Morphophonemic Changes in Daai Chin

Helga Hartmann-So
Summer Institute of Linguistics
Bangkok, Thailand

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A. Introduction

1. The Daai Chin language

The Daai Chin language belongs to the Southern Branch of the Kukish Section of the Tibeto-Burman language family. It is spoken by approximately 30,000 people, in the townships of Matupi, Mindat, Kampelet, and Paletwa, in the Southern Chin Hills of Burma. Within the Chin language group Daai Chin is most closely related to Műn Chin (also called Mindat Chin), Chin Pon (also called Üt Pû) and Matu Chin.
Not all of the Daal Chin population call themselves "Daai". Only in recent years have young people, especially those with some school education, started to call themselves and their tribe "Daai". Some of the other names that have been used for the Daal Chins or part of the Daal Chins are: K'khyou, Ng'ho Mo Ye, Ng'xang, Kho Ng'lung, K'khyang.

The Daal Chin language comprises several dialects, whose boundaries have yet to be determined. This study is based on the dialect spoken in Kampelet township, particularly in Yang M'saai village and its surrounding area.*

2. Outline of phonology

2.1 Initial Consonants

<table>
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<tr>
<th></th>
<th>bilab.</th>
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<td>semivowels</td>
<td>w</td>
<td>y</td>
<td>ŋ</td>
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</tbody>
</table>

Consonant modifications:
- Palatalization: py, phy, ky, kʰy, hy, my, ny, ŋy, wy
- Preglottalization (not implosion): can occur with all consonants
- Prenasalization: can also occur with all consonants

2.2 Final Consonants

<table>
<thead>
<tr>
<th>p</th>
<th>m</th>
<th>v</th>
<th>v?</th>
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<tr>
<td>[p?]</td>
<td>n</td>
<td>w</td>
<td>[w?]</td>
</tr>
<tr>
<td>[t?]</td>
<td></td>
<td>y</td>
<td></td>
</tr>
<tr>
<td>[k?]</td>
<td></td>
<td></td>
<td>y?</td>
</tr>
</tbody>
</table>

* The data for this paper was collected in Rangoon over several years time between 1975 and 1981. It is based on the speech of Chaing So, to whom I am greatly indebted, and partially checked against the speech of others from his village.

Dr. David Thomas and Paulette Hopple gave advice in the analysis and writing of the paper.
2.3 Vowels

<table>
<thead>
<tr>
<th>front</th>
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<th>back</th>
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<tbody>
<tr>
<td></td>
<td>spread</td>
<td>round</td>
</tr>
<tr>
<td>high</td>
<td>i [i], [ɨ]</td>
<td>u [u], [ʊ]</td>
</tr>
<tr>
<td>mid</td>
<td>ɛ</td>
<td>ø</td>
</tr>
<tr>
<td>low</td>
<td>a [a], [ʌ]</td>
<td>o [ɔ], [ʊ]</td>
</tr>
</tbody>
</table>

Vowel modifications:
- Length: all vowels may be short or long. Open syllable vowels are a little shorter than the long vowels.
- Tone: plain level tone and tense high falling tone. The high tense tone does not occur on short syllables with final stop.

2.4. Syllable Structure

The general syllable pattern is \((C_1) \ (C_2) \ (C_3) \ V \ (C_4)\), where:
- \(C_1\): ?, m
- \(C_2\): all initial consonants
- \(C_3\): y
- \(V\): all vowels
- \(C_4\): all final consonants

Most morphemes in the Daai Chin language are monosyllabic.

**B. Rules for Morphophonemic Changes in Noun-Compounding**

In the Daai Chin language, phonologically conditioned changes in the morphemes follow certain rules. Since these rules can be seen most completely in the compound noun, they will be presented first in this paper in the compound nouns. These same rules also apply, though less fully, to other morpheme constructions, e.g. the numeral phrase, the prepositional phrase, and the verb phrase. There are also morphologically conditioned variants of verb stems to which some of these rules apply.

These morphophonemic changes take place at normal conversational speed, but in very slow speech or singing the morphemes retain their basic form without morphophonemic changes. But the verb stem variations of Verb Class II and Verb Class III retain their basic forms at all rates of speed.
1. **Rule I. Vowel shortening**

\[
CV: + CVx \rightarrow CV(CV)x
\]

If the first member of compound is an open syllable, the longer vowel of the open syllable is shortened in compounding.

1. **kʰo:**  mǐk > kʰ̥s̥mǐk
   - earth  eye  'sun'

2. **sʰe:**  mú: > sʰ̥mú:
   - cow  fur  'cow’s hair'

3. **lu:**  sʰǎm > lǔsʰǎm
   - head  hair, string  'hair of the head'

4. **kʰo:**  nú: > kʰ̥s̥nú:
   - foot  big  'big toe'

5. **kʰo:**  ?aay > kʰ̥s̥ʔaay
   - spirit  chicken  'wild chicken'

6. **sʰe:**  ?ɔŋ > sʰ̥ʔɔŋ
   - cow  trading  'cow trading'

2. **Rule II. Loss of high tense tone**

2.1 **Unconditional loss of high tense tone**

**Rule IIa:**  CV: + (?)CVx > CV(?)CVx

If the first member of compound noun is an open syllable with high tense tone and is followed by a simple consonant or preglottalization, it always changes into a plain tone (unmarked in the transcription).

1. **lî:**  pʰk > lîpʰk
   - arrow  bundle  'gun'

2. **lō:**  yũ? > l̥ʔyũ?
   - throat  bone  'Adam’s apple'

3. **mō:**  sʰá: > m̥s̥sʰá:
   - jungle  meat  'meat of wild animals'
4. mé: miki > mënëk
   goat eye 'goat's eye'

5. ḫé: ḫuum > ḫë?uum
   palm tree hole, container 'a palm tree which is empty inside'

6. mé: ḫëy > mënëy
   goat eat 'goat feed'

7. nú: ḫuûy > nûk-pûy
   mother, big old 'old woman'

8. pâ: ḫëhë: > pëk-sëhë:
   father bad, intense 'old man'

Rule IIb: CÝN + ?CVx > CÝNCÝx

If the first member of compound noun has a short vowel with a nasal ending
and is followed by preglottalization, the high tense tone of the first member
always changes into a plain tone. There is always concurrent resyllabification
and assimilation (cf. Rule III).

1. ḫäm ḫûi: > ḫëp-sëi:
   house floor 'floor of a house'

2. ḫnâm ḫûûn > ḫnëp-ûûn
   village outside 'outside the village'

3. lâm ḫûë: > lëp-së:
   road other, different 'the other road'

4. ḫûûn ḫûët > sëk-këët
   left right 'both sides'

2.2 Conditional loss of high tense tone

Rule IIc: CÝ: + NCÝx > CÝNCÝx

If the first member is an open syllable with high tense tone, and if the
second member has prenasalization and a high tense tone also, the first
member changes to a plain tone. There is always concurrent resyllabification
(cf. Rule III).
1. sá: ɲpyáŋ > sánpyáŋ  
   child man, male 'son'

2. shá: ɲláy > shān-láy  
   deer field 'place where deer rest in the field'

If the second member of the compound has a plain tone, the high tone on the first member remains unchanged.

3. ná: mpaan > nám-paan  
   fish fork 'name of a fish'

4. sá: ɲhnú: > sán-hnú:  
   child woman, female 'daughter'

   **Rule IIId: Ĉy + Cyx > ĈyCyx**

If the first member has a high tense tone and a final semi-vowel and if the second member has a high tense tone also, the first high tense tone changes to a plain tone.

1. shéy mèy > shéymèy  
   tobacco fire 'pipe'

2. túy nú: > túynú:  
   water big 'river'

3. lŚw ?úy > lŚw?úy  
   field dog 'dog that is kept in the field'

4. ?úy shá: > ?úyshá:  
   dog flesh 'flesh of a dog'

If the second member of the compound has a plain tone, the high tense tone of the first member remains unchanged.

5. shéy ?úy > shéy?úy  
   tobacco seed 'tobacco seed'

6. túy ?èy > túy?èy  
   water eat 'eating together'
Rule IIe: CÝ:N + ?CVx > CÝ:N?CVx

If the first member has a long vowel, a high tense tone and a final nasal, and if the second member has preglottalization and a high tense tone, the first high tense tone changes to a plain tone.

1. só̀n  ?dí́k  >  sówt-dí́k
   spoon  small  'little spoon'

If the second member of the compound has a plain tone, the high tense tone of the first member remains unchanged.

2. mlí́fŋ   ?thiː  >  mlí́f-k-thiː
   ant   dead  'dead ant'

3. Rule III. Consonant resyllabification and assimilation

Rule IIIa: Nasal – preglottal  CVN + ?CVx > CVT.CVx

If the first member has a final nasal and the second member has preglottalization, the nasal becomes a homorganic stop (m > p, n > t, ŋ > k) and the preglottalization disappears. Or we could say that the glottalization is resyllabified into the preceding syllable and merged with the nasal to make a stop.

1. ?í́m  ?siː  >  ?íp-siː
   house  floor  'floor of a house'

2. ŋnáːm   ?scoon  >  ŋnáp-scoon
   village  outside  'outside the village'

3. só̀n  ?dí́k  >  sówt-dí́k
   spoon  small  'little spoon'

4. mpyśŋ  ?shéː  >  mpyśk-shéː
   mouth  bad  'evil tongue'

5. ?khyaaŋ  ?shéː  >  ?khyaaak-shéː
   man  bad  'wicked man'

Rule IIIb: Nasal – prenasal  CVN¹ + N²CVx > CVN².CVx
If the first member has a final nasal and the second member has prenasalization, the nasal ending of the first word assimilates to the point of articulation of the following nasal, and the prenasalization disappears.

1. ƞnám ƞlōw > ƞnāŋ-lōw
   village obvious 'prominent village'

2. ?kʰyaanŋ msí: > ?kʰyaam-sí:
   man seed 'only offspring'

_rule IIIc: Open syllable preglottal or prenasal_

CV + ?CVx > CVk.CVx
CV + NCVx > CVN.CVx

If the first member is an open syllable, and if the second member has preglottalization or prenasalization, the glottal or nasal phoneme joins the first member to close the open syllable. In the process, the glottal changes into a velar stop.

1. kʰo: ??á: > kʰák-?á:
   earth rain 'rain'

2. kʰya: ?wááy > kʰyāk-waay
   moon light, beam 'moonlight'

   veranda middle 'in the middle of the veranda'

4. ?he: ƞlēv > shēŋ-ēv
   cow stray 'a straying cow'

5. ?he: mlē̂? > shēm-lē̂?
   cow vomit 'cow vomit'

6. yu: mlūŋ > yūm-lūŋ
   rice wine cover 'cover of a rice wine pot'

_rule IIIId: Semivowel - Preglottal_

CVγ + ?CVx > CVγ?CVx or CVγk.CVx
CVw + ?CVx > CVwk.CVx or CVk.CVx
If the first member ends in a semivowel, and the second starts with a preglottal, generally the glottal stop joins the first syllable. In the process, the semivowel [w] may drop out, and the glottal may change to [k] (always, if the semivowel is [w]).

1. ?úy
   dog
   ?tʰéy
   train
   > ?úy-?tʰéy
   'trained dog'

2. shɛy
   tobacco
   ??ám
   container
   > shɛyk-??ám
   'tobacco container'

3. kʰaaw
   rope from bark
   ?tʰá:
   strong
   > kʰaak-?tʰá:
   'strength of a bark rope'

4. lsw
   field
   ?sɔŋ
   hut
   > lswk-sɔŋ
   'hut in the field'

4. **Rule IV.** Loss of preglottal

   CVT + ?CVx > CVTCVx

If the first member has a final stop, and the second member has preglottalization, the preglottalization disappears.

1. sâlaap ?si:
   resthouse
   > sâlaap-?si:
   floor
   'floor of the resthouse'

2. mik
   ?tïŋ
   eye
   > mik-tïŋ
   straight
   'one who has a sharp eye in shooting'

3. kút
   ?tïŋ
   hand
   > kút-tïŋ
   straight
   'one who has a steady hand in shooting'

C. **Combined application of morphophonemic rules**

Two or more morphophonemic rules may be applicable to the same compounds or sequences:

1. **Rule I + Rule II:** Vowel shortening and loss of high tense tone

1. lí:
   pɔk
   arrow
   > lîpɔk
   bundle
   'gun'
2. mé: mîk > mēmîk
   goat eye 'goat's eye'

2. **Rule I + Rule III:** Vowel shortening and consonant resyllabification and assimilation

1. kʰya: ?wááy > kʰyāk-waay
   moon light, beam 'moonlight'

2. sʰē: nlow > sʰēl-lōw
   cow stray 'a straying cow'

3. **Rule II + Rule III:** Loss of high tense tone and consonant resyllabification and assimilation

1. lām ?se: > lāp-se:
   road other, different 'the other road'

2. ?soŋ ?kheēt > ?soŋk-kheēt
   left right 'both sides'

4. **Rule I + Rule II + Rule III:** Vowel shortening, loss of high tense tone, consonant resyllabification and assimilation

1. nú: ?pūy > nūk-pūy
   mother, big old 'old woman'

2. sá: ṃpyāŋ > sāŋ-pyāŋ
   child man, male 'son'

Rule IV does not co-occur with other rules because it requires a final stop in the first member, but Rules I, II, and III do not apply if there is a final stop.

**D. Morphophonemic Changes in Other Nominal Phrases**

1. **Prepositions**

Prepositions (actually postpositions) combine with nouns in ways similar to the preceding.

1. **Rule I:** lu: pēy > lūpēy
   head beside 'beside the head'
2. Rule IIa: ɳnɔ: pɛy > ɳnɔpɛy  
   edge of the field beside 'beside the field'

   house under 'under the house'

4. Rule IIId: ɳsɛɛy ?kɛ: > ɳsɛɛyʔ-kɛ:  
   chimbnel under 'under the chimbel'

5. Rule IIe: yɔmsiʔy ?kɛ: > yɔmsiʔ-kɛ:  
   kind of bamboo under 'under the bamboo'

   house on 'on the house'

   house middle 'in the middle of the house'

   pot on 'on the pot'

9. Rule IIIId: ʌsw ?słuŋ > ʌsw-k-słuŋ  
   field middle 'in the middle of the field'

10. Rule IV: səlaap ?ʔʊm > səlaap-ʔʊm  
    resthouse inside 'in the resthouse'

All rules except IIc have thus been observed. Rule IIc is lacking because no prepositions have yet been found with the form NC’hx.

2. Numbers

Numbers combine with their preceding nouns in similar fashion.

1. Rule I: msw: phya: > msw-phya:  
   pot 100 'hundred pots'

2. Rule IIa: mé: phya: > méphya:  
   goat 100 'hundred goats'

3. Rule IIb: ʌm ?θʊm > ʌp-thʊm  
   road three 'three roads'
4. Rule IIc:  
   sōsōn  \( ?k\acute{o} \) >  sōt-kō:  
   spoon  nine  >  'nine spoons'

5. Rule IIIa:  
   ?īm  \( ?\text{thūm} \) >  ?īp-\text{thūm}  
   house  three  >  'three houses'

6. Rule IIIb:  
   ?īm  \( ?\eta\eta\dot{i} \) >  ?īn-\(\eta\eta\dot{i} \)  
   house  two  >  'two houses'

7. Rule IV:  
   wōk  \( ?\text{phyw} \) >  wōk-\text{phyw}  
   pig  four  >  'four pigs'

Rule IIc is lacking because no numbers have been found with the form NC\(\text{Vx}\). The requisite conditions for Rules IIId, IIic, and IIIId do occur, but these rules are inoperative for numerals:

1. Inoperative Rule IIId:  
   ?ūy  \( ?k\acute{o} \) >  ?ūy-\(\dot{k}\acute{o} \)  
   dog  nine  >  'nine dogs'

2. Inoperative Rule IIIc:  
   sē:  \( ?\text{thūm} \) >  sē\.\(\text{thūm} \)  
   cow  three  >  'three cows'

3. Inoperative Rule IIIId:  
   lōw  \( ?\text{phyw} \) >  lōw-\(\text{phyw} \)  
   field  four  >  'four fields'

E. Morphophonemic Changes in the Verb Phrase

There are morphophonemic changes of the verb root depending upon the verb class. Verb Class I has only one verb stem, whereas Verb Class II and III each have two stems to which various morphophonemic rules apply, sometimes depending upon the phonological environment, sometimes not. The most frequent changes of the verb root occur before the preglottalized morphemes [\(?\text{tī}\.\)] (verb phrase final marker, present tense) and [\(?\text{kḥāy}\.\)] (verb phrase final marker, future tense).

1. Verb class I

1.1. If the verb root has a final nasal, the nasal changes into a stop, following Rule IIIa.
1. šhùwum ?ti: > šhùwup-ti:  remember
2. šhën ?ti: > šhët-ti:  'remember'  red  'red'

3. kʰcoon ?ti: > kʰcoon-ti:  push
4. kʰcoon ?kʰây > kʰcoon-kʰây  'push'  'will push'

1.2. Contrary to Rule IIIc, if the verb root is an open syllable, there is no change when [?ti:] or [?kʰây] follows.

1. bú: ?ti: > bú:?ti:  cover 'cover'
2. te: ?kʰây > te: ?kʰây  beat  'will beat'

1.3. If the verb root has a final semivowel before [?ti:] or [?kʰây], it resyllabifies and assimilates, following Rule IIId.

1. mów ?ti: > mòk-ti:  stare 'stare at smn.'
2. ?aw ?kʰây > ?âk-kʰây  broad  'will be broad'

3. mbéy ?ti: > mbéy?-ti:  feed

1.4 If the verb root has a final stop, the preglottalization of [?ti:] and [?kʰây] disappears, following Rule IV.

1. yśśp ?ti: > yśśp-ti:  break 'break'
2. bśsk ?ti: > bśsk-ti:  white  'white'

2. ns?ut ?kʰây > ns?ut-kʰây  sit  'will sit'

2. Verb class II

There are two stems for verbs of Verb Class II: Stem A and Stem B. Stem A is realized in environment I, Stem B in environment II, occurring only as a bound morpheme. The following lists of environments are not exhaustive, but are indicative of and true to the data thus far analyzed.

Environment I

1. following personal pronouns
2. before [vây], purpose marker
3. before [?wŋ], durational/conditional marker
4. before [ta:], conditional marker
Environment II

1. before [ʔtːiː], verb phrase final marker, present tense
2. before [ʔkʰǎy], verb phrase final marker, future tense
3. before [lʊː], clause co-ordinator
4. before [vǎy], hortatory marker

<table>
<thead>
<tr>
<th>Stem A</th>
<th>Stem B</th>
<th>Stem A</th>
<th>Stem B</th>
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<tbody>
<tr>
<td>pēːt</td>
<td>pē-</td>
<td>hmű?</td>
<td>hmű-</td>
</tr>
<tr>
<td>ʔʃʃk</td>
<td>ʔʃ-</td>
<td>ʔši?</td>
<td>ʔši-</td>
</tr>
<tr>
<td>tūk</td>
<td>tū-</td>
<td>věː</td>
<td>vě-</td>
</tr>
<tr>
<td>kyūk</td>
<td>kyū-</td>
<td>tiː</td>
<td>ti-</td>
</tr>
</tbody>
</table>

2.1. Verb Class II Stem A is not activated by the morphophonemic rules. With open syllables, the requisite condition for Rule I does occur, but Rule I proves to be inoperative.

1. věː: taː > věː:taː: 2. tiː: taː > tiː:taː: be if 'if (he) is (here)' speak if 'if (he) speaks'

2.2. Since Verb Class II Stem B morphemes all contain short vowels, Rule I cannot operate.

2.3. If Verb Class II Stem B morphemes are followed by [ʔtːiː] or [ʔkʰǎy], Rule IIIC applies.

1. pē- ʔtːiː > pēk-tiː: 2. hmű- ʔtːiː > hműk-tiː: give 'give' see 'see'

3. tǐ- ʔkʰǎy > tǐk-kʰǎy speak 'will speak'

3. Verb Class III

There are also two stems for verbs of Verb Class III, Stem A and Stem B. They are realized in the same environments listed for verbs of Verb Class II: Stem A in Environment I, and Stem B in Environment II.

<table>
<thead>
<tr>
<th>Stem A</th>
<th>Stem B</th>
<th>Stem A</th>
<th>Stem B</th>
</tr>
</thead>
<tbody>
<tr>
<td>sēʔ</td>
<td>sīt</td>
<td>kāʔ</td>
<td>kāáp</td>
</tr>
</tbody>
</table>
3.1. The morphophonemic rules do not apply to morphemes of Verb Class III Stem A, because Environment I and the syllable structures of the verb stem do not provide the required conditions.

3.2. If Stem B has a final nasal, it follows Rule IIIb.

   rest  rest  hide  ‘will hide’

3.3. If Stem B has a final nasal, it also follows Rule IIIa.

1. hnɪm ʔti: > hnɪp-ʔti: 2. dʒəŋ ?kʰəy > dʒık-kʰəy
   kill  ‘kill’  run  ‘will run’

3. man ?kʰəy > mət-kʰəy
   catch  ‘will catch’

3.4 If Stem B has a final semivowel [v], it follows Rule IIId.

1. pʰyʃv ʔti: > pʰyʃw-k-ʔti:
   kill  ‘kill’

If Stem B has a final semivowel [y], Rule IIId is ignored.

3.5. If Stem B has a final stop, it follows Rule IV.

1. tək ʔti: > tək-ʔti: 2. kəap ʔti: > kəap-ʔti:
   weave  weave  shoot  ‘shoot’

3. lʊt ?kʰəy > lʊt-kʰəy
   enter  ‘enter’

Rules I, Iia, Iic, IIe, IIIb, and IIIc do not apply, because Stem B has no open syllables or CV:N pattern, and there are no prenasalized particles of Environment II.