

# Dàyáng Pumi phonology and adumbrations of comparative Qiangic<sup>1</sup>

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## 1. Introduction<sup>2</sup>

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.<sup>3</sup>

Like the other Qiangic languages,<sup>4</sup> Pumi has an extremely complex phonology, and shows considerable internal dialectal diversification.<sup>5</sup> 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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<sup>1</sup>This 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.

<sup>2</sup>My 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.

<sup>3</sup>This 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.

<sup>4</sup>The 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).

<sup>5</sup>The 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.

#11 respectively. 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 **pshÉN-mí** in the Dàyáng dialect, which clearly means ‘White People’ (**pshÉN** ‘white’). This morpheme seems to go back to Proto-Qiangic \***pram** (cf. Rgyalrong **kəpram**), distinct from the much more widely attested TB root \***plu** ‘white; silver’. Other authors have called the language “Primi” or “Prinmi”, but for the moment we are sticking with the better-known exonym.

This paper is far from a definitive treatment of the Dàyáng 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*

$$(F) C_i (G) V (y/w) (N) \quad T$$

G = y w ǐ/š/z ʃ/ʒ

F	-->	φ	/_____	Labial
	-->	s	/_____	Dental
	-->	ʃ	/_____	Palatals
	-->	χ	/_____	Postvelars

F --> [+voiced] /\_\_\_\_\_ [+voiced]  
i.e. φ > β; s > z; ʃ > ʒ; χ > ʁ

### *Reduced stress syllables*

Dàyáng 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):

φpǐ ‘belly’ > φpə-tʃóu ‘navel’  
tʃí ‘water’ > tʃə-φpá ‘boiled water’

- 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 Rgyalrong 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*

p	t	ts	ʈ	tʂ	tʃ	tɕ	k	q
ph	th	tsh	ʈh	tʂh	tʃh	tɕh	kh	qh
b	d	dz	ɖ	dʐ	dʒ		g	
ɸ		s		ʂ	ʃ	ɕ	x	h
v		z		ʐ			ɣ	ɦ
m	n					ɲ	ŋ	
ᵹ								
w	l		r		y			
	ɭ							

*3.02 Clusters with -w-*

tw	stw	ʈw	tsw	tʂw		ɕtw	kw	qw	χqw
[thw]	sthw	ʈhw	tshw	tʂhw	tʃhw	ɕtchw	khw	qhw	χqhw
[dw?]	zdw	ɖw	dzw	dʐw	dʒw	zdzw	gw		
sw	sfw			ʂw	ʃw	ɕfw	xw		
				ʐw			ɣw		
lw									
ɭw				rw					

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.<sup>6</sup>

(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)<sup>7</sup>, 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<sup>w</sup>o].<sup>8</sup> 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 [ɥ], similar to that in French *nuit* [nuɥ]:

'liver'	tswĩN [tsɥiN]	< PTB *m-sin
'handspan'	tɕhwí [tɕɥi]	< PTB *m-twa
'pull/drag'	tswíN [tsɥiN]	
'shoe'	tswĩ [tsɥi]	

### 3.03 Clusters with *-y-*

py	ɸpy	ty	[sty]	tsy	
phy	ɸphy	thy		tshy	ʃtʃhy
by	βby	dy		dzy	
		sy			xy
		zy			
my		ly			
		ɬy			

Note the absence of velar-plus-y clusters.

<sup>6</sup>See Matisoff 1988b:291

<sup>7</sup>Namkung, ed. 1996:309-10.

<sup>8</sup>See below 4.0, *Vowels*. There are a number of words where *w-* occurs as the Ci before the vowel /-o/, e.g. wɔ̃ 'tiger', wɔ̃-mf 'guest', wɔ̃ '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 Dàyáng 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 bz/ 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/:

pʂ [př]	pʃ [ptʃ]
pʂh	pʃh [ptʃh]
bʐ	bʒ [bdʒ]

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 \*pw- > Dàyáng p(t)ʃh:  
 PIG PTB \*p-wak > Dàyáng ptʃhǎ

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.:

[vr]	‘scar’	vrə-tʂhǎ ~ vərə-tʂhǎ
[pr]	‘foodstuff’	prǎ ~ pərǎ
[br]	‘snake’	brá ~ bərá
[bl]	‘lip’	xyòN-bló ~ xyòN-bəló

In these cases the schwa returns in careful speech.<sup>9</sup>

(b) Velars plus liquids

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

ʈ	ʈw
ʈh	ʈhw
ɖ	ɖw

<sup>9</sup>Similar elision of the schwa may also occur before nasals: BODY gəmú ~ gmú.

These usually derive from TB clusters of \*velars-plus-liquid, e.g.

	<i>PTB</i>	<i>Dàyáng</i>	<i>Jinghua</i>	<i>Taoba</i>	<i>Lahu</i>
'daughter-in-law'	*krwəy	thĩ	tʂhə <sup>13</sup>	tsũ <sup>55</sup> tʂhə <sup>53</sup>	ə-khĩ-ma
'foot'	*krəy	thí	tʂhə <sup>55</sup>	tʂhə <sup>53</sup>	khɪ
'gall'	*m-kris	lĩ	tʂə <sup>55</sup>	tʂə <sup>55</sup>	kĩ
'garden'	*kram	thǎ			kho
'hawk/eagle'	*gləŋ	tǔ	tʂɔ <sup>13</sup>	tʂɛ <sup>35</sup>	
'horn'	*krəw	thé	tʂhy <sup>55</sup>	tʂhũ <sup>53</sup>	khɔ
'six'	*d-krok	thũ	tʂhu <sup>13</sup>	tʂhu <sup>35</sup>	khɔʔ
'star'	*ʔgrəy (PLB)	qĩ	dʒə <sup>13</sup>	dʒə <sup>35</sup>	məʔ-kə
'thread'	*kriŋ	qě	dʒy <sup>55</sup>	dʒũ <sup>53</sup>	khe

This is not the whole story, however. These retroflexes (especially the voiced member **ɖ**) also seem to have other sources, e.g. \*pw- and \*ly-:

'chaff'	PTB *pwaay > Dàyáng <b>ɖwǔ</b>
'lick'	PTB *m-lyak > Dàyáng <b>ɖǔ</b>

The word for DIG is interesting: Dàyáng **tʂ** 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	-->	ɸ, β	/ _____	Labial
	-->	s, z	/ _____	Dental
	-->	ʃ, ʒ	/ _____	Palatals
	-->	χ, ʁ	/ _____	(Post)velars

Like the Jinghua dialect,<sup>10</sup> 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):

ɸp	ɸpy	st	stw	ʃtʃ	ʃtʃw	χq	χqw
ɸph	ɸphy	sth	sthw	ʃtʃh	ʃtʃhw	χqh	χqhw
βb	βby	zd	zdw	ʒdʒ	ʒdʒw	ʁg	

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

sʃ	sʃw	çʃ	çʃw
zʒ			

<sup>10</sup>See Namkung, ed. 1996:371-2.

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**í 'medicine' (compare WT **sman**). Other Pumi dialects preserve \*s + nasal clusters better: Jinghua has both /m/ and /m̥/, while Taoba has a full set at four positions of articulation: /m̥, m̥, m̥, m̥/.

3.06 Composite chart of Dàyáng Pumi initial consonants

p	py		ɸp	ɸpy		pʐ	[pʀ]	pʃ	[ptʃ]
ph	phy		ɸph	ɸphy		pʂh		pʃh	[ptʃh]
b	by		βb	βby		bʐ		bʃ	[bdʒ]
t	ty	tw	st	[sty]	stw				
th	thy	[thw]	sth		sthw				
d	dy	[dw?]	zd		zdw				
k		kw							
kh		khw							
g		gʷ							
q		qw	χq		χqw				?
qh		qhw	χqh		χqhw				
			κG						
t̥		[w	ts	tsy	tsw	tʂ	tʂw		
t̥h		[hw	tsh	tshy	tshw	tʂh	tʂhw		
d̥		d̥w	dz	dzy	dzw	dʐ			
tʃ			tʃ		tʃw			tɕ	
tʃh		tʃhw	tʃh		tʃhw	tʃhy		tɕh	tɕhw
dʒ		dʒw	dʒ		dʒw				
s	sy	sw	sʃ		sʃw	ʂ	ʂw	ʃ	ʃw
	cʃw								c
z	zy		zʒ			ʐ	ʐw		cʃ
ɸ								x	xw xy
	h								
v								ɣ	ɣw
	fi								
m	my	mr/mʐ	m̥		n		n̥		ŋ
w			l	lw	ly	ĩ	ĩw	y <sup>11</sup>	
			l̥	l̥w	l̥y				

<sup>11</sup>Sometimes phonetically fricativized, /ʃ/.

## 3.1 Labials

p	py	ɸp	ɸpy	pʒ [př]	pʃ [ptʃ]
ph	phy	ɸph	ɸphy	pʂh	pʃh [ptʃh]
b	by	βb	βby	bʒ	bʒ [bdʒ]

*Simple labial stops*

<b>p</b>			
pǔ	‘bucket’	pǒ	‘lower part’
pǒuN pòuN	‘father’s younger brother’	pě	‘flour’
pà tyé	‘stool’	pìN ʒdʒí	‘wild animal’
pí	‘liter container’	pí pǐ	‘this year’
pó	‘wolf’	pú	‘ladle’
pé pǔ	‘ancestor’		
<b>ph</b>			
phǔ	‘price’	phǎ-lyǒu	‘hat’
phà lá ~ phà lá	‘butterfly’	phǎ-ʃhǒ	‘rip seam’
ʒdʒǒuN phú	‘grass mat’		
<b>b</b>			
bǎ	‘chaff’	bǒuN	‘cold’
bà ñá	‘snake’	bá ʒǐw	‘dirty; a slob’
bá ʃhwǒ ʃhwǒ	‘rough; coarse’	béiN	‘coarse’
bíN	‘busy’	bóuN	‘have’
bú	‘insect’	bǎ-ǒuN	‘soul’
bǎsǎ	‘peach’		

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

bǐ	‘sun’	bǐ	‘bee’
bǐ	‘thin/sparse’	bǐ lyǒ lyǒ	‘thin’

*Palatalized labial stops*

<b>py</b>			
pyé	‘pick out with a tool’	ɲé pyé	‘sickly’
gǎ-pyé	‘plank’		
<b>phy</b>			
phyé phyé	‘testicle’		
<b>by</b>			
byě	‘collapse’	myǒN thǎ-byé	‘blind’
lè byě	‘radish’	gǎ byé	‘plate/dish’
tʂhǎ byé	‘stick; cane’		



*Prefixed labial stops*

<b>φp</b>			
φpǔ	‘leaf’	φpǐ	‘stomach’
φpǝ	‘pus’	φpǝ ~ φǝ	‘saw’ (n.)
φpǝ-tʃou	‘navel’	φpǝw	‘begudge’
φprou	‘frog’	φpǝ	‘axe’
φpǝ	‘snow’	φprouN	‘government official’
φpǝw	‘wide’		
<b>φph</b>			
φphǔ	‘kidney’	φphǐ	‘slanting’
φphǝ	‘sediment’		
<b>βb</b>			
βbǐ	‘bloated (from eating)’	βbǔ	‘sore; boil’
βbǝ	‘long-grained rice’	βbǝ	‘pot (big)’
βbǐN	‘urine’	siN βbǔN	‘tree’

*Prefixed palatalized labial stops*

<b>φpy</b>	
φpyǝ	‘sacrifice’
<b>φphy</b>	
φphyǝ	‘patch’ (v.)
<b>βby</b>	
βbyǝ	‘scold’

*Labio retroflex affricates*

<b>pʒ</b> [pʃ]			
pʒǝN	‘pour out’	pʒǝi wú	‘born in Monkey Year’
pʒǝ dzǝ	‘thigh’	pʒǝ pʒǝw	‘fight’
qhù pʒǝw	‘comb’	stǎN tsǝ pʒǝ	‘lizard’
		tyðuN	
<b>pʂh</b>			
pʂhǝ	‘age’	pʂhǝ	‘chop’
pʂhǝ	‘(fruit) pit’	pʂhǝi	‘Pumi liquor’
pʂhǝN mí	‘Pumi’	pʂhǝN	‘white’
pʂhǝ βbǔN	‘cypress’	pʂhǝ	‘core’
pʂhǝ	‘news’	qhù pʂhǝ	‘braid’
stǝ pʂhǝ	‘testicle’		
<b>bʒ</b>			
bʒǝ ~ bʒǔ	‘ladder’	bʒǝN	‘near’
bʒǝN	‘root’	bʒǝN	‘tears’
bʒǝN	‘rope’	bʒǝ	‘snap’ (v.i.)

bzɿ nɛ́N bzóN	‘water conduit’ ‘face’	bzɛ́ ʃtʃǔ zǎ-bzɛ́N	‘whip’ ‘ring (for finger)’
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*Labiopalatal affricates*  
(with optional epenthetic stop)

pʃ ~ ptʃ ptʃǔ	‘blue’	ptʃí	‘intestine’
pʃh ~ ptʃh ptʃhǔ ptʃhě] ptʃhǐN ptʃhě ptʃhě tsɿ ptʃhě ɸpǐ mə ʒdʒíN ptʃhí	‘rot’ ‘direction’ ‘tomb’ ‘sharpen/whittle’ ‘fly’ (n.) ‘father-in-law’ ‘good’	ptʃhǔ ptʃhǐN ptʃhǔu ptʃhǔ ptʃhǔ ptʃhě ɸpǐ ptʃhě ɸpǐ	‘pig’ ‘escape’ ‘gourd ladle’ ‘bamboo fence’ ‘mosquito’ ‘castrated pig’
bʒ ~ bdʒ bdʒíN bdʒě bdʒǐN bdʒɛ́ ʃtʃǔ	‘bright’ ‘flat’ ‘dawn’ ‘whip’	b(d)ʒǐN bdʒó bdʒě khə-bdʒǔu	‘run/fly’ (v.) ‘short’ ‘be severed’ ‘spurt forth’

### 3.2 Dentals

t	ty	tw	st	[sty]	stw
th	thy	[thw]	sth		sthw
d	dy	[dw?]	zd		zdw

*Simple dental stops*

t				
tǐw	‘poke’	tǐw	‘Yi (impolite)’	
tǔ	‘animal oil’	tǔN nǔN	‘crossbow’	
tá	‘big’	táw	‘plant’ (v.)	
tó	‘upper part’	tó	‘cabinet; box’	
tóuN	‘plow’	kǔuN tó	‘threshold’	
khwǔ tóuN	‘yellow weasel’	stǔ tǐ	‘honest’	
tɛ dʒǐ	‘hour; while’	tá-tʒwǔ	‘prop up’	
tǎ-tʒǎ ~ tǎ tʒǎ	‘tael (weight)’	tǎ-tɛí	‘weigh’	
tǎ-tʒǎ	‘hang down’	tǎ-tǎ	‘carry on pole’	
th				
thǐ ~ sthǐ	‘sweet’	thǐN	‘drink’	
thǎ ɲǔN	‘stand idle’	thǎ dʒǐ	‘persimmon’	
gǎ-thǔ	‘narrow-necked jar’	zǎ-thǔ	‘millstone’	
thǎ-dʒǔN	‘be punctured’	thǎ-tǎiN [~tǎiN]	‘break’ (v.i.)	
thǎ-thǎ	‘wipe’	thǎ-gǔ-tǎ	‘chat’	

thə-nĩ	‘hear’	thə-ʒdʒwĩ	‘exchange’
thə-sthĩ-sthyĩw	‘reverse’	thə-tʂhɔ̃N	‘open; make a hole’
thə-tchĩN	‘give’	thə-xó	‘be left over’
thə-zʒĩ stwáN s̃i	‘fell asleep’	thə-lyóuN	‘peel (fruit)’
thə-χqhwǎ	‘scoop out’	thə-ɕfú	‘cover’
thə-kí	‘reap’	thə-phfĩ	‘grasp w/fingers’
thə-rí-fĩ	‘skin (cattle)’ [v.]	thə-tɔ̃w	‘laborious’
thə-t̃éiN	‘cause to snap /break (stick)’	thə-ɕfwé-ɕfú	‘withhold facts’
<b>d</b>			
dĩN	‘earth’	dĩ	‘be’
dõ	‘back’	dõ	‘stupid’
má dõ	‘a mute’	d̃	‘poison’
dĩN χqwáN	‘flatland’	d̃ouN qwó	‘wing’
dũ qhwó	‘cucumber’	də-mz̃ei	‘ripe’
də-zĩ	‘catch; keep’	də-sth̃	‘borrow’
qò dõ	‘pheasant’	fĩd-dĩ-dĩ	‘thick’

*Palatalized and labialized dental stops*

<b>tw</b>			
twǎ	‘put on hat’		
<b>ty</b>			
tshə-tyé	‘scissors’	pà tyé	‘stool’
stáN ts̃j p̃z̃ɛ̃ tyòuN	‘lizard’	tyú lú	‘pot (medium size)’
tyú	‘stomach’ (e.g. chicken’s)		
<b>thy</b>			
thyé	‘silk’	thyé z̃l̃	‘downward’
<b>dy</b>			
dyô	‘or’	dyé dyé	‘grandmother’
dyũ	‘nephew’	dyè dỹw	‘get along well’
gə-dyè móN	‘old woman’		

*Prefixed dental stops*

<b>st</b>			
stò móN	‘thumb’	st̃	‘purposive nominalizer’
st̃ɛ̃ zd̃	‘idea’	st̃ɛ̃ s̃iN]	‘fir’
stáN	‘pillar’	stáN stáN	‘locust’
stáN ts̃j p̃z̃ɛ̃ tyòuN	‘lizard’	st̃ɛ̃ p̃h̃l̃	‘testicle’
stó	‘look at’	stú	‘straight’
stú tí	‘honest’	nə-st̃iN	‘sink’ (v.)
stò bú	‘sore w/hard spot’		

<b>sth</b>			
sthǒ	‘drop’	sthě	‘borrow food’
sthě	‘cough’	sthĩ ~ thĩ	‘sweet’
khə-sthé	‘thread a needle’		

<b>zd</b>			
zdǎ	‘resin’	zdĩ	‘scatter seed’
zdè bóuN	‘deaf’	zdè réN	‘fog’
zdíN	‘cloud’	zdíN	‘stick’
zdú	‘blurt angrily’	zdé	‘wrong’
stě zdě	‘idea’		

*Prefixed labialized and palatalized dental stops*

<b>stw</b>			
stwě	‘fold’	ě stwè stwé	‘wrinkle’
thə-zzĩ stwáN sǐ	‘fell asleep’		

<b>sthw</b>	
sthwê	‘phooey!’

<b>zdw</b>	
zdwě	‘ask’

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

styě	‘clf. for long objects’	styé	‘tendon’
fið styíwN	‘beard; goatee’		

3.3 *Retroflexes*

t	tw
th	thw
d	dw

*Retroflex stops*

t			
th	‘hawk’	thě	‘dig’
thě	‘winnowing fan’	thĩ	‘gall’
thé hiN	‘speak false’	thé tsĩ	‘sieve’
(thə-)théiN	‘cause to snap; break’		

<b>th</b>			
thĩ	‘daughter-in-law’	thũ	‘six’
thě	‘half’	thǒ	‘garden’
thǎ ~ thə-thá	‘tear out’	thǎ-thá	‘multicolored’
thá	‘fan’ (v.)	thĩ	‘leg’
thóuN tsí	‘trap’ (n.)	thě	‘horn’

(nə-)tʰéi ʃtʃé [hóuN tʰǔ	‘cut’ (e.g. meat) ‘saddle’ ‘shoot’	tʰěi thə-tʰǔ	‘crisp; brittle’ ‘wipe’
d dǔ dǎN dǎi ~ tə-dǎi dǎ dǔ dǔ dǎ ~ thə-dǎ dǎN dǎi	‘companion’ ‘go; walk’ ‘sew’ ‘star’ ‘companion’ ‘thread’ ‘be torn out’ ‘bed’ ‘song’	dǔ dǎ dǎiN dǎ dǔ dǔ dǎuN dǎ dǎ fǎ bǎdǎuN	‘lick’ ‘song’ ‘watery’ ‘thin (person)’ ‘ruminate’ ‘write’ ‘garbage’ ‘bedbug’ ‘soul’

*Labialized retroflex stops*

tʷ tʷǔ	‘branch; clf. for flowers’	ʃǎN tʷé	‘trivet’
tʰw tʰwǔ tʰwǔ	‘abundant’	bá tʰwǔ tʰwǔ	‘rough; coarse’
dʷ dʷǔ dʷá	‘chaff/husk’ ‘stir’	dʷǎ	‘shiver’

3.4 *Affricates*

ts	tʃ	tʃw	tʃ	tʃw	tʃ	tʃ	tʃw	tʃw	tʃw	tʃ
tsh	tʃh	tʃhw	tʃh	tʃhw	tʃh	tʃhw	tʃh	tʃhw	tʃh	tʃh
dz	dʒ	dʒw	dʒ	dʒw	dʒ	dʒw	dʒ	dʒw	dʒ	dʒ

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 *tʃ* and *dʒ*); and a more rarely occurring alveopalatal or slit type (symbolized with *tʃ̣* and *dʒ̣*). This contrast is neutralized after the sibilant prefix (here itself realized as *Δ*); I write these complex initials as *tʃtʃ*, *tʃtʃh*, *dʒdʒ*.

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

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

<sup>12</sup>This 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 Dàyáng palatal fricatives.

WEIGHT (for measuring) **tɕĩ** ≠ WEIGH (v.t.) **tətɕĩ**<sup>13</sup> (< PTB \***kyiin** [STC #369])

OBJECT PARTICLE **tɕĩ**

(b) **tʃh** vs. **tɕh**. 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 \***k<sup>w</sup>əy** > Dàyáng **tʃhɨ**. On the other hand, /tɕh/, 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 /-ɔ/: **tɕhũ** ‘sharp, pointed’,<sup>14</sup> where it contrasts with **tʃhɔ̃-mɔ̃N** ‘mud’. There is also a good example of labialized /t<sup>h</sup>w/: HANDSPAN **tɕhwĩ** [tɕhɥĩ] < PTB \***m-twa**; note that PTB \***-a** must have changed to Pumi **-i** before the palatalization of the initial.<sup>15</sup>

(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:

tʃtʃ	tʃtʃw	
tʃtʃh	tʃtʃw	tʃtʃhy
ʒdʒ	ʒdʒw	

There is a tendency in Hé Shùkǎi’s speech for these prefixed palatal affricates to vary with fricative clusters (e.g. *tʃtʃ* ~ *ɕɕ*, *tʃtʃh* ~ *sʃ*, *tʃtʃhw* ~ *sʃw*) [see 3.5 below], e.g.:

‘bring up’ (child)	tʃtʃóu ~ ɕʃóu (in this word Shukai prefers the fricative cluster)
‘key’	tʃtʃhĩ ~ sʃĩ
‘heart’	tʃtʃhwé ~ sʃwé
‘insert/poke into’	əʃtʃhwǎ ~ əʃwǎ

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

‘thief’ tʃtʃhyú

#### *Simple dental affricates*

<b>ts</b>			
tsǎ	‘joint’	tsɛ̃ tsɛ̃	‘little’
tsá	‘wash’	tsó	‘fat meat’

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

<sup>14</sup>This word looks cognate with Lahu **che** ‘make a point on; sharpen to a point’ < PLB \***kywan**<sup>1,2,3</sup>. See Matisoff 1985:9, and 1988a:533.

<sup>15</sup>See 6.1 below.

tsó	'wedge'	JÍN tsó	'nail ("iron wedge")'
tsú	'ghost; spirit' <sup>16</sup>	tsé	'son'
tsé-tsẽ	'little'	tsé ʒí	'monkey'
tsé	'deer'	ʒóu tsà st̃	'toothbrush'
ʃtʃí tsíN	'lean meat'	gú ts̃	'larynx'
ptʃhè tsí	'fly' (n.)	ʃhóuN tsí	'trap' (n.)

**tsh**

tshí	'salt'	tsh̃	'fat'
tsh̃	'goat'	dz̃ə dz̃ə tsh̃	'word'
tsh̃ẽ	'lung'	tsh̃w pyów	'soap'
tsh̃é tsh̃é	'pea'	tsh̃ó	'filter'
tsh̃ó tsh̃ó	'dance'	tsh̃é lyú	'penis'
tsh̃ə-tyé	'scissors'		

**dz**

dz̃	'crowded'	dz̃ouN	'bridge'
dz̃ú	'do; make; work'	dz̃	'edge; side'
dz̃ó	'light; shadow'	dz̃áN	'drum'
dz̃í	'be good at'	dz̃í	'cooked rice'
dz̃í dz̃ú st̃	'kitchen'	l̃ú dz̃í	'thing'

*Labialized dental affricates*

**tsw**

tsw̃N [ts̃íN]	'liver'	tswá	'cause and effect; karma'
tsw̃ó	'able to see'	mè tswí	'firetongs'

**tshw**

tshw̃é	'return (an object)'	yó tshw̃ó	'boundary'
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**dzw**

dzw̃áN	'hoe'		
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*Palatalized dental affricates*

**tsy**

tsỹé	'use'	tsỹouN gwí	'garment'
tsyú	'beat'	tsỹé tsỹiw	'fight'
JÍN tsỹów mì	'blacksmith'	z̃z̃í tsỹóuN	'wool'
má q̃ə tsỹé	'mother's younger sister'		

**tshy**

tshỹouN dz̃ú mí	'merchant'	tshỹouN tshỹouN	'clumsy'
tshỹé tsh̃	'dusk'	d̃ó d̃ó	
		tshỹóuN	'short'

<sup>16</sup>Cf. Jingpho tsù 'disembodied spirit; shade; ghost' (Hanson 1954:674).

**dzy**  
dzyú(?) 'invite to eat'

*Simple retroflex affricates*

<b>tʂ</b>			
tʂɔ̃	'weave'	tʂɛ̃	'clf. for songs'
tʂɔ̃N	'child'	tʂɔ̃ lí	'donkey'
tʂòN tʂó	'orphan'	tʂú	'deposit; check'
tʂáN	'house'	ló tʂó	'rake'
qhú tʂì tʂ	'pillow'		

<b>tʂh</b>			
tʂhɔ̃	'sprout' (e.g. of wheat)	tʂhɔ̃	'read'
tʂhũ	'place'	tʂhə-mí mìn	'beggar'
tʂhəN	'pad' (v.)	tʂhòN líN	'wait'
tʂhə byé	'stick; cane'	v(ə)rì tʂhũ	'scar'
nə-tʂhə	'step on'		

<b>dz</b>			
dzũ	'hungry'	dzĩ	'waist'
dzə̃	'tea'	dzə̃ dzĩ	'book'
dzə̃ dzə̃ tshĩ	'word'	dzóN	'hole'
dzə̃-dzə̃N	'horizontal'	pzɛ̃ dzə̃	'thigh'
ŋí dzó	'ear'	sò-dzóN	'anus'

*Labialized retroflex affricates*

<b>tʂw</b>			
tʂwɔ̃ sǎN	'robber'	tʂwíN	'container'
tə̃-tʂò	'prop up'		

<b>tʂhw</b>			
tʂhwɛ̃	'rice (harvested)'	tʂhwè tʂhwĩ	'gift'
tʂhwó	'invite'		

<b>dzw</b>			
dzwɛ̃	'abundant' (e.g. fruit)	dzwɔ̃ <sup>51</sup>	'there! [interjection]'

*Simple laminopalatal affricates*

<b>tʃ</b>			
tʃɔ̃	'dirty'	tʃɛ̃i	'clf. for houses'
tʃə̃	'move'	tʃù zʒə̃ ~ ʒdzə̃	'water buffalo'
tʃáN	'relatives'	tʃí qòN~tʃí qòuN	'well'
tʃí	'water'	tʃə̃-ɸpá	'boiled water'
tʃóuN	'hard'	tʃú	'sour'
tʃə̃	'summer'	tʃə̃ ló	'mortar'
tʃán pé	'roof'	lò tʃóu	'turban'
ɸpə̃-tʃóu	'navel'		



tʃh		tʃhəu	
tʃhɿ	‘take off clothes’		‘propitiate dead spirit’
tʃhə mǝN	‘mud’	tʃhí	‘dog’
tʃhí tshě	‘how much’	tʃhóu	‘gun’
dʒ		dʒə	‘tea’
dʒă	‘vegetable oil’	dʒə wó	‘earring’
dʒêrě	‘belt’	dʒí rǝ (rǝ)	‘fish scale’
dʒí	‘fish’	dʒə-khǝ	‘time’
dʒí	‘market’		
rǝ-dʒɿ	‘liquor’		

*Labialized and palatalized laminopalatal affricates*

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

*Simple alveopalatal affricates*

tʃ		tǝ-tʃí	
tʃí	‘a weight’		‘weigh’
tʃí	‘object particle’		
tʃh		tʃhè tʃhé zdí	
tʃhǝ	‘sharp/pointed’	tʃhín tsɿ	‘separate’
tʃhé tʃhè	‘vicinity’	ʔú tʃhé	‘kid’
thǝ-tʃhǝN	‘give’		‘in the past’
nóuN tʃhè	‘when’		

*Labialized alveopalatal affricates*

tʃhw			
tʃhwí [tʃhɰí]	‘handspan’		

*Prefixed laminopalatal affricates*

ʃtʃ <sup>17</sup>		ʃtʃí	
ʃtʃí <sup>18</sup>	‘rice pounder’	ʃtʃě	‘sell’
ʃtʃí	‘village’		‘afraid’

<sup>17</sup>This sound is similar to Russian **Щ**, as in *bor«s»c* ‘borscht’ or *továrišč* ‘comrade’.

<sup>18</sup>From PTB \**tsum* ≈ \**tšrum* [STC #75].

ʃtʃǎ	‘matter; affair’	ʃtʃé	‘chase’
ʃtʃí	‘pull’	ʃtʃí	‘jump’
ʃtʃí	‘meat’	ʃtʃí	‘muntjac’
ʃtʃóuN ʔyé	‘clean’	ʃtʃé	‘warm’
ʃtʃé	‘carry (animal’s back)’	ʃtʃé ʔhóuN	‘saddle’
ʃtʃé	‘wheat’	ʃtʃá	‘go’
rə ʃtʃí	‘skin’	bzɛ́ ʃtʃǔ	‘whip’
<b>ʃtʃh</b>			
ʃtʃhǔ	‘ashamed’	ʃtʃhǐ ~ ʃǐ	‘key’
ʃtʃhǔ ʔdʒí	‘charcoal’	ʃtʃhǔ	‘pound’ (v.)
ʃtʃhǔuN	‘upper garment’	ʃtʃhǔ	‘bump into’
ʃtʃhǐN pín	‘forest’	ʃtʃhǔ ʔdʒí	‘charcoal’
ʃtʃhǔ	‘ashamed’	ʃtʃhǐ(?) <sup>19</sup>	‘sweat’
ʃtʃhǐ	‘kill (animal)’	(mè) ʃtʃhǐw	‘smoke’
ʃtʃhǐ tsǎ	‘nit’	ʃtʃhǔuN qǎN	‘collar’
ʃtʃhé	‘play finger game’		
<b>ʔdʒ</b>			
ʔdʒǔ	‘cliff’	ʔdʒǐ <sup>20</sup>	‘(domestic) animal’
ʔdʒǐN ʔdʒǐN	‘measles’	ʔdʒǔu	‘stingy’
ʔdʒǔuN	‘grass’	ʔdʒǔ	‘stone’
ʔdʒǔ ~ ʔdʒwǐ	‘exchange’	ʔdʒɛ́ <sup>21</sup>	‘four’
ʔdʒǔuN phú	‘grass mat’	ʔdʒǔ	‘love’
ʔdʒǐ	‘get’	ʔdʒǐN	‘hail’
ʔdʒǔuN	‘slope’	mə-ʔdʒǔ	‘thunder’
má ʔdʒǐN	‘old man’	ʃtʃhǔ ʔdʒǐ	‘charcoal’

*Prefixed labialized laminopalatal affricates*

<b>ʃtʃw</b>			
ʃtʃwǔ	‘meet bride’s family’	ʃtʃwǔ sǐN	‘mark/sign’
ʃtʃwǔ	‘shoulder’	ʃtʃwǐ	‘lead the way’
ʃtʃwǐN	‘send’	ɛ-ʃtʃwǔ	‘remember’
ʃtʃwǐN	‘lunch’	ʃtʃwé mɛ́N sǐ	‘regret’
<b>ʃtʃhw</b>			
ʃtʃhwǐ	‘pitiful’	ʃtʃhwɛ́	‘lake’
ʃtʃhwɛ́	‘heart’	nə-ʃtʃhwǎ	‘insert; poke into’
tʃhwè ʃtʃhwǐ	‘gift’		
<b>ʔdʒw</b>			
ʔdʒwǐN	‘horse’	ʔdʒwǐN ɸpǔ	‘hoof’
ʔdʒwǐN	‘high; tall’	ʔdʒwé ʔdʒwǐ	‘mutually’
thə-ʔdʒwǐ	‘exchange’		

<sup>19</sup>From PTB \***krwəy** [STC p. 90; Matisoff 1988a, p. 353]. Contra STC this root is not restricted to Lolo-Burmese.

<sup>20</sup>From PTB \***dzay** [Matisoff 1985, #'s 129 and 143].

<sup>21</sup>From PTB \***b-ləy** [STC #410].

*Prefixed palatalized laminopalatal affricates*

ftʃhy  
ftʃhyú                      thief

3.5 Fricatives

ϕ	s	sy	ç	ʂ	ʃ	sʃ	çʃ	x	xy	h
	sw			ʂw	ʃw	sʃw	çʃw	xw	xw	
v	z	zy		ʐ		zʒ		ɣ		fi
				ʐw				ɣw		

The best phonetic description of the contrast between fricatives of types **ʃ** and **ç**, as well as of clusters of two sibilants (of the type F + S), i.e. **sʃ** vs. **çʃ**, must await instrumental analysis of my tapes. Instead of lamino- [ʃ] vs. alveo- [ç] 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 [ç] (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. **ç**:

**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’	ʃí	< PTB *r-gya; cf. PLB *ʔra <sup>1</sup>
‘iron’	ʃín	< PTB *syam
‘louse’	ʃí	< PTB *s(y)rik
‘spend the night’	ʃǒ	< PTB *s-ryak

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

‘corn/maize’	çè-çé ~ ʃtʃè-ʃtʃé
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(b) **zʒ**:

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

‘nail/claw’	zʒǎN	< PTB *m-tsyen
‘right side’	zʒí	< PTB *g-ya
‘sheep’	zʒóuN	< PTB *yan
‘trousers’	zʒí	< PTB *s-la

However, since the Dàyáng dialect has no simple voiced palatal fricative phone [ʒ],<sup>22</sup> one could treat [ʒʒ] as being phonemically /ʒ/.

There are also cases of **ʒʒ** varying with the prefixed affricate ʒdʒ:  
 ‘water buffalo’                      tʃũ-zʒʃ̥ ~ tʃũ-ʒdʒʃ̥

(c) **sf** and **ɕf**:

Neither of these initials occurs in reflexes of well-known TB roots. The only solid example of simple **sf** is **sfũ** ‘carry on the back’, with two additional examples of the labialized version of this initial: SHOULDER **sfwǔ**; LID/COVER **sfwě**. **ɕf** 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’                                      **sfĩ** ~ **ʃtʃhĩ**  
 ‘bring up (child)’                      **ɕfóu** ~ **ʃtʃóu**

The fricativality of the Pumi is demonstrated by the following nearly perfect minimal triplet: **syú** ‘paddy’ / **sfũ** ‘carry on back’ / **ɕfũ** ‘hide’.

*Voiceless bilabial fricative*

<b>ɸ</b>			
ɸĩ ~ ɸpĩ	‘saw’ (n.)	ɸũ	‘bottle’
ǝ-ɸú	‘sunken; concave’		

*Voiced labiodental fricative*

<b>v</b>			
vĩ	‘old (of things)’	v(ə)rǝ tʃhũ	‘scar’
vě dǝ (xyé) ~ βbè dǝ	‘belch’		

*Voiceless dental fricative*

<b>s</b>			
sǎ	‘blood’	sǎ	‘lock’
sǎN	‘king’	sǎw	‘hemp’
sĩ	‘copper; tin’	sĩN	‘wood’
sĩN ɛGǎ rǝu	‘chopper’	sǝuN	‘three’
sǎN βbǝuN	‘tree’	sǝ bú	‘buttock’
sǝ dzǝN	‘anus’	sǎ sǎ	‘raw’
nǝ sǎN	‘morning’	nǝ-sǎ	‘press down’

*Voiced dental fricative*

<b>z</b>			
zǎ	‘male (animals)’	zǎw(?)	‘face’
zǎ	‘pin down; entrap’	nǝ-zǎ lǝ	‘roll down’

<sup>22</sup>Several words which I had originally transcribed with ʒ turned out actually to have the retroflex fricative ʒ: MIDDLE **gǎ ʒǎ**; CUT MEAT **ʒǎ**; HAVE FEVER **ʒǎN**.

*Labialized and palatalized dental fricatives*

<b>sw</b>			
swǔ	‘calculate’	swǎN	‘father (not ego’s)’
swĩ	‘leopard’	swĩN	‘teach’
<b>sy</b>			
syǔN	‘tomorrow’	syě	‘hot pepper’
syé	‘miss someone’	syóN	‘coffin’
syú	‘paddy (in field)’	yé syě	‘arrow’

*Plain retroflex fricatives*

<b>ʂ</b>			
ʂǔ	‘laugh’	tə-ʂé	‘hang down’
ʂǔ	‘sweep’	ʂĩ	‘dew’
ʂǔ ʂwéi	‘sweep ground’	ʂĩ dǔ bá	‘jaggery’
ʂĩ ɸpĩ	‘frost’	ʂǔ ʂǔ	‘appearance’
ʂǎN	‘long’	ʂĩ ʂĩ	‘new’
ʂóu	‘tooth’	ʂóu nǔN	‘gums’
ʂóu tsǎ stǎ	‘toothbrush’	ʂé	‘buy’
ʂǎN tʂwé <sup>23</sup>	‘trivet’	ʂqǎ ʂǎN	‘fart’
<b>ʐ</b> <sup>24</sup>			
ʐǔ	‘hand’	ʐǎ-rǔ	‘arm’
ʐǎ-gǎw	‘bracelet’	ʐǎ-bǔ	‘armpit’
ʐǎ-bʐéN	‘ring’	ʐǎ-dǎlǔ	‘fist’
ʐǎ	‘cut’ (e.g. meat, wood)	ʐǎN	‘fertilizer’
ʐǎ ná	‘stinking’	ʐǎN	‘have fever’
ʐǎuN ʐǎN	‘stir fry’	ʐǎ tĩ	‘well-behaved’
ʐǎN	‘tasty’	ʐǎ-thǔ	‘millstone’
ʐĩ	‘month’	ʐĩ	‘many’
ʐǎ-khǎw	‘next year’	tsé ʐĩ	‘monkey’
bǎ ʐǎw	‘dirty; a slob’	gǔ ʐĩ	‘middle’

*Labialized retroflex fricatives*

<b>ʂw</b>			
ʂwǎ tsǎ	‘broom’	ʂwé	‘nighttime’
ʂǔ ʂwéi	‘sweep ground’		
<b>ʐw</b>			
ʐwě	‘can hold (container)’	nǎ-ʐwǔ	‘scrub’
ǎ-ʐwǔ	‘owe’		

<sup>23</sup>Perhaps this first syllable derives from ʂǎN ‘iron’. Cf. also ʂǎN tsǎ ~ ʂǎN tsǎ ‘nail’.

<sup>24</sup>As just noted, several syllables previously transcribed with “ʐ” have been reanalyzed with ʐ.

*Alveopalatal (slit) fricatives*

<b>ç</b> <sup>25</sup> [cf. <b>ʃtʃ</b> ]			
çè çé ~ ʃtʃè-ʃtʃé	‘corn’	çò çó	‘magpie’
çé	‘celestial being’	çé tʃáN	‘temple (to worship)’
çí	‘dragon’	rə-çú	‘flail’
ré çě	‘load’	thə-gú çí	‘chat’

*Laminopalatal (grooved) fricatives*

<b>ʃ</b>			
ʃó	‘old (people)’	ʃí	‘hundred’
ʃí	‘louse’	ʃíN	‘iron’
ʃíN tsó	‘nail (fastener)’	ʃé ɲóN	‘mole (on skin)’ <sup>26</sup>
ʃə ɡíw	‘paper’	ʃə-khə-ʒdʒí	‘happen; come out’
ʃǒ	‘spend the night’	ʃě	‘Chinese’
wù ʃí	‘New Year’s day’	myé ʃó	‘eyebrow’

*Labialized laminopalatal fricatives*

<b>ʃw</b>			
ʃwě	‘eight’	ʃwě ʒú pə	‘wager’

*Dentopalatal fricatives / Dentally prefixed palatal fricatives*

<b>ʃʃ</b>			
ʃʃü	‘carry on back’	ʃʃí ~ ʃtʃí	‘key’
<b>ʃʃw</b>			
ʃʃwǒ	‘shoulder’	ʃʃwě	‘lid’
<b>zǒ</b> <sup>27</sup>			
zǒǎ	‘spit’ (v.)	zǒǎ rǎ	‘saliva’
zǒǒ	‘take with one’	zǒǎN	‘fingernail’
zǒǐ	‘sleep’	zǒǐ stí	‘bedroom’
zǒǐ	‘trousers’	zǒǐ	‘many’
zǒǐ	‘right side’	zǒǒuN	‘sheep’
zǒǐ-tsyóuN	‘wool’	zǒǐ-tʃí	‘lamb’
gù zǒǐ	‘chatterbox’	tʃü zǒǐ ~ tʃü ʒdʒǎ	‘water buffalo’

*Alveolaminial palatal fricatives / Palatally prefixed palatal fricatives*

<b>çʃ</b>			
çʃü	‘hide’	thə-çʃú	‘cover’
çʃóu ~ ʃtʃóu	‘bring up children’	çʃú	‘beautiful’

<sup>25</sup>This initial sometimes varies with **ʃtʃ**-.<sup>26</sup>Cf. **ɲóN** ‘black’.<sup>27</sup>This initial sometimes varies with **ʒdʒ**.

ɕfɛ̃ ɛ̃-ɕfóuN	‘warm’ ‘enter’	gǎ-ɕfǎN	‘chopsticks’
ɕfɿw ɕfɿwɛ̃ ɕfɿũ	‘withhold facts’	thə-ɕfɿwɛ̃-ɕfɿú	‘id.’

3.6 *Velars and postvelars*

k	kw	q	qw	ɣq	ɣqw	?
kh	khw	qh	qhw	ɣqh	ɣqhw	
g	gw			ɣG		

Like Lahu, Dàyáng (and Jinghua) 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.<sup>28</sup>

*Simple velar stops*

<b>k</b>			
kǒuN	‘door’	kǒuN tó	‘threshold’
ké pǔ	‘cuckoo’	kó lè	‘chest’
kó tsí	‘speech’	kó	‘year’
kóuN réN	‘ice’		
<b>kh</b>			
khǒ	‘emperor’	khú lyǔ	‘dove’
khə-bdʒɿ	‘hatch out’	khə-bdʒǒu	‘spurt forth’
khə-sthé	‘thread needle’	khə-zdǒ	‘elapse’
khə-thyóuN	‘give to drink/smoke’		
<b>g</b>			
gǎ	‘cut w/ scissors; snip’	gɿw	‘happy and excited’
gǒ	‘mountain’	gə-ɕfǎN	‘chopsticks’
gə-thǒ	‘narrow-neck jar’	gǒ byé	‘plate; dish’
gə dyè mǒN	‘old woman’	góuN	‘inside’
gú ʒɿ	‘middle’	gú tsɿ	‘larynx’
gú zʒɿ	‘chatterbox’	gə-byé ptʃhě	‘over there’
gə-mǒN	‘body’	gə-pyé	‘plank’
ʒə-gɿw	‘bracelet’		

*Labialized velar stops*

<b>kw</b>			
kwǐ	‘satiated’	kwǐN	‘y. sibling of same sex’
kwǐN tsɿ	‘pony’		

<sup>28</sup>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 /ɣ/ or /ʒ/ (see below); this is perhaps another indication that the postvelars are historically more basic.

<b>khw</b>			
khwð tóuN	‘yellow weasel’	khwá rǎ	‘mouth’
<b>gw</b>			
gwě	‘fireplace’	gwě	‘ground’
gwĩ	‘wear clothes’	gwó ‘protect	‘field from
			birds’
gwí	‘rain’	gwíN mĩ	‘cow’
gwé <sup>29</sup>	‘slave’		

*Simple uvular (= postvelar) stops<sup>30</sup>*

<b>q</b>			
qð	‘strength’	qð tón	‘phlegm; sputum’
qð dǒ	‘pheasant’	qð dũ	‘walnut’
qð qǒ	‘gingerly’	qǒ	‘nest’
qáN	‘neck’	qǐ rǐ	‘hook’
qó(u)N ~ kóuN	‘valley’	rǎ-qú	‘egg’
mè qǒ	‘chin’	má qè tsyě	‘mother’s y. sister’
<b>qh</b>			
qhǒ	‘bitter’	qhá	‘ditch; gully’
qhěi	‘plant a garden’	qhǒ	‘needle’
qhú	‘head’	qhù pǎ ów	‘comb’
qhù yǒuN	‘nod’	qhù pǎhě	‘braid’
qhú néN~qhú nóN	‘brain’	qhú tǐ tǒ	‘pillow’
qhú tǐN	‘shake head’		

*Labialized uvular stops*

<b>qw</b>			
qwǒ	‘headman’	qwð tsǐ	‘musical instrument’
qwó	‘cattle’	qwð χqá	‘cow dung’
dòuN qwó	‘wing’		
<b>qhw</b>			
qhwǒ <sup>31</sup>	‘bowl’	dù qhwó	‘cucumber’

*Prefixed uvular stops*

<b>χq</b>			
χqǎ	‘be born’	χqǒ	‘bite’
χqǒ	‘grassy slope’	χqǒ	‘breath’

<sup>29</sup>From PTB \*gywan (cf WB kywan, Lahu cè).

<sup>30</sup>Dàyáng 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. Dàyáng does, however, have a number of words with prefixed voiced uvular stops (below).

<sup>31</sup>From PTB \*kwak (cf. WB khwak, Mzieme hekwak).



χqá χqóuN χqóuN	‘dung’ ‘lunatic’	χqá sáN iē χqí	‘fart’ ‘hot pepper’
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χqh χqhǒ	‘feel wronged and act rashly’		
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γG [ʏg] or [ɣG] γGǔ sǐN γGí ròu	‘dry’ ‘chopper’	γGí γGí ~ γGǐ <sup>32</sup>	‘chop’ ‘nine’
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*Prefixed labialized uvular stops*

χqw χqwá <sup>33</sup>	‘weep’	dǐN χqwáN	‘flatland’
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χqhw thə-χqhwǎ	‘scoop out’	mǎ-χqhwǎ	‘rainbow’
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*Glottal stop onset*

ʔ ʔáN ʔóN ʔə-ʔǒN	‘worry’ ‘goose’ ‘protect’	ʔó lyòu ʔú tché ʔə-ʔóN ʔǒ	‘baby’ ‘in the past’ ‘apply ointment’
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*Velar fricatives*

x [x̣] <sup>34</sup> xǒ xáN xí	‘be correct’ ‘bamboo flute’ ‘blow’	xòN bú bà xí thə-xó	‘woman’ ‘beat’ ‘be left over’
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xw xwǎN təlán xwé xwè	‘naive; gullible’ ‘naive; gullible’	xwé	‘maggoty’
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xy [x̣y] xyǒN xyǎN	‘mouth’ ‘seven’	xyòN bəǒ	‘lip’
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Y yǒ ~ fiǒ yǒ dǐ dǐ yə rǐ qhù yòuN zdǐ	‘thick’ ‘thick’ ‘lazy’ ‘lower head’ <sup>35</sup>		
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<sup>32</sup>From PTB \*d-kəw ɤ \*d-gaw [STC #13].

<sup>33</sup>From PTB \*krap [STC #116].

<sup>34</sup>This sound is pronounced quite fronted [x̣].

<sup>35</sup>Cf. also qhù fióN ~ qhù yóN.

<b>ɣw</b> ɣwǎ	‘corner; angle’		
<b>h</b> [~ ɕ] híN	‘tell’	té hìN	‘speak false’
<b>f</b> <sup>36</sup> fìd dǎ dǎ fìd styíwN qhù fióN~qhù ɣóN	‘thick’ ‘beard; goatee’ ‘lower the head’	fìd pshò sǎ fiáN	‘grape’ ‘gold/yellow’

### 3.7 Nasals

m	my	mr/mɹ	n	ŋ	ŋ
<b>m</b> mǎN mǎ(N) mǎ [tʃhǎw mǎ-ʒdʒú mǎ qó	‘mother; fem. animal’ ‘fire’ ‘smoke’ ‘thunder’ ‘chin’	mǎN mǎ tswí mǎ mǎ-ɣqhǎ mǎ qǎ tsyǎ	‘gruel’ ‘firetongs’ ‘sky’ ‘rainbow’ ‘mother’s y. sister’	máN mó dʒǎ mú pǎ mǎ qó mǎ dó	‘name’ ‘battered tea’ ‘throat’ ‘household’ ‘mute’
máN mí mú mǎ mǎ qó dǎ dǎ mǎ ɣyé gǎ-mǎN	‘hair’ ‘person’ ‘wind’ ‘split family property’ ‘tail’ ‘body’	mǎN mǎN bú bǎ ǎ-mǎ	‘blow’ ‘woman’ ‘beg’		
<b>ŋ</b> <sup>37</sup> ŋǎ ŋǎ pǎ ŋǎ nǎ-ŋǎ	‘daughter’ ‘son-in-law’ ‘medicine’ ‘close mouth’				

### mɹ/mr

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

mɹǎN/mrǎN dǎ-mɹǎi	‘mushroom; fungus’ ‘ripe’	mɹǎN	‘bamboo’
<b>my</b> myǎ myǎ myóN thǎ-byé	‘aunt (f’s bro’s wife)’ ‘blind’	myóN myé jó	‘eye’ ‘eyebrow’

<sup>36</sup>This initial sometimes sounds like the Arabic “voiced pharyngeal fricative” ‘ain’. It sometimes varies with the voiced velar spirant [ɣ].

<sup>37</sup>There are no other voiceless nasals in this dialect.

n			
nǎN	‘milk (of animal)’	nǒN	‘marrow’
nĕN ~ nǒN	‘brain’	nèiN néiN	‘few’
nò sĭN	‘morning’	náN	‘skirt’
né	‘copper’	néiN	‘cloth’
néN	‘few; little’	ní ní	‘aunt (m’s bro’s wife)’
nóuN	‘rib’	nóuN tchè	‘when’
şóu nòN	‘gums’	thə-nĭ	‘hear’
zə ná	‘stinking’	nə-z wǒ	‘scrub’
nə-thów	‘scold’	nə-tsyíw	‘whip; thrash’
nə-tshǎ	‘step on’	nə-bǎ	‘double’
nǎ-ŋĭ	‘close mouth’	nə-zó ló	‘roll down’
nə-stĭN	‘sink’	nə-sí	‘press down’
nə-tʃhwǎ	‘add water; dilute’	nə-yóuN	‘lower head’
nə-ĭ	‘twist hemp’	(n)ə-tʃhwǎ	‘insert; poke into’
(nə-)théi	‘cut’ (e.g. meat)		
ŋ			
ŋǒN	‘black’	ʃé ŋǒN	‘mole (on skin)’
ŋǒN	‘vegetable’	ŋĭwN	‘breast; human milk’
ŋŭ	‘breast’	ŋǒ dzóN dzòN	‘dark’
ŋǒN tshĭw tshĭw pù	‘keep silent’	ŋǒN ŋú	‘means; solution’
ŋè pyé	‘sickly’	ŋè ʃtʃé	‘hunt’
ŋé	‘red’	ŋé(?)	‘soybean’
ŋĭ dzó	‘ear’	ŋĭ	‘green’
ŋĭ	‘ill’	ŋú	‘steam’
ŋéN bzóN	‘face’		
ŋ			
ŋǒN, thə-ŋóN	‘stand idle’	ŋóuN	‘silver; money’

3.8 *Resonants*

	w	r	rw	l	lw	ly	y <sup>38</sup>
				ł	łw	ły	
w							
wǒ	‘tiger’			wŭ			‘belong to’
wĭN pǒ	‘wooden tray’			wò mí			‘guest’
wòN ɸpóN	‘knee’			wù ʃĭ			‘New Year’s Day’
wéN	‘bear’ (n.)			wó			‘mouse’
dʒə wó	‘earring’			yĭN wóN			‘rake fields’

<sup>38</sup>Sometimes phonetically fricativized, /ʃ/.

<b>y</b>			
yǐ	‘enough’	yǐN	‘soil; field’
yǐN wóN	‘rake fields’	yǐN yǐN	‘plow a field’
yó thǐN	‘smoke cigarette’	yǐ pǔ	‘pot (medium-sized)’
yó tshwǔ	‘boundary’	yé syě ~ yě sǐN	‘arrow’
yí tsǐ	‘grandson’	tshè yó	‘praise’
khə-yí	‘call someone out’	pà yǐ	‘sleeve’
<b>r</b>			
<i>This phoneme is strongly trilled.</i>			
rěi ~ ə-réi	‘be burned’	rǎ	‘scoop’ (n.)
rə-dzǐ	‘liquor’	rə-qú	‘egg’
ròN rǒu	‘careful’	rǐ rǎ dzù	‘work’
rè [tʃǐ]	‘skin’	rá	‘invite a guest’
rá	‘pot’	ró qǔ	‘bone’
ráN	‘soup’	ró	‘chicken’
róu	‘knife’	róuN	‘drying rack for wheat’
ré cǎ	‘load’	rá	‘skin’
rə-cú	‘flail’ (n.)	dzǐ rá	‘fish scale’
zdè réN	‘fog’	rě βbòuN	‘willow’
<b>rw</b>			
rwě	‘road’	rwéN	‘shout; yell’
rwé rwé	‘round’		
<b>l</b>			
lè dǔ	‘penis’	lá	‘heavy’
ló tsó	‘rake’	lóuN	‘maggot’
ló	‘river deer’	phǐ ló	‘butterfly’
<b>lw</b>			
lwǔ	‘play; fool around’	lwě	‘ash’
<b>ly</b>			
lyǔ	‘chicken stomach’	lyè lyě	‘sing’
lyòuN lí	‘sway’	bá lyè lyè	‘thin’
phə-lyǔ	‘hat’		
<b>ʃ</b>			
ʃá	‘open’	ʃòN	‘snot’
ʃǐ	‘be in charge’	ʃò	‘forehead’
ʃǒ tʃóu	‘turban’	ʃě	‘tongue’
ʃà dzǐ	‘finger’	ʃè byě	‘radish’
ʃù dzǐ	‘thing’	ʃù tsǐ	‘bladder’
ʃù tsǐ	‘rabbit’	ʃè χqǐ	‘hot pepper’
ʃá	‘flea’	ʃóN	‘late’
ʃé ʃè	‘speech’	ʃéiN ʃéiN	‘like to’
ʃǐ	‘moon’	ʃǐN	‘daytime’

lé tsě ~ lè tsè	‘uvula’	nə-łĩ	‘twist hemp fibers’
qò łóN	‘sputum; phlegm’	qhú łıN	‘shake head’
łw łwǎ	‘pull out (e.g. weeds)’	łwıN	‘male’s younger sister’
ły łyé dı́ thə-łyóuN	‘friend’ ‘peel’ (fruit)	łyóuN łıN má łyé	‘overthrow’ ‘tail’

4. Vowels

Composite chart of Dàyáng Pumi rhymes

i	ĩ			[ɿ] [ʅ]				
		iw	ĩw	ı́	ɥ		u	
				ı́w				
e	ẽ			ə	ǎ			o
		ey	ẽy	əw	ow	õw		õ
ɛ	ẽ			a	ã		ɔw	ɔ
								ɔ̃

Monophthongs

<i>Oral</i>				<i>Nasal</i>		
i	[ɿ] [ʅ]	ɥ	u	ĩ		
e	ə		o	ẽ	ǎ	õ
ɛ	a		ɔ	ẽ	ã	õ̃

Diphthongs

<i>Oral</i>				<i>Nasal</i>	
iw	ı́w			ĩw	
ey		ow		ẽy	õw
	əw	ɔw			

i ‘domestic animal’ ‘ear’ ‘belly’	ʒdʒĩ nı́ dzó ɸpĩ	‘intestine’ ‘good’ ‘moon’	ptʃı́ ptʃhı́ łı́
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'sweat'	ʃtʃhí	'rain'	gwí
'wear clothes'	gwí	'tin'	sí
'waist'	dzǐ	'charcoal'	ʃtʃhò ʒdʒí
'medicine'	mí	'salt'	tshǐ
'daughter'	mí	'get'	ʒdʒí
'beg'	ə mǐ	'enough'	yí
'village'	ʃtʃǐ	'ill'	ŋí
'person'	mí	'new'	ʒí ʒí
'month' <sup>39</sup>	ʒí	'weight'	tci

**iN [i]**

'male's younger sister'	ʔwíN	'earth'	díN
'measles'	ʒdʒíN ʒdʒíN	'forest'	ʃtʃhíN pín
'run'	bʒíN	'urine'	βbín
'dawn'	bʒíN	'stick'	zdín
'escape'	ptʃhǐN	'liver'	tswǐN
'tomb'	ptʃhǐN	'drink'	thǐN
'cloud'	zdín	'plow a field'	yíN yín
'soil; field'	yǐN	'lean on'	ɛ-stíN
'hail'	ʒdʒíN	'teach'	swíN
'kid'	tchíN tsǐ		

**e**

'tendon'	styé	'return (an object)'	tshwě
'miss someone'	syé	'temple (of worship)'	cé tʂ'N
'red'	ŋé	'abundant (fruits)'	dzwě
'testicle'	phyé phyé	'maggoty'	xwé
'soybean'	ŋé(?)	'fireplace'	gwě
'over there'	gəbyé ptʃhě	'ground'	gwě
'hot pepper'	syé	'copper'	né

**eN [ɛ]**

'white'	pshéN	'pour out'	pʒěN
'Pumi'	pshéN mí	'ring'	ʒə bÁleN
'rope'	bʒěN	'shout'	rwéN
'fungus'	mʒěN/mrěN	'bear' (n.)	wéN
'fog'	zdě réN	'few; little'	néN
'ice'	kóuN réN	'leave behind'	khə-réN

**ei**

'Pumi liquor'	pshéi	'crisp; brittle'	thěi
'be burned'	rěi ~ ərěi	'sew'	děi ~ tə-děi
'song'	děi	'arrive'	ɛ-pěi ~ pěi
'plant a garden'	qhěi	'cut' (e.g. meat)	(nə-)thěi
'person born in Year of Monkey'	pʒěi wú		

<sup>39</sup>The vowel /i/ is pronounced further back after palatal fricative or affricate initials, almost like a fronted barred-i [i<]. Besides MONTH, cf. ʃí HUNDRED and kó tʃí SPEECH.

**eiN** [~ei]

'cause to snap, break'	(thə-)[éiN	'like to'	léiN s'éiN
'break (by itself)'	thə-d'éiN [~d'éiN]	'watery'	d'éiN
'coarse'	béiN	'cloth'	néiN

**ɛ**

'braid'	qhù pshě	'chest'	kó lě
'chop'	pshě	'penis'	tshé lyú
'be severed'	bzě	'fold'	stwě
'whip'	bzě ftjǒ	'wrinkle'	è stwè stwé
'thigh'	pzě dʒə	'Chinese'	fě
'fire'	mě(N)	'mole (on skin)'	fě ɲóN°
'lake'	ftjhwě	'tongue'	lé
'road'	rwě	'throat'	mú pè
'ash'	lwě	'heart'	ftjhwé
'four'	ʒdʒě	'sediment'	ɸphě

**ɛN** [Ē]

'face'	ɲéN bʒóN	'brain'	něN ~ nǒN
'seven'	xyěN	'brain'	qhú néN ~ qhú nóN
'fire'	měN	'regret'	ftfwé méN sǝ
'bamboo'	mzěN	'smell'	è ɲə ɲéN

**u**

'six'	thǔ	'middle'	gú ʒǝ
'animal oil'	tú	'fist'	ʒə-dəǔ
'companion'	dú	'belong to'	wú
'deposit; check'	tǔ	'penis'	tshé lyú
'sour'	tǔ	'scar'	v(ə)rə tǔhǔ
'thunder'	mə-ʒdʒú	'place'	tǔhǔ
'stone'	ʒdʒú	'hard sore'	stò bú
'head'	qhú	'throat'	mú pè
'face'	zyú(?)	'larynx'	gú tsǝ
'armpit'	zə-bú	'rabbit'	tú tsǝ
'upper arm'	zə-rú	'wind'	mú mǒ
'animal stomach'	tyú	'hide'	ɸǔ
'dry'	ɤGǔ		

**o** [ʷo]<sup>40</sup>

'read'	tshǒ	'chest'	kó lě
'sprout'	tshǒ	'buttock'	sò bú
'chicken'	ró	'hard sore'	stò bú
'breath'	ɣqǒ	'back (of body)'	dǒ
'mountain'	gǒ	'wind'	mú mǒ
'pound' (v.)	ftjhwǒ	'stupid'	dǒ

<sup>40</sup>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/.

‘charcoal’	ʃtʃhǒ ʒdʒí	‘year’	kó
‘eyebrow’	myé ʒó	‘elapse’	khǎ-zdǒ
‘ear’	ŋ.í dʒó	‘needle’	qhǒ
‘jaggery’	ʒǐ dǒ bá		
<b>oN</b> [~o] <sup>41</sup>			
‘valley’	qóuN ~ qóN	‘well’	tʃí qòN ~ tʃí-qòuN
‘dark’	ŋ.ǒ dzǒN dzǒN	‘have fever’	ʒóN
‘protect’	ʔǎ-zǒN	‘coffin’	syóN
‘wait’	tʃhǒN líN	‘knee’	wǒN ɸpóN
‘hole’	dzǒN	‘body’	gǎ-mǒN
‘be punctured’	thǎ-dzǒN	‘mouth’	xyǒN
‘open; make a hole’	thǎ-tʃhǒN	‘rake’ (v.)	yǐN wǒN
‘apply ointment’	ʔǎ-mǒN mǒ	‘anus’	sǒ-dzǒN
<b>ou</b> [ɔw]			
‘tooth’	ʒóu	‘hat’	phǎ-lyǒu
‘knife’	róu	‘stingy’	ʒdʒǒu
‘navel’	ɸpǎ-tʃóu	‘propitiate dead spirit’	tʃhǒu
‘turban’	ǐǒ tʃóu		
<b>ouN</b> [ãu] <sup>42</sup>			
‘cold’	bǒuN	‘ice’	kóuN réN
‘have’	bóuN	‘valley’	qóuN ~ qóN
‘sheep’	ʒʒóuN	‘upper garment’	ʃtʃhǒuN
‘slope’	ʒdʒóuN	‘collar’	ʃtʃhóuN qǎN
‘wheat drying rack’	róuN	‘give to drink/smoke’	khǎ-thyóuN
‘grass’	ʒdʒǒuN	‘nod’	qhǒ yǒuN
‘silver’	ŋóuN	‘lower head’	nǎ-yóuN
‘rib’	nóuN	‘short’	tshyóuN
‘bridge’	dzóuN	‘garbage’	qòuN qǎ
‘enter’	è-ɸʃóuN		
<b>ɒ</b> <sup>43</sup>			
‘shadow; light’	dzó	‘crowded’	dzǒ
‘pig’	ptʃhǒ	‘rot’	ptʃhǒ
‘lick’	qǐ	‘dirty’	tʃǐ
‘come live w/parents’	ʃtʃwǒ	‘sore; boil’	βbǐ
‘kidney’	ɸphǒ	‘cattle’	qwǒ
‘cliff’	ʒdʒǐ	‘bite’	χqǐ
‘mud’	tʃhǐ mǐN	‘household’	mǎ qǐ

<sup>41</sup>Some of these words were originally transcribed with nasalized u “[ũ]” but on rechecking that vowel was determined not really to exist in the Dàyáng dialect: i.e. there is no contrast between uN and oN.

<sup>42</sup>This vowel is pronounced rather centralized.

<sup>43</sup>There is a very firm contrast in Dàyáng (as in Jinghua) between back /ɒ/ and front /a/, though neither one of these vowels is the most frequent reflex of TB \*-a. See below 6.1.



'nest'	qó	'chin'	mə qó
'shoulder'	ʃtʃwǒ	'bone'	ró qǒ
'penis'	lǒ dǒ	'laugh'	ʃǒ
'weave'	tʃǒ	'old'	ʃó
'ashamed'	ʃtʃhǒ	'hoof'	ʒdʒwǐN ɸpó
'leaf'	ɸpǒ	'filter'	tshó
'hand'	zǒ	'bitter'	qhǒ
'ladder'	bzǎ ~ bzǎ	'lip'	xyǒN b(ə)lǒ

**ɒN<sup>44</sup>**

'marrow'	nǒN	'female animal'	mǒN
'black'	nǒN	'snot'	lǒN
'phlegm'	qǒ lǒN	'mud'	tʃhǒ mǒN
'eye'	myóN	'gums'	ʃów nǒN

<b>a</b>			
'wash'	tsá	'joint'	tsǎ
'vegetable oil'	dʒǎ	'shit'	χqá
'weep'	χqwá	'rainbow'	mə-χqhwa
'(fruit) pit'	pʃhá	'ditch'	qhá
'mouth'	khwá rǎ	'finger'	lǎ dzǵ
'spit'	zʒǎ	'saliva'	zʃǎ rǎ
'boiled water'	tʃə-ɸpá	'blood'	sǎ
'be born'	χqǎ	'ladder'	bzǎ ~ bzǒ

**aN**

'milk (of animal)'	nǎN	'root'	bzǎN
'tears'	bzǎN	'fingernail'	ʃǎN
'fart'	χqá ʃǎN	'neck'	qáN
'hair'	máN	'gold'	fiáN
'go; walk'	qǎN	'long'	ʃǎN
'flatland'	dǐN χqwán		

**ɨ**  
*This high central vowel has apical allophones after sibilant initials. After dental fricatives and affricates it is realized as [ɿ]; after retroflexes it is realized as [ɿ̣].<sup>45</sup>*

'star'	dɿ̣	'gall'	tɿ̣
'leg'	lɿ̣	'meat'	ʃtɿ̣
'jump'	ʃtɿ̣	'daughter-in-law'	lɿ̣
'water'	tɿ̣	'fish'	dʒɿ̣
'market'	dʒɿ̣	'dog'	tʃhɿ̣
'frost'	ʃḷ ɸpɿ̣	'kill'	ʃtʃhɿ̣
'sun'	bɿ̣	'snow'	ɸpɿ̣
'many'	zɿ̣	'pus'	ɸpɿ̣
'hot pepper'	ḷɛ χqɿ̣	'reap'	thə-kɿ̣
'hook'	qɿ̣ rɿ̣	'happen; come out'	khə-ʒdʒɿ̣

<sup>44</sup>This rhyme seems to be restricted to syllables with nasal initials, or laterals which derive from earlier \*nasals (e.g. SNOT < PTB \*s-nap).

<sup>45</sup>Syllables of these types are sometimes transcribed allophonically in this paper.

'blow'	xí	'skin (cattle)' [v.]	thə-rí-fǐ
'grasp with fingers'	thə-phǐfǐ	'how much'	tʃhǐ tshě
'hour; while'	tě dʒǐ	'this year'	pǐ pǐ
'right'	zǐ	'split family property'	má qú dǎ dǐ
'thin (of person)'	dǐ	'hatch out'	khə-bdʒǐ
'lazy'	ʎə rǐ	'be'	dǐ

ɿ  
This is the allophone of /i/ that occurs after dental fricatives and affricates.

'side'	dzǐ	'finger'	lǎ tsǐ
'larynx'	gú tsǐ	'fat'	tshǐ
'raw'	sǐ sǐ		

ɿ  
This is the allophone of /Éi/ that occurs after retroflex fricatives and affricates.

'testicle'	stǎ pʃhǐ	'core'	pʃhǐ
'dew'	ʃǐ	'middle'	gú zǐ
'water conduit'	bzǐ	'work'	rǐ rǎ dzù

ʉ  
This is a rounded high central vowel.

'horn'	lhə	'grape'	fið pʃhð sə
'uvula'	lé tsə ~ lè tsə <sup>46</sup>	'little'	tsə-tsə
'lung'	tshə	'poison'	də
'thread'	də	'son'	tsə
'hang'	təʃə	'well-behaved'	zə tí
'warm'	ʃtʃə	'idea'	səw zðə
'peach'	bəsə	'brother-in-law'	ni pə
'buy'	ʃə	'write'	də
'cough'	sthə	'borrow'	dəsthə
'dig'	ʃə		

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

'thigh'	pzǎ dzǎ	'tea'	dzǎ
'sky'	mǎ	'summer'	tʃǎ
'multicolored'	lhə lhá	'tael (weight)'	tə-tʃǎ ~ tǎ tʃǎ
'garden'	lhə	'step on'	nə-tʃhǎ
'tear out'	lhǎ ~ thə-lhá	'be torn out'	dǎ ~ thə-dǎ
'scoop' (n.)	rǎ	'scoop out; dredge'	khə-rǎ ~ thə-rǎ
'move'	tʃǎ		

<sup>46</sup>Literally "little tongue". This same formation for UVULA is found in Chinese (Mand. xiǎoshé), and in other TB languages, e.g. Written Tibetan l̥ce-chung.

**əN [ə]**

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

‘house’	tʂəN	‘pad’ (v.)	tʂhəN
‘stir fry’	ʒəuN ʒəN	‘tasty’	ʒəN
‘horizontal’	dʒə-dʒəN	‘fertilizer’	ʒəN

<b>ɒw</b>			
‘soap’	tshəw pyów	‘laborious’	thə-təw
‘scold’	nə-thów	‘hemp’	səw
‘comb one’s hair’	qhũ pʒəw		

<b>iw</b>			
‘plant’ (v.)	tíw	‘poke’	tíw
‘get along well’	dyè dyíw	‘face’	zíw
‘reverse’	thə-sthí sthyíw	‘fight’	tsyé tsyíw
‘whip; thrash’	nə-tsyíw	‘Yi (impolite)’	tíw

<b>iwN</b>			
‘beard’	fìd styíwN	‘steam’	ŋíwN
‘breast; milk’	ŋíwN		

<b>ɨw</b>			
‘smoke’	mè ftʂhíw	‘bracelet’	ʒə-gíw
‘happy and excited’	gíw	‘next year’	ʒə-khíw
‘dirty; a slob’	bá ʒíw	‘paper’	ʃə-gíw
‘keep silent’	ŋəN tshíw tʂhíw pù		

<b>əw</b>			
‘wide’	ɸpəw	‘begudge’	ɸpəw
‘fight’	pʒé pʒəw		

A couple of miscellaneous points about Dàyáng 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:

‘face’	zíw	~	zíwʔ
‘soybean’	ŋé	~	ŋéʔ
‘invite to eat’	dzyú	~	dzyúʔ
‘sweat’	ftʂhí	~	ftʂhíʔ
‘mouth’	khwá	~	khwá ɾă

•*Alternation between front and back high vowels.*

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

‘exchange’	ʒdʒũ	~	ʒdʒwĩ
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This is very reminiscent of a similar phenomenon in Lahu, which I ultimately explained in terms of a palatal suffix.<sup>47</sup> 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

Dàyáng 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 Dàyáng syllables are synchronically *live* (in Thai terms). The Dàyáng 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:

<b>dʒwô<sup>51</sup></b>	there! here, take it!
<b>sthwê</b>	phooey!

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

<i>HIGH</i>		<i>LOW</i>	
'wide'	ɸpáw	'begrudge'	ɸpǎw
'urine'	βbíN	'bloated'	βbí
'weep'	χqwá	'bite'	χqǒ
'copper'	né	'milk'	nǎN
'news'	pshé	'chop'	pshě
'pull'	ʃtjí	'village'	ʃtjí
'insect'	bú	'cold'	bǒN
'wolf'	pó	'bottom'	pǒ
'rain'	gwí	'wear clothes'	gwǐ
'mouse'	wó	'tiger'	wǒ

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 Dàyáng tonal classes correspond well to those of Jinghua and Taoba:

<sup>47</sup>See Matisoff 1995:58-9.

<b>HIGH</b>	<i>Dàyáng 55</i>	<i>Jinghua 55</i>	<i>Taoba 55 ~ 54</i>
‘bear’	wéN	uǎ <sup>55</sup>	guǎ <sup>55</sup>
‘chicken’	ró	zɔ <sup>55</sup>	ro <sup>54</sup>
‘mouse’	wó	ʏo <sup>55</sup>	ʏo <sup>54</sup>
<b>LOW</b>	<i>Dàyáng 13</i>	<i>Jinghua 13</i>	<i>Taoba 45</i>
‘hawk’	lǚ	tʂɔ <sup>13</sup>	tʂɛ <sup>45</sup>
‘horse’	ʒdʒwǎN	sgyǎ <sup>13</sup>	ʏuǎ <sup>45</sup>
‘tiger’	wó	ʏo <sup>13</sup>	ʏo <sup>45</sup>

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.<sup>48</sup> 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).<sup>49</sup> 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 Dàyáng dialect.<sup>50</sup> A few examples:

*Two kinds of HIGH-LOW sequences*

*High + Low Rising*

‘mouth’	khwá rǎ
‘wind’	mú mǎ
‘bone’	ró qǎ
‘monkey’	tsé zǎ
‘brothers’	pé tʂǎN

*High + Very Low*

‘well’ (n.)	tʂǎ qò(u)N
‘throat’	mú pè
‘middle’	gú zǎ
‘testicle’	stá pʂhǎ
‘chest’	kó lè

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.

<sup>48</sup>I usually write this variant of the LOW tone in initial syllables with a grave accent.

<sup>49</sup>I sometimes write these variants of the LOW tone in non-initial syllables with a grave accent.

<sup>50</sup>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' tʂǎN 'house' > cé tʂǎN 'temple'  
 mí 'person' qó 'nest' > má qó 'household'  
 myóN 'eye' χqá 'shit' > myóN χqá 'eyecrud'
- [2] H + H --> H + L (dissimilation)  
 qhú 'head' máN 'hair' > qhú máN 'hair of the head'  
 tʃí 'water' qó(u)N 'valley' > tʃí qó(u)N 'a well'
- [3] H + H --> L + H (dissimilation)  
 qwó 'cattle' χqá 'shit' > qwò χqá 'cowshit'

(B) *Underlying HL sequences*

- [1] H + L --> H + L (no change)  
 ʂóu 'tooth' nǒN 'marrow' > ʂóu nǒN 'gums'
- [2] H + L --> L + L (assimilation)  
 qhú 'head' ptʂhě 'braid' > qhù ptʂhě 'braids'
- [3] H + L --> H + H (assimilation)  
 ʃtʃhwé 'heart' ɳǒN 'black' > ʃtʃhwé ɳǒN 'blackhearted'  
 ɿyé 'speech' qǔ 'companion' > ɿyé qǔ 'friend'  
 ʃhó 'leg' ɸpǐ 'belly' > ʃhó ɸpǐ 'calf of leg'<sup>51</sup>  
 ʃhó 'leg' tsǎ 'joint' > ʃhó tsǎ 'ankle'  
 tʂǎN 'house' ʒdʒǐ 'animal' > tʂǎN ʒdʒǐ 'domestic animal'

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

(C) *Underlying LH sequences*

- [1] L + H --> L + H (no change)  
 ʂǐ 'dew' ɸpǐ 'snow' > ʂǐ ɸpǐ 'frost'  
 xyǒN 'mouth' dʒóN 'hole' > xyǒN dʒóN 'nose'  
 ʒdʒwǐN 'horse' χqá 'shit' > ʒdʒwǐN χqá 'horseshit'
- [2] L + H --> L + L (assimilation)  
 rě 'skin'<sup>52</sup> ʃtʃí 'flesh' > rě ʃtʃí 'skin'

<sup>51</sup>For the same metaphor, cf. the medical name for the large muscle in the calf: *gastrocnemius* (< Gk. *gastēr* 'belly').

<sup>52</sup>This morpheme seems to be tonally irregular across dialects. Jinghua has ʒʎ<sup>13</sup> (i.e. LOW), but Taoba has rě<sup>34</sup> (i.e. HIGH).

(D) *Underlying LL sequences*

- [1] L + L --> L + L (no change)  
 mě(N) 'fire' ʃtʃhřw 'smoke' > mē ʃtʃhřw 'smoke'  
 ʃē 'tongue' bʒãN 'root' > ʃē bʒãN 'uvula'  
 ʒǒ 'hand' tsǎ 'joint' > ʒè tsǎ 'wrist'
- [2] L + L --> L + H (dissimilation)  
 ptʃhǒ 'pig' tswĩN 'liver' > ptʃhǒ tswĩN 'pig's liver'  
 qǒ 'strength' ʃǒN 'snot' > qǒ ʃǒN '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 Jinghua dialect has a well-developed system of directional prefixes that attach to verb roots: tǎ<sup>55</sup> 'upwards', nǎ<sup>13</sup> 'downwards', thǎ<sup>13</sup> 'away', dǎ<sup>13</sup> 'towards', khǎ<sup>13</sup> 'outwards; left to right', xǎ<sup>13</sup> 'inwards; right to left' (Lu 1983:45).<sup>53</sup> Dàyáng has a very similar system. Although the vocalism of these prefixes is schwa in Dàyáng, 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 Dàyáng:

'carry on shoulder'	tǎ	tǎ-tǎ
'collapse'	phyě	thǎ-phyě
'drop'	qǎ	nǎ-qǎ
'dry'	kyǔ	tǎ-kyǔ
'get'	ʒdʒĩ	t(h)ǎ-ʒdʒĩ 'grab'; but è-ʒdʒĩ 'meet'
'hang'	ʃǎ	tǎ-ʃǎ
'hide'	nǒN	thǎ-nǒN
'mislay'	mǎ	thǎ-mǎ
'pull out'	ʃwǎ	tǎ-ʃwǎ 'pull up', but thǎ-ʃwǎ 'pull away'
'rot'	bdʒĩ	nǎ-bdʒĩ
'satiated'	kwǎ	tǎ-kwǎ
'sew'	dǎi	tǎ-dǎi
'take with one'	ʒǒ	nǎ-ʒǒ 'take down' tǎ-ʒǒ 'take up' khǎ-ʒǒ 'take out' ǎ-ʒǒ 'take over; take in'
'understand'	tʃǒ ʃĩ	thǎ-tʃǒ-ʃĩ
'wear hat'	twǎ	tǎ-twǎ
'wear clothes'	gwǎ	tǎ-gwǎ

<sup>53</sup>These 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 Xixia language, as well as Tosu (a language known from an old bilingual Chinese wordlist,<sup>54</sup> and apparently the ancestor of the modern Qiangic language Ersu) show a striking development of TB \*-a > -i or -ĩ, in some but not all cases.<sup>55</sup> 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 -i or -ĩ, 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:

*-a > -i		Dàyáng Pumi
'borrow/lend'	PTB *r-ŋ(y)a ≠ *s-ŋ(y)a	də-nĩ <sup>56</sup>
'ear'	PTB *g-na ≠ *r-na	ŋí-dzɔ́
'listen'	PTB *-na	thə-nĩ
'moon'	PTB *s-(g)la	lí
'month'	PTB *s-(g)la	zǐ
'hundred'	PTB *r-gya	fí
'salt'	PTB *tsa	tshĩ
'ill/hurt'	PTB *na	ŋí
'rest'	PTB *na	khə-nĩ
'buckwheat'	cf. PLB *g-ra <sup>2 57</sup>	(Taoba tō <sup>35</sup> tci <sup>35</sup> , Jinghua tǎu tʃə <sup>13</sup> )
'sparrow'	PTB *N-tsa <sup>58</sup>	(Taoba gue <sup>35</sup> tci <sup>35</sup> , Rgyalrong pa-tsa)
'rice'	PTB *dza <sup>59</sup>	dzí 'cooked rice'
*-wa > -wi		
'handspan'	PTB *m-twa	tchwí
'rain'	PTB *r-wa ≠ *s-wa ≠ *g-wa	gwí
'satiated'	PTB *k-wa (cf. WB wa <sup>3</sup> )	kwĩ
'wear clothes'	PTB *gwa	gwí

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

<sup>55</sup>See Nishida 1973, 1976. The examples of this evolution that he cites (1976) are FLESH, CHILD, FOOD, and SALT.

<sup>56</sup>See also Ergong ʒŋi, N. Qiang ŋuə, Muya ŋw<sup>55</sup>, Guiqiong ŋi<sup>55</sup>, Namuyi ŋi<sup>33</sup>.

<sup>57</sup>Cf. Lahu ɣâ, Hani ɣa<sup>21</sup>, Lisu gua<sup>21</sup> (Matisoff 1988a:1116).

<sup>58</sup>Cf. Lahu ja, WB ca < PLB \*Ndzya<sup>1</sup> (Matisoff 1988a:563).

<sup>59</sup>Cf. Lahu cà 'paddy', Wancho tza, Newari ja (Matisoff 1988a:443).



<b>*-wa &gt; i</b>		
‘axe’	PTB *p-wa	ɸpí
‘snow’	cf. PLB *wa <sup>2</sup> 60	ɸpí
<b>*-a &gt; i</b> <i>mostly after palatals</i> <sup>61</sup>		
‘bee’	PTB *bya	bí
‘thin’	PTB *ba	bí
‘edge/side’	PTB *N-dzya <sup>62</sup>	dzǐ [dzǐ]
‘eat’	PTB *dzya	dzǐ [dzǐ]
‘rightside’	PTB *g-ya	zǐ
‘trousers’	PTB *s-la	zǐ
‘meat/flesh’	PTB *sya	ʃtʃǐ
‘child’	PTB *za ɹ *tsa	tʃǐN <sup>63</sup>
‘fish’	PTB *s-ŋya	dzǐ <sup>64</sup>
‘many’	PTB *mya ɹ *mra	zǐ
<b>*-a &gt; -ɔ</b> <i>after postvelars, labials, dental stops</i>		
‘bitter’	PTB *ka	qhǔ
‘chin’	PTB *m-ka	mǎ-qǔ
‘open’	PTB *ka	tǎ-qǔ
‘cattle’	PTB *ŋwa	qwǔ
‘strength’	PLB *k-ra <sup>2</sup> 65	qǔ
‘hoof’	PTB *kwa <sup>66</sup>	ʒdʒwǐN ɸpǔ
‘throw’	PTB *m-ba(y) ɹ *s-ba(y) <sup>67</sup>	βbǔ (Jinghua sba <sup>55</sup> )
‘hammer’	PTB *m-t(w)a ɹ *s-ta <sup>68</sup>	stǔ
‘box/cabinet’	PTB *ta <sup>69</sup>	tǔ
‘father’	PTB *pa	bǔ
‘five’	PTB */b-ŋa	wǔN <sup>70</sup>
‘laugh’	PTB *rya	ʃǔ

<sup>60</sup>Cf. Lahu **vâ** ‘hail’, **vâ-məy** ‘snow’ (Matisoff 1988a:1323).

<sup>61</sup>As we have seen (note 39), there is a tendency in Dàyáng to blur the distinction between /i/ and /ɨ/ after palatal initials.

<sup>62</sup>Cf. Lahu **j»a**, Akha **dz»a**, Limbu **ja** (Matisoff 1988a:563).

<sup>63</sup>This form apparently reflects the suffixal **\*-n** that sometimes appears on kinship terms, as in Dhimal **tʃan** ‘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 Dàyáng word for ‘son’ that must be allofamically related: **tsǐ**.

<sup>64</sup>Note the development of PTB \*palatalized nasals to Pumi affricates (FISH) or complex fricatives (MANY).

<sup>65</sup>Cf. Written Burmese **ʔâ**, Lahu **vâ** (Matisoff 1988a:1116).

<sup>66</sup>Cf. Written Burmese **kbwa**. But see also SATIATED and WEAR CLOTHES (above), where a similar \*labiovelar-plus-a combination becomes Pumi -i.

<sup>67</sup>See Matisoff 1995:47-8.

<sup>68</sup>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**.

<sup>69</sup>Cf. Lahu **ta-qǔ** ‘box’, Naxi **to<sup>55</sup>**, Tujia **tho<sup>53</sup>**, Karen **dg<sup>55</sup>**.

<sup>70</sup>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	ǰóu
*-ya > -ε 'tongue'	PTB *s-lyá	ǰě
*-a-t > -ε 'hot'	PTB *tσα-t <sup>71</sup>	tsé
*-al > -ɒ 'frog'	PTB *sbal	φpó

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.

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<sup>71</sup>The basic root is \*tσα, but several languages point to a dental suffix: WT tsha 'hot, illness', tshad-pa 'heat; fever'; Lushai ša ~ šat 'hot'. -ε seems to be the regular Dàyáng reflex of \*-at: e.g. VOMIT \*N-pat > φphé; KILL \*sat > syě.

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Received: 24 February 1997

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