TONE AND STEM2-FORMATION IN HAKHA LAI

Larry M. Hyman & Kenneth VanBik
University of California, Berkeley

Two recent issues of LTBA (20.2 and 21.1) contain studies which discuss
the segmental properties of stem2 verb forms in Hakha Lai, a Tibeto-Burman
language of the Kuki-Chin subgroup spoken in Chin State, Burma, and parts of
Mizoram State, India (see especially Melnik 1997, Patent 1997 and Peterson
1998). As in other Kuki-Chin languages, verbs have two forms in Hakha Lai
which appear in different morphological and syntactic environments. The
examples in Peterson (1998), for example, show that stem2 is required when
verbs are transitivized by causative, applicative, comitative and other
extensions. When transitivity is not an issue, the choice of stem1 vs. stem2 is
determined by a complex interplay of mood, polarity, and clause type (e.g. main
vs. subordinate). In this case, as shown by Kathol and VanBik (2001), the stem
form will be determined by the relevant factor which has widest scope. Thus, as
seen in (1), the negative conditions a stem1 form, e.g. tlaá ‘fall1’:

(1) ʔa tlaá lāw  ‘he didn’t fall’
     3s fall1 NEG

In (2), however, subordinate clauses such as those introduced by /tik-ʔəʔ/
‘when’, require stem2, e.g. tlaak ‘fall2’:

(2) ʔa tlaak lāw tik-ʔəʔ  ‘when he didn’t fall’
     3s fall2 NEG when

Due to its wider scope, the stem2 requirement of the subordinate clause
overrides the stem1 requirement of the negative.

Whereas past studies have focused on the segmental phonology,
morphology, and syntax of the stem1/stem2 opposition, the purpose of this
short note is to complement these studies by demonstrating the important role of
tone in stem2 formation. By taking tone into consideration, we can demonstrate
the following:
- All but a small (predictable) class of stem2 forms have a rising (R) tone.
- The tonal and segmental properties of stem2 are largely predictable from the
tone and syllable structure of the stem1 form.
- Over 80% of Hakha Lai verbs (at present 754 out of a lexicon of 910 verbs)
have a distinct stem2 form (sometimes marked only by tone), while the
remaining verbs, ending in a glottal stop or glottalized sonorant (which appear
to have been historically conditioned by a transitivization process), are
"invariant".

To see this, we begin in (3) with an indication of the different syllable
structures found on stem1 verb forms:

(3) Stem1 Verb Shapes

a. CVV : tiù 'melt', hmuú 'see', pee 'give'
   CVD : nàm 'stink', thlán 'sweat', tser 'shine'
   CVVD : noöl 'apologize', boöm 'help', tsheen 'be steep'

b. CVT : róp 'decay', zút 'leak', ték 'run'

c. CVVT : doop 'suck', luut 'enter', faak 'ache'

In the above schemata, D = one of the seven sonorant codas /m, n, ñ, l, r, y,
w/, while T = one of the three stop codas /p, t, k/. (As we shall see, T may also
stand for a glottal stop or a glottalized sonorant in stem2 forms, which, like /p,
t, k/, are obstruents in Hakha Lai.) Vowels are long in open syllables, while
length is contrastive in closed syllables.

As indicated by the accent marks over the last vowel of each verb, the
"smooth" syllable types in (3a) show a three-way tonal opposition: F(alling),
marked by a grave accent, R(ising), marked by an acute accent, and a low level
tone (L), which is unmarked. Although there is no underlying tonal opposition
on stopped syllables, Hyman and VanBik (2002) show the CVT syllables in
(3b) have an underlying R tone, while the CVVT syllables in (3c) have an
underlying L tone. Both F and R tones are subject to tonal alternations whose
interesting complications are discussed in Hyman and VanBik (2002).

With this background, we are now ready to show how stem2 forms are
predictable on the basis of the stem1 inputs.

First, although we can treat all of the "smooth" syllables of (3a) as a class,
we shall begin with stem1 verbs which end in a nasal. As seen in the following
examples, the verbs in (4a) change their tone to R in stem2, while those in (4b)
both change their tone to R and acquire glottalization.
(4) Stem2 formation: Stem1 has shape CVN or CVVN

<table>
<thead>
<tr>
<th>stem1</th>
<th>stem2</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>dám</td>
<td>dám</td>
<td>'be healthy'</td>
</tr>
<tr>
<td>tlúm</td>
<td>tlúm</td>
<td>'erode'</td>
</tr>
<tr>
<td>sén</td>
<td>sén</td>
<td>'be red'</td>
</tr>
<tr>
<td>mín</td>
<td>mín</td>
<td>'slide (land)'</td>
</tr>
<tr>
<td>hlèŋ</td>
<td>hlén</td>
<td>'deceive'</td>
</tr>
<tr>
<td>pìñ</td>
<td>pín</td>
<td>'be tight'</td>
</tr>
<tr>
<td>laàm</td>
<td>laám</td>
<td>'dance'</td>
</tr>
<tr>
<td>hruúm</td>
<td>hruúm</td>
<td>'growl (tiger)'</td>
</tr>
<tr>
<td>fuùn</td>
<td>fuún</td>
<td>'pack'</td>
</tr>
<tr>
<td>soón</td>
<td>soón</td>
<td>'be leaning'</td>
</tr>
<tr>
<td>hreèŋ</td>
<td>hreén</td>
<td>'tie'</td>
</tr>
<tr>
<td>tlaañ</td>
<td>tlaán</td>
<td>'be parallel'</td>
</tr>
</tbody>
</table>

b. lúm?  | lúm?   | 'stumble'     |
| hlón?   | hlón?  | 'throw'       |
| phóŋ?   | phóŋ?  | 'loosen'      |
| bóm?    | bóm?   | 'help'        |
| phán?   | phán?  | 'arrive'      |
| tōŋ?    | tōŋ?   | 'touch'       |

The two stem2 formations are clearly conditioned by tone: In (4a), stem1 verbs with F or L tone change their tone to R, and /ŋ/ becomes [ŋ] (which various scholars take as evidence of an historical alveolar suffix). In (4b), stem2 verbs which already have R tone, glottalize the final nasal. (A long vowel is not permitted before a glottalized sonorant—or glottal stop—and is therefore shortened.) The table in (5) shows the number of verbs we have found with each of the above syllable- and tone-patterns. As seen, there are no exceptions to the above generalizations.
Table 1. Stem1 verb ends in a nasal (first column under each pairing refers to stem1 CVN, second to stem1 CVVN)

Verbs ending in liquids show the same pattern, as seen in (6).

(6) Stem2 formation: Stem1 has shape CVL or CVVL

a. hāl hāl ‘ask’
tshol tshól ‘bounce’
hār hár ‘be difficult’
tser tsér ‘shine’
haàl haál ‘be thirsty’
pool poól ‘be gray’
khaàr khaár ‘close’
laār laár ‘be popular’
b. tál tál? ‘kill’
mér mér? ‘turn, twist’
veél véél? ‘beat up’
suúr suúr? ‘squint (eyes)’

Again, F and L stem1 verbs change their tone to R, while R stem1 verbs acquire glottalization. As shown in (7), there are only two exceptions to this generalization (zuùl/zúl? ‘follow’, phùr/phúr? ‘carry on back’):

Table 2. Stem1 verb ends in a liquid (first column under each pairing refers to stem1 CVL, second to stem1 CVVL)