Lhaovo(Maru) Tonal Alternations as Grammatical Markers

(Revised Version)

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Lhaovo(Maru), a Burmish language spoken in northern Myanmar(Burma), has the phenomena of tonal alternation. The phenomena are conditioned not phonologically, but grammatically.

In Lhaovo, tonal alternations occur

1. in positive Realis (Informative) sentences,
2. in attributive elements, including Realis attributive clauses and some attributive phrases,
3. in verb strings, and
4. before instrumental case-marker.

This presentation focuses on the first two cases and argues that the tonal alternations in these cases function as (grammatical) markers.

1 Introduction

Lhaovo people and their language

- Lhaovo(Maru)\(^1\) is the name of an ethnic group living in Kachin State and northern Shan State in the Union of Myanmar (formerly Burma), and Déhong Dai-Jingpo Autonomous Prefectur e in Yunnan Province, the People’s Republic of China. The population of Lhaovo is about 100,000 in Myanmar and 3,500 in China. (Bradley1997)

- Lhaovo is a member of larger ethno-cultural group called ‘Kachin’, together with neighbouring Jinghpaw, Lacid(Lashi), Zaiva(Atsi) etc.

- Linguistically, Lhaovo belongs to ‘Maruic’, a sub-group of ‘Burmish’ languages of the Lolo-Burmese branch of the Tibeto-Burman family, together with such languages as Lacid, Zaiva, Bola. (Nishi1999 p.70)

\(^1\)‘Lhaovo’ is the ethnonym, and ‘Maru’ is the name of this language in Jinghpaw and Burmese. Hereafter I will use only ‘Lhaovo’. Lhaovo has an orthography invented in 1968, and the name of the language itself is spelt ‘Lhaovo’. In the phonemic transcription used here, it is transcribed \(l\bar{a}\bar{o}v\bar{o}F\).
Phonology (Sawada 1999)

**Consonants**

<table>
<thead>
<tr>
<th></th>
<th>LABIAL</th>
<th>DENTAL</th>
<th>ALVEOLAR</th>
<th>PALATAL</th>
<th>VELAR</th>
<th>GLOTTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NASAL</strong></td>
<td>m</td>
<td>n</td>
<td>˜n</td>
<td>˜ñ</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td><strong>STOP/ unaspirated</strong></td>
<td>p</td>
<td>ts</td>
<td>t</td>
<td>c</td>
<td>k</td>
<td>?</td>
</tr>
<tr>
<td><strong>AFFRICATE aspirated</strong></td>
<td>ph</td>
<td>tsh</td>
<td>th</td>
<td>ch</td>
<td>kh</td>
<td></td>
</tr>
<tr>
<td><strong>FRICATIVE</strong></td>
<td>f,v</td>
<td>s</td>
<td>ś</td>
<td>ʃ, ʃ̝</td>
<td>fi</td>
<td></td>
</tr>
<tr>
<td><strong>LATERAL</strong></td>
<td>l</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FLAP</strong></td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>APPROXIMANT</strong></td>
<td>y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Vowels**

<table>
<thead>
<tr>
<th></th>
<th>FRONT</th>
<th>CENTRAL</th>
<th>BACK</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CLOSE</strong></td>
<td>i</td>
<td>u</td>
<td></td>
</tr>
<tr>
<td><strong>MID</strong></td>
<td>e</td>
<td>ø</td>
<td>o</td>
</tr>
<tr>
<td><strong>OPEN</strong></td>
<td>a</td>
<td>au</td>
<td></td>
</tr>
</tbody>
</table>

**Creakiness Feature of Vowel**

- Creaky \((V)\)
  - Lax, sometimes breathy sound. with all initials
  - Tense, Creaky sound. only with /m,n,ń,ŋ,p,t,ts,c,k,γ,l,r,y/

**Tones**

- Falling \((F)\): 21
- Low \((L)\): 22-33
- High \((H)\): 44

**Syllable weakening**

- Some syllables in Lhaovo are ‘weak’ ones, that is, syllables without inherent tone. Some weak syllables are inherently weak, but some are ‘weakened’ by syllable reduction.

- ‘Weakened’ syllables are often found in noun compounding and sequences of particles.

**Previous studies on the phenomena**

- Okell (1988) gives a concise but comprehensive description of the phenomena occurring in Lhaovo verbs. Our observation of the phenomena is virtually the same as Okell’s.

He regards tonal alternation of Lhaovo as “… conditioned neither by phonology, nor (in the usual sense) by grammar, but simply by a subsequent morpheme: a word bears one tone when followed by morpheme X, and another when followed by morpheme Y” (p.109), and gives the list of ‘raisers’ (morphemes inducing tonal alternation) and ‘non-raisers’. It is partly incorrect. ²

²Dai & Xu (1983) lists seventeen patterns of tonal alternation and give several examples for each pattern, but they does not mention the ‘grammatically conditioned’ tonal alternations discussed here.
2 Tonal Alternation in Verb Sentences

Patterns of tonal alternation

(1) Structure of verb sentence in Lhaovo:

```
Sentence
  ⌊ Core Unit ⌋
  ⌊ Marker ⌋
VP
  ⌊ AUX(s) ⌋
  ⌊ Marker ⌋
  ⌊ SAA Indicator(s) ⌋
  ⌊ Core Unit ⌋
  ⌊ Marker ⌋
yo[F]
pH-ty[F]apH-ykH-reF
they what-book-ACC take PLURAL -IRREALIS -QUESTION
   -kE   -neH  -?iH

‘What book will they take?’
```

(2) Paradigms of verb sentences:

a. \( t_0H \) ‘to speak’

- Informative, Realis positive \( t_2H \ (-raH) \) ‘(I/you(s)he etc.) spoke.’
- negative \( m\-taH \) ‘(I/you(s)he etc.) did not speak.’
- Informative, Irrealis positive \( t_0H \ -neH \) ‘(I/you(s)he etc.) will speak.’
- negative \( m\-taH \ -neH \) ‘(I/you(s)he etc.) will not speak.’
- Optative positive \( t_0H \ -\ddot{s}oH \) ‘May (I/you(s)he etc.) speak.’
- negative \( m\-taH \ -\ddot{s}oH \) ‘May not (I/you(s)he etc.) speak.’
- Hortative positive \( t_0H \ -laL \) ‘Let’s speak.’
- Imperative positive \( t_0H \ -\ddot{a}F \) ‘Speak.’
- negative \( t\-taH \) ‘Don’t speak.’

b. \( naF \) ‘to stay’

- (Informative-)Realis positive \( naL \ (-raH) \) ‘(I/you(s)he etc.) stayed.’
- negative \( m\-naF \) ‘(I/you(s)he etc.) did not stay.’
- (Informative-)Irrealis positive \( naF \ -neH \) ‘(I/you(s)he etc.) will stay.’
- negative \( m\-naF \ -neH \) ‘(I/you(s)he etc.) will not stay.’
- Optative positive \( naF \ -\ddot{s}oL \) ‘May (I/you(s)he etc.) stay.’
- negative \( m\-naF \ -\ddot{s}oL \) ‘May not (I/you(s)he etc.) stay.’
- Hortative positive \( naF \ -laL \) ‘Let’s stay.’
- Imperative positive \( naF \ -\ddot{a}F \) ‘Stay.’
- negative \( t\-naF \) ‘Don’t stay.’

c. \( tsoL \) ‘to eat’

- (Informative-)Realis positive \( tsoH \ (-raH) \) ‘(I/you(s)he) ate.’
- negative \( m\-tsoL \) ‘(I/you(s)he) did not eat.’
- (Informative-)Irrealis positive \( tsoL \ -neH \) ‘(I/you(s)he) will eat.’
- negative \( m\-tsoL \ -neH \) ‘(I/you(s)he) will not eat.’
- Optative positive \( tsoL \ -\ddot{s}oL \) ‘May (I/you(s)he) eat.’
- negative \( m\-tsoL \ -\ddot{s}oL \) ‘May not (I/you(s)he) eat.’
- Hortative positive \( tsoL \ -laL \) ‘Let’s eat.’
- Imperative positive \( tsoL \ -\ddot{a}F \) ‘Eat.’
- negative \( t\-tsoL \) ‘Don’t eat.’
Above examples illustrate tonal alternations occurring on main verbs of Realis positive Informative sentences.

(3) \( F \rightarrow L; \ L \rightarrow H; \ H \rightarrow H \) (vacuous)

**Auxiliaries**

(4) Auxiliary members and their relative order:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>-( \bar{s}i) ‘still, yet’</td>
<td>-( v)aH ‘REALIZATION’</td>
<td>-( ko)H ‘PLURAL SUBJECT’ (in Realis)</td>
<td></td>
</tr>
<tr>
<td>-( l)oH ‘now, (not) anymore’</td>
<td>(only in Realis)</td>
<td>-( ke)F ‘PLURAL SUBJECT’ (in others)</td>
<td></td>
</tr>
</tbody>
</table>

When a verb is followed by an auxiliary, it is not the verb but the auxiliary that undergoes tonal alternation (including the case of vacuous application as in (5)).

(5) -\( ko\)H (in Realis) / -\( ke\)F (in others)  

'PLURAL SUBJECT'

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>naL</td>
<td>-( ko)H(-( ra)H)</td>
<td>-( m)a-naF -( ko)H</td>
<td>(( m)a-)naF -( k)e-ne( ne)H</td>
<td>(( m)a-)naF -( k)e-( \bar{s}i)H</td>
<td>naF</td>
<td>-( l)aPF</td>
<td></td>
</tr>
<tr>
<td>naF</td>
<td>-( si)H(-( ra)H)</td>
<td>-( m)a-naF -( si)L</td>
<td>(( m)a-)naF -( si)-( ne)yH</td>
<td>-( fi)aF</td>
<td>naF</td>
<td>-( si)L-( fi)aF</td>
<td></td>
</tr>
</tbody>
</table>

**Speech-act attitude indicators**

(7) -\( la\)F ‘DUBITATIVE’ (with Informative) ‘PRECATORY’ (with Imperative)  

-\( ?\)H ‘QUESTION’ (with Informative);  
‘REQUESTING ADDRESSEE’S RESPONSE’ (with Hortative, Imperative)  
-\( re\)F ‘EMPHASIS’  
-\( ko\)H ‘EXCLAMATION’  
-\( le\)H ‘APPEALING TO ONE’S ATTENTION’  
-\( mo\)H ‘of course’

SAA indicators never induce tonal alternation in the immediately preceding syllable, nor do they weaken the auxiliary preceding it, unlike sentence markers and auxiliaries.

(8) -\( la\)F ‘DUBITATIVE ; PRECATORY’

<table>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>naL</td>
<td>-( la)F</td>
<td>-( la)F</td>
<td>(( m)a-)naF -( neg)H</td>
<td>naF</td>
<td>-( la)F</td>
</tr>
<tr>
<td>-( la)F</td>
<td>(DUBITATIVE)</td>
<td>(DUBITATIVE)</td>
<td>(DUBITATIVE)</td>
<td></td>
<td>(PRECATORY)</td>
</tr>
</tbody>
</table>
Tonal Alternation as Realis positive sentence marker

- -raH is not a sentence marker because it is not indispensible.

(9)  tảkyoLtsoL  şinH-loF-vaH(-raH)
     fairly     cold-come.HOME-REALIZATION(-RA)
     'It became fairly cold.'

(10)  chukHmoH-t˘a-yaukL  yamF-neγF  liH-thaŋL(-raH)-kaH
     widow-one-CLF house-LOC come-stop(.-RA)-HEARSAY
     'He came and stopped at the house of a widow’s.'

In addition, -raH does not weaken the immediately preceding auxiliary unlike a genuine sentence marker -nejH, -soŋL and -laŋL.

- On the other hand, the occurrence of tonal alternation is indispensible to Realis positive sentence. Therefore, we assume the existence of the abstract element inducing tonal alternation and functioning as the marker of Realis positive sentence.

(11) Structures of core units in verb sentences: (TA = abstract element inducing tonal alternation.)

<table>
<thead>
<tr>
<th></th>
<th>Verb</th>
<th>AUX-Marker complex</th>
<th>?</th>
<th>Speach-Act Attitude Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real.pos.</td>
<td>V</td>
<td>-TA</td>
<td></td>
<td>(-raH)</td>
</tr>
<tr>
<td>Real.neg.</td>
<td>m˘a-V</td>
<td>-ϕ_neg</td>
<td></td>
<td>(-SAAIs)</td>
</tr>
<tr>
<td>Irrealis</td>
<td>(m˘a-)V</td>
<td>-nejH</td>
<td></td>
<td>(-SAAIs)</td>
</tr>
<tr>
<td>Optative</td>
<td>(m˘a-)V</td>
<td>-soŋL</td>
<td></td>
<td>(-SAAIs)</td>
</tr>
<tr>
<td>Hortative</td>
<td>V</td>
<td>-laŋL</td>
<td></td>
<td>(-SAAIs)</td>
</tr>
<tr>
<td>Imp.pos.</td>
<td>V</td>
<td>-ϕ_imp</td>
<td></td>
<td>(-SAAIs)</td>
</tr>
<tr>
<td>Imp.neg.</td>
<td>t˘a-V</td>
<td>-ϕ_imp</td>
<td></td>
<td>(-SAAIs)</td>
</tr>
</tbody>
</table>

3 Tonal Alternation in Attributive Phrases/Clauses

(3) also applies to the case of attributive phrases and clauses.

Attributive phrases

(12) a.  chukHmoH-t˘a-yaukL
     widow-one-CLF
     'a widow'

     b.  chukHmoH-t˘a-yaukL(-noL)
     widow-one-CLF:TA(-of)
     house
     'the house of a widow’s'

(13) a.  ch˘e-ruL  kagH-ﬁa?F
     this-like  do-DIRECTION
     'Please do like this!'

     b.  ch˘e-ruH
     this-like:TA  fabric-kind
     'such kind of fabric.'
Attributive clauses

(14) Paradigms of attributive clauses:

a. taH 'to speak'

| Real. pos. | taH -raH pyuF | 'the person who spoke' |
| neg. | mä-taH -raH pyuF | 'the person who did not speak' |

| Irreal. pos. | taH -nejH pyuF | 'the person who will speak' |
| neg. | mä-taH -nejH pyuF | 'the person who will not speak' |

b. naF 'to stay'

| Real. pos. | naL -raH pyuF | tsoH -raH pyuF |
| neg. | mä-naL -raH pyuF | mä-tsoH -raH pyuF |

| Irreal. pos. | naF -nejH pyuF | tsoL -nejH pyuF |
| neg. | mä-naF -nejH pyuF | mä-tsoL -nejH pyuF |

c. tsoL 'to eat'

Tonal Alternation as attributive marker

- In attributive clauses, tonal alternations occur not only in Realis positive but also in Realis negative.
- Keeping parallelism with the case of attributive phrases (12) and (13), we analyze that an attributive clause is the combination of an Informative verb sentence and TA as the marker of attributive element. Note that a TA only affects the immediately preceding segmental element.

(15) Structures of core units in attributive clauses:

<table>
<thead>
<tr>
<th>Verb</th>
<th>AUX-Marker complex</th>
<th>Overt linker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real.pos.</td>
<td>V (-AUXs) -TA -TA</td>
<td>(-raH)</td>
</tr>
<tr>
<td>Real.neg.</td>
<td>mä-V (-AUXs) -φneg -TA</td>
<td>(-raH)</td>
</tr>
<tr>
<td>Irreal.</td>
<td>(mä-)V (-AUXs) -nejH -TA</td>
<td></td>
</tr>
</tbody>
</table>

The status of -raH

- -raH in an attributive clause is the overt linker introduced to support non-segmental marker (i.e. TA) morphologically. (The same thing is also applied to -no in (12).) When a sentence has an overt sentence marker like Irreals -nejH, no overt linker is needed, nor allowed.
- The occurrence of -raH in Realis positive sentences is the result of analogy to attributive clauses, mediated by the existence of TA.
### 4 Comparison with Burmese

<table>
<thead>
<tr>
<th>Lhaovo Rajakumar Modern</th>
<th>Modern Written Burmese</th>
<th>Modern Colloquial Burmese</th>
</tr>
</thead>
<tbody>
<tr>
<td>Realis positive</td>
<td>TA</td>
<td>(indicating TA)</td>
</tr>
<tr>
<td>sentence marker</td>
<td>-ųə -Ż</td>
<td>(-į)/-y/C/</td>
</tr>
<tr>
<td>attributive</td>
<td>TA-TA</td>
<td>-ųə -Ż</td>
</tr>
<tr>
<td>phrase marker</td>
<td>TA</td>
<td>-ųə -Ż</td>
</tr>
<tr>
<td>clause marker (Realis)</td>
<td>TA-TA</td>
<td>-ųə -Ż</td>
</tr>
<tr>
<td>(Irrealis)</td>
<td>negH-TA</td>
<td>-ųə -Ż</td>
</tr>
</tbody>
</table>

* Burmese tones: C=Creaky, L=Level, H=Heavy (Okell 1968)

** Burmese tonal alternations: C,L,H → C (indicated by the addition of tone mark ć)

*** Burmese attributive clause markers -ųə - Ż/-ųə - Ż/-ųə - Ż/-ųə - Ż/-ųə - Ż/-ųə - Ż/-ųə - Ż can be analyzed as the combination of sentence markers -ųə - Ż/-ųə - Ż/-ųə - Ż/-ųə - Ż/-ųə - Ż/-ųə - Ż/-ųə - Ż/-ųə - Ż/-ųə - Ż and TA, respectively.

### References


