G 31)  
   ‘We (PL.) have protested.’

R immediately before case postpositions.

41. **Niknì nòh, ni m’chút khai.** (G 32)  
   ‘We (you & I) will manage it.’  
42. **Keimí à lò.** (PC)  
   ‘Please come to us.’

43. **Ngarnì nòh niknì àm, nà pe goi ci goi.**  
   They (DUAL) gave it to us (DUAL). (PC)

44. **Keimí àm nà pe goi à.**  
   ‘You gave it to us.’ (PC)  
45. **Keimí èn hteit tu ci.**  
   ‘He (too) went with us.’ (PC)

However, they become HS when followed by cûh.

46. **Ngarnì cûh kà chû goi ci.**  
   ‘I called them both.’ (G 33)  
47. **Keimí cûh, nà ú güi ci güi.**  
   ‘They hate us.’ (G 31)

48. **Ngarnì cûh nà tüh güi ci ang.**  
   ‘Did you send them off?’ (G 33)

And also when followed by a non-case postposition.

49. **Nàmì mât goi cûh kà níng tüh goi khaai.**  
   ‘I shall see you (yourselves) both off.’ (G 35)

50. **Keimí hngih cûh, kàni nom ci.** (G 31)  
   We (DUAL) complained.

51. **Niknì hngih nòh, ni m’chút khaai.** (G 32)  
   ‘We (PL.) have protested.’

52. **Keimí güi, kàni nom ci.** (G 31)  
   ‘We (DUAL) shall manage it.’

53. **Keimí ’Chò güi nòh, lo kàni bi ci.** (G 32)  
   ‘We Chin people cultivate hill fields.’

54. **Miknì chàng güi cuh, mi sîh 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

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

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:
Monograph.
Lehman, F.K. 1975. Wolfenden’s non-pronominal a-prefix in Tibeto-Burman. In Linguistics of
Tibeto-Burman Area. 2:1: 19-44.

1 I would like to express heartfelt thanks to Ktiú Ghü’ng Maang for his consistently enthusiastic assistance in this research.
2 The following is an outline of the phonemic values for each symbol.

Consonants:

<table>
<thead>
<tr>
<th>Orthography</th>
<th>Phonemic Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>b, d</td>
<td>voiced ingressive stops / b, d /</td>
</tr>
<tr>
<td>p, t, k, c</td>
<td>unaspirated stops (voc, vcl) / p, t, k, c /</td>
</tr>
<tr>
<td>ph, th, kh</td>
<td>voiceless aspirated stops / p', t', q' /</td>
</tr>
<tr>
<td>v, z, g</td>
<td>voiced fricative / v, z (/ j /), x /</td>
</tr>
<tr>
<td>s, gh, h</td>
<td>voiceless fricatives / s, x, h /</td>
</tr>
<tr>
<td>ht, ch</td>
<td>voiceless affricates / t, k /</td>
</tr>
<tr>
<td>ki</td>
<td>voiced velar affricate / k /</td>
</tr>
<tr>
<td>hm, hn, hng</td>
<td>voiceless nasals / m, n, n /</td>
</tr>
<tr>
<td>m, n, ng</td>
<td>voiced nasals / m, n, n /</td>
</tr>
<tr>
<td>hl</td>
<td>voiceless lateral approximant / l /</td>
</tr>
<tr>
<td>l</td>
<td>voiced lateral approximant / l /</td>
</tr>
<tr>
<td>-h</td>
<td>Syllable-final glottal stop / ʔ /</td>
</tr>
<tr>
<td>-</td>
<td>Syllable-initial glottal stop / ʔ /</td>
</tr>
</tbody>
</table>

Vowels:

| e, i, u      | High vowels / i, i, u / |
| ä, ü, o      | Mid vowels / e, e, 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 Ktiú Ghü’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 kông ‘I’m going to sleep’,
ip kô ‘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’dǜ lò ci with a final HS is pragmatically marked.