Dàyáng Pumi phonology and adumbrations of comparative Qiangic

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1. Introduction

I worked on Pumi phonology in Kunming from March 7th to 29th, 1996, with a consultant named Hé Shùkǎi, a young woman in her early twenties. Ms. Hé, a student in the Foreign Languages Department (Waiyuxi) of the Yunnan Minzu Xueyuan (Yunnan Institute of Nationality Studies), speaks excellent Mandarin, but despite having lived in Kunming for several years, she retains a perfect command of Pumi, since she makes frequent trips home and stays in close touch with her family. She is from Dàyáng Village, in northern Lanping County, Yunnan.

Like the other Qiangic languages, Pumi has an extremely complex phonology, and shows considerable internal dialectal diversification. Several other dialects have been described in the literature. The *Pumi-yu jianzhi* (Lu Shaozun 1983) contains data from Jinghua (also spoken in Lanping County, Yunnan) and Taoba (Muli County, Sichuan). Dàyáng is different from them both, but closer to Jinghua than to Taoba. The Taoba and Jinghua dialects also represent Pumi in “ZMYYC” (Sun et al., 1991), where they appear as languages #10 and

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1This paper is affectionately dedicated to Paul K. Benedict, my mentor and inspiration for the past thirty years. An earlier version was presented at the 29th International Conference on Sino-Tibetan Languages and Linguistics, Noordwijkerhout, Netherlands, in October 1996.

2My thanks to Joshua Guenter for entering my fieldnotes into the computer during the summer of 1996, and to Picus Ding, Zev Handel, Elisabeth Hsu, and Randy J. La Polla for helpful comments on the first version of this paper.

3This is quite close to the Naxi/Moso area in Lijiang County; Ms. Hé claims that she can understand spoken Moso without difficulty. Hé Shùkǎi has also worked briefly as a consultant with Dai Qingxia, as well as with Picus Ding, a student at Australian National University in Canberra, who has worked mostly on the Niuwozi dialect.

4The Qiangic group of languages, formerly vaguely known to Western linguists under the pejorative name of *Xifan* (“Western barbarian”) or *Dzorgaic* (R. Shafer), and regarded as a “residual type of Loloish”, have only come into sharp focus within the last 15 years or so, thanks to the work of Chinese linguists like Sun Hongkai, Dai Qingxia, and Huang Bufan, who have demonstrated that they constitute an independent branch of Tibeto-Burman, with about a dozen members, including Ergong, Ersu, Guiqiong, Muya, Namuyi, Pumi, Qiang, Queyu, Rgyalrong (=Jiarong = RGYarong), Shixing, and Zhaba, as well as the extinct Xixia or Tangut (see below 6.1).

5The total number of Pumi speakers is only about 30,000. They earn their livelihood mostly as orchardists, cultivating a wide variety of fruit- and nut-trees.

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In "TBL" (Dai et al, 1992) data is presented from the "Lanping" dialect (identical to ZMYYC's "Jinghua") and Jiulong (from Ganzi Prefecture, Sichuan), #9 and #10, respectively.

The name "Pumi" is a Chinese exonym that more or less approximates the pronunciation of the autonym, pronounced pʰéN-mí in the Dàyang dialect, which clearly means 'White People' (pʰéN 'white'). This morpheme seems to go back to Proto-Qiangic *pram (cf. Rgyalrong kʰpram), distinct from the much more widely attested TB root *plu 'white; silver'. Other authors have called the language "Primí" or "Prinmi", but for the moment we are sticking with the better-known exonym.

This paper is far from a definitive treatment of the Dàyang dialect, and merely represents work in progress. In particular, many problems remain with respect to the details of tone sandhi in polysyllabic words and collocations. I hope soon to undertake a more systematic study of comparative Qiangic phonology.

2. Syllable structure

Syllable canon

\[
\begin{array}{c}
\text{T} \\
\text{F (F) Ci (G) V (y/w) (N)} \\
\end{array}
\]

\[
\begin{array}{c}
\text{G = y w ñ/š/ž f/ž} \\
\end{array}
\]

\[
\begin{array}{c}
\text{F} \\
\text{--> } \phi /______ Labial \\
\text{--> } s /______ Dental \\
\text{--> } f /______ Palatals \\
\text{--> } \chi /______ Postvelars \\
\end{array}
\]

F --> [+voiced] /______ [+voiced]

i.e. $\phi > \beta$; $s > z$; $f > 3$; $\chi > \kappa$

Reduced stress syllables

Dàyang has many sesquisyllabic words, with schwa vocalism in the minor syllable. I usually separate these toneless presyllables from the following root by a hyphen.

• An important subset are verb roots preceded by directional prefixes (see below 5.022).
• Also reduced first syllables in N-N compounds (which generally tend to have iambic stress patterns in TB languages):

  \[
  \begin{array}{c}
  \phi pù 'belly' > \phi pə-tʃəu 'navel' \\
  tʃə 'water' > tʃə-ʃəpá 'boiled water' \\
  \end{array}
  \]

• Sometimes (especially before liquids or nasals) the schwa is elided, leading to secondary phonetic clusters like [vr]. See below 3.04.
Nasalized vowels

There are no final buccal consonants in Pumi syllables, though nasalization of the vowel is usually a reliable indicator of an earlier syllable-final *nasal. Occasionally one has the impression of hearing a real consonantal -n or -ŋ (but never -m) at the end of a syllable, though this is unreliable and disappears on repetition.

3. Initial Consonants

Qiangic is a “consonant-prominent” subgroup of TB, with a rich proliferation of syllable onsets reminiscent, e.g. of Hmongic languages. Within Qiangic, the most elaborate consonantal repertoires are to be found in the many dialects of the Gyalrong and Ergong languages, which can have as many as 200-300 initial contrasts. Dàyáng Pumi, while not quite in that league, still has at least 125 syllable onsets.

3.01 Simple consonants

\[
\begin{array}{cccccccccc}
\text{p} & \text{t} & \text{ts} & \text{ṭ} & \text{tś} & \text{ṭj} & \text{tc} & \text{k} & \text{q} \\
\text{ph} & \text{th} & \text{tsh} & \text{ṭh} & \text{tśh} & \text{ṭjh} & \text{tch} & \text{kh} & \text{qh} \\
\text{b} & \text{d} & \text{dz} & \text{ḍ} & \text{dś} & \text{ḍj} & \text{g} & \\
\phi & \text{s} & \text{ṣ} & \text{ṭ} & \text{c} & \text{x} & \text{h} & \\
v & \text{z} & \text{ẓ} & \text{γ} & \text{fi} & \\
\text{m} & \text{n} & \text{n} & \text{ŋ} & \\
\text{m} & \\
\text{w} & \text{l} & \text{r} & \text{y} & \\
\end{array}
\]

3.02 Clusters with -w-

\[
\begin{array}{cccccccc}
\text{tw} & \text{stw} & \text{ṭw} & \text{tsw} & \text{tśw} & \text{ṭcw} & \text{kw} & \text{qw} & \text{χqw} \\
[t\text{hw}] & \text{sthw} & \text{ṭhw} & \text{tshw} & \text{tśhw} & \text{ṭchw} & \text{khw} & \text{qhw} & \text{χqh}w \\
[d\text{w?}] & \text{zd} & \text{ṭw} & \text{dz} & \text{dśw} & \text{ḍw} & \text{zw} & \text{gs} & \text{gw} \\
\text{sw} & \text{s} & \text{ṣw} & \text{ṣj} & \text{cw} & \text{χw} & \\
\text{lw} & \text{rw} & \\
\end{array}
\]

Several different phonemic scenarios are possible with respect to medial [-w-]:

(a) Restrictions in terms of preceding consonant: if the -w- only occurs after consonants at a certain position of articulation, e.g. velars, it may be best to
consider the labialization as part of the Ci. Thus Proto-Hlai is reconstructed with a series of *labiovelars.\(^6\)

(b) Restrictions in terms of following vowel: the -w- occurs after Ci’s at several positions of articulation (perhaps excluding labials), but only before certain vowels. This is the case, e.g. with Written Burmese and Mzieme (Angamoid Branch of Naga)\(^7\), where -w- occurs only before -a and -e, so that it is best regarded as part of the rhyme.

(c) Relatively unrestricted either in terms of the Ci or the following vowel. This is the situation in Pumi, where -w- occurs freely after all consonantal positions except labials, and before all vowels except back rounded /u o ou/. However, the vowel /-o/ is automatically pronounced with labialization of the preceding consonant, e.g. /ro/ ‘chicken’ [r\(^w\)o].\(^8\) This is in fact the chief auditory clue for distinguishing the rhymes /-o/ and /-ou/, since labialization of the Ci does NOT take place before /-ou/.

In general, then, Pumi [-w-] can be considered to be relatively independent of the preceding and following segments, constituting a separate structural part of the syllable.

In some words with high front vowel, the glide [w] is realized as a non-syllabic rounded glide [ʮ], similar to that in French *nuī* [nɥi]:

\begin{align*}
\text{‘liver’} & \quad \text{tswīN} [\text{tsʮiN}] & \quad < \text{PTB} \quad *\text{m-sin} \\
\text{‘handspan’} & \quad \text{tchwɪ} [\text{tchʮi}] & \quad < \text{PTB} \quad *\text{m-twa} \\
\text{‘pull/drag’} & \quad \text{tswīN} [\text{tsʮiN}] \\
\text{‘shoe’} & \quad \text{tsʮi} [\text{tsʮi}]
\end{align*}

\[3.03 \text{ Clusters with -y-}\]

<table>
<thead>
<tr>
<th></th>
<th>py</th>
<th>φpy</th>
<th>ty</th>
<th>[sty]</th>
<th>tsy</th>
</tr>
</thead>
<tbody>
<tr>
<td>py</td>
<td>φpy</td>
<td>tpy</td>
<td>[sty]</td>
<td>tzy</td>
<td></td>
</tr>
<tr>
<td>by</td>
<td>φby</td>
<td>tby</td>
<td>[tʃhy]</td>
<td>tʃhy</td>
<td>xy</td>
</tr>
<tr>
<td>by</td>
<td>φby</td>
<td>tby</td>
<td>[tʃhy]</td>
<td>tʃhy</td>
<td></td>
</tr>
<tr>
<td>my</td>
<td>ly</td>
<td>sly</td>
<td>zy</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ly</td>
<td>sly</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note the absence of velar-plus-y clusters.

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\(^6\)See Matisoff 1988b:291
\(^7\)Namkung, ed. 1996:309-10.
\(^8\)See below 4.0, Vowels. There are a number of words where w- occurs as the Ci before the vowel /-o/, e.g. wō ‘tiger’, wō-mǐ ‘guest’, wō ‘mouse’. These words could be analyzed as having zero-initial, but there seems little point to this, since it complicates the syllable canon, and initial w- occurs freely before other vowels as well, including /-ou/.
3.04 Reflexes of liquid clusters

Tibeto-Burman medial liquids */-r- -l-/* have left more indirect traces in Dàyang Pumi:

(a) Labials plus liquids.

Although the details are still far from clear, */labial-plus-liquid clusters have developed into two series of labial affricates: one retroflex and one palatal. The palatal series is redundantly (and optionally) pronounced with an epenthetic stop between the labial and fricative elements. This epenthetic stop is the most salient feature distinguishing the two series, and the recording linguist is grateful for it. The offglides in the aspirated and voiced members of the retroflex series /pʂʰ bʐ/ are ʂ and ʐ respectively; in the plain member of this series, the offglide varies between [ʐ] and a fricative r-sound similar to Czech /ř/:

\[
\begin{align*}
px \quad [pʃ] & \quad pf \quad [ptʃ] \\
psʰ & \quad pfh \quad [ptʃʰ] \\
bʐ & \quad bʒ \quad [bdʒ]
\end{align*}
\]

The distinction between TB medial */-r- and */-l-/* is fragile at best, and it would be too much to suppose that the two Pumi series reflect different proto-liquid medials. There is too much variability; nothing is this neat.

There is at least one excellent example of TB */pʰ- > Dàyang p(t)ʃʰ:
Pig PTB */p-wak > Dàyang pʃʰō

False labial-plus-liquid clusters

Sometimes the optional elision of schwa from the minor syllable of a sesquisyllabic word gives rise to a secondary phonetic cluster that does not yet have systemic status, e.g.:

\[
\begin{align*}
[vr] & \quad ‘scar’ \quad vr̥tʃhû \sim vər̥tʃhû \\
[pr] & \quad ‘foodstuff’ \quad pr̥ \sim pər̥ă \\
[br] & \quad ‘snake’ \quad br̥á \sim bər̥á \\
[bl] & \quad ‘lip’ \quad xydN-blô \sim xydN-bəlô
\end{align*}
\]

In these cases the schwa returns in careful speech.9

(b) Velars plus liquids

Dàyang Pumi has a full series of retroflex stops, which do not occur in other known Pumi dialects, even the closely related Jinhua.

\[
\begin{align*}
t & \quad tw \\
ṯh & \quad thw \\
dʒ & \quad dʒw
\end{align*}
\]

---

9 Similar elision of the schwa may also occur before nasals: BODY gəmû ~ gmû.
These usually derive from TB clusters of *velars-plus-liquid, e.g.

<table>
<thead>
<tr>
<th>PTB</th>
<th>Dàyáng</th>
<th>Jinhua</th>
<th>Taoba</th>
<th>Lahu</th>
</tr>
</thead>
<tbody>
<tr>
<td>'daughter-in-law'</td>
<td>*krwọy</td>
<td>tʰj</td>
<td>tʃ₃⁰</td>
<td>tʃ₃⁰</td>
</tr>
<tr>
<td>'foot'</td>
<td>*krọy</td>
<td>tʰj</td>
<td>tʃ₃⁰</td>
<td>tʃ₃⁰</td>
</tr>
<tr>
<td>'gall'</td>
<td>*m-kris</td>
<td>tʃ³⁵</td>
<td>tʃ₃⁰</td>
<td>tʃ₃⁰</td>
</tr>
<tr>
<td>'garden'</td>
<td>*kram</td>
<td>tʰo</td>
<td>tʃ₃⁰</td>
<td>tʃ₃⁰</td>
</tr>
<tr>
<td>'hawk/eagle'</td>
<td>*glan</td>
<td>tʰo</td>
<td>tʃ₃⁰</td>
<td>tʃ₃⁰</td>
</tr>
<tr>
<td>'horn'</td>
<td>*krọw</td>
<td>tʰo</td>
<td>tʃ₃⁰</td>
<td>tʃ₃⁰</td>
</tr>
<tr>
<td>'six'</td>
<td>*d-krokol</td>
<td>tʰu</td>
<td>tʃ₃⁰</td>
<td>tʃ₃⁰</td>
</tr>
<tr>
<td>'star'</td>
<td>*kraw</td>
<td>tʰo</td>
<td>tʃ₃⁰</td>
<td>tʃ₃⁰</td>
</tr>
<tr>
<td>'thread'</td>
<td>*kriŋ</td>
<td>dʒj</td>
<td>dzj₃⁰</td>
<td>dzj₃⁰</td>
</tr>
</tbody>
</table>

This is not the whole story, however. These retroflexes (especially the voiced member d) also seem to have other sources, e.g. *pʰ- and *l-y-:

- 'chaff'          PTB *pwaay > Dàyáng dʰwō
- 'lick'           PTB *m-lyak > Dàyáng dʰb

The word for DIG is interesting: Dàyáng tʰ looks as if it is related to the widespread TB root *du (STC #258); but PTB *-u usually goes to Dàyáng -u, and we have seen that the Dàyáng retroflexes do not derive from plain *dental stops. Perhaps a better comparison here is PTB *klaw 'dig out, weed' (STC #269).

3.05 Clusters with fricative prefix

F
---  φ, β  /________Labial
---  s, z  /________Dental
---  j, ʒ  /________Palatals
---  ɣ, k  /________(Post)velars

Like the Jinhua dialect, Dàyáng has a fricative preinitial or prefix that is homorganic to the following stop or affricate Ci and that agrees with it in voicing. This prefix occurs before root-initials at all positions of articulation (except that the velar/postvelar, retroflex/palatal, and alveo-/lamino-palatal contrasts are neutralized after the prefix). The prefixed root-initial may also be followed by a glide, yielding clusters of three consonants (F + Ci + G):

φp φpy st stw jtf jtfw xq xqw
βb βby zd zdw 3d3 3d3w kɡ

Before the laminopalatal (or "grooved") fricatives there is a shaky contrast between a dental and a palatal onset:

sʃ sʃw cʃ cʃw
zʒ
With respect to nasals, TB *s- seems to have left an overt trace in Dàyáng Pumi only in the shape of voiceless /m/, as in ̨m ‘medicine’ (compare WT sman). Other Pumi dialects preserve *s + nasal clusters better: Jinghua has both /ŋw/ and /ŋ/, while Taoba has a full set at four positions of articulation: /ŋ, ə, ʒ, ʃ/.

### 3.06 Composite chart of Dàyáng Pumi initial consonants

<table>
<thead>
<tr>
<th>Sound</th>
<th>Representation</th>
</tr>
</thead>
<tbody>
<tr>
<td>p</td>
<td>py</td>
</tr>
<tr>
<td>h</td>
<td>phy</td>
</tr>
<tr>
<td>b</td>
<td>by</td>
</tr>
<tr>
<td>t</td>
<td>ty</td>
</tr>
<tr>
<td>th</td>
<td>thy</td>
</tr>
<tr>
<td>d</td>
<td>dy</td>
</tr>
<tr>
<td>k</td>
<td>kw</td>
</tr>
<tr>
<td>kh</td>
<td>khw</td>
</tr>
<tr>
<td>g</td>
<td>gw</td>
</tr>
<tr>
<td>q</td>
<td>qw</td>
</tr>
<tr>
<td>qh</td>
<td>qhw</td>
</tr>
<tr>
<td>g̬</td>
<td>G</td>
</tr>
<tr>
<td>t̥</td>
<td>t̥w</td>
</tr>
<tr>
<td>t̥h</td>
<td>t̥hw</td>
</tr>
<tr>
<td>t̥d</td>
<td>t̥d</td>
</tr>
<tr>
<td>t̥f</td>
<td>t̥f</td>
</tr>
<tr>
<td>t̥f̥h</td>
<td>t̥f̥h</td>
</tr>
<tr>
<td>t̥f̥d</td>
<td>t̥f̥d</td>
</tr>
<tr>
<td>s</td>
<td>sy</td>
</tr>
<tr>
<td>s̥</td>
<td>s̥w</td>
</tr>
<tr>
<td>s̥h</td>
<td>s̥hw</td>
</tr>
<tr>
<td>s̥d</td>
<td>s̥d</td>
</tr>
<tr>
<td>s̥f</td>
<td>s̥f</td>
</tr>
<tr>
<td>z</td>
<td>zy</td>
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<td>z̥</td>
<td>z̥w</td>
</tr>
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<td>φ</td>
<td>h</td>
</tr>
<tr>
<td>v</td>
<td>h</td>
</tr>
<tr>
<td>m</td>
<td>my</td>
</tr>
<tr>
<td>w</td>
<td>lw</td>
</tr>
</tbody>
</table>

---

11Sometimes phonetically fricativized, /ʃ/.
3.1 Labials

\[
\begin{array}{cccccc}
  p & py & \phi p & \phi py & pz & [p\tilde{v}] & pf & [ptf] \\
  ph & phy & \phi ph & \phi phy & psh & p\tilde{h} & [ptf\tilde{h}] \\
  b & by & \beta b & \beta by & bz & b3 & [bd3] \\
\end{array}
\]

Simple labial stops

\[
\begin{array}{lcl}
  p\tilde{v} & 'bucket' & p\tilde{v} & 'lower part' \\
  p\tilde{v}uN & 'father's younger brother' & p\tilde{v} & 'flour' \\
  pà tyé & 'stool' & p\tilde{v}N & 3d3i & 'wild animal' \\
  pí & 'liter container' & pí p\tilde{v} & 'this year' \\
  pò & 'wolf' & pú & 'ladle' \\
  p\tilde{v} p\tilde{v} & 'ancestor' & \\
  phŭ & 'price' & ph̃-lyŏu & 'hat' \\
  phà là ~ phà lá & 'butterfly' & phă-łó̆ & 'rip seam' \\
  3d3uN phû & 'grass mat' & \\
  b & 'chaff' & b\tilde{u}N & 'cold' \\
  bò ŋá & 'snake' & bá z\tilde{i}w & 'dirty; a slob' \\
  bá thwó thwó & 'rough; coarse' & bèiN & 'coarse' \\
  bíN & 'busy' & bóuN & 'have' \\
  bú & 'insect' & bə-qóuN & 'soul' \\
  bɔsũ & 'peach' & \\
\end{array}
\]

This phoneme is allophonically trilled [b] before barred-i:

\[
\begin{array}{lcl}
  bí & 'sun' & bí & 'bee' \\
  bı̆ & 'thin/sparse' & bı̆ ly̆ ly̆ & 'thin' \\
\end{array}
\]

Palatalized labial stops

\[
\begin{array}{lcl}
  py & 'pick out with a tool' & nə pyé & 'sickly' \\
  gə-pyé & 'plank' & \\
  phy & 'testicle' & \\
  by & 'collapse' & \\
  byę & 'radish' & myōN thō-byę & 'blind' \\
  lē byę & 'plate/dish' & g̃a byę & \\
  tʃhə byę & 'stick; cane' & \\
\end{array}
\]
### Prefixed labial stops

<table>
<thead>
<tr>
<th>phoneme</th>
<th>meaning</th>
<th>phoneme</th>
<th>meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɸp</td>
<td>'leaf'</td>
<td>ɸpɔ́</td>
<td>'stomach'</td>
</tr>
<tr>
<td>ɸpʊ̃</td>
<td>'pus'</td>
<td>ɸṕ̣i̯</td>
<td>'saw' (n.)</td>
</tr>
<tr>
<td>ɸṕ̣i̯</td>
<td></td>
<td>ɸṕ̣ẉ̣</td>
<td>'begrudge'</td>
</tr>
<tr>
<td>ɸṕ̣ẉ̣</td>
<td></td>
<td>ɸṕ̣</td>
<td>'axe'</td>
</tr>
<tr>
<td>ɸṕ̣</td>
<td></td>
<td>ɸṕ̣uṆ̣</td>
<td>'government official'</td>
</tr>
<tr>
<td>ɸṕ̣ẉ̣</td>
<td>'wide'</td>
<td>ɸṕ̣</td>
<td>'slanting'</td>
</tr>
<tr>
<td>ɸṕ̣ḥ̣</td>
<td>'kidney'</td>
<td>ɸṕ̣ḥ̣</td>
<td>'slanting'</td>
</tr>
<tr>
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<td>'sediment'</td>
<td>ɸṕ̣ḥ̣</td>
<td>'slanting'</td>
</tr>
<tr>
<td>βḅ̣</td>
<td></td>
<td>βḅ̣</td>
<td>'sore; boil'</td>
</tr>
<tr>
<td>βḅ̣</td>
<td>'bloated (from eating)'</td>
<td>βḅ̣</td>
<td>'sore; boil'</td>
</tr>
<tr>
<td>βḅ̣</td>
<td>'long-grained rice'</td>
<td>βḅ̣</td>
<td>'pot (big)'</td>
</tr>
<tr>
<td>βḅ̣Ṇ̣</td>
<td>'urine'</td>
<td>ṣ̣Ṇ̣</td>
<td>'tree'</td>
</tr>
</tbody>
</table>

### Prefixed palatalized labial stops

<table>
<thead>
<tr>
<th>phoneme</th>
<th>meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɸpỵ̣</td>
<td>'sacrifice'</td>
</tr>
<tr>
<td>ɸpỵ̣ẹ̣</td>
<td>'patch' (v.)</td>
</tr>
</tbody>
</table>

### Labioretroflex affricates

<table>
<thead>
<tr>
<th>phoneme</th>
<th>meaning</th>
<th>phoneme</th>
<th>meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ṕ̣ẓ̣</td>
<td>'pour out'</td>
<td>ṕ̣ẓ̣́i̯ ẉ̣̣</td>
<td>'born in Monkey Year'</td>
</tr>
<tr>
<td>ṕ̣ẓ̣</td>
<td>'thigh'</td>
<td>ṕ̣ẓ̣́ṕ̣ẓ̣ẉ̣</td>
<td>'fight'</td>
</tr>
<tr>
<td>q̣̣ụ̣ ṕ̣ẓ̣́ẉ̣</td>
<td>'comb'</td>
<td>ṣ̣Ṇ̣ ṭ̣́Ṇ̣ ṕ̣ẓ̣̣</td>
<td>'lizard'</td>
</tr>
<tr>
<td>ṕ̣ṣ̣ḥ̣</td>
<td>'age'</td>
<td>ṕ̣ṣ̣ḥ̣̣</td>
<td>'chop'</td>
</tr>
<tr>
<td>ṕ̣ṣ̣ḥ̣</td>
<td>'(fruit) pit'</td>
<td>ṕ̣ṣ̣ḥ̣́i̯</td>
<td>'Pumi liquor'</td>
</tr>
<tr>
<td>ṕ̣ṣ̣ḥ̣Ṇ̣ ṃ̣́</td>
<td>'Pumi'</td>
<td>ṕ̣ṣ̣ḥ̣́Ṇ̣</td>
<td>'white'</td>
</tr>
<tr>
<td>ṕ̣ṣ̣ḥ̣̣</td>
<td>'cypress'</td>
<td>ṕ̣ṣ̣ḥ̣</td>
<td>'core'</td>
</tr>
<tr>
<td>ṕ̣ṣ̣ḥ̣̀</td>
<td>'news'</td>
<td>q̣̣ḥ̣ụ̣ ṕ̣ṣ̣ḥ̣̣</td>
<td>'braid'</td>
</tr>
<tr>
<td>ṣ̣ṭ̣̀ ṕ̣ṣ̣ḥ̣̣</td>
<td>'testicle'</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Dayang Pumi phonology

bz₁ ‘water conduit’
ηN bz₂N ‘face’

bz₆ jtfō ‘whip’
zā-bzēN ‘ring (for finger)’

Labiopalatal affricates
(with optional epenthetic stop)

pf ~ ptʃ
ptʃō ‘blue’
ptʃi ‘intestine’

ptʃh ~ ptʃh
ptʃhō ‘rot’
ptʃhē ‘direction’
ptʃhiN ‘tomb’
ptʃhē ‘sharpen/whittle’
ptʃhē tsǐ ‘fly’ (n.)
ptʃhē fpī mē ʒdʒiN ‘father-in-law’
ptʃhi ‘good’

ptʃi ‘intestine’
ptʃhō ‘pig’
ptʃhē ‘escape’
ptʃhō ‘gourd ladle’
ptʃhō ptʃhō ‘bamboo fence’
ptʃhē fpī ‘mosquito’
ptʃhē fpī ‘castrated pig’

bʒ ~ bdʒ
bdʒiN ‘bright’
b(ŋ)ʒiN ‘run/fly’ (v.)
bdʒē ‘flat’
bdʒē ‘short’
bdʒiN ‘dawn’
bdʒē ‘be severed’
bdʒe stʃō ‘spurt forth’

3.2 Dentals

th th thy [thw] thth ththw
d d dy [dw?] zd zdw

Simple dental stops

t
tiw ‘poke’
tiN ‘make’

‘animal oil’
tōN nōN ‘crossbow’
tō ‘plant’ (v.)
tō ‘cabinet; box’
tōuN ‘threshold’
tōuN tōuN ‘prop up’
tō ‘beak’
tō-tō ‘prop up’
tō ‘beak’
tō-tō ‘prop up’
tō-tō ‘prop up’
tō ‘beak’
tō-tō ‘prop up’

dh
thī ~ sthī ‘sweet’
sthīN ‘drink’

‘stand idle’
tha dʒī ‘persimmon’

‘narrow-necked jar’
zā-thō ‘millstone’

‘be punctured’
tha-ŋiN [ŋ-dʒiN] ‘break’ (v.i.)

‘wipe’
tha-gū-cf ‘chat’

MKS 27:171-213 (c)1997 See archives.sealang.net/mks/copyright.htm for terms of use.
thə-nǐ  'hear'  thə-ʒʒi-wi  'exchange'
thə-sti̯-sthi̯w  'reverse'  thə-ʃsə-hoN  'open; make a hole'
thə-tʃiN  'give'  thə-xəb  'be left over'
thə-zə-stwaN si  'fell asleep'  thə-lyoN  'peel (fruit)'
θa-χqhw diagon  'scoop out'  thə-cjú  'cover'
θa-kí  'reap'  thə-phʃi  'grasp w/fingers'
θa-ri-ʃi  'skin (cattle) [v.]'  thə-təw  'laborious'
thə-teiN  'cause to snap  thə-cjew-ʃú  'withhold facts'/break (stick)'

d

dI  'earth'  dI  'be'
dō  'back'  dō  'stupid'
mā dó  'a mute'  dē  'poison'
dI ɔqwəN  'flatland'  dO Nonetheless  qwo  'wing'
du  qhwō  'cucumber'  dæ-nzæi  'ripe'
dæ-zi  'catch; keep'  dæ-sthæ  'borrow'
qo dō  'pheasant'  fI-dI-dI  'thick'

**Palatalized and labialized dental stops**

tw

twā  'put on hat'

ty

tsha-tye  'scissors'  pā tye  'stool'
stAn ts] pʃə tyoN  'lizard'  tyū lū  'pot (medium size)'

tyū  'stomach' (e.g. chicken's)

thy

thyẽ  'silk'  thyẽ zǐ  'downward'

dy

dyō  'or'  dyē dyē  'grandmother'
dyū  'nephew'  dyē dyəw  'get along well'

gə-dyə mO  'old woman'

**Prefixed dental stops**

st

stō mO  'thumb'  stI  'purposive nominalizer'

stə zdə  'idea'  stə sIN  'fir'
stAn  'pillar'  stAN stAN  'locust'
stAN ts] pʃə tyoN  'lizard'  stI pʃI  'testicle'
sto  'look at'  stū  'straight'
stū tǐ  'honest'  nə-stIN  'sink' (v.)
stō bū  'sore w/hard spot'
Dayang Pumi phonology

sth
sthō ‘drop’ sthē ‘borrow food’
sthē ‘cough’ sthĩ thĩ ‘sweet’
kʰo-sthē ‘thread a needle’

zd
zdā ‘resin’ zdĩ ‘scatter seed’
zdē bōuN ‘deaf’ zdē rēN ‘fog’
zdĩN ‘cloud’ zdĩN ‘stick’
zdú ‘blurt angrily’ zdē ‘wrong’
stè zdē ‘idea’

Prefixed labialized and palatalized dental stops

stw
stwē ‘fold’ ē stwē stwē ‘wrinkle’
tha-zjó stwāN sì ‘fell asleep’

sthw
sthwē ‘phooey!’

zdw
zdwē ‘ask’

sty
The stop in this cluster is pronounced quite fronted, sometimes approaching an interdental fricative: [stɔy], [stɔy].

styê ‘clf. for long objects’ styê ‘tendon’
fiō styiwN ‘beard; goatee’

3.3 Retroflexes

[t] [tw]
[th] [thw]
[d] [dw]

Retroflex stops

tō ‘hawk’ tê ‘dig’
tô tô ‘winnowing fan’ tî ‘gall’
tê hĩN ‘speak false’ tɔ tɔ ‘sieve’
(tho-)tĩN ‘cause to snap; break’

th
thẽ ‘daughter-in-law’ thu ‘six’
thè ‘half’ thœ ‘garden’
thora thã ‘tear out’ thã-thã ‘multicolored’
tha ‘fan’ (v.) thĩ ‘leg’
thōuN tsi ‘trap’ (n.) thö ‘horn’
<table>
<thead>
<tr>
<th>Mon-Khmer</th>
<th>English Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>(nə-)théi</td>
<td>‘cut’ (e.g. meat)</td>
</tr>
<tr>
<td>ftʃé thōuN</td>
<td>‘saddle’</td>
</tr>
<tr>
<td>thō</td>
<td>‘shoot’</td>
</tr>
<tr>
<td>dū</td>
<td>‘companion’</td>
</tr>
<tr>
<td>dāN</td>
<td>‘go; walk’</td>
</tr>
<tr>
<td>dēi</td>
<td>‘sew’</td>
</tr>
<tr>
<td>dī</td>
<td>‘star’</td>
</tr>
<tr>
<td>dū</td>
<td>‘companion’</td>
</tr>
<tr>
<td>dē</td>
<td>‘thread’</td>
</tr>
<tr>
<td>dō</td>
<td>‘be torn out’</td>
</tr>
<tr>
<td>dōN dē</td>
<td>‘bed’</td>
</tr>
<tr>
<td>ṭeī</td>
<td>‘song’</td>
</tr>
</tbody>
</table>

**Labialized retroflex stops**

<table>
<thead>
<tr>
<th>Mon-Khmer</th>
<th>English Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>twō</td>
<td>‘branch; clf. for flowers’</td>
</tr>
<tr>
<td>ṭwō</td>
<td>‘trivet’</td>
</tr>
<tr>
<td>thwō</td>
<td>‘abundant’</td>
</tr>
<tr>
<td>bā thwō thwō</td>
<td>‘rough; coarse’</td>
</tr>
<tr>
<td>dōwō</td>
<td>‘chaff/husk’</td>
</tr>
<tr>
<td>dōwā</td>
<td>‘stir’</td>
</tr>
</tbody>
</table>

### 3.4 Affricates

<table>
<thead>
<tr>
<th>Mon-Khmer</th>
<th>English Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>ts</td>
<td>tʃ</td>
</tr>
<tr>
<td>tʃy</td>
<td>tʃw</td>
</tr>
<tr>
<td>tʃh</td>
<td>tʃw</td>
</tr>
<tr>
<td>dz</td>
<td>dzw</td>
</tr>
</tbody>
</table>

There is no particular problem with the dental and retroflex affricates. The situation with the palatal affricates is more complex, since there is a (rather marginal) contrast between two kinds of palatal affricates: a laminopalatal or grooved type (written here with the symbols ʃ and z); and a more rarely occurring alveopalatal or slit type (symbolized with c and ç). This contrast is neutralized after the sibilant prefix (here itself realized as ɗ); I write these complex initials as /ʃʃ, ʃʃh, 3d/.

Looking more closely at the contrast between the two palatal series, we see just how shaky it is:12

(a) /ʃ/ vs. /tʃ/. The voiceless unaspirated /ʃ/ is lexically much more common than /tʃ/, with the latter occurring in only two morphemes in our data:

---

12This contrast seems to be more firmly maintained in the Jinghua dialect, but to be absent altogether from Taoba. See 3.5 below for a discussion of the marginal distinction between the two types of Dàyàng palatal fricatives.

MKS 27:171-213 (c)1997 See archives.sealang.net/mks/copyright.htm for terms of use.
 WEIGHT (for measuring) tči ≠ WEIGH (v.t.) tatči (PTB *k̂yiin [STC #369])
 OBJECT PARTICLE tči

(b) tʃh vs. tch. This is a firmer contrast, but even here these initials are in near complementary distribution. /tʃh/ occurs before non-front vowels, and words with this initial include the reflex of a prime TB root: DOG *kʷýy > Dáyang tʃhɪ. On the other hand, /tch/, while not rare, occurs mostly before non-low front vowels /i e/ and the semivowel /y/, though there is one good example before low back /u/: tčhɔ ‘sharp, pointed’, where it contrasts with tʃhɔ-mɔN ‘mud’. There is also a good example of labialized /tʰw/: HANDSPAN tčhwɪ [tʃuʃɪ] < PTB *m-twa; note that PTB *-a must have changed to Pumi -i before the palatalization of the initial.

(c) There seems to be only a single voiced palatal affricate /dʒ/; i.e. *dz does not occur in this dialect.

(d) The prefixed affricates are particularly well attested, occurring in all three manners and with both -w- and -y- glides:

<table>
<thead>
<tr>
<th>fjf</th>
<th>fjfw</th>
</tr>
</thead>
<tbody>
<tr>
<td>fjfh</td>
<td>fjfy</td>
</tr>
<tr>
<td>3dʒ</td>
<td>3dʒw</td>
</tr>
</tbody>
</table>

There is a tendency in Hé Shûkâi’s speech for these prefixed palatal affricates to vary with fricative clusters (e.g. fjf ~ cf, fjfh ~ sf, fjfhw ~ sfw) [see 3.5 below], e.g.:

'bring up' (child)         fjfɔu ~ cfɔu (in this word Shukai prefers the fricative cluster)
'key'                       fjfhĩ ~ sfĩ
'heart'                     fjfhwɛ ~ sfwɛ
'insert/poke into'          afjhwɔ ~ afwɔ

(e) There is one good example of a prefixed palatal affricate followed by a palatal glide:

'thief'         fjfhyū

**Simple dental affricates**

<table>
<thead>
<tr>
<th>ts</th>
<th>‘joint’</th>
<th>tsə tsě</th>
<th>‘little’</th>
</tr>
</thead>
<tbody>
<tr>
<td>tsā</td>
<td>‘wash’</td>
<td>tsó</td>
<td>‘fat meat’</td>
</tr>
</tbody>
</table>

---

13 Notice the change in tone of the verb root when it is preceded by a directional prefix. See below 5.022.

14 This word looks cognate with Lahu che ‘make a point on; sharpen to a point’ < PLB *kywan'. See Matisoff 1985:9, and 1988a:533.

15 See 6.1 below.
tsó  ‘wedge’  JíN tsó  ‘nail (“iron wedge”)’
  ‘ghost; spirit’  tsú  ‘son’
tsé-tsě  ‘little’ tsé zǐ  ‘monkey’
tsé  ‘deer’  gōu tsà stǐ  ‘toothbrush’
[ts]ì  tsǐ  ‘larynx’
pt[hs]è tsǐ  ‘trap’ (n.)

**tsh**

tshǐ  ‘salt’
tshǐ  ‘goat’
tshō  ‘lung’
tshō tshē  ‘pea’
tshō tshō  ‘dance’
tshē-tyē  ‘scissors’
tshō  ‘fat’
dzō  ‘word’
dzō  ‘soap’
dzō  ‘filter’
dzō  ‘penis’
dzǔ  ‘crowded’
dzǔ  ‘bridge’
dzō  ‘do; make; work’
dzáN  ‘edge; side’
dzó  ‘light; shadow’
dzáN  ‘drum’
dzí  ‘be good at’
dzí  ‘cooked rice’
dzí dzǔ stǐ  ‘kitchen’
lù dzī  ‘thing’

**Labialized dental affricates**

**tsw**

tswǐN [tsuíN]  ‘liver’
tswá  ‘cause and effect; karma’
tswó  ‘able to see’
mè tswí  ‘firetongs’
tshw  ‘return (an object)’
yó tshwō  ‘boundary’
dzw  ‘hoe’

dzwāN  ‘’

**Palatalized dental affricates**

**tsy**

tsyě  ‘use’
tsyě  ‘fight’
tsyū  ‘beat’
tsyě tsyíW  ‘wool’
jíN tseyów mì  ‘blacksmith’
zʒí tseyōuN  ‘mother’s younger sister’
má qē tseyě  ‘garment’

**tshy**

tshyōuN dzù mí  ‘merchant’
dó dó  ‘clumsy’
tshyé tshǐ  ‘dusk’
tshyōuN  ‘short’

---

16Cf. Jingpho tsù ‘disembodied spirit; shade; ghost’ (Hanson 1954:674).
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### dzy

dzyú(?)

'invite to eat'

### Simple retroflex affricates

<table>
<thead>
<tr>
<th>tʂ</th>
<th>‘weave’</th>
<th>tʂē</th>
<th>‘clf. for songs’</th>
</tr>
</thead>
<tbody>
<tr>
<td>tʂō</td>
<td>‘child’</td>
<td>tʂō lí</td>
<td>‘donkey’</td>
</tr>
<tr>
<td>tʂōN tʂō</td>
<td>‘orphan’</td>
<td>tʂū</td>
<td>‘deposit; check’</td>
</tr>
<tr>
<td>tʂōN</td>
<td>‘house’</td>
<td>lō tʂō</td>
<td>‘rake’</td>
</tr>
<tr>
<td>qhū tʂ i tō</td>
<td>‘pillow’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### tsh

<table>
<thead>
<tr>
<th>tshō</th>
<th>‘sprout’ (e.g. of wheat)</th>
<th>tshō</th>
<th>‘read’</th>
</tr>
</thead>
<tbody>
<tr>
<td>tshū</td>
<td>‘place’</td>
<td>tshū-mi</td>
<td>‘beggar’</td>
</tr>
<tr>
<td>tshāN</td>
<td>‘pad’ (v.)</td>
<td>tshāN līN</td>
<td>‘wait’</td>
</tr>
<tr>
<td>tshā byé</td>
<td>‘stick; cane’</td>
<td>v(ə)r̥ tshū</td>
<td>‘scar’</td>
</tr>
<tr>
<td>nə-tshō</td>
<td>‘step on’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### dz

<table>
<thead>
<tr>
<th>dzū</th>
<th>‘hungry’</th>
<th>dz i</th>
<th>‘waist’</th>
</tr>
</thead>
<tbody>
<tr>
<td>dz æ</td>
<td>‘tea’</td>
<td>dz æ dz i</td>
<td>‘book’</td>
</tr>
<tr>
<td>dz Æ dz è tsh łi</td>
<td>‘word’</td>
<td>dz åN</td>
<td>‘hole’</td>
</tr>
<tr>
<td>dz ø-dz āN</td>
<td>‘horizontal’</td>
<td>pz è dz è</td>
<td>‘thigh’</td>
</tr>
<tr>
<td>n i dz ô</td>
<td>‘ear’</td>
<td>sō-dz åN</td>
<td>‘anus’</td>
</tr>
</tbody>
</table>

### Labialized retroflex affricates

<table>
<thead>
<tr>
<th>tståw</th>
<th>‘robber’</th>
<th>tståwåN</th>
<th>‘container’</th>
</tr>
</thead>
<tbody>
<tr>
<td>tstå</td>
<td>‘prop up’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### tståw

<table>
<thead>
<tr>
<th>tståwé</th>
<th>‘rice (harvested)’</th>
<th>tståwé ftståwå</th>
<th>‘gift’</th>
</tr>
</thead>
<tbody>
<tr>
<td>tståwò</td>
<td>‘invite’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### dz w

<table>
<thead>
<tr>
<th>dz wè</th>
<th>‘abundant’ (e.g. fruit)</th>
<th>dz wò⁵¹</th>
<th>‘there! [interjection]’</th>
</tr>
</thead>
</table>

### Simple laminopalatal affricates

<table>
<thead>
<tr>
<th>tʃ</th>
<th>‘dirty’</th>
<th>tʃēi</th>
<th>‘clf. for houses’</th>
</tr>
</thead>
<tbody>
<tr>
<td>tʃō</td>
<td>‘move’</td>
<td>tʃū zʃɔ ~ ʒdʒɔ</td>
<td>‘water buffalo’</td>
</tr>
<tr>
<td>tʃāN</td>
<td>‘relatives’</td>
<td>tʃā qoN~tʃ i qòuN</td>
<td>‘well’</td>
</tr>
<tr>
<td>tʃ</td>
<td>‘water’</td>
<td>tʃə-ʃpå</td>
<td>‘boiled water’</td>
</tr>
<tr>
<td>tʃōN</td>
<td>‘hard’</td>
<td>tʃū</td>
<td>‘sour’</td>
</tr>
<tr>
<td>tʃō</td>
<td>‘summer’</td>
<td>tʃō ló</td>
<td>‘mortar’</td>
</tr>
<tr>
<td>tʃōn pè</td>
<td>‘roof’</td>
<td>lō tʃōu</td>
<td>‘turban’</td>
</tr>
<tr>
<td>ʃp-ʃóu</td>
<td>‘navel’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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tʃʰ ‘take off clothes’
tʃʰᵅ ‘propitiate dead spirit’
tʃʰ mɔN ‘mud’
tʃʰᵅ tshɛ ‘how much’
tʃʰᵅu ‘gun’
dʒ ‘vegetable oil’
dʒᵅ ‘tea’
dʒᵅ wó ‘earring’
dʒᵅ ‘fish’
dʒᵅ rά (rį) ‘fish scale’
dʒᵅ ‘market’
dʒᵅ-khɔ ‘time’
rə-dʒᵅ ‘liquor’

Labialized and palatalized laminopalatal affricates

tʃhw ‘add water; dilute’
tʃhwá ‘weep; bawl’ (3rd pers.)
dʒw ‘comfortable’
dʒy ‘laborious’

Simple alveopalatal affricates

tɕ ‘a weight’
tɕ ‘object particle’
tɕ ‘weigh’

Labialized alveopalatal affricates

tɕʰ ‘sharp/pointed’
tɕʰ tɕʰ zdí ‘separate’
tɕʰ ‘vicinity’
tɕʰN tɕ ‘kid’
thə-tɕʰN ‘give’
ʔú tɕ ‘in the past’
nɔuN tɕ ‘when’

Labialized alveopalatal affricates

tɕhw ‘handspan’

Prefixed laminopalatal affricates

ʃʃi⁽¹⁷⁾ ‘rice pounder’
ʃʃi⁽¹⁸⁾ ‘sell’
ʃʃi ‘village’
ʃʃ ‘afraid’

¹⁷ This sound is similar to Russian ʐ, as in borʃeć ‘borscht’ or tovário ‘comrade’.
¹⁸ From PTB *tsuN *tʃuN [STC #75].
<table>
<thead>
<tr>
<th>JTJH</th>
<th>JTJHõ</th>
<th>JTJHõ 3dzí</th>
<th>JTJhõNpíN</th>
<th>JTJhó</th>
<th>JTJhí</th>
<th>JTJhí tsõ</th>
<th>JTJhë</th>
<th>3dzí</th>
<th>3dzõ</th>
<th>3dzíN 3dzíN</th>
<th>3dzõuN</th>
<th>3dzũ ~ 3dzwĩ</th>
<th>3dzõuN phũ</th>
<th>3dzí</th>
<th>3dzũuN</th>
<th>mö z3íN</th>
</tr>
</thead>
<tbody>
<tr>
<td>JTJhõ</td>
<td>JTJhõ</td>
<td>JTJhõ 3dzí</td>
<td>JTJhõNpíN</td>
<td>JTJhó</td>
<td>JTJhí</td>
<td>JTJhí tsõ</td>
<td>JTJhë</td>
<td>3dzí</td>
<td>3dzõ</td>
<td>3dzíN 3dzíN</td>
<td>3dzõuN</td>
<td>3dzũ ~ 3dzwĩ</td>
<td>3dzõuN phũ</td>
<td>3dzí</td>
<td>3dzũuN</td>
<td>mö z3íN</td>
</tr>
</tbody>
</table>

**Prefixed labialized laminopalatal affricates**

<table>
<thead>
<tr>
<th>JTJw</th>
<th>JTJwõ</th>
<th>JTJwõ</th>
<th>JTJwIN</th>
<th>JTJwIN</th>
<th>JTJhw</th>
<th>JTJhwÍ</th>
<th>JTJhwë</th>
<th>Tshwë JTJhwÍ</th>
<th>3dzw</th>
<th>3dzwIN</th>
<th>3dzwIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘meet bride’s family’</td>
<td>‘mark/sign’</td>
<td>‘shoulder’</td>
<td>‘lead the way’</td>
<td>‘send’</td>
<td>‘remember’</td>
<td>‘lunch’</td>
<td>‘regret’</td>
<td>‘gift’</td>
<td>‘horse’</td>
<td>‘high; tall’</td>
<td>‘exchange’</td>
</tr>
<tr>
<td>JTJwõ sîN</td>
<td>‘mark/sign’</td>
<td>JTJwÍ</td>
<td>‘lead the way’</td>
<td>ē-JTJwõ</td>
<td>‘remember’</td>
<td>JTJwë méN sî</td>
<td>‘regret’</td>
<td>Tshwë JTJhwÍ</td>
<td>‘lame’</td>
<td>‘insert; poke into’</td>
<td>‘hoof’</td>
</tr>
</tbody>
</table>

19 From PTB *krwã [STC p. 90; Matisoff 1988a, p. 353]. Contra STC this root is not restricted to Lolo-Burmese.
20 From PTB *dzay [Matisoff 1985, #’s 129 and 143].
21 From PTB *b-lay [STC #410].

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Prefixed palatalized laminopalatal affricates

\[\text{štʃhy} \quad \text{štʃhyú} \quad \text{thief}\]

3.5 Fricatives

\[
\begin{array}{llllllllll}
\phi & s & sy & c & s & sʃ & cʃ & x & xy & h \\
sw & ʃw & ʃw & sʃw & cʃw & xw & fi \\
v & z & zy & z & z3 & y & yw
\end{array}
\]

The best phonetic description of the contrast between fricatives of types \(ʃ\) and \(c\), as well as of clusters of two sibilants (of the type \(F + S\), i.e. \(sʃ\) vs. \(cʃ\), must await instrumental analysis of my tapes. Instead of lamino- \([ʃ]\) vs. alveo- \([c]\) palatal (i.e. focussing on the part of the tongue that touches the palate), perhaps a better characterization of the opposition would be groove \([ʃ]\) vs. slit \([c]\) (i.e. focussing on the internal configuration of the top of the tongue).

As was the case with the affricates (above 3.4), the contrast between the two kinds of palatal fricatives in Dàyáng is less than robust:

(a) \(ʃ\) vs. \(c\):

\(ʃ\) is the better attested of the two, occurring in reflexes of several widely attested TB roots with *palatal sibilant or *r-cluster initials:

- ‘hundred’ \(ʃ1\) < PTB *r-gya; cf. PLB *ʔra
- ‘iron’ \(ʃ1n\) < PTB *syam
- ‘louse’ \(ʃi\) < PTB *s(y)rik
- ‘spend the night’ \(ʃ6\) < PTB *s-ryak

There are fewer examples of words with initial \(c\)- (see below), and none of them have known TB etymologies. At least one of them seems to be a loan from Chinese: \(cѣ\) ‘heavenly being’, prob. < Chinese (Mand. xiān). Certain words show variation between \(c\) and the prefixed affricate \(ʃtʃ\):

- ‘corn/maize’ \(cѣ-cѣ \sim \text{štʃe}-\text{štʃe}\)

(b) \(z3\):

This voiced fricative cluster is well attested, and occurs in reflexes of a number of solid TB roots:

- ‘nail/claw’ \(z3ǎn\) < PTB *m-tskyen
- ‘right side’ \(z3i\) < PTB *g-ya
- ‘sheep’ \(z36u\) < PTB *yaŋ
- ‘trousers’ \(z3ǐ\) < PTB *s-la
However, since the Dàyáng dialect has no simple voiced palatal fricative phone [ʒ], one could treat [ʒ3] as being phonemically /ʒ/.

There are also cases of ʒ3 varying with the prefixed affricate ʒdʒ:
‘water buffalo’  tʃu-ʒ3ẽ  ~  tʃu-ʒdʒẽ

(c) sj and çj:

Neither of these initials occurs in reflexes of well-known TB roots. The only solid example of simple sj is sjũ ‘carry on the back’, with two additional examples of the labialized version of this initial: SHOULDER sjũwũ; LID/Cover sjũwẽ. çj is slightly better attested in my data, appearing in five or six morphemes [see below].

Both of these initials sometimes vary with sibilant-prefixed affricates:

‘key’  sjũ  ~  ʃtʃũũ
‘bring up (child)’  çũ  ~  ʃtʃũũ

The fricatival virtuosity of the Pumi is demonstrated by the following nearly perfect minimal triplet: syũ ‘paddy’ / sjũ ‘carry on back’ / çũ ‘hide’.

**Voiceless bilabial fricative**

φ
φũ ~ φũũ  ‘saw’ (n.)
φũũ  ‘sunken; concave’

**Voiced labiodental fricative**

v
vũ  ‘old (of things)’
vũũ  ‘scar’
vẽ qẽ (xyẽ)  ~  βẽ qẽ  ‘belch’

**Voiceless dental fricative**

s
sũ  ‘blood’
sũũ  ‘lock’
sũN  ‘king’
sũw  ‘hemp’
sũN  ‘copper; tin’
sũN  ‘wood’
sũN  ‘chopper’
sũũN  ‘three’
sũN  ‘tree’
sũũ  ‘buttock’
sũůN  ‘anus’
sũũ  ‘raw’
sũN  ‘morning’
nœ-sũũ  ‘press down’

**Voiced dental fricative**

z
zũ  ‘male (animals)’
zũũ(?)  ‘face’
zẽ  ‘pin down; entrap’
nœ-zũũ  ‘roll down’

---

22Several words which I had originally transcribed with z turned out actually to have the retroflex fricative ž: MIDDLE  gũ žẽ; CUT MEAT žẽ; HAVE FEVER žũN.
Labialized and palatalized dental fricatives

sw
swō ‘calculate’ swāN ‘father (not ego’s)’
swĩ ‘leopard’ swĩN ‘teach’

sy
syōN ‘tomorrow’ syē ‘hot pepper’
syē ‘miss someone’ syōN ‘coffin’
syū ‘paddy (in field)’ yē syē ‘arrow’

Plain retroflex fricatives

ɡ
ɡō ‘laugh’ tsɑ-ɡɑ ‘hang down’
ɡē ‘sweep’ ɡɛ ‘dew’
ɡɛ ɡwɛi ‘sweep ground’ ɡɛ dɔ dɔ ‘jaggery’
ɡi ɡpɛ ‘frost’ ɡɔ ɡɔ ‘appearance’
ɡɑN ‘long’ ɡi ɡi ‘new’
ɡou ‘tooth’ ɡu nɔN ‘gums’
ɡou tɔ stl ‘toothbrush’ ɡɛ ‘buy’
ɡɑN twɛ ‘trivet’ ɡɑ ‘fart’

z
zɔ ‘hand’ zɔ-rɔ ‘arm’
zɑ-gi ‘bracelet’ zɔ-bu ‘armpit’
zɑ-bzɛN ‘ring’ zɔ-dɛlɛ ‘fist’
zɛ ‘cut’ (e.g. meat, wood) zɔN ‘fertilizer’
zɛ nɑ ‘stinking’ zɔN ‘have fever’
zɔuN zæN ‘stir fry’ zɛ tɪ ‘well-behaved’
zɔN ‘tasty’ zɔ-thɔ ‘millstone’
zɛ ‘month’ zɛ ‘many’
zɛ-khɛw ‘next year’ tɛ zɛ ‘monkey’
bɑ zɛw ‘dirty; a slob’ gû zɛ ‘middle’

Labialized retroflex fricatives

sw
swɔ tɔ ‘broom’ swɛ ‘nighttime’

zw
zwɛ ‘can hold (container)’ ne-zwɔ ‘scrub’
ɔ-zwɔ ‘owe’

23Perhaps this first syllable derives from ʃIN ‘iron’. Cf. also gɔN tsɔ ~ ʃIN tsɔ ‘nail’.
24As just noted, several syllables previously transcribed with “ɔ” have been reanalyzed
with z.
Alveopalatal (slit) fricatives

\[\begin{align*}
\text{cě cě} & \sim \text{ʃtʃ-e-ʃtʃe} & \text{‘corn’} & \text{cдоб cό} & \text{‘magpie’} \\
\text{cě} & & \text{‘celestial being’} & \text{cě tʃəN} & \text{‘temple (to worship)’} \\
\text{cí} & & \text{‘dragon’} & \text{rə-cú} & \text{‘flail’} \\
\text{ré cě} & & \text{‘load’} & \text{thə-gú cí} & \text{‘chat’}
\end{align*}\]

Laminopalatal (grooved) fricatives

\[\begin{align*}
\text{ʃ} & \text{ʃó} & \text{‘old (people)’} & \text{ʃí} & \text{‘hundred’} \\
\text{ʃí} & \text{‘louse’} & \text{ʃíN} & \text{‘iron’} \\
\text{ʃíN tsó} & \text{‘nail (fastener)’} & \text{ʃe nɔN} & \text{‘mole (on skin)’}^{26} \\
\text{ʃə gíw} & \text{‘paper’} & \text{ʃə-kha-ʃdʒi} & \text{‘happen; come out’} \\
\text{ʃó} & \text{‘spend the night’} & \text{ʃe} & \text{‘Chinese’} \\
\text{wù ḟí} & \text{‘New Year’s day’} & \text{myé fó} & \text{‘eyebrow’}
\end{align*}\]

Labialized laminopalatal fricatives

\[\begin{align*}
\text{ʃw} & \text{ʃwɛ} & \text{‘eight’} & \text{ʃwɛ gú pó} & \text{‘wager’}
\end{align*}\]

Dentopalatal fricatives / Dentally prefixed palatal fricatives

\[\begin{align*}
\text{sʃ} & \text{sʃú} & \text{‘carry on back’} & \text{sʃí ~ ʃʃi} & \text{‘key’} \\
\text{sʃw} & \text{sʃwɔ} & \text{‘shoulder’} & \text{sʃwɛ} & \text{‘lid’}
\end{align*}\]

Alveolaminal palatal fricatives / Palatally prefixed palatal fricatives

\[\begin{align*}
\text{ʃʃ} & \text{ʃʃú} & \text{‘hide’} & \text{thə-ʃʃú} & \text{‘cover’} \\
\text{ʃʃu ~ ʃʃu} & \text{‘bring up children’} & \text{ʃʃú} & \text{‘beautiful’}
\end{align*}\]

---

\(^{25}\)This initial sometimes varies with ʃtʃ-.

\(^{26}\)Cf. n.əN ‘black’.

\(^{27}\)This initial sometimes varies with ʒdʒ.  

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3.6 Velars and postvelars

<table>
<thead>
<tr>
<th>k</th>
<th>kw</th>
<th>q</th>
<th>qw</th>
<th>χq</th>
<th>χqw</th>
</tr>
</thead>
<tbody>
<tr>
<td>kh</td>
<td>khw</td>
<td>qh</td>
<td>qhw</td>
<td>χqh</td>
<td>χqhw</td>
</tr>
<tr>
<td>g</td>
<td>gw</td>
<td></td>
<td></td>
<td>?</td>
<td></td>
</tr>
</tbody>
</table>

Like Lahu, Dàyàng (and Jinhua) Pumi have a contrast between plain velar and postvelar initials, with the postvelar series apparently reflecting the simple PTB *velars; although the details are not yet clear, the plain velars probably reflect older *velar clusters of some kind.28

**Simple velar stops**

**k**
- kôuN ‘door’
- kê pû ‘cuckoo’
- kô tê ‘speech’
- kôn réN ‘ice’

**kh**
- khô ‘emperor’
- khô-bô ‘hatch out’
- khô-thê ‘thread needle’
- khô-thôuN ‘give to drink/smoke’

**g**
- gâ ‘cut w/ scissors; snip’
- gô ‘mountain’
- gô-thô ‘narrow-neck jar’
- gô dyê môN ‘old woman’
- gû û ‘middle’
- gû zê ‘chatterbox’
- gô-môN ‘body’
- zê-gîw ‘bracelet’

**Labialized velar stops**

**kw**
- kwî ‘satiated’
- kwîN tsî ‘pony’

---

28 The best TB velar roots have Pumi postvelars (e.g. BITTER, HEAD, NEEDLE); see below. It is the postvelars, not the plain velars, that can take the fricative prefix /χ/ or /η/ (see below); this is perhaps another indication that the postvelars are historically more basic.
<table>
<thead>
<tr>
<th>Pumi</th>
<th>English</th>
<th>Pumi</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>khw</td>
<td>‘yellow weasel’</td>
<td>khwá rá</td>
<td>‘mouth’</td>
</tr>
<tr>
<td>kwó</td>
<td>‘fireplace’</td>
<td>gwë</td>
<td>‘ground’</td>
</tr>
<tr>
<td>gwë</td>
<td>‘wear clothes’</td>
<td>gwó ‘protect’</td>
<td>‘field from birds’</td>
</tr>
<tr>
<td>gwó</td>
<td>‘rain’</td>
<td>gwóN mì</td>
<td>‘cow’</td>
</tr>
<tr>
<td>gwó29</td>
<td>‘slave’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Simple uvular (= postvelar) stops**

| qhó       | ‘strength’                        | qhó tóóN | ‘phlegm; sputum’                  |
| qhó dòó   | ‘pheasant’                        | qhó dû   | ‘walnut’                          |
| qhó qóó   | ‘gingerly’                        | qhó       | ‘nest’                            |
| qhóN       | ‘neck’                            | qhó rî    | ‘hook’                            |
| qhó(u)N ~ kóóN | ‘valley’               | ró-qû    | ‘egg’                             |
| mû qóó   | ‘chin’                            | mû qû tsey | ‘mother’s y. sister’             |

**Labialized uvular stops**

| kwó       | ‘headman’                        | kwó tóó   | ‘musical instrument’              |
| kwó       | ‘cattle’                         | kwó xóó   | ‘cow dung’                        |
| dûóN kwó  | ‘wing’                           |          |                                   |

**Prefixes uvular stops**

| Xq        | ‘be born’                        | Xqó      | ‘bite’                            |
| Xqó       | ‘grassy slope’                   |          | ‘breath’                          |

---

29 From PTB *gywan* (cf WB kywan, Lahu cè).
30 Dāyang Pumi apparently lacks a voiced uvular stop. Two words which I had thought to contain this sound (WALNUT; GINGERLY) actually have the plain uvular stop /q/ instead. Dāyang does, however, have a number of words with prefixed voiced uvular stops (below).
31 From PTB *kwak* (cf. WB khwak, Mzieme hekwak).
<table>
<thead>
<tr>
<th>Mon-Khmer</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>χqá</td>
<td>'dung'</td>
</tr>
<tr>
<td>χqóuN χqóuN</td>
<td>'lunatic'</td>
</tr>
<tr>
<td>χqá sáN</td>
<td>'fart'</td>
</tr>
<tr>
<td>iè χqì</td>
<td>'hot pepper'</td>
</tr>
<tr>
<td>χqh</td>
<td>'feel wronged and act rashly'</td>
</tr>
<tr>
<td>χqhò</td>
<td></td>
</tr>
<tr>
<td>yG</td>
<td>[yg] or [ɛG]</td>
</tr>
<tr>
<td>yGù</td>
<td>'dry'</td>
</tr>
<tr>
<td>sìN yGì ròu</td>
<td>'chopper'</td>
</tr>
<tr>
<td>yGì</td>
<td>'chop'</td>
</tr>
<tr>
<td>yGì ~ yGì</td>
<td>'nine'</td>
</tr>
</tbody>
</table>

**Prefixed labialized uvular stops**

<table>
<thead>
<tr>
<th>Mon-Khmer</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>χqw</td>
<td>'weep'</td>
</tr>
<tr>
<td>χqwá</td>
<td>'weep'</td>
</tr>
<tr>
<td>dìN χqwáN</td>
<td>'flatland'</td>
</tr>
<tr>
<td>χqh</td>
<td>'scoop out'</td>
</tr>
<tr>
<td>thə-χqhwa</td>
<td>'rainbow'</td>
</tr>
</tbody>
</table>

**Glottal stop onset**

<table>
<thead>
<tr>
<th>Mon-Khmer</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>ρ</td>
<td>'worry'</td>
</tr>
<tr>
<td>ρáN</td>
<td>'worry'</td>
</tr>
<tr>
<td>ρòN</td>
<td>'goose'</td>
</tr>
<tr>
<td>ρ-ζóN</td>
<td>'protect'</td>
</tr>
<tr>
<td>ρo lyòu</td>
<td>'baby'</td>
</tr>
<tr>
<td>ρu tché</td>
<td>'in the past'</td>
</tr>
<tr>
<td>ρo-móN mő</td>
<td>'apply ointment'</td>
</tr>
</tbody>
</table>

**Velar fricatives**

<table>
<thead>
<tr>
<th>Mon-Khmer</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>x</td>
<td>[χ]</td>
</tr>
<tr>
<td>xo</td>
<td>'be correct'</td>
</tr>
<tr>
<td>xán</td>
<td>'bamboo flute'</td>
</tr>
<tr>
<td>xí</td>
<td>'beat'</td>
</tr>
<tr>
<td>thə-xó</td>
<td>'be left over'</td>
</tr>
<tr>
<td>xw</td>
<td>'naive; gullible'</td>
</tr>
<tr>
<td>xwáN təlán</td>
<td>'naive; gullible'</td>
</tr>
<tr>
<td>xwé xwè</td>
<td>'naive; gullible'</td>
</tr>
<tr>
<td>xwé</td>
<td>'maggoty'</td>
</tr>
<tr>
<td>xy</td>
<td>[xy]</td>
</tr>
<tr>
<td>xyôN</td>
<td>'mouth'</td>
</tr>
<tr>
<td>xyêN</td>
<td>'seven'</td>
</tr>
<tr>
<td>xyôN bolô</td>
<td>'lip'</td>
</tr>
</tbody>
</table>

**Other Mon-Khmer sounds**

<table>
<thead>
<tr>
<th>Mon-Khmer</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>yô ~ fiô</td>
<td>'thick'</td>
</tr>
<tr>
<td>yô dî dî</td>
<td>'thick'</td>
</tr>
<tr>
<td>yə rî</td>
<td>'lazy'</td>
</tr>
<tr>
<td>qhû yôuN zdî</td>
<td>'lower head'</td>
</tr>
</tbody>
</table>

---

32From PTB *d-kaw* ≠ *d-gaw* [STC #13].
33From PTB *krap* [STC #116].
34This sound is pronounced quite fronted [g].
35Cf. also qhû fôN ~ qhû yôN.
yw
ywə
‘corner; angle’

h [~ ç]
hịN
‘tell’
țe hịN
‘speak false’

ŋ
fiò dí dlè
‘thick’
fiò pshò sè
‘grape’

fiò styiwN
‘beard; goatee’
fiáN
‘gold/yellow’

qhù fióN~qhù yóN
‘lower the head’

3.7 Nasals

m
mòN
‘mother; fem. animal’
mòN
‘gruel’
mè(N)
‘fire’
mè tswí
‘firetongs’
mè ṣhìw
‘smoke’
mò
‘sky’
mo-ʒdʒó
‘thunder’
ma-țqhwá
‘rainbow’
mò qò
‘chin’
má qò tsyé
‘mother’s y. sister’
máN
‘hair’
máN
‘name’
mí
‘person’
mó dʒó
‘buttered tea’
mú mò
‘wind’
mú pè
‘throat’
mó qò dël dë
‘split family property’
mó qò
‘household’
má lýè
‘tail’
má dó
‘mute’
gə-mòN
‘body’

ɲ
mi
‘daughter’
miN<br><br>‘blow’
mi pé
‘son-in-law’
miN bù bò
‘woman’
mi
‘medicine’
ë-ɲi
‘beg’

na-ɲì
‘close mouth’

mŋ/mr
The second element in this initial cluster varies in pronunciation from a retroflex [r] to a true voiced retroflex spirant.

mŋɛN/mrɛN
‘mushroom; fungus’
mŋɛN
‘bamboo’
də-mŋɛi
‘ripe’

my
myɛ myɛ
‘aunt (f’s bro’s wife)’
myôN
‘eye’
myôN thə-byɛ
‘blind’
myɛ Jó
‘eyebrow’

---

36 This initial sometimes sounds like the Arabic “voiced pharyngeal fricative” ‘ain’. It sometimes varies with the voiced velar spirant [ŋ].
37 There are no other voiceless nasals in this dialect.
n
nāN  ‘milk (of animal)’
nêN  ‘brain’
nô sîN  ‘morning’
né  ‘copper’
nêN  ‘few; little’

nôuN  ‘rib’
sthôu nôN  ‘gums’
zô ná  ‘stinking’
na-thôw  ‘scold’
na-tshô  ‘step on’
nê-pô  ‘close mouth’
na-stîN  ‘sink’
na-tfhwô  ‘add water; dilute’
na-lë  ‘twist hemp’

(na-)ṭhèi  ‘cut’ (e.g. meat)

nè
nôN  ‘black’
nôN  ‘vegetable’

nu  ‘breast’
nôN tshôw tshôw pû ‘keep silent’

në pyê  ‘sickly’
né  ‘red’
nî dzô  ‘ear’
ni  ‘ill’
nôN bzôN  ‘face’

nôN, thê-nôN  ‘stand idle’

3.8 Resonants

w r rw l lw ly y

w
wô  ‘tiger’
wiN pô  ‘wooden tray’
wôN pôN  ‘knee’
wéN  ‘bear’ (n.)
dô wô  ‘earring’

wû  ‘belong to’
wô mí  ‘guest’
wû jî  ‘New Year’s Day’
wô  ‘mouse’
yiN wôN  ‘rake fields’

38Sometimes phonetically fricativized, /fy/.
<table>
<thead>
<tr>
<th>Pumi</th>
<th>Meaning</th>
<th>Pumi</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>y</td>
<td>'enough'</td>
<td>yĭN</td>
<td>'soil; field'</td>
</tr>
<tr>
<td>yĩN wóN</td>
<td>'rake fields'</td>
<td>yĩN yĩN</td>
<td>'plow a field'</td>
</tr>
<tr>
<td>yó thĩN</td>
<td>'smoke cigarette'</td>
<td>yí põ</td>
<td>'pot (medium-sized)'</td>
</tr>
<tr>
<td>yó tshwō</td>
<td>'boundary'</td>
<td>yé syě ~ yě sǐN</td>
<td>'arrow'</td>
</tr>
<tr>
<td>yí tsì</td>
<td>'grandson'</td>
<td>tʃhā yó</td>
<td>'praise'</td>
</tr>
<tr>
<td>khɔ-yí</td>
<td>'call someone out'</td>
<td>pà yǐ</td>
<td>'sleeve'</td>
</tr>
</tbody>
</table>

**This phoneme is strongly trilled.**

<table>
<thead>
<tr>
<th>Pumi</th>
<th>Meaning</th>
<th>Pumi</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>rēi ~ ə-rēi</td>
<td>'be burned'</td>
<td>rō</td>
<td>'scoop' (n.)</td>
</tr>
<tr>
<td>ra-dʒĩ</td>
<td>'liquor'</td>
<td>rə-qǔ</td>
<td>'egg'</td>
</tr>
<tr>
<td>rɔN rôu</td>
<td>'careful'</td>
<td>rì râ dzú</td>
<td>'work'</td>
</tr>
<tr>
<td>rə ftʃĩ</td>
<td>'skin'</td>
<td>rã</td>
<td>'invite a guest'</td>
</tr>
<tr>
<td>rá</td>
<td>'pot'</td>
<td>r̩qõ</td>
<td>'bone'</td>
</tr>
<tr>
<td>rãN</td>
<td>'soup'</td>
<td>r̩ouN</td>
<td>'drying rack for wheat'</td>
</tr>
<tr>
<td>rôu</td>
<td>'knife'</td>
<td>r̩b̩ouN</td>
<td>'willow'</td>
</tr>
<tr>
<td>ré cẽ</td>
<td>'load'</td>
<td>rã</td>
<td>'skin'</td>
</tr>
<tr>
<td>ra-čú</td>
<td>'flail' (n.)</td>
<td>dzì rã</td>
<td>'fish scale'</td>
</tr>
<tr>
<td>zdë réN</td>
<td>'fog'</td>
<td>r̩b̩ouN</td>
<td>'willow'</td>
</tr>
</tbody>
</table>

**rw**

<table>
<thead>
<tr>
<th>Pumi</th>
<th>Meaning</th>
<th>Pumi</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>rwē</td>
<td>'road'</td>
<td>rw̩ě  N</td>
<td>'shout; yell'</td>
</tr>
<tr>
<td>rwē rw̩ě</td>
<td>'round'</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**l**

<table>
<thead>
<tr>
<th>Pumi</th>
<th>Meaning</th>
<th>Pumi</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>lõ dôb</td>
<td>'penis'</td>
<td>lã</td>
<td>'heavy'</td>
</tr>
<tr>
<td>lô tʂô</td>
<td>'rake'</td>
<td>lõuN</td>
<td>'maggot'</td>
</tr>
<tr>
<td>lô</td>
<td>'river deer'</td>
<td>phû lô</td>
<td>'butterfly'</td>
</tr>
</tbody>
</table>

**lw**

<table>
<thead>
<tr>
<th>Pumi</th>
<th>Meaning</th>
<th>Pumi</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>lwō</td>
<td>'play; fool around'</td>
<td>lw̩ě</td>
<td>'ash'</td>
</tr>
</tbody>
</table>

**ly**

<table>
<thead>
<tr>
<th>Pumi</th>
<th>Meaning</th>
<th>Pumi</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>lyù</td>
<td>'chicken stomach'</td>
<td>ly̩è ly̩ě</td>
<td>'sing'</td>
</tr>
<tr>
<td>lyðûN lí</td>
<td>'sway'</td>
<td>bõ ly̩õ ly̩b</td>
<td>'thin'</td>
</tr>
<tr>
<td>phə-lyðû</td>
<td>'hat'</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**l**

<table>
<thead>
<tr>
<th>Pumi</th>
<th>Meaning</th>
<th>Pumi</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>lã</td>
<td>'open'</td>
<td>lõN</td>
<td>'snot'</td>
</tr>
<tr>
<td>lĩ</td>
<td>'be in charge'</td>
<td>lõ</td>
<td>'forehead'</td>
</tr>
<tr>
<td>lõ tfjou</td>
<td>'turban'</td>
<td>ë̩e</td>
<td>'tongue'</td>
</tr>
<tr>
<td>lã dzì</td>
<td>'finger'</td>
<td>ë̩ by̩ě</td>
<td>'radish'</td>
</tr>
<tr>
<td>lû dzì</td>
<td>'thing'</td>
<td>lû tsì</td>
<td>'bladder'</td>
</tr>
<tr>
<td>lû tsì</td>
<td>'rabbit'</td>
<td>ë̩ xqì</td>
<td>'hot pepper'</td>
</tr>
<tr>
<td>lâ</td>
<td>'flea'</td>
<td>lõN</td>
<td>'late'</td>
</tr>
<tr>
<td>lê lè</td>
<td>'speech'</td>
<td>l̩iN  séiN</td>
<td>'like to'</td>
</tr>
<tr>
<td>lî</td>
<td>'moon'</td>
<td>l̩iN</td>
<td>'daytime'</td>
</tr>
</tbody>
</table>

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4. Vowels

Composite chart of Dàyáng Pumi rhymes

<table>
<thead>
<tr>
<th>i</th>
<th>i</th>
<th>[œ]</th>
<th>[ø]</th>
</tr>
</thead>
<tbody>
<tr>
<td>iw</td>
<td>iw</td>
<td>i</td>
<td>i</td>
</tr>
<tr>
<td>e</td>
<td>e</td>
<td>[e]</td>
<td>[ø]</td>
</tr>
<tr>
<td>ey</td>
<td>ey</td>
<td>ow</td>
<td>ow</td>
</tr>
<tr>
<td>ε</td>
<td>ε</td>
<td>[a]</td>
<td>[ə]</td>
</tr>
</tbody>
</table>

Monophthongs

**Oral**

<table>
<thead>
<tr>
<th>[ɪ]</th>
<th>[ʊ]</th>
<th>[u]</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>i</td>
<td>u</td>
</tr>
<tr>
<td>e</td>
<td>ø</td>
<td>o</td>
</tr>
<tr>
<td>ε</td>
<td>a</td>
<td>ø</td>
</tr>
</tbody>
</table>

**Nasal**

<table>
<thead>
<tr>
<th>[ɪ]</th>
<th>[ʊ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>i</td>
</tr>
<tr>
<td>e</td>
<td>ø</td>
</tr>
<tr>
<td>ε</td>
<td>a</td>
</tr>
</tbody>
</table>

Diphthongs

**Oral**

<table>
<thead>
<tr>
<th>iw</th>
<th>iw</th>
</tr>
</thead>
<tbody>
<tr>
<td>ey</td>
<td>ow</td>
</tr>
<tr>
<td>øw</td>
<td>øw</td>
</tr>
</tbody>
</table>

**Nasal**

<table>
<thead>
<tr>
<th>iw</th>
</tr>
</thead>
<tbody>
<tr>
<td>øw</td>
</tr>
</tbody>
</table>

i 'domestic animal'
‘intestine’

‘ear’
‘good’

‘belly’
‘moon’
<table>
<thead>
<tr>
<th>Pumi</th>
<th>English</th>
</tr>
</thead>
</table>
| 'sweat' | ¥ftí
| 'wear clothes' | gwí
| 'waist' | ñí
| 'medicine' | ñí
| 'daughter' | ñí
| 'beg' | ñí
| 'village' | ¥ftí
| 'person' | mí
| 'month' | çí

<table>
<thead>
<tr>
<th>Pumi</th>
<th>English</th>
</tr>
</thead>
</table>
| 'earth' | ñí
| 'forest' | ¥ftí
| 'run' | ñí
| 'dawn' | ñí
| 'escape' | ñí
| 'tomb' | ñí
| 'cloud' | ñí
| 'soil; field' | ñí
| 'hail' | ñí
| 'kid' | ñí

<table>
<thead>
<tr>
<th>Pumi</th>
<th>English</th>
</tr>
</thead>
</table>
| 'tendon' | styé
| 'miss someone' | syé
| 'red' | ñí
| 'testicle' | ñí
| 'soybean' | ñí
| 'over there' | ñí
| 'hot pepper' | ñí

<table>
<thead>
<tr>
<th>Pumi</th>
<th>English</th>
</tr>
</thead>
</table>
| 'white' | ñí
| 'Pumi' | ñí
| 'rope' | ñí
| 'fungus' | ñí
| 'fog' | ñí
| 'ice' | ñí

<table>
<thead>
<tr>
<th>Pumi</th>
<th>English</th>
</tr>
</thead>
</table>
| 'Pumi liquor' | ñí
| 'be burned' | ñí
| 'song' | ñí
| 'plant a garden' | ñí
| 'person born in Year of Monkey' | ñí

---

39The vowel /i/ is pronounced further back after palatal fricative or affricate initials, almost like a fronted barred-i [i̯̯]. Besides MONTH, cf. ꜱ ꜱ ꜱ HUNDRED and ꜱ ꜱ ꜱ SPEECH.

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eiN [ei]  
'cause to snap, break'  (thə-)t̟eiN  'like to'  t̟eiN  
'break (by itself)'  thə-d̟eiN [d̟eiN]  'watery'  d̟eiN  
'coarse'  b̟eiN  'cloth'  n̟eiN  

ε  
'braid'  qhù p̟hè  'chest'  kò lè  
'chop'  p̟hè  'penis'  tshè lyú  
'be severed'  b̟ê  'fold'  stwè  
'whip'  b̟ê t̟ô  'wrinkle'  ê stwè stwè  
'thighb'  p̟ê d̟ê  'Chinese'  fè  
'fire'  mè(N)  'mole (on skin)'  fè n̟ôN  
'lake'  t̟̟hwè  'tongue'  fè  
'road'  rwè  'throat'  mû pê  
'ash'  lwè  'heart'  f̟hwè  
'four'  3d̟ê  'sediment'  f̟phè  

εN [e̟]  
'face'  n̟èN b̟ôN  'brain'  n̟èN ~ nôN  
'seven'  xyēN  'brain'  quh n̟èN ~ quh  

'fire'  mèN  'regret'  ftswè mèN sî  
'bamboo'  m̟êN  'smell'  è mî mèN  

u  
'six'  thû  'middle'  gû 3î  
'animal oil'  tû  'fist'  3ô-dûlû  
'companion'  dû  'belong to'  wû  
'deposit; check'  tshû  'penis'  tshè lyú  
'sour'  tfû  'scar'  v(o)rô tshû  
'thunder'  mè-3dʒû  'place'  tshû  
'stone'  3dʒû  'hard sore'  stô bû  
'head'  qhû  'throat'  mû pê  
'face'  zyû(t)  'larynx'  gû tsî  
'armpit'  z̟̟-ù  'rabbit'  fû tsî  
'upper arm'  z̟̟-rû  'wind'  mû mô  
'animal stomach'  tû  'hide'  çfû  
'dry'  çGu  

0 [o̟]  
'read'  tshô  'chest'  kò lè  
'sprout'  tshô  'buttock'  sô bû  
'chicken'  rô  'hard sore'  stô bû  
'breath'  xgô  'back (of body)'  dô  
'mountain'  gô  'wind'  mû mô  
'pound' (v.)  t̟hwô  'stupid'  dô  

40 This vowel always induces labialization in the preceding consonant; viewed differently we could say that this vowel is always pronounced with a labial onglide. This labialization does not occur before the diphthong /ou/, which is the most salient perceptual clue for differentiating /o/ from /ou/.

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<table>
<thead>
<tr>
<th>Pumi Word</th>
<th>Transcription</th>
<th>English Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>charcoal</td>
<td>ḟ̣j̣ḥó 3d3́í</td>
<td>'year'</td>
</tr>
<tr>
<td>eyebrow</td>
<td>myé só</td>
<td>'elapse'</td>
</tr>
<tr>
<td>ear</td>
<td>ṇj̣ d3ó</td>
<td>'needle'</td>
</tr>
<tr>
<td>jaggery</td>
<td>ʂ̣ḷ dō bá</td>
<td></td>
</tr>
<tr>
<td>dN [ˈo]41</td>
<td></td>
<td></td>
</tr>
<tr>
<td>valley</td>
<td>q̣óuN ~ q̣óN</td>
<td>'well'</td>
</tr>
<tr>
<td>dark</td>
<td>ṇḍ dẓóN dẓóN</td>
<td>'have fever'</td>
</tr>
<tr>
<td>protect</td>
<td>ṭ̣-ẓóN</td>
<td>'coffin'</td>
</tr>
<tr>
<td>wait</td>
<td>ṭṣ̌ḥóN líN</td>
<td>'knee'</td>
</tr>
<tr>
<td>hole</td>
<td>dẓóN</td>
<td>'body'</td>
</tr>
<tr>
<td>be punctured</td>
<td>ṭ̣ḥ-dẓóN</td>
<td>'mouth'</td>
</tr>
<tr>
<td>open; make a hole</td>
<td>ṭ̣ḥ-tsḥóN</td>
<td>'rake' (v.)</td>
</tr>
<tr>
<td>apply ointment</td>
<td>ṭ̣-ffóN ṃó</td>
<td>'anus'</td>
</tr>
<tr>
<td>ou [ɔw]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tooth</td>
<td>g̣óu</td>
<td>'hat'</td>
</tr>
<tr>
<td>knife</td>
<td>róu</td>
<td>'stingy'</td>
</tr>
<tr>
<td>navel</td>
<td>ff̣e-tʃóu</td>
<td>'propitiate dead spirit'</td>
</tr>
<tr>
<td>turban</td>
<td>ṭó tʃóu</td>
<td></td>
</tr>
<tr>
<td>ouN [ɨu]42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>cold</td>
<td>ḅóuN</td>
<td>'ice'</td>
</tr>
<tr>
<td>have</td>
<td>ḅóuN</td>
<td>'valley'</td>
</tr>
<tr>
<td>sheep</td>
<td>ẓ3̣óuN</td>
<td>'upper garment'</td>
</tr>
<tr>
<td>slope</td>
<td>3d3̣óuN</td>
<td>'collar'</td>
</tr>
<tr>
<td>wheat drying rack</td>
<td>ṛóuN</td>
<td>'give to drink/smoke'</td>
</tr>
<tr>
<td>grass</td>
<td>3d3̣óuN</td>
<td>'nod'</td>
</tr>
<tr>
<td>silver</td>
<td>j̣óuN</td>
<td>'lower head'</td>
</tr>
<tr>
<td>rib</td>
<td>ṇóuN</td>
<td>'short'</td>
</tr>
<tr>
<td>bridge</td>
<td>dẓóuN</td>
<td>'garbage'</td>
</tr>
<tr>
<td>enter</td>
<td>ḍ̇-cf̣óuN</td>
<td></td>
</tr>
<tr>
<td>p⁴³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>shadow; light</td>
<td>dẓó</td>
<td>'crowded'</td>
</tr>
<tr>
<td>pig</td>
<td>ptʃ̣ḥó</td>
<td>'rot'</td>
</tr>
<tr>
<td>lick</td>
<td>ɖ̣ó</td>
<td>'dirty'</td>
</tr>
<tr>
<td>come live w/parents</td>
<td>ḟ̣tʃ̣ẉó</td>
<td>'sore; boil'</td>
</tr>
<tr>
<td>kidney</td>
<td>pḥó</td>
<td>'cattle'</td>
</tr>
<tr>
<td>cliff</td>
<td>3d3ó</td>
<td>'bite'</td>
</tr>
<tr>
<td>mud</td>
<td>tʃ̣ḥó ṃóN</td>
<td>'household'</td>
</tr>
</tbody>
</table>

41 Some of these words were originally transcribed with nasalized u “[ũ]” but on rechecking that vowel was determined not really to exist in the Đàyang dialect: i.e. there is no contrast between uN and oN.
42 This vowel is pronounced rather centralized.
43 There is a very firm contrast in Đàyang (as in Jinghua) between back /o/ and front /a/, though neither one of these vowels is the most frequent reflex of TB *-a. See below 6.1.
This high central vowel has apical allophones after sibilant initials. After dental fricatives and affricates it is realized as [ɹ]; after retroflexes it is realized as [l].

This rhyme seems to be restricted to syllables with nasal initials, or laterals which derive from earlier *nasals (e.g. SNOT < PTB *s-nap).

Syllables of these types are sometimes transcribed allophonically in this paper.
Dayang Pumi phonology

'broad'  
'grasp with fingers'  
'hour, while'  
'reign'  
'thin (of person)’  
'lazy'  

\[\text{This is the allophone of} /i/ \text{that occurs after dental fricatives and affricates.}\]

'side'  
'larynx'  
'raw'  

\[\text{This is the allophone of} /Ei/ \text{that occurs after retroflex fricatives and affricates.}\]

'testicle'  
'dew'  
'water conduit'  

\[\text{This is a rounded high central vowel.}\]

'horn'  
'uvula'  
'lung'  
'thread'  
'hang'  
'warm'  
'peach'  
'buy'  
'cough'  
'dig'  

This vowel is pronounced rather high, close to [i].

'thigh'  
'sky'  
'multicolored'  
'garden'  
'tear out'  
'scoop' (n.)  
'move'  

'tea'  
'summer'  
'tael (weight)'  
'step on'  
'be torn out'  
'scoop out; dredge'  

\[\text{46Literally "little tongue". This same formation for UVULA is found in Chinese (Mand. xiloshé), and in other TB languages, e.g. Written Tibetan lce-chung.}\]

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**əN [ɔ]**

*This vowel occurs only after retroflex initials in my data.*

<table>
<thead>
<tr>
<th>English</th>
<th>Mon-Khmer</th>
<th>English</th>
<th>Mon-Khmer</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘house’</td>
<td>tʂɔN</td>
<td>‘pad’ (v.)</td>
<td>tʂʰɔN</td>
</tr>
<tr>
<td>‘stir fry’</td>
<td>z̟ūN z̟ɔN</td>
<td>‘tasty’</td>
<td>z̟ɔN</td>
</tr>
<tr>
<td>‘horizontal’</td>
<td>dʑɔ-dʑɔN</td>
<td>‘fertilizer’</td>
<td>z̟ɔN</td>
</tr>
</tbody>
</table>

**dɔw**

<table>
<thead>
<tr>
<th>English</th>
<th>Mon-Khmer</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘soap’</td>
<td>tʂhɔw pyɔw</td>
</tr>
<tr>
<td>‘scold’</td>
<td>nə-thɔw</td>
</tr>
<tr>
<td>‘comb one’s hair’</td>
<td>qʰɔ pʐɔw</td>
</tr>
</tbody>
</table>

**iɔw**

<table>
<thead>
<tr>
<th>English</th>
<th>Mon-Khmer</th>
<th>English</th>
<th>Mon-Khmer</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘plant’ (v.)</td>
<td>tɪw</td>
<td>‘poking’</td>
<td>tɪw</td>
</tr>
<tr>
<td>‘get along well’</td>
<td>dyɛ dyiW</td>
<td>‘face’</td>
<td>zɪw</td>
</tr>
<tr>
<td>‘reverse’</td>
<td>thɔ-stʰi sthɔiW</td>
<td>‘fight’</td>
<td>tʂʰɛ tʂiW</td>
</tr>
<tr>
<td>‘whip; thrash’</td>
<td>nə-tʂiW</td>
<td>‘Yi (impolite)’</td>
<td>tɪW</td>
</tr>
</tbody>
</table>

**iɔN**

<table>
<thead>
<tr>
<th>English</th>
<th>Mon-Khmer</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘beard’</td>
<td>hɯ styiWn</td>
</tr>
<tr>
<td>‘breast; milk’</td>
<td>nɪwN</td>
</tr>
</tbody>
</table>

**iɔw**

<table>
<thead>
<tr>
<th>English</th>
<th>Mon-Khmer</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘smoke’</td>
<td>mɛ fʈʰiW</td>
</tr>
<tr>
<td>‘happy and excited’</td>
<td>gɪW</td>
</tr>
<tr>
<td>‘dirty; a slob’</td>
<td>bɑ zɨW</td>
</tr>
<tr>
<td>‘keep silent’</td>
<td>nɔN tʂʰiW tʂʰiW pʊ</td>
</tr>
</tbody>
</table>

**əw**

<table>
<thead>
<tr>
<th>English</th>
<th>Mon-Khmer</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘wide’</td>
<td>fɾɔw</td>
</tr>
<tr>
<td>‘fight’</td>
<td>pʐɛ pʐɛw</td>
</tr>
</tbody>
</table>

**A couple of miscellaneous points about Dàyãng vowels:**

- **Marginal final -ʔ.** In a few words under the high tone a final glottal stop (or constriction on the vowel) is audible in some repetitions:

<table>
<thead>
<tr>
<th>English</th>
<th>Mon-Khmer</th>
<th>English</th>
<th>Mon-Khmer</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘face’</td>
<td>zɪw</td>
<td>~</td>
<td>zɪwʔ</td>
</tr>
<tr>
<td>‘soybean’</td>
<td>nɛʔ</td>
<td>~</td>
<td>nɛʔ</td>
</tr>
<tr>
<td>‘invite to eat’</td>
<td>dʐʊyʊ</td>
<td>~</td>
<td>dʐʊyʊ</td>
</tr>
<tr>
<td>‘sweat’</td>
<td>fʈʰiʔ</td>
<td>~</td>
<td>fʈʰiʔ</td>
</tr>
<tr>
<td>‘mouth’</td>
<td>khwà rä</td>
<td>~</td>
<td>khwà rä</td>
</tr>
</tbody>
</table>

- **Alternation between front and back high vowels.**

In at least one word, Dàyãng shows an alternation between -u and -wi.

<table>
<thead>
<tr>
<th>English</th>
<th>Mon-Khmer</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘exchange’</td>
<td>3dʒʊ</td>
</tr>
</tbody>
</table>
This is very reminiscent of a similar phenomenon in Lahu, which I ultimately explained in terms of a palatal suffix.\footnote{See Matisoff 1995:58-9.} It remains to be seen whether such an element should be posited for Pumi (or even for Qiangic in general).

5. Tones

The tones in this dialect are quite clear in monosyllables, with a basic opposition between high (H) and low (L). In dissyllabic collocations great complications arise.

5.01 Tones in monosyllables

Dàyang Pumi monosyllables may be divided into two large tonal classes. Since the dialect shows no overt traces of previous *stopped finals in terms of prosodic features like constriction or creakiness, all Dàyang syllables are synchronically live (in Thai terms). The Dàyang tone system in monosyllables is thus of maximum simplicity, a two-way contrast between HIGH and LOW. The HIGH tone is realized as high-level (55), and is symbolized by an acute accent; the LOW tone is low-to-mid rising in isolation (13 or 24), where I write it with a ha<cek.

A special 51 tone occurs in a few interjections; I symbolize it with a circumflex:

\[
\text{dz\textsuperscript{51}wō} \quad \text{there! here, take it!}
\]
\[
\text{sthwē} \quad \text{phooey!}
\]

Both tones occur synchronically in syllables with all manners of initial consonants:

<table>
<thead>
<tr>
<th>\textbf{HIGH}</th>
<th>\textbf{LOW}</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘wide’ (ϕpəw)</td>
<td>‘begrudge’ (ϕpəw)</td>
</tr>
<tr>
<td>‘urine’ (bəN)</td>
<td>‘bloated’ (bəN)</td>
</tr>
<tr>
<td>‘weep’ (xqwá)</td>
<td>‘bite’ (xqδ)</td>
</tr>
<tr>
<td>‘copper’ (né)</td>
<td>‘milk’ (náN)</td>
</tr>
<tr>
<td>‘news’ (pshé)</td>
<td>‘chop’ (pshé)</td>
</tr>
<tr>
<td>‘pull’ (jíjí)</td>
<td>‘village’ (jíjí)</td>
</tr>
<tr>
<td>‘insect’ (bó)</td>
<td>‘cold’ (bóN)</td>
</tr>
<tr>
<td>‘wolf’ (pó)</td>
<td>‘bottom’ (pó)</td>
</tr>
<tr>
<td>‘rain’ (gwí)</td>
<td>‘wear clothes’ (gwí)</td>
</tr>
<tr>
<td>‘mouse’ (wó)</td>
<td>‘tiger’ (wó)</td>
</tr>
</tbody>
</table>

Although I have not yet undertaken a systematic comparison across the whole lexicon in the various dialects, it looks as if this basic two-way tonal contrast may be traced back to Proto-Pumi, since the Dàyang tonal classes correspond well to those of Jinghua and Taoba:

\[\text{MKS 27:171-213 (c)1997 See archives.sealang.net/mks/copyright.htm for terms of use.}\]
<table>
<thead>
<tr>
<th>HIGH</th>
<th>Dâyâng 55</th>
<th>Jinghua 55</th>
<th>Taoba 55 ~ 54</th>
</tr>
</thead>
<tbody>
<tr>
<td>'bear'</td>
<td>wéN</td>
<td>uā55</td>
<td>guē55</td>
</tr>
<tr>
<td>'chicken'</td>
<td>ró</td>
<td>Ž055</td>
<td>rō54</td>
</tr>
<tr>
<td>'mouse'</td>
<td>wō</td>
<td>ų055</td>
<td>ų054</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LOW</th>
<th>Dâyâng 13</th>
<th>Jinghua 13</th>
<th>Taoba 45</th>
</tr>
</thead>
<tbody>
<tr>
<td>'hawk'</td>
<td>tō</td>
<td>tśē13</td>
<td>tśē45</td>
</tr>
<tr>
<td>'horse'</td>
<td>3d3wīN</td>
<td>sgyē13</td>
<td>yue45</td>
</tr>
<tr>
<td>'tiger'</td>
<td>wō</td>
<td>ų013</td>
<td>ų045</td>
</tr>
</tbody>
</table>

5.02 Tones in dissyllabic collocations

All four mathematically possible sequences of tones occur in dissyllables: HH, HL, LH, LL. A LOW tone in the first syllable is realized as a simple low level tone with no noticeable rise in pitch. However, when the first syllable is HIGH, a following LOW tone may be realized in two different ways: either with the usual low rising contour (13 or 24) that is found on monosyllables, or as a mid (33) or low tone (21 or 11). These non-rising contours might be considered a kind of 'neutral' tone, but their occurrence seems unpredictable either in terms of stress or any kind of segmental conditioning factor, or in terms of the grammatical relationship between the constituents of the two syllables. It remains to be seen whether these variants of the LOW tone have any historical significance (i.e. whether they point to a possible 3-tone system for Proto-Pumi) or whether they represent (as I now believe) a secondary and sporadic development in the Dâyâng dialect. A few examples:

**Two kinds of HIGH-LOW sequences**

<table>
<thead>
<tr>
<th>High + Low Rising</th>
<th>High + Very Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>'mouth'</td>
<td>khwá rā</td>
</tr>
<tr>
<td>'wind'</td>
<td>mú mō</td>
</tr>
<tr>
<td>'bone'</td>
<td>rō qō</td>
</tr>
<tr>
<td>'monkey'</td>
<td>tsē zī</td>
</tr>
<tr>
<td>'brothers'</td>
<td>pē tsāN</td>
</tr>
<tr>
<td>'well' (n.)</td>
<td>tfî qō(u)N</td>
</tr>
<tr>
<td>'throat'</td>
<td>mú pē</td>
</tr>
<tr>
<td>'middle'</td>
<td>gū zī</td>
</tr>
<tr>
<td>'testicle'</td>
<td>stō pšhî</td>
</tr>
<tr>
<td>'chest'</td>
<td>kō lē</td>
</tr>
</tbody>
</table>

5.021 Sporadic tone sandhi in Noun + Noun compounds

In dissyllabic compounds, the underlying tones of the constituents are often retained. Sometimes, however, an assimilatory or dissimilatory development occurs. I have not been able to figure out any conditioning factor for these sporadic sandhi phenomena.

---

48 I usually write this variant of the LOW tone in initial syllables with a grave accent.
49 I sometimes write these variants of the LOW tone in non-initial syllables with a grave accent.
50 It must also be said that my consultant was not always consistent in subsequent repetitions of H + L sequences, frequently changing her mind as to the exact contour of the second syllable.
(A) Underlying HH sequences

[1] H + H → H + H (no change)
cé 'god' tsəN 'house'  > cé tsəN 'temple'
mí 'person' qó 'nest'  > mó qó 'household'
myǒN 'eye' χqá 'shit'  > myǒN χqá 'eyecrud'

[2] H + H → H + L (dissimilation)
qhú 'head' máN 'hair'  > qhú máN 'hair of the head'
tʃi 'water' qó(u)N 'valley'  > tʃi qó(u)N 'a well'

[3] H + H → L + H (dissimilation)
qwó 'cattle' χqá 'shit'  > qwó χqá 'cowshit'

(B) Underlying HL sequences

[1] H + L → H + L (no change)
šòu 'tooth' nōN 'marrow'  > šòu nōN 'gums'

[2] H + L → L + L (assimilation)
qhú 'head' ptshé 'braid'  > qhú ptshé 'braids'

[3] H + L → H + H (assimilation)
ʃtfhwé 'heart' ṭoN 'black'  > ʃtfhwé ṭoN 'blackhearted'
ťyé 'speech' ʤú 'companion'  > ĭyé ʤú 'friend'
şó 'leg' phí 'belly'  > ʃó phí 'calf of leg' 51
şó 'leg' tsá 'joint'  > ʃó tsá 'ankle'
tsəN 'house' 3dʒí 'animal'  > tsəN 3dʒí 'domestic animal'

As the number of examples shows, HL → HH is perhaps the most frequent sandhi phenomenon to be found in Dayáng compounds.

(C) Underlying LH sequences

[1] L + H → L + H (no change)
ʃl 'dew' phí 'snow'  > ʃl phí 'frost'
xyõN 'mouth' dʒóN 'hole'  > xyõN dʒóN 'nose'
3dʒiwN 'horse' χqá 'shit'  > 3dʒiwN χqá 'horseshit'

[2] L + H → L + L (assimilation)
ro 'skin' 52 sṭʃi 'flesh'  > ro sṭʃi 'skin'

51For the same metaphor, cf. the medical name for the large muscle in the calf: gastrocnemius (< Gk. gastēr 'belly').
52This morpheme seems to be tonally irregular across dialects. Jinghua has ʪ y13 (i.e. LOW), but Taoba has ra5 (i.e. HIGH).
(D) Underlying LL sequences

[1] L + L --> L + L (no change)
   mē(N) ‘fire’ jtfhŏw ‘smoke’ > mē jtfhŏw ‘smoke’
   lē ‘tongue’ bţăN ‘root’ > lē bţăN ‘uvula’
   zŏ ‘hand’ tsă ‘joint’ > zŏ tsă ‘wrist’

[2] L + L --> L + H (dissimilation)
   ptf hô ‘pig’ tswĭN ‘liver’ > ptf hô tswĭN ‘pig’s liver’
   qŏ ‘strength’ ăN śnō ‘snot’ > qŏ ăN ‘phlegm’

Even more complicated patterns emerge in collocations of three or more syllables. These are well beyond the scope of the present study.

5.022 L --> H tone sandhi in prefixed verb roots

The Jinhua dialect has a well-developed system of directional prefixes that attach to verb roots: tŏ55 ‘upwards’, nă13 ‘downwards’, thō13 ‘away’, dō13 ‘towards’, khă13 ‘outwards; left to right’, xo13 ‘inwards; right to left’ (Lu 1983:45).53 Dâyang has a very similar system. Although the vocalism of these prefixes is schwa in Dâyang, they are often pronounced with enough stress to have a tone, most frequently the HIGH tone. In what appears to be the great majority of cases, a verb under the LOW tone acquires the HIGH tone after a directional prefix in Dâyang:

‘carry on shoulder’ tă tă-tō
‘collapse’ phyē thă-phyē
‘drop’ qĭ nă-qĭ
‘dry’ kyŭ tă-kyŭ
‘get’ 3dĭ t(h)ō-3dĭ ‘grab’; but ě-3dĭ ‘meet’
‘hang’ sē tă-sē
‘hide’ nŏN thă-nŏN
‘mislay’ mĭ thă-mĭ
‘pull out’ lwă tă-lwă ‘pull up’, but thă-lwă ‘pull away’
‘rot’ bdĭ nă-bdĭ
‘satiated’ kwĭ tă-kwĭ
‘sew’ qĕi tă-qĕi
‘take with one’ zŏ nă-zŏ ‘take down’
   tă-zŏ ‘take up’
   khă-zŏ ‘take out’
   ě-zŏ ‘take over; take in’

‘understand’ tŏ jĭ thă-tŏ-jĭ
‘wear hat’ twă tă-twă
‘wear clothes’ gwĭ tă-gwĭ

---

53These correspond closely to the semantics of similar verb-prefixes in Indo-European.
6. Pumi's place in the Qiangic family: a preview of coming attractions

6.1 The fate of PTB *-a in Pumi

Tatsuo Nishida noticed long ago that the extinct Xitia language, as well as Tosu (a language known from an old bilingual Chinese wordlist,\textsuperscript{54} and apparently the ancestor of the modern Qiangic language Ertsu) show a striking development of TB *-a > -i or -ɨ, in some but not all cases.\textsuperscript{55} He is inclined to set up separate PTB vowels to account for these divergent developments. I have found a similar situation in Pumi: there are many examples of PTB *-a > Pumi -ɨ or -ɨ, but also a number of other developments. However, instead of rushing to set up distinct proto-vowels to explain this, I would prefer an explanation in terms of conditioning by the initial consonant, although many problems remain. Some examples:

\[
\begin{array}{ll}
\text{*-a > -i} & \text{Dàyáng Pumi} \\
\text{'borrow/lend'} & \text{PTB } *\text{-ŋ(y)a } \neq *\text{s-ŋ(y)a} \\
& \text{PTB } *\text{g-na } \neq *\text{r-na} \\
\text{'ear'} & \text{PTB } *\text{-na} \\
\text{'listen'} & \text{PTB } *\text{s-(g)la} \\
\text{'moon'} & \text{PTB } *\text{r-gya} \\
\text{'month'} & \text{PTB } *\text{tsa} \\
\text{'hundred'} & \text{PTB } *\text{na} \\
\text{'salt'} & \text{PTB } *\text{ta} \text{(cf. PLB } *\text{g-ra}^2 \text{)} \\
\text{'ill/hurt'} & \text{PTB } *\text{tsa}^58 \\
\text{'rest'} & \text{PTB } *\text{na} \\
\text{'buckwheat'} & \text{PTB } *\text{dza}^59 \\
\text{'sparrow'} & \text{PTB } *\text{N-tsa}^58 \\
\text{'rice'} & \text{PTB } *\text{ra}^2 \text{ (Taoba } t\text{o}^{35} \text{ tci}^{35}, \text{Jinghua t\text{au } t\text{a}^{13})} \\
\text{*-wa > -wi} & \text{PTB } *\text{m-twa} \\
\text{'handspan'} & \text{tchwí} \\
\text{'rain'} & \text{PTB } *\text{r-wa } \neq *\text{s-wa } \neq *\text{g-wa} \\
\text{'satiated'} & \text{gwí} \\
\text{'wear clothes'} & \text{PTB } *\text{k-wa } \text{(cf. WB } w\text{a}' \text{)} \\
\end{array}
\]

\textsuperscript{54}Nishida (1973:7) describes the composition of this work as fairly late with respect to the other bilingual glossaries known as \textit{Hua-Yi}, dating from the early Qing; he used an 18th century untitled text which refers to Tosu as spoken in Sichuan.

\textsuperscript{55}See Nishida 1973, 1976. The examples of this evolution that he cites (1976) are FLESH, CHILD, FOOD, and SALT.

\textsuperscript{56}See also Ergong z\textsuperscript{31}, N. Qiang z\textsuperscript{33}, Muya z\textsuperscript{35}, Gouiqiong z\textsuperscript{33}, Namuyi z\textsuperscript{33}.

\textsuperscript{57}Cf. Lahu \textsuperscript{21}, Hani \textsuperscript{21}, Lisu \textsuperscript{21} (Matisoff 1988a:1116).

\textsuperscript{58}Cf. Lahu \textsuperscript{21}, WB ca < PLB *\textit{Ndzya} (Matisoff 1988a:563).

\textsuperscript{59}Cf. Lahu \textsuperscript{21} 'paddy', Wancha ts\textsuperscript{33}, Newari ja (Matisoff 1988a:443).

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*-wa > ɨ
‘axe’ PTB *p-wa
‘snow’ cf. PLB *wa² 60

*-a > ɨ mostly after palatals
61
‘bee’ PTB *bya
‘thin’ PTB *ba
‘edge/side’ PTB *N-dzya 62
‘eat’ PTB *dzya
‘rightside’ PTB *g-ya
‘trousers’ PTB *s-la
‘meat/flesh’ PTB *sya
‘child’ PTB *za ≠ *tsa
‘fish’ PTB *s-ɨya
‘many’ PTB *mya ≠ *mra

*-a > -d after postvelars, labials, dental stops
‘bitter’ PTB *ka
‘chin’ PTB *m-ka
‘open’ PTB *ka
‘cattle’ PTB *ɨwa
‘strength’ PLB *k-ra² 65
‘hoof’ PTB *kwa 66
‘throw’ PTB *m-ba(y) ≠ *s-ba(y) 67
‘hammer’ PTB *m-t(w)a ≠ *s-ta 68
‘box/cabinet’ PTB *ta 69
‘father’ PTB *pa
‘five’ PTB *l/b-ɨa
‘laugh’ PTB *rya

60 Cf. Lahu vâ ‘hail’, vâ-may ‘snow’ (Matisoff 1988a:1323).
61 As we have seen (note 39), there is a tendency in Dâyâng to blur the distinction between /i/ and /ɨ/ after palatal initials.
63 This form apparently reflects the suffixal *-n that sometimes appears on kinship terms, as in Dhimal tsan ‘son’, Lepcha a-zon ‘grandchild’ (cf. Benedict 1972: n. 86, p. 27; n. 284, p. 100). Cf. FIVE for a different source of a nasalized vowel. There is another Dâyâng word for ‘son’ that must be allofonically related: tsê.
64 Note the development of PTB *palatalized nasals to Pumi affricates (FISH) or complex fricatives (MANY).
66 Cf. Written Burmese khâ. But see also SATIATED and WEAR CLOTHES (above), where a similar *labiovelar-plus-ɨ combination becomes Pumi -i.
68 Cf. Lahu tha ‘strike with flat hand, slap, strike a sharp blow’, tha-tu ‘hammer’ (Matisoff 1988a:671); also Written Tibetan (m)tho-ba ‘large hammer’ < *-twa.
70 With secondary nasalization of the vowel, apparently reflecting the original *nasal root-initial. Cf. CHILD for a different source of a nasalized vowel.
*-a > -a  ‘ditch’  PTB *ka  qhá (Lahu qhâ)

*-wa > ou  ‘tooth’  PTB *swa  şóu

*-ya > -e  ‘tongue’  PTB *s-lya  lě

*a-t > -e  ‘hot’  PTB *tsa-t\textsuperscript{71}  tsê

*-al > -o  ‘frog’  PTB *sbal  ūpó

Comparative Qiangic studies are still in their infancy. Much internal reconstruction will be necessary in each of these dialectally highly diversified languages before we can figure out the details of their complex initial- and rhyme-correspondences. The enterprise will be well worth the effort.

REFERENCES


\textsuperscript{71}The basic root is *tsa, but several languages point to a dental suffix: WT tsha ‘hot, illness’, tshad-pa ‘heat; fever’; Lushai șa ~ șat ‘hot’. -e seems to be the regular Dàyâng reflex of *-at: e.g. VOMIT *N-pat > ūpó; KILL *sat > syê.


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