THREE TYPES OF CAUSATIVE CONSTRUCTIONS
IN HAKHA LAI 1

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1. INTRODUCTION

Hakha Lai (Chin) belongs to the Kuki-Chin branch of the Tibeto-Burman family. It is spoken in Hakha and Thantlang towns, and their vicinity (Chin State). Lai has predominantly SOV order.

There are three kinds of causative constructions in this language, which I call s- causatives, -ʔ causatives, and -ter causatives.

S- causatives are characterized by devoicing or aspiration of the stem-initial consonant, as shown in (1)2:

(1) Simplex3

<table>
<thead>
<tr>
<th>Form I</th>
<th>Form II</th>
<th>Gloss</th>
<th>Form I</th>
<th>Form II</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.  káŋ</td>
<td>kǎŋʔ</td>
<td>‘burn’ (int)</td>
<td>kháŋ</td>
<td>kǎŋʔ</td>
<td>‘burn’ (tr)</td>
</tr>
<tr>
<td>b.  mit</td>
<td>mítʔ</td>
<td>‘go out’ (light)</td>
<td>hmit</td>
<td>hmiʔ</td>
<td>‘extinguish’</td>
</tr>
<tr>
<td>c.  láw</td>
<td>lawʔ</td>
<td>‘disappear’</td>
<td>hláw</td>
<td>hlawʔ</td>
<td>‘erase’</td>
</tr>
<tr>
<td>d.  ɾíl</td>
<td>ɾílʔ</td>
<td>‘roll’ (int)</td>
<td>hɾíl</td>
<td>hɾílʔ</td>
<td>‘roll’ (tr)</td>
</tr>
<tr>
<td>e.  rook</td>
<td>roʔ</td>
<td>‘break down’</td>
<td>hrook</td>
<td>hroʔ</td>
<td>‘destroy’</td>
</tr>
<tr>
<td>f.  tsat</td>
<td>tsəʔ</td>
<td>‘be severed’</td>
<td>tʃat</td>
<td>tʃəʔ</td>
<td>‘sever’ (tr)</td>
</tr>
<tr>
<td>g.  trǔm</td>
<td>trǔm</td>
<td>‘descend’</td>
<td>thrǔm</td>
<td>thrumʔ</td>
<td>‘put down’ (tr)</td>
</tr>
</tbody>
</table>

The second type of causative construction involves a stem-final glottal stop, i.e. -ʔ causatives. Examples are given in (2):

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1 I would like to thank Andreas Kathol, Jim Matisoff, Paul Kay, David Peterson, and other friends and colleagues for their advice and suggestions. A preliminary version of this paper was presented at SEALS IX (Bedell and VanBik 2000), and submitted as a Qualifying Paper, UCB 2000. Any mistakes are mine.

2 For a brief summary of the Form I / Form II distinction in Lai, see section 2 below. For a full discussion of phonological alternations between Form I and Form II in Lai, see Melnik (1998); for the syntactic distribution of Form I and Form II, see Kathol and VanBik (2002); and for Tone in Lai, see Hyman and VanBik (2002a,b).

3 Following Matisoff (1976), I use the terms ‘simplex’ and ‘causative’ to differentiate the non-causative/causative pairs.
(2) **Simplex**  

<table>
<thead>
<tr>
<th>Form I</th>
<th>Form II</th>
<th>Gloss</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. dâm</td>
<td>dâm</td>
<td>‘be healthy’</td>
<td>dâm?</td>
</tr>
<tr>
<td>b. râŋ</td>
<td>râŋ</td>
<td>‘be fast’</td>
<td>râŋ?</td>
</tr>
<tr>
<td>c. thûm</td>
<td>thûm</td>
<td>‘sweet’</td>
<td>thûm?</td>
</tr>
<tr>
<td>d. niâm</td>
<td>niâm</td>
<td>‘short’</td>
<td>niâm?</td>
</tr>
<tr>
<td>e. sàan</td>
<td>sàan</td>
<td>‘high’</td>
<td>sàn?</td>
</tr>
<tr>
<td>f. saaw</td>
<td>sáaw</td>
<td>‘long’</td>
<td>saaw?</td>
</tr>
<tr>
<td>g. tooy</td>
<td>tôoy</td>
<td>‘short’</td>
<td>tôoy?</td>
</tr>
</tbody>
</table>

The third type, -ter causative, is formed by suffixing the bound morpheme -ter to the verbs, as shown in (3):

(3) **Simplex**  

<table>
<thead>
<tr>
<th>Form I</th>
<th>Form II</th>
<th>Gloss</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. kâññ</td>
<td>kân?</td>
<td>‘burn’ (int)</td>
<td>kân?-tër</td>
</tr>
<tr>
<td>b. mîñ</td>
<td>mîñ?</td>
<td>‘go out’ (light)</td>
<td>mîñ?-tër</td>
</tr>
<tr>
<td>c. lôw</td>
<td>lôw?</td>
<td>‘disappear’</td>
<td>lôw?-tër</td>
</tr>
<tr>
<td>d. rîl</td>
<td>rîl?</td>
<td>‘roll’ (int)</td>
<td>rîl?-tër</td>
</tr>
<tr>
<td>e. rook</td>
<td>ro?</td>
<td>‘break down’</td>
<td>ro?-tër</td>
</tr>
<tr>
<td>f. tsat</td>
<td>tsà?</td>
<td>‘be severed’</td>
<td>tsà?-tër</td>
</tr>
<tr>
<td>g. tlàa t</td>
<td>laak</td>
<td>‘fall’</td>
<td>tlàa-k-ter</td>
</tr>
</tbody>
</table>

*Prima facie*, the three causative constructions of Lai in (1-3) look similar, in that they all are transitive, involve causative meaning, and appear to be systematically related to non-causative verbs as illustrated in (4-6):

(4) a. **SIMPLEX**

Boo-lûñ  ?a-rîl.
football  3SG.S-roll.I (int)
‘The football rolled.’

b. **s- CAUSATIVE**

Boo-lûñ  ka-hriñ?
football  1SG.S-roll.II (tr)
‘I rolled the football.’

(5) a. **SIMPLEX**

Na-tûñ  ?a-sàañ.
2SG.POS-height  3SG.S-high.I
‘You are tall.’ [Lit. ‘Your height is high.’]

b. **-? CAUSATIVE**

Na-tûñ  ka-n-sâñ?
làay.
2SG.POS-height  1SG.S-2SG.O-heighten.INV  FUT
‘I will make you taller.’ [Lit. ‘I will heighten your height.’]
(6) a. SIMPLEX

Boo-lûŋ ʔa-rîl.
football 3SG.S-roll.I (int)
'The football rolled.'

b. -TER CAUSATIVE

Boo-lûŋ ka-rîlʔ-ter.
football 1SG.S-roll.II-CAUS
'I caused the football to roll.'

However, we will see that s- causative and -ʔ causative would best be labeled as morphologically regular but unpredictable lexical causatives, while -ter causative constitutes a completely productive morphological causative.

In order to describe the causative constructions in Lai adequately, it is essential to have a brief summary of Form I / II verbal morphology, because this morphology plays an important role in every aspect of Lai syntax, including causative constructions.

2. VERBAL FORM ALTERNATION IN LAI

2.1. Form I and Form II Alternation

The examples in (1) above illustrate a morphological alternation which has been called Form I vs. Form II (Patent 1997). This alternation is arguably not linked in any straightforward way to a single parameter of variation such as tense, aspect, or transitivity. Instead the alternation appears to be conditioned by a number of lexical and constructional distinctions which may interact with each other.

In affirmative declarative root clauses, the basic pattern is that intransitive verbs exhibit Form I morphology as shown in (7A) whereas transitive verbs exhibit Form II morphology as illustrated in (7B)\(^4\):

(7A)  INTRANSITIVE

   Ni Hu 3SG.S-run.I
   'Ni Hu ran.'

b. Ka-pàà ʔa-ʔit.
   1SG.POS-father 3SG.S-sleep.I
   'My father slept.'

\(^4\) Under certain conditions, a notionally transitive verb can occur with Form I even in affirmative root clauses. However, as Bickel (2000:9) notes, there are constructions that are notionally transitive but nevertheless count as intransitive from the perspective of the grammar.
(7B) TRANSITIVE
   Ni Hu ERG pig 3SG.S-kill.II
   ‘Ni Hu killed the pig.’

   1SG.POS-mother ERG food 3SG.S-cook.II
   ‘My mother cooked a meal.’

There are some overriding factors in the syntax of Form I and Form II alternation. The presence of negative marker láw, imperative marker tua?, or yes/no question marker máa uniformly require Form I morphology regardless of the (in)transitivity of the verb, as shown in (8):

(8) a. NEGATIVE
   Ni Hu ni? vok ?a-that láw.
   Ni Hu ERG pig 3SG.S-kill.I NEG
   ‘Ni Hu did not kill the pig.’

b. IMPERATIVE
   ròol tshúan tua?!
   food cook.I IMP
   ‘(Please) cook a meal!’

c. Yes/No QUESTION
   Ni Hu ni? vok ?a-that máa?
   Ni Hu ERG pig 3SG.S-kill.I QST
   ‘Did Ni Hu kill the pig?’

In adverbial subordinate clauses, Form II morphology is required. This construction overrides any Form I requirements stemming from the status of the verbs as intransitive. Cf. (9):

(9) SUBORDINATE
   Ni Hu ERG pig 3SG.S-kill.II NEG when
   ‘When Ni Hu did not kill the pig...’

b. Ni Hu ?a-tliik láw tsàa-?a?...
   Ni Hu 3SG.S-run.II NEG because
   ‘Because Ni Hu did not run...’
c. Ka-pàa      ʔa-ʔìʔ      hnuu-ʔaʔ...
    1SG.POS-father  3SG.S-sleep.II after
    ‘After my father slept...’

2.2. **Invariant (Transitive)**

Some Lai verbs have a third variant in addition to Form I and Form II. These verbs normally have final glottal stop as illustrated in (10).

(10) Form I    Form II    Gloss    Invariant    Gloss
a. ɖìn        ɖìn        ‘drink’  ɖìnʔ    ‘give to drink’
 b. tshùnʔ     tshùnʔ     ‘cook’   tshuʔʔ     ‘cook for someone’
c. tʃɪm        tʃǐnʔ     ‘say’    tʃimʔ    ‘tell someone’
d. tʰìŋ        tʰìnʔ     ‘full’   tʰinʔ    ‘fill’ (tr)

These verbs are called invariant (transitive) verbs, because they are almost always transitive and they do not display any alternation in form when they occur in syntactic constructions that require Form I (11a) or Form II (11b), respectively:

(11) a. NEGATIVE
    Ni Hu nìʔ vok tìi ʔa-ɖìnʔ lāw.
    Ni Hu ERG pig water 3SG.S-give drink.INV NEG
    ‘Ni Hu did not give drink to the pig.’

    b. Ka-ʔìʔu nìʔ ròol ʔa-ka-tshuʔʔ tik-ʔaʔ...
    1SG.POS.-brother ERG food 3SG.S-1SG.O-cook for.INV when
    ‘When my brother cooked me a meal...’

Sometimes, the invariant transitive form is identical to the Form II of the related simplex verb, as shown in (12):

(12) Form I    Form II    Inv. (Tran.)
 a. kheʔk     kheʔ     ‘peel off’  kheʔ     ‘peel for’
 b. pɛʔk      pɛk     ‘give’ (tr)  pɛk⁵     ‘give’ (ditr)

In (12a) the phonological form kheʔ(II) and kheʔ (inv.) are the same. But if we compare the argument structure of (13) and (14), we see that kheʔ in (13) is Form II whereas kheʔ in (14) is an invariant (transitive) form.

(13) FORM II

    Ka-fàʔ nìʔ thàʔ ʔa-kheʔ.
    1SG.POS-sister ERG fruit 3SG.S-peel.II
    ‘My sister peels (the skin of) the fruit.’

⁵ When the final consonant is an oral stop in Form II, there is no -ʔ in the corresponding invariant transitive.
3. CAUSATIVE CONSTRUCTIONS IN LAI

3.1. S- Causatives

In (1) it has been shown that the $s$- causative involves devoicing or aspiration of the initial stem. Although this morphological operation is a regular process, it does not apply productively in Lai. For instance, it is not possible to devoice or aspirate the initial consonant of just any verb (which may be a viable candidate), and get the causative meaning, as shown in (15):

(15) Simplex Devoicing / Aspiration

<table>
<thead>
<tr>
<th>Form I</th>
<th>Form II</th>
<th>Form I</th>
<th>Form II</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. păn</td>
<td>păn ‘thin’</td>
<td>*phăn</td>
<td>*phăn ‘make thin’</td>
</tr>
<tr>
<td>b. rịn</td>
<td>rịn ‘loud’</td>
<td>*hrịn</td>
<td>*hrịn ‘make loud’</td>
</tr>
</tbody>
</table>

In the syntax of $s$- causative in Lai, the simplex verb always needs to be intransitive. There is no transitive verb with a corresponding $s$- causative variant (for the full list, see the Appendix). (16) gives such examples of impossible forms.

(16) Simplex Devoicing / Aspiration

<table>
<thead>
<tr>
<th>Form I</th>
<th>Form II</th>
<th>Form I</th>
<th>Form II</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. tán</td>
<td>tán ‘cut’ (tr)</td>
<td>*thàn</td>
<td>*than ‘cause to cut’</td>
</tr>
<tr>
<td>b. lịm</td>
<td>lịm ‘finish’(tr)</td>
<td>*hlịm</td>
<td>*hlịm ‘cause to finish’</td>
</tr>
<tr>
<td>c. nám</td>
<td>nám ‘push’ (tr)</td>
<td>*hnám</td>
<td>*hnám ‘cause to push’</td>
</tr>
</tbody>
</table>

Semantically, $s$- causative is always interpreted in terms of ‘direct causation’, i.e., the agent is construed as directly responsible for bringing about the described event, as shown in (17b):

(17) a. mày ʔa-mit máa?
fire 3SG.S-go out.I QST
‘Did the light go out?’

b. mày na-hmit máa?
fire 3SG.S-extinguish.I QST
‘Did you extinguish the light?’
In (17b) the gloss could not be ‘did you let the light go out’ nor ‘did you cause the light to go out’, e.g. by asking someone else to flip the light switch. The agent (here ‘you’) is required to be personally involved in the act of extinguishing the light.

Lai s-causative poses some problem in the typology of causative constructions, i.e., whether it should be classified as a ‘lexical causative’ or a ‘morphological causative’. The Lai s-causative involves the regular morphological operation of initial aspiration for the causative counterpart of the simplex verb, yet still acts like ‘lexical causatives’, as exemplified in (18b-c):

    Ni Hu ERG pig 3SG.S-kill.II
    ‘Ni Hu killed a pig.’

b. Ni Hu ni? thin-nee ?a-khia?.
    Ni Hu ERG wood-branch 3SG.S-break.II
    ‘Ni Hu broke a branch of a tree.’

    Ni Hu ERG pig 3SG.S-drop.II
    ‘Ni Hu dropped a pig.’

The verb that / tha? ‘kill’7 in (18a) is a lexical causative verb because the notion of causation (‘cause to die’) is already contained in the lexical meaning of the verb itself (Whaley 1997:195; Payne 1997:178). The sentence such as Ni Hu killed the pig but he was not there when it happened is an anomaly (cf. 19). Such a sentence has to be expressed by a combination of the verb thi?i / thi? ‘die’ with -ter causative suffix (cf. 20).

(19) *Ni Hu ni? vok ?a-tha?, ?a-si-naan,
    Ni Hu ERG pig 3SG.S-kill.II 3SG.S-COP-although
    at that time he Ni Hu 3SG.S-exist.I NEG
    ‘Ni Hu killed the pig but he was not there when it happened.’

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6 The correspondences between the causative verbs and their simplex counterparts are shown below:

<table>
<thead>
<tr>
<th>Simplex</th>
<th>Causative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form I Form II</td>
<td>Form I Form II</td>
</tr>
<tr>
<td>a. kiak</td>
<td>khaik</td>
</tr>
<tr>
<td>kiak</td>
<td>‘break’ (int)</td>
</tr>
<tr>
<td>b. tlâåa</td>
<td>thlâaa</td>
</tr>
<tr>
<td>tlâa</td>
<td>‘fall’ (int)</td>
</tr>
<tr>
<td></td>
<td>thlaak</td>
</tr>
<tr>
<td></td>
<td>‘fell’ (tr)</td>
</tr>
</tbody>
</table>

7 The verb kill is a lexical causative in many other languages (Goddard 1998:281).
Comparison of the syntactic characteristics and semantic behavior of the lexical causative that/tha? ‘to kill’ and the causative variants, khaik/khia? ‘to break’ as well as thlaa/thlaak ‘to drop’ shows that the causative verbs break and drop behave like the lexical causative kill. In (18b-c), the causative verbs khaik/khia? ‘break’ (tr), thlaa/thlaak ‘drop’ (tr), which are morphologically derived from the intransitive verbs kiaik/kia? ‘break’ (int), tl?aa/tlaak ‘fall’ (int) are syntactically similar to the verb that/tha? ‘kill’ of (18a), in that they all have two arguments in their syntax. They are also semantically similar, in that they need to be interpreted as involving direct causation. In (18a-c) it is not possible to interpret the agent (here Ni Hu) as merely permitting or indirectly causing the causee to be affected by the described event, but he is required to be directly involved in bringing about the described event. It appears that the simplex counterparts of s- causative verbs are generally non-stative verbs (cf. the Appendix).

3.1.1. Lai S- Causative and the Proto-Tibeto-Burman Sibilant Prefix

It is considered an established fact that in many languages of the Tibeto-Burman family, “there is convincing evidence for a Proto-Tibeto Burman sibilant prefix, *s-, that functioned along a broad spectrum in the causative domain as an intensifier, directionizer, transitive, causativizer of the verbal idea” (Matisoff 1976:415). Matisoff cites evidence for the old sibilant prefix in Written Tibetan as exhibited in (21):

(21)  

<table>
<thead>
<tr>
<th>Simplex</th>
<th>Causative</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. gril-ba</td>
<td>‘be twisted’</td>
</tr>
<tr>
<td>b. khor-ba</td>
<td>‘turn around’</td>
</tr>
<tr>
<td>c. r?i?n-ba</td>
<td>‘be long’</td>
</tr>
</tbody>
</table>

In Jingphaw (Kachin), this sibilant causative prefix has palatalized to śə-, varying with d?ə- before an aspirated or sibilant root-initial (Matisoff, ibid.), as shown in (22):

(22)  

<table>
<thead>
<tr>
<th>Simplex</th>
<th>Causative</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. dam</td>
<td>‘stray’</td>
</tr>
<tr>
<td>b. lot</td>
<td>‘free’</td>
</tr>
<tr>
<td>c. thum</td>
<td>‘be ended’</td>
</tr>
<tr>
<td>d. hprinj</td>
<td>‘be full’</td>
</tr>
<tr>
<td>e. su</td>
<td>‘be awake’</td>
</tr>
</tbody>
</table>
In Burmese the remnant of the sibilant causative prefix \*s- has given rise to causatives just as in Lai, i.e., by devoicing or aspiration of the initial stem of a subset of intransitive verbs as illustrated in (23)\(^8\).

\[(23)\]  

<table>
<thead>
<tr>
<th>Simplex</th>
<th>Causative</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. <strong>kye</strong> ‘be ground fine’</td>
<td><strong>khye</strong> ‘grind up’</td>
</tr>
<tr>
<td>b. <strong>kyak</strong> ‘be cooked’</td>
<td><strong>khak</strong> ‘cook’</td>
</tr>
<tr>
<td>c. <strong>nwē</strong> ‘be warm’</td>
<td><strong>hnwē</strong> ‘warm up, heat’</td>
</tr>
<tr>
<td>d. <strong>nim</strong> ‘be short’</td>
<td><strong>hnīm</strong> ‘shorten’</td>
</tr>
<tr>
<td>e. <strong>po</strong> ‘appear’</td>
<td><strong>pho</strong> ‘reveal’</td>
</tr>
<tr>
<td>f. <strong>tswat</strong> ‘be damp’</td>
<td><strong>tshwat</strong> ‘moisten, make damp’</td>
</tr>
</tbody>
</table>

In Lahu, the trace of the sibilant causative prefix \*s- is seen with only about a dozen verbs. Matisoff states that in Lahu “those verb-pairs fall into both voiced/voiceless and several well-defined tonal categories” (Matisoff, 1973/1982:32ff) as shown in (24):

\[(24)\]  

<table>
<thead>
<tr>
<th>Simplex</th>
<th>Causative</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a. ‘/`/’</td>
<td>/ mid /</td>
<td></td>
</tr>
<tr>
<td>ḍō ‘drink’</td>
<td>ṭō ‘give to drink’</td>
<td></td>
</tr>
<tr>
<td>dē ‘come to rest’</td>
<td>ṭē ‘put down’</td>
<td></td>
</tr>
<tr>
<td>mò ‘see’</td>
<td>mō ‘show’</td>
<td></td>
</tr>
<tr>
<td>̀jō ‘study’</td>
<td>̀jō ‘train’</td>
<td></td>
</tr>
<tr>
<td>b. ‘/`/’</td>
<td>/ -i /</td>
<td></td>
</tr>
<tr>
<td>cā ‘eat’</td>
<td>cā ‘feed’</td>
<td></td>
</tr>
<tr>
<td>nō ‘be awake’</td>
<td>nō ‘awaken, rouse’</td>
<td></td>
</tr>
<tr>
<td>dū ‘dig’</td>
<td>tū ‘bury (as a corpse)’</td>
<td></td>
</tr>
<tr>
<td>c. ‘/`?’</td>
<td>/ ‘/’</td>
<td></td>
</tr>
<tr>
<td>lēʔ ‘lick, eat’</td>
<td>lē ‘feed an animal’</td>
<td></td>
</tr>
<tr>
<td>vōʔ ‘wear’</td>
<td>fī ‘clothe, dress someone’</td>
<td></td>
</tr>
<tr>
<td>wāʔ ‘hide (oneself)’</td>
<td>fā ‘hide something’</td>
<td></td>
</tr>
<tr>
<td>tōʔ ‘catch fire’</td>
<td>tū ‘set fire, kindle’</td>
<td></td>
</tr>
<tr>
<td>yīʔ ‘sleep’</td>
<td>ĩ ‘put to sleep’</td>
<td></td>
</tr>
</tbody>
</table>

It appears that many Tibeto-Burman languages have maintained the PTB sibilant causative prefix \*s- in one morphological form or another. Based on the evidence of modern vernacular languages and Written Tibetan, Proto-Tibeto-Burman must have had a regular process of forming causative verbs

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from simplex ones by adding \( s \)-prefix (Matisoff 1976:32). In modern Tibeto-Burman languages (including Modern Tibetan), however, that sibilant causative prefix *\( s \)- has lost productivity or generality. Song (1996:83) notes that verbs which underwent that kind of morphological process are prone to lexicalization, in the same way as verbs reflecting any other derivational affixes, especially causative ones. As can be expected from Song’s observation, that old fossilized process created the \( s \)-causative verb-pairs in Lai.

3.2. -? Causative

As illustrated in (2) above, a subclass of intransitive verbs acquires causative meaning by suffixing -?.

Morphologically, -? causatives are similar to \( s \)-causatives, i.e., they are regular but not very productive. It is not always possible to get a causative reading in the formation of invariant transitive verbs (which are viable candidates) as exemplified in (25):

(25)

<table>
<thead>
<tr>
<th>Simplex</th>
<th>-? Causatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form I</td>
<td>Form II</td>
</tr>
<tr>
<td>a. phıŋ</td>
<td>phıŋ</td>
</tr>
<tr>
<td>b. hrıŋ</td>
<td>hrıŋ</td>
</tr>
<tr>
<td>c. pum</td>
<td>pūm</td>
</tr>
<tr>
<td>d. ʨen</td>
<td>ʨen</td>
</tr>
<tr>
<td>e. sɛn</td>
<td>sɛn</td>
</tr>
</tbody>
</table>

Another point of similarity with \( s \)-causatives, is the fact that only when the simplex form is intransitive can -? causatives be formed. In some cases, when the simplex form is transitive, adding the -? suffix gives rise to a benefactive argument, rather than a causee, as in (26).

(26) ka-ʔuʔu
niʔ  rōol  qa-ka-tshuanʔ.
1SG.POSS-brother ERG food 3SG.S-1SG.O-cook for.INV
‘My brother cooked a meal for me.’

Semantically, the -? causative normally signals direct causation, similarly to other lexical causative verbs such as that / thaʔ ‘kill’, as illustrated in (27a-b):

(27) a. ka-ʔuʔu
niʔ  qaar  qa-thaʔ.
1SG.POSS-brother ERG chicken 3SG.S-kill.II
‘My brother killed the chicken.’

\[9\] The verb tshuánʔ ‘cook for’ is not identical either to Form I tsuag or Form II tshuán of the related verb, meaning ‘cook’.
b. ka-ʔuu niʔ ?aar-zőo ʔa-damʔ.
1SG.POS-brother ERG chicken-sick 3SG.S-heal.INV
‘My brother healed the sick chicken.’

The simplex counterparts of -ʔ causative verbs are stative verbs. In Lai, the verbs listed in (2) above are stative. For instance, sâaŋ/sâaan ‘high’ or niâm/niâm ‘short’ are stative verbs because they describe a constant state of affairs. In (28a) below, the intransitive verb niâm/niâm ‘short’ expresses the state of the person described as being short. The fact that (28a) could not be an answer to a question such as ‘what happened?’ shows that niâm/niâm ‘short’ is a stative verb in Lai.

(28) a. SIMPLEX
na-kháan ʔa-niâm.
2SG.POS-stature 3SG.S-short.I
‘You are short.’ [Lit. ‘Your stature is short.’]

b. -ʔ CAUSATIVE
na-kháan ka-ŋ-niâmʔ lâay.
2S.POS-stature 1SG.S-2SG.O-shorten.INV FUT
‘I will make you short.’ [Lit. ‘I will shorten your stature.’]

3.2.1. -ʔ Causative and the Proto-Tibeto-Burman *-s Suffix

There are several instances where well attested PTB etyma with *-s correspond to Lai -ʔ:

(29) PTB Lai Gloss STC (Benedict 1972)
   a. *g-nis -*g-ni-s hniʔ ‘two’ #4
   b. *rús ruʔ ‘bone’ #6
   c. *r-tas tshaʔ ‘thick’ #426
   d. *hus huʔ ‘wet’ p. 17
   e. *ras raʔ ‘fruit’ p. 17
   f. *was khûay-vaʔ ‘bee’ p. 17

It seems possible that the Lai -ʔ causative can be linked to the PTB suffix *-s which still functions as a causative marker in modern Kiranti languages (Ebert 2000:5). Ebert notes that most Kiranti languages have a few verbs allowing a secondary causative/applicative, as exemplified by Bantawa in (30):

(30) Simplex Causative Applicative
   a. i ‘laugh’ is ‘make laugh’ itt ‘laugh at’
   b. par ‘shout’ pays ‘make shout’ patt ‘shout at’
The fact that the -ʔ suffix in Lai can occur with either a causative (cf. 2) or an applicative meaning (cf. 26) supports the idea that the -ʔ causative derives from the PTB *-s suffix.

3.3. -Ter Causative

The Lai -ter causative fits the definition of a morphological causative (cf. Whaley 1997:195), because it is regular and productive morphologically, in that it can be suffixed to any verb to express causation or permission/request, as illustrated in (31-32):

(31) CAUSATIVE

ka-luŋ ?a-ka-roʔ-tèr.
1SG.POS-heart 3SG.S-1SG.O-break down.II-CAUS
‘He made me disappointed’ (Lit. ‘He causes my heart to break down’)\(^{10}\).

(32) PERMISSION / REQUEST

?a-ka-kål-tèr.
3SG.S-1SG.O-go.II-CAUS
‘He let me go/He asked me to go.’

The -ter causative is fully productive, because even the copula sii (cf. 33), as well as many recent loanwords from Burmese such as phiil/phiit ‘to answer’ (cf. 34), can undergo -ter suffixation with the expected semantic result.

(33) zuu loŋ - loŋ niʔ mi-síal ?a-kan-sfí-tèr láw.
beer only only ERG person-bad 3SG.S-1PL.O-COP.II-CAUS NEG
‘Beer alone does not cause us to be [become] bad people.’

(34) sazàa niʔ ca-min-púay ?a-kan-phíit -ter.
teacher ERG letter-ask-festival 3SG.S-1PL.O-answer.II-CAUS
‘The teacher asked us to sit for the examination.’
[Lit. ‘The teacher caused us to answer questions at the letter-asking festival.’]

The causative suffix -ter combines with Form II of verbs. The result of this combination is a ‘frozen’ morphology, because the resulting form is immune to any construction-specific alternation in form seen above in section 2.1. For instance, in Lai relative clauses, the relative marker tuu is required to go with Form I verbs, and does not allow relativization of non-subjects (Kathol and VanBik 1999:428). However, even in a tuu relative clause, the -ter causatives combine with a Form II verb as in (35a):

---

\(^{10}\) For a discussion of this kind of psycho-collocation in Lai, see VanBik 1998.
(35) a. làwthlawpaa vok ròol òa-peek-ter tuu ka-hmuʔ.
    farmer pig food 3SG.S-give.II-CAUS REL 1SG.S-see.II
    ‘I saw the one who asked the farmer to give food to (feed) the pig.’

    farmer pig food 3SG.S-give.I-CAUS REL 1SG.S-see.II

(35b) is ungrammatical, because it violates a morphological rule that the -ter causative suffix combines with Form II morphology of the verbs. The verb pee ‘give’ in (35b) is in Form I morphology. This phenomenon of the -ter causative having to occur with Form II verbs could be accounted for in terms of the structural differences between underived verbs (36a) and morphologically complex ones, involving stem-final alternation (36b):¹¹

(36) a. \[ V_1 / II \]

(36a) represents underived verbs with Form I / II morphological alternation where the choice of form is determined by lexical and/or constructional factors (see section 2.1). (36b) represents derived verbs where Form II occurs inside a morphologically complex verb in which the stem verb is ‘shielded’ from any form alternation.

When -ter is suffixed to invariant transitive verbs (cf.37c), s-causative verbs (cf. 37d), and -ʔ causative verbs (cf. 37e), there is another level of valence increase, as shown below:

(37) a. Ka-ñúu niʔ ròol òa-tshúan.
    1SG.POS-mother ERG food 3 SG.S-cook.II
    ‘My mother cooked a meal.’

    1SG.POS-mother ERG food 3 SG.S-cook.II-CAUS
    ‘My mother let me cook a meal.’

    c. Ka-ñúu niʔ ròol òa-ka-tshúanʔ-òr.
    1SG.POS-mother ERG food 3SG.S-cook for:INV-CAUS
    ‘My mother let me cook a meal for him.’

    1SG.POS-mother ERG rope 3SG.S-sever.II-CAUS
    ‘My mother let me sever the rope.’

¹¹ This excludes derived forms which involve stem-initial alternation, i.e., s- causatives. When there is s-causative’s morphological complex at the stem-initial position, there is still room for the stem-final to alternate.
1SG.POS-mother ERG chicken-sick 3SG.S-heal.INV-CAUS
‘My mother let me heal the sick chicken.’

The syntactic effect of -ter causatives, i.e., their addition of a syntactic argument (Payne 1977:186ff) is similar to that provided by applicative markers such as -piak ‘benefactive’, -pii ‘comitative’, -taak ‘relinquitive’, -hno? ‘malefactive’, -kan? ‘prioritve’, and -naak ‘instrumental’, as examplified in (38):12

(38) Hakha-ñai? ña-ka-kal-piak-mii ka-phiì?.
Hakha-LOC 3SG.S-1SG.O-go.II-BENEF-REL 1SG.S-forget.INV.
‘I forgot that he went to Hakha for me.’

In some contexts we can get a deontic interpretation for the -ter causative, i.e., in terms of expressing an obligation that the subject places on the causee, as illustrated in (39):

(39) Hakha ña? ña-ka-káí-têr-mii ka-phiì?.
Hakha-LOC 3SG.S-1SG.O-go.II-CAUS-REL 1SG.S-forget.INV.
‘I forgot that he asked me to go to Hakha.’

In (39) the deontic interpretation is the most natural one. A causative or permissive interpretation that ‘I forgot that he let/caused me to go to Hakha’ would require further specific background.

3.3.1. Lai ter- Causative and Reflexive Marking

Smith (1998:45f) discussed an interesting use of reflexive marking together with the -ter causative marker. She generally uses the term “middle voice” to describe phenomena involving reflexive marking in Lai. I prefer the term ‘reflexive marking’ to focus on the morphological identity of the formative involved, and avoid any unwarranted semantic connotations that the term “middle voice” would imply.

Smith states that “sentences with both a middle and causative marker are ambiguous without a context. They can mean either ‘X let Y do something to X’ or ‘X really does something to Y, or pretends to do something to Y, as a pretext in order to mislead somebody’ as in (40):

Ceu Mang ERG Ni Hu TOP 3SG.RFL-beat up.II-CAUS
(a) ‘Ceu Mang let himself be beaten by Ni Hu.’
(b) ‘Ceu Mang pretended to beat Ni Hu.’

12 For a detailed analysis of applicatives in Lai, see Peterson 1998.
Smith’s representation of sentence (40) is either that ‘Ceu Mang let himself be beaten by Ni Hu’ as in (40a), or ‘Ceu Mang pretended to beat Ni Hu’, in order, for example, to divert attention from another situation, as in (40b). Smith represents the semantics of examples (40a) and (40b) schematically as in Figure I (Smith 1998:46):

Reflexive causative (40a)  
Middle use (40b)  

*Figure I.*

Therefore (40a) is “a simple use of the reflexive together with a causative, in which Ceu Mang is the causer and affectee, while example (40b) is some kind of middle, where the subject carries out the action in such a way that the result of the action indirectly affects himself (e.g., he wants people to think his primary action is ‘beating’). Thus Ceu Mang can be seen as both the initiator and endpoint of the action” (Smith 1998:55).

While Smith’s interpretation of (40) is correct, it is incomplete, because it does not cover the full range of data. It is possible to get a third reading for (40), as illustrated in (41b):

(41)  
\[
\begin{align*}
\text{Ceu Mang} &\quad \text{ni} \quad \text{Ni Hu} \quad \text{khàà} \quad ?\text{aa}-\text{vel?-tèr}.
\text{Ceu Mang} &\quad \text{ERG} \quad \text{Ni Hu} \quad \text{DEIC} \quad 3\text{SG.RFL-beat up.II-CAUS}
\end{align*}
\]

a. **CAUSER  CAUSEE  LOWER OBJECT**

\[
\begin{align*}
\text{Ceu Mang} &\quad \text{ni} \quad \text{Ni Hu} \quad \text{j} \quad \text{Selfj - V-ter}
\end{align*}
\]

‘Ceu Mang let Ni Hu beat him (self, i.e. Ceu Mang).’

b. **CAUSER  CAUSEE  LOWER OBJECT**

\[
\begin{align*}
\text{Ceu Mang} &\quad \text{ni} \quad \text{Ni Hu} \quad \text{j} \quad \text{Selfj - V-ter}
\end{align*}
\]

‘Ceu Mang let Ni Hu beat himself (i.e. Ni Hu).’

c. **CAUSER  LOWER OBJECT  CAUSEE**

\[
\begin{align*}
\text{Ceu Mang} &\quad \text{ni} \quad \text{Ni Hu} \quad \text{j} \quad \text{Selfj - V-ter}
\end{align*}
\]

[Lit. Ceu Mang let himself beat Ni Hu]

‘Ceu Mang pretends to beat Ni Hu.’
In (41c) when the causer Ceu Mang is co-indexed with the reflexive pronoun ḳaa as a causer, Ni Hu is interpreted as the lower object. In such a case, the semantics of ‘pretend to V’ is added to the interpretation.

Given that (41c) is possible, i.e., the causer can be co-indexed with the reflexive pronoun causee, and not necessarily the lower object, it is important to note here why (42) below is impossible.

(42) CAUSER LOWER OBJECT CAUSEE
    *Ceu Mangi Ni Huj Selfj - Verb - ter

Note that the difference between (41b) and (42) is that Ni Hu is the causee in (41b) whereas he is the lower object in (42). The explanation for the impossibility of (42) is that it violates a common hierarchy among grammatical functions with respect to binding possibilities, i.e., CAUSER > CAUSEE > LOWER OBJECT (cf. Van Valin 2001:46). That is, a reflexive element can take an element to its left as its antecedent but not vice versa. (43b) illustrates how this hierarchy rules out a construal in which the lower object is an antecedent for the causee:

(43) a. CAUSER CAUSEE LOWER OBECT
    I make Bobi wash himselfi.

b. CAUSER CAUSEE LOWER OBECT
    *I make himselfi wash Bobi.

The combination of reflexive marking and the -ter causative with the semantic result of ‘pretend to V’ is idiomatic, in that there is an added meaning which is not predictable on the basis of what the component parts (-ter, reflexive, verb) mean in other contexts. It is also noteworthy that there is no monomorphemic verb ‘to pretend’ in the Lai lexicon. The verb ‘to pretend’ in Lai is tii-ter, a combination of tii ‘do, say’ and the -ter causative, as in (44):

(44) ḳaa-tii-ter.
    3SG.RFL-do.INV-CAUS
    ‘He is pretending.’

Smith also notes that “if intransitive verbs or verbs of one-participant events are used with a middle and causative marker, then the sentence only means ‘X pretends to do something’”, as in (45):

(45) ḳan-ʔi-ʔiʔ-ter.
    3PL.RFL-die.II-CAUS
    ‘They pretended to be dead.’
Given the right context, however, intransitives with the "middle voice nucleus" are still ambiguous between cause/permission vs. pretense reading, as illustrated in (46a-b):

    3PL.S-tire.I very PERF although 3PL.S-RFL-run.II-CAUS still-yet

a. ‘Although they are very tired, they still make themselves run.’
b. ‘Although they are very tired, they still pretend to run.’

It turns out that the Lai ‘pretense reading’ of middle verb + ter is the result of merger between the Proto-Central-Chin causative suffix *-tiir and the verbal particle *der ‘to pretend to VERB’. In Mizo, the causative suffix is -tiir (cf. 47a) whose function is identical to the Lai causative suffix -ter (47b):

(47a) Mizo (Chhangte 1993:101)
    kâ-pâa-in keel mín-veen-tiir
    1POS.-father-ERG goat 10-watch2-CAUS
    ‘My father made me watch the goats.’

b. Lai
    ka-pâa-ni? mehe? ?a-ka-tsoŋ?-têr
    1POS.-father-ERG goat 3SG.S-1SG.O-watch.II-CAUS
    ‘My father made me watch the goats.’

In addition, the function of the Mizo verbal particle der ‘to pretend to VERB’ (48a) is almost identical with the Lai causative suffix -ter (48b):

(48a) Mizo (Lorrain 1940: dër, adv. ‘falsely’)
    Mi fak der ‘They pretended to praise me.’
    Mi zah der ‘They pretended to reverence me.’

b. Lai
    ?ân-ïi-fak-têr
    3PP-RFL-praise.INV-CAUS
    ‘They pretended to praise him’

The examples in (47-48) clearly demonstrate that the Lai ‘pretense reading’ of middle + -ter is the result of a grammatical fusion between the Proto-Central-Chin causative suffix *-tiir and the verbal particle der ‘to pretend to VERB’.
4. COMPARISON OF -s-, -? , AND -TER CAUSATIVES.

4.1. Common Properties

There are a number of properties that the three types of causatives in Lai have in common.

Morphologically, all of them are regular, i.e., given any simplex stem, one can predict what its causative counterpart will look like, if it exists (cf. 1-3).

Syntactically, they all have a valence-increasing effect (cf.4-6).

4.2. Distinctive Properties

The three Lai causatives have distinctive morphological, syntactic, and semantic properties.

Morphologically, the s-causative and -?causative are not productive whereas the -ter causative is fully productive.

In their syntax, the simplex of the s- causative or the -? causative needs to be intransitive in order for their corresponding complex forms to be causative, whereas the -ter causative can combine with any verb, and have the expected result.

Semantically, s- causatives and -?causatives are always interpreted in terms of direct causation, i.e., the agent is construed as directly responsible for bringing about the described event (cf.17b, 28b), whereas -ter causatives cover a variety of indirect causation types (cf. 31-34). The simplex counterparts of s-causative verbs are generally non-stative verbs (cf. the Appendix), whereas the simplex counterparts of -?causative verbs are stative verbs (cf. 2) which can be captured by the type hierarchy, as in Figure II:

![Figure II. Type hierarchy of Lai verbs](image)

Haiman’s iconicity pyramid (Haiman 1983, see Table (I) below) claims that it is possible to make predictions about which of two or more competing types will be used to describe direct and indirect causation when a language has more than one formal kind of causative (Whaley 1997:195).
<table>
<thead>
<tr>
<th>Type of Causative</th>
<th>Form</th>
<th>Causation</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEXICAL</td>
<td>(X - “smaller”)</td>
<td>More direct</td>
</tr>
<tr>
<td>MORPHOLOGICAL</td>
<td>(Y-Z)</td>
<td></td>
</tr>
<tr>
<td>ANALYTIC</td>
<td>(YZ - “larger”)</td>
<td>Less direct</td>
</tr>
</tbody>
</table>

Table I.

As illustrated in Table I, “if a language has more than one formal kind of causative, the ‘smaller one’ (i.e., the one that is more structurally integrated) will be used for (conceptually) more direct causation, whereas the ‘larger’ one will be used for less direction causation” (Whaley, *ibid.*). Lai causative constructions demonstrate that the generalization in Table I is correct. S-causative and -ʔ causative, which are smaller, are used for more direct causation whereas the -ter causative, which constitutes the larger construction, is used for less direct causation.

CONCLUSION

The study of causative constructions in Lai potentially contribute to the study of the Tibeto-Burman language family, in that it provides a frame of reference for the investigation of related phenomena (e.g. s-causative and -ʔ causative) in other Tibeto-Burman languages. For instance, it would be interesting to examine the syntactic as well as semantic similarities and differences of the s-causative type in Jingphaw, Burmese, Lahu, and Lai, given that they have the same historical source (cf. 1, 22, 23, 24). In addition, comparison between the Burmese analytic causative marker sei and the Lai morphological causative suffix -ter might illuminate the differences and similarities between analytic and morphological causatives.

This study also highlights the importance of comparative linguistics, in that two morphemes which Mizo still distinguishes, i.e., the causative suffix -tiir and a post-verbal particle der ‘pretend to VERB’, have already been merged into the Lai causative suffix -ter. This shows that a purely synchronic account of why the Lai MIDDLE + -TER results in the reading of PRETEND TO VERB is potentially misleading.

Figure III below shows that s-causatives and -ʔ causatives are best labeled “regular but morphologically unpredictable lexical causatives”, while the -ter causative is an instance of a “fully productive morphological causative.”
<table>
<thead>
<tr>
<th></th>
<th>Lexical CAUS</th>
<th>S- CAUS</th>
<th>-?CAUS</th>
<th>-ter CAUS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Morphology:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Segmentable</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Regular</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Productive</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td><strong>Syntax:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unconstrained</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td><strong>Semantic:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct CAUS.</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Indirect CAUS</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Predictable</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Only static</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Only non-static</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
</tbody>
</table>

*Figure III.*

**Abbreviations**

1. ‘first person’
2. ‘second person’
3. ‘third person’

BENEF ‘benefactive’
CAUS ‘causative’
COP ‘copula’
DEIC ‘deictic’
ERG ‘ergative’
FUT ‘future’
IMP ‘imperative’
INT ‘intransitive’
INV ‘invariant’
LOC ‘locative’

NEG ‘negative’
O ‘object’
PERF ‘perfective’
POS ‘possessive’
PTB ‘Proto-Tibeto-Burman’
PCC ‘Proto-Central-Chin’
QST ‘question’
PL ‘plural’
REL ‘relativizer’
RFL ‘reflexive’
SG ‘singular’
S ‘subject’
TR ‘transitive’

---

13 This refers to whether the causative form can occur only with intransitive verbs, or whether verbs with other valences are possible simplex verbs.
### Appendix

This appendix gives more examples of the s- causative type.

<table>
<thead>
<tr>
<th>Form I</th>
<th>Form II</th>
<th>Gloss</th>
<th>Form I</th>
<th>Form II</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>pew</td>
<td>pěw</td>
<td>astray</td>
<td>phew</td>
<td>phěw</td>
<td>exclude</td>
</tr>
<tr>
<td>pet?</td>
<td>inv.</td>
<td>fall off</td>
<td>phel?</td>
<td>inv.</td>
<td>trip</td>
</tr>
<tr>
<td>pit</td>
<td>pǐ?</td>
<td>clog up</td>
<td>phit</td>
<td>phi?</td>
<td>block</td>
</tr>
<tr>
<td>pok</td>
<td>poʔ</td>
<td>become open</td>
<td>phok</td>
<td>phoʔ</td>
<td>open</td>
</tr>
<tr>
<td>pōŋ</td>
<td>poʔŋ</td>
<td>come loose</td>
<td>phōŋ</td>
<td>phoʔŋ</td>
<td>loosen</td>
</tr>
<tr>
<td>poy?</td>
<td>inv.</td>
<td>fall off</td>
<td>phoy?</td>
<td>inv.</td>
<td>untie</td>
</tr>
<tr>
<td>pʊur</td>
<td>pūur</td>
<td>uprooted</td>
<td>phʊur</td>
<td>phūur</td>
<td>uproot</td>
</tr>
<tr>
<td>tłaʔ</td>
<td>tlaak</td>
<td>fall</td>
<td>thłaʔ</td>
<td>thlaak</td>
<td>drop</td>
</tr>
<tr>
<td>tłaaw</td>
<td>tłaaw</td>
<td>disappear</td>
<td>thlāaw</td>
<td>thláaw</td>
<td>lose</td>
</tr>
<tr>
<td>tğı́y</td>
<td>tány</td>
<td>become free</td>
<td>thlāy</td>
<td>thlāy</td>
<td>wean</td>
</tr>
<tr>
<td>tlee</td>
<td>tleet</td>
<td>spill</td>
<td>thlee</td>
<td>thleet</td>
<td>spill (tr)</td>
</tr>
<tr>
<td>tleek</td>
<td>tleʔ</td>
<td>be ripped off</td>
<td>thleek</td>
<td>thleʔ</td>
<td>tear off (tr)</td>
</tr>
<tr>
<td>tleer</td>
<td>tleer</td>
<td>be split</td>
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REFERENCES


———. 2000. Kiranti Languages. MS.


Linguistic Society, pp. 427-441. GLSA, University of Massachusetts, Amherst.


