Introduction to Qiang Phonology and Lexicon: Synchrony and Diachrony

by

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This dissertation is dedicated to the greater glory of God

A.M.D.G.

and is offered here with deepest gratitude to

My dear wife Wendy:

I cannot imagine writing this without your patient endurance and gentle encouragement.

and to

My wonderful parents, Hilary and Eunice Evans, who have waited a long time:

May you continue to bless others as you have blessed me.

and to

The Qiang people,

who have lavished on me their hospitality, patience, and friendship.

"May God cause His face to shine upon you, and be gracious to you, and give you peace."

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In Memory of

Elizabeth Evans

1965 - 1975

"...of such is the Kingdom of Heaven"

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Introduction to Qiang Phonology and Lexicon: Synchrony and Diachrony

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List Of Abbreviations

(P)LB	(Proto-) Lolo-Burmese
(P)ST	(Proto-) Sino-Tibetan
(P)TB	(Proto-) Tibeto-Burman
AGT	agent
CAUS	causative
CL	classifier
DEM	demonstrative
DIM	diminutive
DIR	verbal directional prefix
DO	direct object
JZY	Jiuziying
KMR	(Proto-)Kamarupan
LBZ	Lobuzhai
LTBA	*Linguistics of the Tibeto-Burman Area*
LX	Longxi
m1, m2	first/second morpheme
MC	Mianchi
MW	Mawo
MWQ	H. Sun n.d. (Mawo Questionnaire)
MZYW	*Minzu Yuwen*
NQ	Northern Qiang
PNQ	Proto-Northern Qiang
PNQP	J. Sun 1988
PQ	Proto-Qiang
PQic	Proto-Qiangic
PSQ	Proto-Southern Qiang
Q	Qiang language
Q'ic	Qiangic branch of TB
RDZ	Ruodazhai dialect of SQ
rGy	rGyalrong language (also 'rGyarong', 'Jiarong', etc.)
RH	Ronghong (Yadu)
s1, s2	first/second syllable
SQ	Southern Qiang
SS	*Studia Serica*
STC	Benedict, 1972.
STEDT	Sino-Tibetan Etymological Dictionary and Thesaurus
TP	Taoping dialect of SQ
TSR	Matisoff 1972a
VH	vowel harmony
WB	Written Burmese
WS	Wasi dialect of SQ
WT	Written Tibetan
X	Xixia (=Tangut), an extinct Qiangic language
YD	Yadu dialect of NQ
ZGYW	*Zhongguo Yuwen*
ZMYYC	Sun Hongkai, et al., 1991
ZT	Zengtou dialect of SQ

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Language names or abbreviations followed by initials represent data from STEDT questionnaires, e.g., rGyNW (SHK) refers to the Northwest rGyalrong questionnaire by Sun Hongkai, rGyalrong (DQ) represents the rGyalrong questionnaire provided by Dai Qingxia.

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Acknowledgments

It is with great relief and satisfaction that I write these last few paragraphs of my dissertation. For many months I have been looking forward to this moment; anticipation of it has kept me pressing on, and has also kept me from causing physical harm to my occasionally fractious computer.

I would like to thank Professor James Matisoff for being my dissertation chairman; he has patiently and thoroughly read and commented on the various incarnations of these chapters. His love of languages and of *real data* are infectious; I will never tire of hearing him say, "That form has these cognates in Lahu and Jingpho..." Some of these delightful conversations are reflected in these pages by the reference "Matisoff, p.c." Working at STEDT has given me a much greater understanding of and appreciation for comparative Tibeto-Burman linguistics; I cannot imagine a better learning environment. Jim, you are a joy to work with. I thank God for the privilege of having been your student.

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A few years ago, on a sunny afternoon in the STEDT office, Dr. Jackson Sun suggested that I consider studying Qiang. I have never regretted following this advice. Jackson and Dr. Randy LaPolla have been very helpful *shixiong* since my earliest days in the department.

In addition, there are many classmates and friends who have aided me along the way -- thank you.

Above all, I wish to thank my God and Savior, Jesus Christ, who has given me an everlasting relationship with him. He has blessed me with these friends, and with life itself.

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Chapter I. Introduction

1.1 Objectives

This purpose of this dissertation is to discuss the phonological and lexical relationships among the dialects and sub-dialects of the Qiang (Chiang, Ch'iang) language, an important language of the Qiangic branch of Tibeto-Burman. Qiang is spoken by about 150,000 people in Northwest Sichuan Province, China, by members of the officially recognized Qiang nationality, as well as by those who are considered to be Tibetan (within Heishui county). Most Qiang people live within Aba Tibetan and Qiang Autonomous Prefecture (*Aba Zangzu Qiangzu Zizhizhou*), and most speakers of Qiang live within Mao, Li, Heishui, and Wenchuan counties. Northern Qiang speakers (including "Tibetans") use the autonym /rma/, /ʐma/, while Southerners call themselves /ma/.

In these pages I will focus on the more diverse and innovative Southern dialects rather than on the more homogeneous Northern varieties. However, phonological and lexical ties between the two groups will be drawn; in some cases, cognates in other Qiangic languages will also be identified.

In this dissertation I have chosen to highlight five key dialects, two Northern (Mawo, Yadu) and three Southern (Longxi, Mianchi, Taoping). These are the varieties about which the most information has been published, and which are most reliably described. Because these are the dialects that may be examined in the most depth, taken together they shed the most light on earlier stages of the language. There are a few other dialects that were reliably transcribed in the 1940's; of these, Jiuziying has the largest published lexicon. Data from these dialects have been used for auxiliary support in Chapters III and IV.

1.2 Significance of Proto-Southern Qiang reconstruction

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Among the key dialects I have selected the three Southern varieties for in-depth comparison, because to compare the five dialects directly would conceal developments in the history of Southern Qiang (e.g., borrowing from Chinese, tonogenesis, lexical divergence from Northern Qiang, etc.), and would obscure the nature of the relationship between Northern and Southern Qiang. It is hoped that this dissertation, coupled with well-transcribed data from more Northern and Southern varieties will be a stepping stone toward the important work of reconstructing Proto-Qiang. A solid reconstruction of Proto-Qiang lexicon and sound laws is a necessary step to determining which Qiangic languages Qiang is most closely related to.

1.3 Brief overview of Qiang geography and history.

The Qiang people, numbering 243,500 in 1990, inhabit the mountains and river valleys of Northwestern Sichuan (103 to 104 degrees East, 31 to 32 degrees North). Although their culture shows influence from neighboring groups such as the Tibetans, in many ways their religion, architecture, etc. have a uniquely Qiang or Qiangic flavor (H. Sun 1989).

In Chinese written history, there are references to a people called "Qiang" as early as 1,000 BC; e.g., a reference to "Black Qiang," "White Qiang," and "*Gaoliang* West Qiang" on the stele *Xiu Deng Tai Wei Zi Bei*, 367 AD (Wen 1950a). The earliest references to this tribe place them in the middle reaches of the Yellow River. It is my impression that the denotation of the term "Qiang" has not been consistent throughout Chinese history, and so historical records must be used cautiously in trying to determine migration patterns. The great scholar of Qiang and historical Chinese, Wen Yu, concurred, saying "...we can imagine that the extent of the Ch'iang appellation of Ming [dynasty] time was much wider than it is today." (Wen 1950:67) If the term "Qiang" did not mean the same thing in 1570 (the date of the atlas that Wen cites) that it does today, it is unreasonable

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to assume that older uses of "Qiang" have the modern sense. According to Shafer (1974), Wen was the first researcher to apply the term "Qiang" to the Dzorgaish tribe.

According to H. Sun, the Qiangs "migrated south during the Qin and Han dynasties [221 BC - 220 AD] and settled in the western and northern parts of Sichuan [and] were frequently written about because wars often broke out in those areas." (H. Sun 1989:106) Wars between the Qiang and the Han can be traced back to at least the Shu-Han period (221-263 A.D.), during which there was a Han Chinese garrison led by General Jiang Wei in Weizhou (modern Wenchuan), remnants of which are still visible. Qiang oral tradition states that their ancestors migrated to the current Qiang area about 2,000 years ago (Deng 1996). Both traditions indicate that there has been contact between these two groups in Sichuan for at least 1700 to 2000 years. The Qiang, especially the Northern settlements, have been in contact with Tibetans since at least the Tang dynasty (618-907 AD).

Since the founding of the People's Republic of China, the peace and prosperity of the Qiang area have increased. Near the NQ village of Yadu, I saw abandoned houses high on the hillside. I was informed that now that the land had become safe, the people had abandoned these homes to build ones more conveniently located near the river and the road. This is a drastic difference from the conditions encountered by Wen Yu and other scholars of the 1930's and 40's, a time when Wen wrote that dangerous conditions prevented his revisiting certain villages.

In the 1980's a Qiang script, based on the NQ dialect of Qugu was introduced. Today, it is used in the education of beginning primary school students. It is a systematic romanized script, but not helpful for doing the kinds of comparisons that are set forth in this dissertation.

1.4 Qiang dialects and the relationship between Qiang and Qiangic

Three systems of dividing up Qiang dialects have been presented. Wen 1941

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divided the Qiang dialects of Wenchuan and Li counties into eight dialects, based on the degrees to which they exhibited morphological case. His eight dialects, and their locations are as follows:

1. Wa Si	S. Wenchuan, W bank of the Minjiang river.[1]
2. Yan Men	N. Wenchuan, S. Mao counties
3. Zhong San Ku	NE Li county
4. Hou Er Gu	Li county, west of 3
5. Jiu Zi Tun	NW Li county.
6. Pu Xi	SW Li county
7. Heishui	SE Heishui county
8. Lu Hua	NW Heishui county

Dialects 7 and 8 are in what is now considered Northern Qiang territory, all of the rest would be considered Southern. In Wen's day, the area of dialect 8 was so remote as to lack Chinese names for its villages.

Sun Hongkai (1962, 1981, henceforth *QYJZ*) was the first to divide Qiang into Northern and Southern dialects, based on the presence (Southern) or absence (Northern) of tones. There is also a lexicostatistic basis for this division: between NQ and SQ dialects there is generally a cognacy rate of 50 to 60%, while among NQ dialects the rate is mostly around 84% (although Mawo-Yadu is 68%) and among SQ dialects there is a rate of 64 - 67.5% cognacy (*QYJZ*:182, ff). Based on these figures, J. Sun has said that Northern and Southern Qiang would more accurately be considered to be two separate languages (PNQP).In *QYJZ* it is not clear what criteria were used to further subdivide Qiang dialects. H. Sun's division of dialects and population figures are given below. The figures for individual sub-dialects are rounded, so that the total numbers of speakers for Northern and Southern Qiang differ from the sums of the approximate subdialect figures. In the section on dialects (pp177, ff), no census year is given for these dates; however, in the introduction to *QYJZ* H. Sun cites a 1978 census figure of 80,000 Qiang people, of which Qiang

[1] The Minjiang, a tributary of the Yangtze, is the largest river in the Qiang area.

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speakers should be a proper subset.. However, adding his figures for speakers of NQ and SQ dialects (pp177-8) yields a total of 130,000 speakers, a discrepancy of 50,000. Apparently, the figure of 80,000 does not include the Qiang-speaking "Tibetans" of Heishui.

Table 1.1 1978 Population figures of Qiang speakers[2]

Northern Qiang

Sub-dialect	Location	Population (1978?)
1. Luhua	Heishui county	12,000 speakers
2. Mawo	Heishui county	15,000
3. Cimulin	small part of Heishui	9,000
4. Weigu	Heishui	15,000
5. Yadu	S. Heishui to N. Mao	10,000
Total		70,000

Southern Qiang

Sub-dialect	Location	Population (1978?)
1. Dajishan	Li county	8,000 speakers
2. Taoping	Li county	4,000
3. Longxi	Northern Wenchuan	3,000
4. Mianchi	Central Wenchuan[3]	14,000
5. Heihu	Central and S Mao	30,000 (*QYJZ*:177,ff)
Total		60,000

The third dialect breakdown of Qiang was presented by Liu Guangkun (Liu 1998b:16, ff). According to the 1990 census, the number of Qiang people (including Heishui "Tibetans") and speakers is as follows:

---

[2] For the Chinese characters for the place names given in this chapter, cf. Appendix C.

[3] In the 1950's, this variety was spoken in the vicinity of present-day Wenchuan city, including the village of Buwa, where Qiang is no longer spoken

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Table 1.2 1990 Census figures

County	Qiang population	Qiang Speakers	Percent speakers
Mao	89,000	72,000	80.9%
Li	16,000	9,700	60.6%
Wenchuan	29,000	18,000	62.1%
Songpan	2,300	1,700	73.9%
Beichuan	48,000	100	0.02%
Danba	1,200	0	0.0%
Heishui	58,000	49,600	85.5%
(totals)	243,500	151,100	62.1%

The distribution of Qiang speakers was as follows:

Table 1.3 Northern Qiang speakers (1990)

Sub-dialect	Locations (by county)	Number of Speakers
1. Luhua	Heishui: Luhua, Shashiduo, Yangrong, Zegai, Ergulu, Zhuogedu	14,000
2. Mawo	Heishui: Mawo, Zhawo, Shuangliusuo, Xi'er, Hongyan, E'en	12,000
3. Cimulin	Heishui: Cimulin, Gewo, Wumushu, Rewo, Qinglanggou	9,800
4. Weigu	Heishui: Weigu, Musu, Longba, Luoduo, Shidiaolou	11,000
5. Yadu	Maoxian: Chibusu, Yadu, Qugu, Weicheng; Heishui: Waboliangzi, Se'ergu	23,000
Total		69,800

Liu divides Southern Qiang into seven subdialects, but does not explain what this division is based on:

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Table 1.4 Southern Qiang speakers (1990)

Sub-dialect	Locations (by county)	Number of Speakers
1. Dajishan	Lixian: Xuecheng, Shangmeng, Xiameng, Xinglong, Ganbao, LieLie, Jiuzi, Muka, Piaotou (Putou?), Puxi	7,400
2. Taoping	Lixian: Taoping, Jiashan, Ganxi, Sancha, Zengtou, Niushan, Xishang, Tonghua, Gucheng	4,900
3. Longxi	Wenchuan: Longxi, Bulan, Baduo, Xiazhuang, Mushang	3,300
4. Mianchi	Wenchuan (entire county, except for Longxi area)	15,700
5. Heihu	Maoxian: Heihu, Sujiaping, Feihong, Goukou, Weimen, Jiaoyuanping	16,000
6. Sanlong	Maoxian: Fengyi, Sanlong, Shaba, Huilong, Baixi, Wadi, Yazhuzhai	15,000
7. Jiaochang	Maoxian: Jiaochang, Shidaguan, Taiping, Songpinggou; Songpan: the Xice area of Zhenjiangguan; Beichuan: certain areas	19,000
(totals)		81,300

These population figures, coupled with the 1957 census figures (H. Sun 1962) give the following population trends:

Year	NQ population	SQ population	Total
1957	34,000	43,000	77,000
1978	70,000	60,000	130,000 (80,000)
1990	69,800	81,300	151,100

According to these figures, the NQ population more than doubled in the 21 years between 1957 and 1978. The great discrepancy between these two years (and between the two total population figures given in 1978) is no doubt due at least in part to the various ways that Heishui speakers of Qiang have been counted. It is not clear to me why the SQ population increased 35.5% from 1978 to 1990 while the NQ population held steady. Qiang has the interesting distinction of being a language in which the number of speakers is increasing at the same time that the language is dying. As mentioned in a note above, villages like

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Buwa, which are near urban centers, no longer have Qiang speakers. In the speech of the younger generation of Qiang speakers, whole semantic fields are being replaced by Mandarin; during my time in the village of Mianchi, I noticed that when my consultant's children were speaking to each other in Qiang, they used Mandarin numerals. Yu Xiaoping, a college-educated Qiang who works for the Mao county government, has estimated that in fifty years, no one will speak Qiang, due to the great linguistic pressure of Mandarin (p.c.).

H. Sun (1983b) was the first in recent times to propose a separate Qiangic branch of TB; a grouping which corresponds rather closely to those that in the last century were termed "Hsi-fan" or "Sifan" (*pinyin* = Xi Fan) languages (Hodgson 1853, Lacouperie 1887:135), or, more recently, "Dzorgaish" (Benedict 1941[4]). H. Sun dates the breakup of the Qiangic languages to the end of the Han dynasty (221 AD). Until H. Sun's 1983/1990 paper, Qiang (and Qiangic languages generally) were variously considered Loloish or Bodish, based on some surface similarities. Using shared features within phonology, morphology, and syntax, Sun shows that the ten languages Qiang, rGyalrong, Primi (Pumi), Ersu, Namuyi, Shixing, Minyak (Miyao, Muya), Guiqiong, Ergong, and Zhábā[5]

---

[4] Benedict's "Dzorgaish" seems to include Qiangic, sans rGyalrong(ic). Shafer (1955) uses "Dzorgaish" to refer to the Qiang language, and classifies it under Bodish. The other Qiangic languages are categorized as Loloish, with the exception of rGyalrong, which is accorded its own branch.

[5] J. Sun, the translator of this article has added the following footnote to H. Sun's description of this language:

> According to Huang 1987:19, Zhábā (a language recorded by Lu [Shaozun]) is mutually intelligible with Quèyū, another Qiangic corridor language not mentioned in this article, which is spoken in Xinlong, Yajiang, Litang Counties of the Ganzi Autonomous Prefecture. Huang, on the other hand, mentions another distinct corridor language: Zhábà, spoken in the Zhábà District of Daofu and Zhamai district of Yajiang, which is different from both Queyu and Liu's Zhábā.

Data from all of these languages are to be found in *ZYC*.

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are more closely related to each other than any of them are to either Tibetan or Yi. From my own research, the most convincing evidence for "Qiangic" comes from the cognate orientation prefixes attached to verbs, and from the similar grammatical and semantic properties of these prefixes (Evans 1998b). Qiang has also been classified as "Rung" (Thurgood 1984), and as a member of "Qiang-Burmese" (Li 1988[6]). However, the arguments for these alternative TB branches do not present as convincing an argument for shared morphological innovations, unlike the data presented in Sun 1983b.

1.5 Previous research on Qiang

1.5.1 Descriptive works

B. H. Hodgson

Hodgson (1853) contains, to my knowledge, the first Qiang linguistic data in print. It presents anthropometric data along with parallel vocabularies of Thóchú/Thochu/Tho-chu (all three spellings are used), Sókpa, Gyámi, Gyarúng (rGyalrong), Hórpa (which J. Sun (1998) identifies as rGyalrongic), Tákpa, and Manyak (Muya, Minyak, etc.) Although there are only about 200 lexical items in his list, it is enough to show that Thochu is some variety of Northern Qiang. Hodgson does not state what village or county his Thochu speaker came from, so the exact location of this speech remains a mystery. Comparison of Hodgson's data with other NQ data shows that he did not accurately record certain initial clusters and exotic consonants like /ʁ/:

---

[6] Benedict (1941) noted that Qiang and Burmish share some superficial phonetic similarities, such as the loss of final consonants and the retention of medial *-w- (e.g., Mianchi khuě 'dog', PTB *kwiy (STC 159). Nevertheless, Benedict felt that Qiang was closer to Tibetic than to Lolo-Burmese.

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Gloss	Thochu	Mawo	Ougu	Longhua
star	ghada[7]	ʁdzˌə	ɣdzˌə	zˌdzˌə
fish	izhá?[8]	ʁdzə	ʁzˌə	ʁzˌə
five	wáré	ʁuɑ	ʁuɑw'u	ʁuɑj

Nevertheless, his work is precise enough to show that some palatalization of velars has occurred in NQ in the last century and a half.[9]

b.

Gloss	Thochu	Mawo	Ougu	Longhua	Yadu
house	ki?	tɕi	tɕi	ki	tɕɪ
egg	ki-wóst	tɕi wəst	jyst	jyst	wəs

Hodgson was impressed by the complex system of verb affixes found in rGyalrong, misidentified them as infixes, and on those grounds related rGyalrong to Tagalog.

Captain William Gill

Gill's notes on the *Song Pan Si Fan* or 'Western aliens of Song-pan ting' (translation by Lacouperie, Ollone more accurately translates *Si Fan* as *Barbares de l'Ouest*) were published posthumously in Lacouperie 1887. This language appears to be rGyalrongic, based on the final stop of 'seven': *tenit* (rGyalrong *teṣńit* (STC)). However, there are two few words (thirty-five), all of them impressionistically recorded, to identify this language with certainty. Gill himself made a transcriptional disclaimer, saying, "This orthography can convey but a feeble idea of the astounding noises the people make in their throats to produce these words." (Gill 1880, vol. i:378) It is not clear whether the Songpan alluded to here is the same as the present-day county located in Aba Prefecture.

---

[7] All of Hodgson's data are given with the first letter capitalized, a convention I have not retained.

[8] Hodgson signified final -? with italic *h*..

[9] Or enough to show that Thochu is/was a variety that has not palatalized as much as other NQ dialects.

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He also recorded about thirty words of 'Outside Man-tze', meaning the Man-tze in the western part or to the west of *Lifan fu* (present-day Li county). This would appear to be a reference to southern Heishui county, where Northern Qiang is spoken. Some of these forms were unpublished in his day, all are recorded in Lacouperie 1887. Col. H. Yule, in his introductory essay to Gill 1880, identified this language as close to Thochu (Hodgson 1853). I have not been able to relate it exactly to any published Qiang data. In Wen's map of that area, he has "Jyarung" written in the areas to the west of the Qiang dialects (Wen 1941).

In addition to Gill's Li county data, Hodgson (1853) also transcribed about thirty items in Li-fan Man-tze, which were posthumously published (Lacouperie 1887:101-2). The town of Li-fan is the present day county seat of Li county (*Lixian*). Making allowances for transcription, the data are almost identical to Taoping, as shown below:

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Gloss	Li-Fan	Taoping
man/person	me[10]	mə[33]
woman	chīme[11]	tɕi[33]
boy/son	chibye	tʃʅ[33]
water	tse	tsuə[33]
cold	pa [probably pæ]	mən[31] pe[55]
eat	gnădze	dzə
one	chek[12]	tʃʅ[33]
two	nyĕ[13]	ɳi[55]
four	zshe[14]	dʒʅ[33]
six	true[15]	xtʂu[33]

Henri Marie Gustave, vicomte Ollone

Ollone (1912) impressionistically recorded over three hundred words in a number of Si-fan languages, among which Dzorgai, Kortsè (also spelled Kortsé), and Pinfang appear to be varieties of Northern Qiang, as the following examples show:

Gloss	Pinfang	Dzorgai	Kortsè	NQ (Mawo)
sky	mota	mo	mo	mu tup
sun	mechi, mocha	mönn	mönn	mun
moon	chicha	suche	souchia	tʃhə ʂa
star	--	dje	dje	ʁdzˌə
wind	moo	mou houso	mou ho dze	mu ʁu
earth	ze	dje pou	dje pou	zəp
mountain	opo	ouopo	kseuk	qhsəp
smoke	mou	mouch	mou	mu xu
rain	mé	mich	mouje	mə ʁeˈ

---

[10] "[T]he vowel short."

[11] 'woman' + 'person'.

[12] Hodgson says that the rhyme is "like *shirt* without *-rt*, but *ch* not *sh*; -k scarcely perceptible." This is probably very close to the Taoping pronunciation.

[13] The vowel is "like English *ye*." Given the breve mark, he may mean /jə/, as in the expression "y'know."

[14] The vowel is compared to that of "English *sir*, cut short." This is probably similar to the Taoping vowel.

[15] "Like English *true*, cut very short."

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Because there are so few lexical items and because the data do not appear to be systematically transcribed, this source is only used as a reference, and is not included in the lexical database.

Ollone also recorded words from Nameji (Namuyi, another Qiangic language). That his Nameji data may be identified as the same language that today is called Namuyi/Namuzi may be demonstrated by just a few words from his list:

Gloss	Nameji (Ollone)	Namuyi (ZYC)
sky	nakamou	$nɛ^{55}ŋkhɛ^{33}mu^{33}$
sun	himi	$ɳ_{,}i^{55}mi^{55}$
moon	hümi	$ɬi^{55}mi^{55}$
star	trrè	$tʂ\text{ɿ}^{35}$
wind	mossè	$mu^{55}ʂ\text{ɿ}^{33}$
water	ndza	$ndz_{,}\text{ɿ}^{55}$

Wen Yu

Wen Yu may rightly be considered the father of Qiang linguistics. While certainly not the first to publish lexical data, Wen was the first to write in-depth linguistic articles about the Qiang language, ranging from phonetics and phonology (1940a, 1943a, 1945, 1947. Wen and Fu 1943) to nominal and verbal morphology, (1940b, 1943b). He also recorded enough lexical data (e.g., 1950b) to fuel the first comparative/historical Qiang paper (Chang 1967), and he presented the first sub-classification of Qiang dialects (1941). He was the first to present Qiang linguistic data in standard phonetic transcription (his transcription was further regularized by Chang (1967), although this was a questionable improvement). He was also the first to present wordlists of more than three dozen forms (e.g., about 600 lexical items in Wen 1950b). Unlike later ethnologists, Wen recognized the Qiang speakers of Heishui as Qiangs, rather than as Tibetans.

Wen's transcriptions were very careful and systematic, and he is the first researcher

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to analyze Qiang suprasegmentals. Wen did not generally use tones in his transcriptions; nevertheless, four tones are presented in Wen 1945 (pp133, ff.), and the Jiuziying (Chiu Tzu Ying) dialect is analyzed as having pitch accent in Wen 1950b.

Wen's fieldwork is all the more admirable for having been done at a time when no Qiang villages were accessible by wheeled vehicle (Graham 1958). Jiuziying, the most westerly (and perhaps remote) of the SQ dialects for which data have been published (cf. maps), is the best-described auxiliary SQ dialects this study.

Sun Hongkai and Liu Guangkun

This husband-and-wife team has produced works on Qiang (and other Qiangic languages) from the 1950's to the present, making them the most prolific Qiangic linguistics research team. In 1957 Sun trained researchers from the Southwest Institute of Nationalities (Chengdu) to carry out Qiang dialectal research. Sun and his team surveyed more than 30 data points (villages), in each one gathering over 3000 lexical items, about 500 example sentences, and some stories. Unfortunately, the vast majority of this data has languished unpublished for the last forty years. A fair amount of data from Mawo (Northern) and Taoping (Southern) Qiang have been published (e.g., *QYJZ*, *ZYC*), but only scattered lexical items from the other locations have appeared in print (e.g., Liu 1998a). Among his other accomplishments, Sun was the first to propose the two-dialect division of Qiang (cf. H. Sun 1987), which has remained undisputed, and the first in this century to propose an independent "Qiangic" branch of Tibeto-Burman consisting of Qiang, rGyalrong, Ersu, Pumi, et al (H. Sun 1988). The exact list of Qiangic languages, and the tests for membership remain to be worked out.

Although the phonetic accuracy and lack of phonemicization of their Qiang data have been criticized (J. Sun 1988), Sun and Liu's collective works form the greatest part of the available corpus of data on this language, and their works are far too important to

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ignore. Part of the value of these works lies in their age: even in the 1950's, the younger generation of Taoping speakers was losing initial consonant clusters, evidence of which may be completely lost now. Liu has recently finished a book-length treatment of Mawo Qiang (Liu 1998b), which includes a lexicon of over three thousand words, the most in-depth Qiang lexicon that has been published heretofore. Sun and Liu are also the first Qiang researchers to systematically indicate tones throughout their data.

Huang Bufan

Huang Bufan, another researcher from China's Language Research Teams in the 1950's, has contributed more to studies of languages of the Qiangic branch than to the Qiang language *per se* (e.g., Huang 1988, 1991a, 1991b), although she contributed the Yadu Qiang data in *TBL* (as well as the Daofu, Zhaba, and Muya data), and was the primary linguist behind the development of the Qiang orthography. *Qiangwen* is used in primary school bilingual education in the Northern Qiang areas; because of the great differences between Northern and Southern Qiang, it is not helpful for students in the Southern areas.[16] The writing system uses the unadorned Roman alphabet to convey about fifty different plain initial consonants (e.g., [ph] = *p*, [p] = *b*, [b] = *bb*, etc.). Because the orthography is not in general use, applies only to standard (Northern) Qiang, and differs greatly from the IPA, it is not used for data transcription in this paper.

Jackson T.-S. Sun

J. Sun 1988 "Problems in Northern Qiang phonology: Mawo dialect" contains the first modern published fieldwork by a scholar from outside the mainland of China. A significant impact of this work was to show that data from inside China had a tendency to

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[16] According to comments made to me by a primary school principal in the Southern Qiang area.

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be over-transcribed and under-phonemicized. J. Sun showed that a simpler phonological inventory can account for the phones observed in *QYJZ*, and that certain sounds (e.g., /e/) are phonemic in borrowings, but not in native vocabulary.

Randy LaPolla and Huang Chenglong

LaPolla 1996 (written with the assistance of Huang Chenglong) is the second book-length treatment of Qiang, following *QYJZ*. They present an in-depth analysis of the phonology, morphology, and syntax of the Yadu dialect of Northern Qiang, followed by the first published Qiang texts with morpheme-by-morpheme translation (six stories). The book has an extensive glossary with phonemicized data from Ronghong Yadu (C. Huang's native dialect), and supplementary phonetic data from Qugu Yadu.

Jonathan Evans

The present author conducted fieldwork in Wenchuan Sichuan in 1997 on two varieties of Southern Qiang, Mianchi and Longxi. The data collected form the basis for Evans 1998a-c, and consist of phonological, morphological, and lexical information on dialects which were previously unpublished, with the exception of scattered forms in Wen's, H. Sun, and Liu's works.

1.5.2 Diachronic and comparative works

Historical and comparative works on Qiang begin, of course, at a more recent time than the earliest descriptive works. Lacouperie (1887, p134-5) appears to be the first to categorize Qiang into a larger family. He called this language family "Sifan," from the Chinese term for "Western barbarians." He grouped Sifan (pinyin: *xi fan*) within the "Tibeto-Burmese family" under Küenlunic (Sino-Tibetan). Within this group he included the following languages (I have entered in the right column the currently accepted names or

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subgroups of these languages, when decipherable):

Sifan group	Pre-Chinese Kiang	Qiang
	Meniak	Muya (Minyak)
	Sung-pan Sifan	Northern Qiang (?)
	Outside Mantze	Northern Qiang (?)
	Lifan Mantze	Southern Qiang
	Thotchu	Northern Qiang
	Horpa	rGyalrongic
	Takpa	(may be Monpa)

Lacouperie's grouping displays two insights that were quite forward-thinking. First, he grouped rGyalongic languages with Qiang, an analysis shared by Shafer (1974) and H. Sun, but not Benedict (1941). Second, he separated the Qiangic ("Sifan(ic)") languages into a distinct subgroup, independent from other TB groups. In this way he prefigured Benedict and Sun, although Shafer considered Qiang and rGyalrong to be Bodish ("Bhotish"), within the same subfamily as Tibetan. The differences are summarized in the following chart, which shows how each linguist categorized the languages now known as Qiang and rGyalrong:

	Qiang	rGyalrong
Lacouperie	Sifan	Sifan
Shafer	Bodish	Bodish
Benedict	Dzorgai[17]	Bodish or separate branch[18]
Sun	Qiangic	Qiangic

Sun and Lacouperie's hypothesis of a separate Qiangic/Hsi-Fan branch is the one followed in this dissertation.

Wen (1941) was the first to subcategorize Qiang into dialects, as mentioned in 1.4. Unfortunately, he did not use any data from Mao county, the area with the largest Qiang-

[17] Perhaps within Bodish-Himalayish (*STC*:5).

[18] rGyalrong ("Gyarung") is mentioned in the text (*STC*:7) as Bodish, but appears in the chart of subgrouping (STC:6) as a hypothetical separate branch "Gyarung (?)."

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speaking population, so it is not clear whether he would have grouped the Northern dialects as closely as has H. Sun. Kun Chang used Wen's data, coupled with the data in H. Sun 1962, and his own materials on Zengtou to write a comparison of six SQ dialects, and to reconstruct PSQ phonology (Chang 1967). I have some disagreements with Chang's analysis (cf. Chapter III), nevertheless, it is a groundbreaking work in historical-comparative Qiang studies.

One of Chang's contributions is to further phonemicize Wen's data, although he warns that "none of the published descriptions of the Ch'iang dialects presents sufficient data to demonstrate clearly its phonemic structure." (Chang 1967:426) For this reason, I have relied on Chang 1967 only for supplementary material in chapter III.

Nearly all of Chang 1967 is devoted to comparison of initials, which are more clear-cut than are rhymes. Nevertheless, there are only a few 'good' sets (no irregularities) among the comparisons, further demonstrating the challenge that awaits the Qiang (and Qiangic) comparatist.

Chiu-Chung Liao (1973) compares Qiang data from Wen (1950b) with PTB, PLB, Written Tibetan, and Written Burmese, and concludes that Qiang either belongs in its own branch, or is to be linked with Tibetan (Shafer's analysis). His argument is based on features that Qiang and Tibetan share (e.g., prefixes), phonetic correspondences, and glottochronology. H. Sun has pointed out that at least some of these similarities are due to areal influences (H. Sun 1983b).

Chinfa Lien (1991) presents the fates of PTB *s-, *r-, *g-, *b-, *m-, and the effects of PTB prefixes and medials on Qiangic initials. Lien correctly identifies codas as secondary developments in Qiang. Some results of his research are included in section 3.3.1.8.

LaPolla (1985) gives sound laws relating PTB to Mawo and Taoping Qiang. He showed that *prefixes and *cluster initials are distinguished in Qiang reflexes, with

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prefixes disappearing; e.g., Mawo *ɹu*, Taoping *ʐu*^{55}, PTB *s/m-raŋ 'horse'. However, in some cases (such as this one), the addition of more data makes the analysis of PTB *prefixes less convincing: Longxi ʁò, Mianchi ʐòu 'horse' point to some type of complex initial as late as PSQ; however, the exact nature of this *initial is not clear (cf. discussion of *r, 3.3.1.3).

1.6 The database

Much like the database in J. Sun (19??), the database I have used in this dissertation consists of both a primary and an auxiliary set of lexical data. The primary database consists of lexical data from the key dialects, including three SQ dialects (Longxi, Mianchi, Taoping) and two NQ dialects (Mawo, Yadu). Longxi (LX) and Mianchi (MC) data come from my own fieldwork, and the principal sources for Taoping (TP) and Mawo (MW) data are *QYJZ* and *ZYC*. Yadu data come from four villages, Ekou (*TBL*), Ronghong (LaPolla 1996), Qugu (*ibid.*), and Moyu (a STEDT body-part questionnaire filled out by Huang Chenglong). These three varieties of Yadu are not identical, although the differences are slight. In general, I have consulted Ekou Yadu first, and then referred to the other (unpublished) data second.

The auxiliary database consists of two parts. The first is the SQ data from Wen and Chang. These data are used in chapters III and IV to clear up ambiguities, and also to show distinctions that may have been lost in the primary dialects. The second part of the auxiliary database consists of data from other Qiangic languages, taken mostly from *TBL* and *ZYC*. These data are used to provide a "peek" at the Proto-Qiangic level, which has at least two advantages. First, it provides additional substantiation for certain PSQ roots where there is no established PTB etymon, but there are cognates in other Qiangic languages (e.g,. PQic *pram 'white' sections 3.3.1.8.1, 3.3.2.3). Second, consulting Qiangic languages assists in

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finding out the time depth of certain Qiang traits. Key Qiang dialect words for 'five', reflexes of PTB *l-ŋa (STC 78) all have uvular initials (e.g., Longxi *ʁuè*). However, data from other Qiangic languages suggest that the velar nasal was preserved as late as Proto-Qiang:

Ergong	wŋuɛ
Ersu	ŋua$^{\text{r}33}$
Guiqiong	ŋɛ̃^{35}
Muya	ŋɑ^{35}
Namuyi	ŋa^{33}
Queyu	ŋua^{55}tɕã^{53}
rGyalrong	kə mŋo

To attempt to write this dissertation without consulting auxiliary Qiang dialects or languages that are near-relatives would be an unwarranted hindrance. Nevertheless, it is necessary to be both cautious and unequivocal about the conclusions drawn from such data.

1.7 Organization of the dissertation

The remainder of the dissertation consists of four chapters and two appendices. Chapter II is an introduction to the current phonological inventories of the key dialects. Chapter III presents what may be inferred at this time regarding PSQ segmental phonology. The fourth chapter endeavors to explain the origins of tone in the Southern dialects. The fifth chapter presents remaining questions and suggested future directions for Qiang research. Appendix A is a comparative SQ lexicon, with PSQ roots, NQ cognates, and PTB etyma. Appendix B is a glossary of Mianchi and Longxi words, arranged by English Gloss.

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Chapter II. Synchronic phonology of the five key dialects.

"We shall need a recording by a phonetician who is not troubled by unusual sounds." (Shafer 1974:451)

"There can be no doubt that these features [of Jiuziying] will throw light on the reconstruction of proto-Ch'iang in the future." (Wen 1950b:21)

In this chapter I present phonological inventories and discussion for the five key Qiang dialects in the order Northern Qiang: Yadu, Mawo: Southern Qiang: Mianchi, Longxi, Taoping. At the end of the chapter I have inserted a few comments about some features of auxiliary dialects of Southern Qiang. The Qiang phonological inventories have many parallels with those of other Qiangic languages, as Sun Hongkai has observed. In general, Qiangic languages have

> a large number of simple initial consonants — generally over 40; all of the languages have initial consonant clusters; the consonant clusters of some languages still retain features of the proto-language; the vowel systems in most languages do not distinguish between tense and lax vowels, but contrast retroflex vs. non-retroflex vowels; diphthongs are mostly rising; most languages have the medials [i], [u], and [y]; final consonants have largely been lost, and only a few languages still preserve them; tone plays only a small role in the phonological system and some languages have not yet developed phonemic tones at all. (H. Sun 1989:102)

2.1 Northern Qiang

Northern Qiang dialects are marked by complex consonant clusters, distinctive vowel quantity, and word-level stress, which is unmarked in all published sources, except for a few minimal pairs in *QYJZ*, *ZYC*, LaPolla 1996, Liu 1998a, b.

2.1.1 Yadu Phonological inventory

The Yadu data in this dissertation are from Ekou village in Yadu township, Maoxian (Mao county), and are taken from *TBL*. For comparison at some points, additional data have been taken from three other villages in the Yadu dialect: Ronghong, (LaPolla 1996), Qugu (*ibid.*), and Moyu (C. Huang, n.d.). Because there is much more published data from Ekou than from the other varieties (about 1900 forms), this dialect tis

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the unmarked variety of Yadu in this dissertation. The Qugu data are not phonemicized, and are thus used sparingly. The Ekou and Ronghong Yadu syllable canons are as follows:

Ekou Yadu (plain vowels):	(C) (C_i) V (V) (C) (C_f)
Ekou Yadu (long vowels):	(C_i) (V) V:
Ekou Yadu (rhotacized vowels):	(C) (C_i) (V) (V) V˞ (C) (C_f)
Ekou Yadu (long rhotacized vowels):	(C) (C_i) (V) V:˞ (C_f) [1]
Ronghong Yadu:	(C) (C_i) (V) V (V) (C) (C_f) [fric] [glide] [glide][fric]

2.1.1.1 Yadu Initials:

The initial phonemes of Yadu (Ekou) are given in *TBL* as follows:

Simple Initials:

p		t				k	q
ph		th				kh	qh
b		d				g	
		ts	tʂ	tʃ	tɕ		
		tsh	tʂh	tʃh	tɕh		
		dz	dʐ	dʒ	dʑ		
ɸ	s		ʂ		ɕ	x	χ
	z		ʐ		ʑ	ɣ	ʁ
m		n			ɳ	ŋ	
		ɬ					
w		l, r	ɹ		j		h

TBL records fifty initial clusters in Ekou, some of which are rare. I have put in parentheses the number of occurrences of rare cluster initials (five or fewer occurrences). The cluster /ʂɳ/ is in parentheses to indicate that it only occurs in a borrowing from Tibetan. The three forms that are struck through appear in the inventory, but not in the data.

[1] According to Dai 1992:636 (henceforth *TBL*), Yadu has native rhotacized triphthongs with long vowels /iæːə˞, iɑːə˞, yɑːə˞, uæːə˞/; however, these are not attested in the data.

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It may be the case that they occur on words that were not selected for inclusion in *TBL*.

Cluster Initials:

sp (2)	st	sl (1)	sq (5)		
	zd	zg (1)			
ʂp	ʂtʂ	(ʂɳ) (1)	ʂk	ʂq	
ʐb	ʐm	ʐg	~~ʐɲ~~		
ɕp	ɕtɕ	~~ʑdʑ~~			
xts (1)	xl	xtʂ	xtʃ (2)		
ɣz	ɣr	ɣl	ɣdʐ (4)	ɣɳ (1)	
χs (5)	χt	χl	χtʂ	χʂ	χtʃ
ʁz	ʁd (1)	~~ʁn~~	ʁl	ʁdʐ (1)	ʁɳ (1)
khs	khʂ	khl (1)			
gz	gʐ				
qhʂ	qhs				
phɹ	bɹ	~~ɸɹ~~	wɹ		

Comments:

1) The Yadu data presented here differ from the key Southern dialects in having a phonemic alveolar series of affricates in addition to dental, palatal, and retroflex series. Comparison with Mawo (below) shows a correspondence with its alveolars, so this series will be reconstructed for proto-Northern Qiang. In both dialects, alveolars only occur as affricates, even though this series appears to be an ancient distinction. The three other Yadu sub-dialects for which there are published data do not have this series. The following table demonstrates the development of Old Yadu *alveolars in four varieties of Yadu:

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Table 2.1 Comparison of Ekou alveolars to Ronghong, Qugu, and Moyu

Gloss	Yadu (Ekou)	Ronghong	Qugu	Moyu
	[alveolar]	[retroflex]	[palatal]	[retroflex, palatal]
child	tʃuj mɪ	xʂe-tʂuə ~ xʂe-tʂů ('calf' (cow-child))		
cockscomb	wu piɛ qu dʒu		jypi qu tɕu?	
dark	xtʃɑp	xtʂɑp		
hoof	tʃuəχ	tʂuəχ		tʂuəχ
pregnant	tʃui miɛ lɛ			tɕy mi del
weasel	tʃu qu	khuə-tʂoqu(ses)		

The Old Yadu *alveolar series developed differently in the history of each of the four dialects above. In Ekou, it was maintained as an alveolar series. In Ronghong, it merged with the retroflex series; in Qugu it merged with the palatals, and in Moyu it appears to have merged with the retroflex series before back vowels and with palatals before front vowels. However, more Moyu and Qugu data are needed before definitive statements can be made about their correspondences. The voicing of the affricate in "cockscomb" is problematic: the difference in intervocalic voicing may reflect differences in syllabic stress (cf. J. Sun 1988 (herein *PNQP*), pp 2-5), or it may be a case of variation in an intervocalic environment (e.g., *kɛɹ wɛ tɕə* 'recall/remember', *kɛˈ wɛˈ dzɛ*, 'recall/recollect'). Because stress is not marked in these sources, it is not possible to be more precise about this alternation in voicing.

Further evidence that Ekou alveolars are phonemic, and are not merely a transcriptional detail, comes from their correspondence to alveolars in Mawo. Table 2.2 shows the correspondence of Ekou alveolars to Mawo alveolars, Table 2.3 shows that in Mawo, PQ *alveolars palatalized before /i/. Table 2.4 indicates that there are some forms that do not follow this pattern. I do not yet have an explanation for these irregular

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correspondences.

Table 2.2 Correspondence of Ekou alveolars to Mawo alveolars:

Gloss	Ekou Yadu	Mawo
chew	tʃuɑχ tʃuɑχ dzə	tʃɑq tʃɑq dzə
kill	tʃə	tʃə
knife	dzɛ tʃuɛ	dʒatʃ
shoe	tʃu wɑ	tʃə βɑ
doctor	miə tʃhɛ pəm	sman tʃən
point/head	qu dʒu	dʒə

Table 2.3 Correspondence of Ekou Yadu alveolars to Mawo palatals:

Gloss	Ekou Yadu	Mawo
eleven	hɛ tʃɛ	he tɕi
man	tʃɪ	tɕim
meet	ɛ tʃɛ tɛ piɛ	e tɕi ti pi
nephew	dʒɪ	dzi

Table 2.4 Irregular correspondence of Mawo forms to Ekou alveolars:

Gloss	Ekou Yadu	Mawo
step on/tread	tʃhuɛɳ	tɕha ɳi
mule	kɛ tʃɛ	tʂə

2) According to the discussion in *TBL*, /ɪ/ does not occur in word-initial position. "It is sometimes pronounced as /dʐ/, as in *mə ʁɛ rəp* 'vulture' [*mə ʁɛ dʐəp* ? -- JPE]." (*TBL*:636, translation mine) *TBL* does not give the environments in which [r ~ dʐ], although we may note that the forms *ʁdʐə ~ ʁrə* are both given for 'star'. In addition, the forms *tu ru* 'broom' and *dʐu dʐu* 'sweep' probably demonstrate this same alternation. [r] can occur in initial

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clusters: *mə grɻ* 'strike (thunderbolt)', word-medially: *tu ru* 'broom', and word-finally: *ar* 'dissolve'. It is apparent from its distribution and variation that [r] is an allophone at least of /dz̡/, and perhaps of other r-like sounds as well. Problems associated with these sounds are discussed below (comment 7).

3) x > ɕ /_iV, yV diphthongs. (*TBL*)

4) /ŋ-/ in native vocabulary is labialized. (*TBL*)

5) /h/ only appears in word-initial position. (*TBL*) It is not clear from examining the data whether it is an allophone of another sound, or whether it disappears word-medially.

6) There are certain clusters whose transcriptions are problematic; a careful analysis leads to a simpler list of clusters than are found in *TBL*. As an example, we consider the /gr-/ cluster of *mə grɻ* 'strike (thunderbolt)', which is the only instance of this cluster in the source, and is not given in the list of clusters (*TBL*:636), although /gz̡/ is listed there. This cluster is likely a typographical error, or the result of a recent metathesis, as seen by comparison with other Ekou words for 'thunder' and 'rain' (which is the first morpheme of 'strike (thunderbolt)':

məəˈ	rain (n.)
məəɹ dɑ ɹɑ	fall (rain) (v.)
mə z̡guə	thunder (n.)
mə dɑ ɹgɻʂ	thunder (v.)
mə grɻ	strike (thunderbolt)

The variation in the transcription of the 'thunder' words indicates that the clusters {gr-, z̡g-, ɹg-} all represent the same sound sequence, either at an underlying phonemic level, or at least diachronically. The 'rain' forms in the above list, along with Ronghong *meˈ-gů*

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'thunder', support the positing for 'strike (thunderbolt)' of an underlying sequence of an *r*-like sound (phonemically /ɹ/, comment 7), followed by /g-/. The two forms given for 'rain' indicate that there is a morpheme boundary before the /g-/ of thunder. The place of insertion of *da* in Ekou 'thunder (v.)' points to a reanalysis of morpheme boundaries by speakers.

The following Ekou forms for 'repay, return', coupled with the 'thunder' words, cast further doubt on the reputed /ʐg, gʐ, gr/ distinction:

ɕtɕyə ʐguɛ	repay (a debt)	ɕtɕyə gʐə	return (a pen)
mə ʐguə	thunder (n.)	mə gru	strike (thunderbolt)

For comparative purposes, these three clusters will be treated as phonemically identical.

The following comment further addresses problems associated with r-like sounds in Ekou.

7) The Yadu sounds /r, ɹ, -˙, ʐ, ʂ/ may all be broadly considered rhotics, or "r-like" sounds. As I have shown, there is no small amount of interchange among these sounds, and *TBL* has apparently drawn too many distinctions among them. As stated above, [r ~ dʐ] in certain (unstated) environments. This indicates the questionable nature of the phonemic status of [r].

The distinction drawn between /-ɹ, -˙/ is also problematic. The following forms indicate that there is no phonemic distinction between them in final position (while [ɹ] can occur initially (*ɹu* 'horse'), [˙] of course, cannot [2]).

---

2 However, 'dig, excavate' is given as *ph'ɪ phuɛ*.

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məəɹ dɑ ɹɑ	fall (rain)	məə˞	rain
khuɹ su	eighty	khɛ˞	eight
(ɑ) əɹ	classifier for bowls	(ɑ) ə˞	classifier for eggs, etc.
kɛɹ wɛ tɕə	recall/remember	kɛ˞ wɛ˞ dzɛ	recall/recollect

It is clear that [-˞], the rhotacization of the vowel nucleus, is not to be distinguished from final [-ɹ]. Thus, either both sounds should be treated as /ɹ/, or both should be treated as /˞/, when in final position. The first solution has the advantage of greatly simplifying the vowel inventory, eliminating all rhotacized vowels /V˞/, as these would now be treated as sequences of V + ɹ (e.g., /-ɹp, -ɹm, -ɹs, -ɹn, -ɹʂ, -ɹɣz, -ɹχ/). However, this analysis has two drawbacks: first, it complicates the syllable canon, changing it from

(C) (C) V (V) (V/:) (C) (C)

to

*(C) (C) V (V) (V/:) (ɹ) (C) (C)

in order to accommodate the single form *khoˈɣz* 'file (tool)'. Second, all unambiguous Ekou final clusters agree in voicing (attested: ɣz, χtʂ, χʂ, ʁl). However, if /V˞/ is interpreted as /Vɹ/, then the following clusters which disagree in voicing are introduced:

-ɹp	*khɛˈp*	full
	ɑ khəˈp	blind, be (acquired/postnatally)
-ɹs	*qhɑˈs*	wall (stone)
-ɹʂ	*tuəˈʂ*	younger brother (address by o. brother)
-ɹχ	*kəˈn kɑˈχ*	thin
	qəˈχ	ban/forbid/prohibit

The second possible analysis, and the one adopted in this dissertation, is to treat

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final /-ɹ/ as vowel rhotacization /V˞/. This analysis does not have the advantage of simplifying the vowel inventory, however it does not introduce the aforementioned complications. In this dissertation, /Vɹ/ and /V˞/ are both taken to signify vowel rhotacization.

Both analyses have the benefit of reducing the set of r-like phonemes to four: /r, ɹ (˞), ʐ, ʂ/. Among these sounds, it is not clear whether the phones [ɹ (˞), ʐ] are to be considered distinct phonemes, or whether their differences are marginal/non-existent. The following two pairs of words show that this opposition is to be questioned:

ɹu pu	cave (mountain)	*ju ʐu*	cave/hole
məə˧	rain (n.)	*mə ʐ-guə*	thunder (n.)

These two pairs of words indicate that there is no meaningful distinction between [ɹ / -˞] and [ʐ], and hence there are no more than two voiced r-like phonemes in Yadu, /r/ and the phoneme represented by the set of graphs /{ɹ, -˞, ʐ}/, which I will call /ɹ/. This last distinction is supported both by the following set of minimal pairs, as well as by the fact that /r/ is in (limited?) variation with /dʐ/ (*TBL*:636), while this claim is not made for the other rhotic sounds.

r ≠ ʐ	*(o) ru*	bundle/sheaf	*o ʐu*	lose (something)
r ≠ ɹ, -˞	*gur*	pal/partner; placenta	*gu˧ gu˧*	dove

This phonemic analysis is similar to what is found in the phonology of Proto-Southern Qiang, for which both *ʐ, *r have been reconstructed, based on the synchronic evidence of Longxi and Taoping (Evans, 1998a).

Ekou /r, ɹ/ appear to correspond to Moyu and Qugu /dʐ, ʐ/. Although the correspondence of Ekou /ɹ/ to Moyu /ʐ/ is well-supported, there are not enough available Moyu cognates of Ekou /r/ to make an unequivocal statement of correspondence. Similarly, the available Qugu data are scarce, so that correspondence with these two Ekou

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phonemes is only suggestive. Ronghong /ʐ/ clearly corresponds to Ekou /ɹ/, but correspondence with /r/ is uncertain. These correspondences may be seen in the following table (Qugu forms in parentheses):

Table 2.5 Comparison of Ekou /ɹ, r/ with Ronghong, Moyu, Qugu

Gloss	Ekou	Ronghong	Moyu (Qugu)
cave	ɹu pu, ju ʐu	ʐo:pu	
skin	ɹɛ piɛ	səf ʐə pi (tree-skin = 'bark')	ʐe pi
thresh grain	ɹɛ	ʐe	
horn	ɹəχ	ʐaq (raq)	
stone	ɹa ʁuɑ	ʐa wa	
branch	səɸ ɹɑ lį	ʐa jï	(Qugu [ʐɑr])
pound (v.)	ɑ ʐu̱	ʐete	
thunder	mə ʐguə	me˧-gu	
fox	ʐguɛ	ʐgue	
open	ʐgɛ		ʐge
speech/words	ʐuə˧		ʐə wɑ
gruel/porridge	gʐɛm	ɣʐem	
dream	ku ʐmu		ʔu ʐmə, ʔu ʐmu
buffalo	tsuəʐ	tsuə-ʐ	
ash	tɕu xu bu ʐu̱	tɕu-xu-bu ʐů	
bite	ɛ ɣrɛ		ɣdʐe
pheasant	wu ru	wu-lu	(Qugu [ju dʐu / wu dʐu])
star	ʁrə ~ ʁdʐuə	ʁdʐə	(Qugu [(mutu) ʁdʐə])

/ʂ/, the voiceless rhotic, contrasts with /r, ɹ/ prevocalically (Table 2.6) and postvocalically (Table 2.7):

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Table 2.6 Yadu r-like initials

/ʂ/ forms		/ɾ/ forms		/ɹ/ forms	
ʂu	lake	ru	broom	ɹu	spit
ʂə	reserve (seed)	rə	separate	ɹəχ	horn

Table 2.7 Yadu r-like finals

/-ʂ/ forms		/-ɾ/ forms		/-ɹ/ forms	
qhɛʂ	chest, box	mɛr	solidify	qhɛˀ	break/smash
ɑʂ tsɛ	taste	ɑr	dissolve		
quʂ wɛ	shape, appearance			nu quˀ	bend at the waist

However, this contrast disappears in clusters, as demonstrated below.

8) /h/ only appears in word-initial position. (*TBL*) It is not clear whether it is an allophone of another sound, or whether it is a phoneme which disappears postvocalically. It only occurs in Ekou as a verb prefix meaning 'out(ward)' (a), and as the number 'ten' (a').

a) come out (past) *ha la*
drag for/dredge up *hɛ χtʂɛ*
left over, be/remain *ho ʐgu*

a') ten *ho dzu*
sixteen *ha tʂhuə*
thirteen *hɛ sɛ*

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However, in the closely related sub-dialect Ronghong, /h/ may occur either initially (*hɑ-qɑ*, 'mount a hill') or word-medially (*məq maha*, 'dandelion'). Comparison between Ekou and Ronghong shows that /h/ in the two dialects cannot be directly correlated, as the following three tables demonstrate:

Table 2.8 Ekou /h-/ corresponding to Ronghong /h-/

Gloss	Ekou	Ronghong
ten	ho dʑu	hotɕu
twelve	hɑ ɳə	hɑ-ɳi
OUT prefix	hɑ ʂkuə 'borrow'	hɑ-tʂhɑ 'creep (vi.)'

In the above table, the morpheme for 'ten' is given twice to show that the two varieties share the same vowel harmony on this syllable.

Table 2.9 Ekou /χ/ corresponding to Ronghong /h/

Gloss	Ekou	Ronghong
cooked rice	stuɑ χɑ	stuɑhɑ
mire/muddy	mɑˈ χɑˈ	maha
wheat bran/straw	χɑ	paha

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Table 2.10 Ekou /χ/ corresponding to Ronghong /χ/

Gloss	Ekou	Ronghong
brass/bronze	χɑ˧ xuɛ˧	χɑ
ditch	χuʂ	tsə-χů (water-ditch)
hawk	χlu	χlu
wash	xluɑ	qə˧-χuəlɑ (rice-wash)
snare/trap	χɑŋ so (b?)	χɑnsu
cucumber (b.)	χuɑŋ kuɑ	χuɑŋkuɑ

9) Ekou Yadu clusters in *TBL* are over-differentiated and under-phonemicized in the transcription of their pre-initials (in Tibeto-Burman linguistic terminology, "pre-initial" refers to a consonant that precedes an intial obstruent, while "initial" refers to the second consonant). In contrast to this transcription, LaPolla points out that in Ronghong:

> Phonemically, consonant clusters are formed by /ʂ/ and one of the following initials: /p. t, k, q, tɕ, b, d, g, m, dz/, /x/ followed by /ɬ, s, tɕ ʂ, l, z, dz, ʐ, dʐ/, or /χ/ followed by /ɬ, s, ʂ, l, z, n, dz, ɳ, ʐ, dʐ/. Phonetically the situation is more varied, as the preinitials all become voiced before voiced initials, and /ʂ/ becomes [s] before /t/ and /d/, and becomes [ɕ] before /pi/, /pe/, /tɕ/ and /dz/. (LaPolla 1996:8)

The situation given for Ekou is more elaborate, although simpler than the way it is presented in *TBL*. Dai lists sixteen pre-initials: /s, z, ʂ, ʐ, ɕ, x, ɣ, χ, ʁ, kh, qh, g, ph, b, ɸ, w/. /ɸ-/ will not be considered further because there are no examples of ɸ-clusters in the data. The following distribution charts and rules of distribution show that a much simpler list could have been given:

The following chart shows the distribution of the pre-initials /ɹ, ʂ, ɕ, z/.

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Table 2.11 Distribution of Yadu /ɹ-, ʂ-, ɕ-, ʑ-/ clusters:

initial> / pre-initial	p	b	m	tɕ	dʑ	ɳ	tʂ	k	g	ŋ	q
ɹ		●	●						●	(●)	
ʂ	●					(●)	●	●			●
ɕ	●			●							
ʑ					●						

With the exception of /ʂ, ɕ/ /_p, it is clear that these four pre-initials stand in complementary distribution with each other. A closer look at the distributions of /ʂp, ɕp/ reveals that these two clusters are in complementary environments, determined by the height and backness of the following vowel:

hardworking	tə ʂpɑ
pea	ʂpɛd
key	ʂpu ʁu
kidney	ʂpəl
jackal	ɕpiɛ
scar	ɕpɪ xlį

Clearly, ʂ > ɕ/_pi, pɪ[3]. If we take the sole instance of /ʂɳ/ ʂɳɑt 'crupper strap' as an exception due to its status as a borrowing from Tibetan (WT *smed*, A Li Ke dialect *ɳɐet*), then the pre-initial [ʂ-] only occurs before voiceless initials, and we may write the following rules:

[3] There is only one example of *ɕpɪ* in the data: *ɕpɪ xlį* 'scar'. There is also one counter-example to this rule, found in the morpheme common to the following words: *ɛ ʂpɪj* 'aunt (mother's brother's wife), *ɛ ʂpɪj* 'mother-in-law'. I believe this problem to be more transcriptional than phonological, because I wonder about the exact nature of the diphthong *ɪj*. These two terms for female relatives of an older generation also show the tenuousness of the distinction between /ɛ, e/. These sounds are not distinguished in either Ronghong or Moyu dialects.

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ɹ > ʂ/_[-voice]
  > ʐ/_dʐ
ʂ > ɕ/_tɕ, pi, pɪ

The subsequent table shows the distribution of the pre-initials /s, z, kh, g, x, ɣ/:

Table 2.12 Distribution of Yadu /s-, z-, kh-, g-, x-, ɣ-/ clusters:

initial> / pre-initial	p	t	d	ts	s	z	n	l	r	ɳ	tʂ	ʂ	ʐ	dʐ	tʃ	g	q
s	●	●						●									●
z			●													●	
kh					●			●				●					
g						●							●				
x				●				●			●				●		
ɣ						●		●	●	●				●			

For this set of pre-initials, the occurrence of voiced pre-initials may be predicted, with the exception of /xl, ɣl/, by the rule:

C > [+ voice]/_[+obstruent, +voice].

Based on the phonemic analysis presented in *TBL*, Ekou /x, ɣ/ are separate phonemes, probably due to the fact that both occur before /l/:

mɛ xliɛ	move	dʐu ɣliɛ	drill/auger
ɕpɪ xlį	scar	hɑ ɣlį	turn inside out (clothing).
xluɑ	wash (clothes)	ɣlə	drill

According to *TBL*, the occurrence of /ɣ/ is restricted to cluster-initial position (however, there is one instance in the data of /ɣV/: *ɣə' xpəl* 'fist'. This entry is problematic, as it is

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actually given in the source as having a vowel onset: *ʏəˈxpəl*, although the vowel /ʏ/ is not listed in the Yadu inventory. For this reason, I do not consider it a *bona fide* exception to the cluster-only rule, as the initial [ɣ] is my own interpretation of an apparent typological error). In Ronghong, [ɣ] is the allophone of /x/ that occurs before voiced consonants (R. LaPolla, 1996:6. LaPolla's lexicon includes the form *xliex-buʐ* 'loess', which should be *xɬiex-buʐ*, (R. LaPolla, p.c.). Given the fact that in Ekou, the pre-lateral environment is the only one where both /x, ɣ/ may both occur, and that Ekou has phonemic /ɬ/[4], I think it is best to interpret {xl} as /xɬ/, and {ɣl} as /xl/. Thus, the items above should be phonemically transcribed as follows:

/mɛ xɬiɛ/	move	/dʐu xliɛ/	drill/auger
/cpɪ xɬi̯/	scar	/hɑ xli̯/	turn inside out (clothing).
/xɬuɑ/	wash (clothes)	/xlə/	drill.

The following table shows that Ekou ʁ > qh/_[-voice]:

Table 2.13 Distribution of /ʁ-, qh-/

initial> / pre-initial	d	s	z	n	l	ɳ	dʐ	ʂ
ʁ	•		•	•	•	•	•	
qh		•						•

[4] In *TBL*, /ɬ/ only occurs in pre-vocalic position, and only appears in the following four lexical items:

ju pu ɬɑ: ɬɑ	cliff
dɑ ɬu̯ʂ	move (house)
ɬu ɬu	quick/fast
ɬɑ: ɬɑ	smooth/glossy/sleek

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Thus, the list of pre-initials may be reduced to /ph, b, (ɸ), s, ʐ, x, kh, w, χ, ʁ/[5].

10) There are at least two transcriptional problems with the clusters in *TBL*:

a. /ʂtʂ-/ occurs in the inventory, but not in the data.

b. The clusters /ʂts-, ʂtʃ-/ are in the database, but not in the inventory. Each of them appears once:

ʂtsɛm wife
ʂtʃə χɑ yellow

2.1.1.2 **Yadu Rhymes**

Parentheses indicate segments that are found only in borrowings from Chinese; vowels that are struck through appear only in the inventory.

Simple Vowels:

Plain			Long		Rhotacized		
i, y		u		u:			u˞
ɪ		o		o:[6]	ɨ˞		
ɛ	ə		ɛ: (3)		ɛ˞	ə˞	
æ (4)		ɑ	~~æ:~~	ɑ:	~~æ˞~~		ɑ˞

[5] Double check this list!

[6] This segment is recorded in the data and in the discussion, but is not given in the phonological inventory.

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Long rhotacized

	u:˞
~~æ:˞~~	ɑ:˞

Diphthongs:

The following chart shows that many of the diphthongs attributed to Ekou are ill-supported: either they occur only in borrowings, or they occur rarely or not at all in the data.

iɛ	iə	iu			(iu:)	yɛ	yə	
iæ		iɑ		~~iæ:~~	~~iɑ:~~	(yæ)		(yɑ) (2), ~~yɑ:~~
					(iɑ:˞) (1)			
uɪ								
uɛ	uə					uɛ˞		
~~uæ~~		uɑ		~~uæ:~~	uɑ: (3)	~~uæ˞~~, ~~uæ:˞~~		uɑ˞, uɑ:˞ (1)
(æi)	ui			(ɑu) (1)	(əu)	~~ey~~	uy (5)	
(iə˞)					~~iɛə˞~~			
~~ɛə˞~~	~~əə˞~~					(iəə˞) (1)		~~yəə˞~~
æə˞, ~~æ:ə˞~~				ɑə˞ (2), ~~ɑ:ə˞~~	~~iæ:ə˞~~	~~iɑ:ə˞~~		~~yɑ:ə˞~~
uɛə˞ (1)		~~uəə˞~~			(iɑu)	(uæi) (2)		
~~uæ:ə˞~~				~~uɑə˞~~				

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Comments:

1) /ə/ > ɿ/ [dentals]_, > ʅ/ [retroflex]_, ʌ elsewhere. (*TBL*)

2) The distinctions between /u, u:/, /o, o:/ are marginal in native words. Most instances of /u:, o:/ are in borrowings from Chinese. (*TBL*) In Jiuziying there is a similar fluidity of /u, o/ (Wen 1950:18-19).

3) *-y* and *y*-initial diphthongs are almost always preceded by palatals, with the exception of a few instances of *x-* and *l-*. (*TBL*) The only such forms in the source are the following:

(ɛ) xyɛ	classifier for leaves
ɛ xyɛ	dizzy, feel/giddy
ʁuɛ˧ su lɣ̊	silk

This distribution is very similar to Standard Mandarin, in which /y/ only follows palatals and /l/.

4) Note that /a/ does not occur in the inventory. However, it does occur in seven forms in the database, where it is assumed to be a typographical error. However, this can only be proven in the case of *xua tha* 'draw (a picture)', where comparison with other verbs shows that the second syllable, which is appended to verbs borrowed from Chinese, should be *tha* (e.g., *khau tha* 'rely/depend on'). For the sake of comparison, other instances of the graph {a} will also be treated as /ɑ/.

5) Voiceless vowels do not appear in the *TBL* inventory, although they are mentioned in the discussion and appear in the data. The following voiceless vowels occur in Ekou:

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ɻ	ɥ, ɥˊ	ɥʂ, ɥʂˊ
ʂˊ		

According to *TBL*, voiceless vowels generally occur on the final syllable, although they sometimes occur on the penultimate; e.g., *ɛ kɥ liɛ* 'plant (beans)'. I expect that they only occur on unaccented syllables; however, stress is not given for any forms in *TBL*.

6) All but one instance of /æ/ are borrowings from Chinese (e.g., *miæn χua* 'cotton'). The form *tsæm* 'girl' appears to be the lone native form.

7) /ui/ is listed in *TBL* as occurring only in borrowings. However, the following forms appear to be native to Yadu:

tʃui miɛ lɛ	pregnant, be
ʂui dɛ	puttee
wui zɪm	swallow (n.)

8) Although not listed in the inventory, the rhotacized diphthong /ɪəˊ/ occurs in the Chinese borrowing *cin tɕɛ jiəˊ* 'Tuesday', which appears to be over-transcribed.

Final consonants:

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Simple finals:

p	t	tʂ	~~tʃ~~	tɕ	k	q
				~~tɕh~~		
	d (1)	dʐ			g	
m	n			ɳ (2)	ŋ	
ɸ	s	ʂ		ɕ	x	χ
	z	ʐ		ʑ		
w	l			j		ʁ (5)
		r, ɹ				

Clusters:

Northern Qiang finals are of secondary origin, as discussed further in section 4.4.3. Complex finals are very rare, although they may be complex: e.g., /-χtʂ/ only occurs in the classifier *(a)* *χtʂ* 'row (wheat, houses)'. The nine clusters that have been struck through appear only in the inventory.

~~st~~ ~~zd~~ ~~ɹg~~ ~~ɑtɑ~~ ~~khs~~ ~~khʂ~~ ~~gɹ~~ ɣz (4) ~~ɣl~~ χtʂ (1) ~~χ-s~~ χʂ (2) ʁl (2)

2.1.1.3 Yadu Stress

TBL mentions that Northern Qiang dialects do not have tones (p637). Stress is not mentioned in *TBL*, although Northern Qiang is generally regarded as having syllabic stress (*QYJZ*, *PNQP*, R. LaPolla 1996, Liu 1998, Peter Lester p.c., *et al.*).

2.1.2 Mawo Phonological inventory

The primary source for Mawo data was gathered in the 1950's, and has been published in part by Sun Hongkai (*QYJZ*, *ZYC*) and Liu Guangkun (Liu 1998).

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Additionally, there are body-part vocabulary provided to the STEDT project at UC Berkeley by Jackson Sun (J. Sun, n.d.) and by Sun Hongkai (H. Sun, n.d.), both of which differ slightly from the data presented in the main sources. The most insightful phonological analysis of Mawo is to be found in *PNQP*, in which J. Sun points out the problems caused by under-phonemicization in the published materials, and argues for a simpler segmental system. Aside from the aforementioned body-part vocabulary, J. Sun has not provided a lexicon. H. Sun's phonological inventory of Mawo (ZYC, pp182-191) was translated into English and published in Namkung 1996. The bulk of that inventory is reprinted here, with some additional comments. Comments from H. Sun are labeled (SHK), those from J. Sun are labeled (JTS), and my own comments are labeled (JPE). The Mawo syllable canon may be formulated as follows:

short vowels: (C) (C_i) V (V) (ˀ) (C) (C_f)

long vowels: (C) C_i (V) V: (ˀ/q [7])

2.1.2.1 Mawo initials

[7] There is one instance of a coda following a Mawo long vowel: *ti:q* 'top'.

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Simple Initials:

p	t	ts	tʂ	tʃ	tɕ	k	q	
ph	th	tsh	tʂh	tʃh	tɕh	kh	qh	
b	d	dz	dʐ	dʒ	dʑ	g		
ɸ		s	ʂ		ɕ	x	χ	h
β		z	ʐ		ʑ	ɣ	ʁ	
m	n				ɲ	ŋ		
w	l	r	ɹ		j			
	ɬ (4)	(ʁ) (4)						

Initial Clusters

Along with the inventory, Sun has included one example of each segment, cluster, and diphthong. For some rare clusters and finals, these charts provide the only support, as they do not appear in the published lexicon. These forms have been treated as *hapax legomena*, are followed by (1) in the charts below, and the corresponding forms been added to my database. All segments and segment combinations with five or fewer supporting forms are specially indicated. A few of the segments are not given in his inventory, but appear in the data. They have been included in the following charts.

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mdz (1)

sp (2) st sk (1) sq (1) (stɕ) (1) sm (1) (sn) (1) (snʈ) (1) (sl) (1)

zb (1) zd zg (1)

ɾp (1) ɾb ɾd (1) ɾk (1) ɾg ɾts (1) ɾdz (1) ɾtʃh (1) ɾdʒ (1) ɾdʐ (1)

ɾm ɾŋ (1) ɾl (1) ɾw (1)

ʁp (1) ʁt (1) ʁk (1) ʁts (1)

ʂp ʂk ʂq ʂtɕ (3)

khs khʂ (1) khɕ

gz gʐ gʑ (1)

xp (1) xts (1) xtʂ xtʃ (2) xtɕ (1) xl (5)

ɣb (1) ɣdʐ (4) ɣdʒ (2) ɣdʐ (2) ɣl (5) ɣn (1)

qhs (5) qhʂ (3)

χt (1) χts (1) χtʂ χtʃ (1) χtɕ (1) χl (1)[8]

ʁd (1) ʁdz (4) ʁdʐ (4) ʁdʒ (2) ʁdʐ (1) ʁɳ (1) ʁz (1) ʁl ʁʑ (1)

Comments:

1) /ɸ/ is found mainly [but not exclusively -- JPE] in Chinese loans. (SHK)

2) /β/ and /ʁ/ are found mainly [exclusively -- JPE] in the second syllable of compounds and in consonant clusters. (SHK) This is also true for /ɣ/. As observed by J. Sun (*PNQP*) these sounds should probably be treated as allophones of /b, r, g/. Their appearance in the initial position of second syllables is due to stress (*PNQP*:2, ff.), which unfortunately has been left unmarked, as in all of the published sources of Northern Qiang

[8] *EAGLE *glaŋ

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lexical data.

3) /ŋ/ is labialized in native vocabulary. (SHK)

4) The retroflex affricates are very lightly fricated, and are closer to stops than to affricates. (SHK)

5) /r/ is trilled as an initial, but flapped in clusters; it corresponds to Taoping /dʐ/ or /l/. (SHK)

6) Dental stops are dentalized and affricated before central vowels /ə, ɤ/. (SHK)

7) Older speakers differentiate another series of palatals. (SHK) Unfortunately, it is not clear how to interpret this comment.

8) /m, n, l/ are velarized before /ɤ/. (SHK)

9) As has been observed for Yadu (above), J. Sun (*PNQP*:7, ff.) points out that the published initial cluster system of Mawo should be simplified. In Qiang, the set of pre-initials is much more restricted than is the set of initials. H. Sun divides clusters into two types according to the pre-initial: those that are stops (Type II, *QYJZ*, pp29, 30), and those that are not (Type I, *QYJZ*, pp 27-29). After summarizing the pre-initial system, J. Sun observes that, with the exclusion of *ʂ-* and *m-* (which can only be found in the morpheme *mdza* 'beautiful'), Type I pre-initials can be arranged according to oppositions of voicing (*PNQP*:7):

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Voiced	Voiceless
ʁ-	χ-
ɣ-	x-
z-	s-
ɾ-	ʂ-[9]

The first two pairs of sounds are distinguished before /l/ (*ʁlə* 'wheat', *χlu* 'eagle', *ɣləɣu* 'wheat', *xlə* 'marrow'). However, before obstruents, voicing is predictable:

ɣdʐə	'eel'
xtʂə	'gall'; 'louse'
ʁdʐə	'star'; 'bell'
χtʂə	'spear'; 'six'

Similarly, /z-/ only appears as a pre-initial before voiced obstruents /b, d, g/, whereas /s-/ occurs before both voiceless obstruents /p, t, k, q, tɕ/ and sonorants /m, n, ɳ, l/. Thus, just as in Yadu, there is no phonemic distinction between /s, z/ in pre-initial position.

The next distinction to consider concerns the pair /r, ʂ/ and the retroflex /ʂ/. The following chart is taken from *QYJZ*:27 and *PNQP*:8:

Table 2.14 Distribution of Mawo /ʂ-, r-, ʂ-/ in clusters:

initial> / pre-initial	p	b	t	d	k	g	q	ts	dz	tʃh	dʒ	tɕ	dʑ	m	ŋ	l	w
ʂ	●		●		●			●									
r	●	●		●	●	●		●	●	●	●		●	●	●	●	●
ʂ	●				●		●					●					

J. Sun argues that ʂ- is best considered as an allophone of /r/, given that it only occurs before voiceless obstruents. However, *QYJZ* also includes the clusters /rp, rts, rtʃh, rk/,

[9] In Jiuziying (SQ), r > ʂ / #[-voice] _. (Wen 1950:20)

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which run counter to that analysis. Nevertheless, J. Sun observes that these four clusters occur word-medially, and not initially, as in the following data (taken from *ZYC*):

ɳa-rpa	steward, house-keeper (p185)[10]
kɑ rpu	lime (stone)
phu-rtsuq	hole in the top of a tent for a rope (p185)
da-rtʃhal	big cymbal (p185)
ʐa-rka	medicinal root (notopterygium) (p185)

J. Sun does not cite any counter-evidence from *QYJZ*. There are, however, the following two forms from the introductory pages to *ZYC* (published after *PNQP*) that show /ʈ/ occurring word-medially in a post-vocalic environment:

phə-ʈpa	device used when reciting scriptures (p185)
biʈa	rope

According to the distribution given below in Table 2.16, these instances of [ʈ] should be allophones of /tʂh/ occurring in unstressed environments. However, there are no other instances of the cluster /tʂhp-/ in the data or phonemic analysis. At present I have no explanation for the phonetic shape of the form *phə-ʈpa*. Nevertheless, I agree with J. Sun's characterization of [ʈ] as an allophone of /r/, in spite of these apparent contradictions (which may also be typographical errors (for a discussion of this problem in *ZYC*, cf. J. Sun 1992). The sound [ʈ] is very rare: out of 1004 entries in the body of *ZYC*, the only other form with this voiceless rhotic is *ʈtsa* 'rust'. Although I follow J. Sun's analysis and consider this sound to be an allophone of /r/, I do not alter H. Sun's original transcription in this dissertation.

J. Sun observes that for his own Mawo consultant, [ʈ, ʂ] were freely varying

---

[10] Lexical items that appear only in the phonological discussion, and not in the general lexicon have their *ZYC* page numbers indicated.

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allophones of [r], occurring word-initially before voiceless consonants other than /k, q/ (*PNQP*:10). Thus, among the pre-initials, occurrences of [ʈ, ʂ] are sub-phonemic. According to J. Sun's analysis, the total number of Mawo phonemic Type I pre-initials is eight: /m, r, s, x, ɣ, χ, ʁ, (s)/. Even simplified, this system is much more complex than the Ronghong Yadu system of three underlying pre-initials /ʂ, x, χ/.

Another rhotic issue, not raised by J. Sun, is the degree to which post-vocalic /ɹ/ is to be distinguished from rhotic clusters:

bʐə tsi	thin
bəɹ tsi	thin (slender)

By merely examining the printed Mawo data, it is not possible to tell whether these forms are in free variation. Nevertheless, I have observed that for some b-initial words, sounds which are transcribed in Mawo with either rhotacized vowel or final /-ɹ/ occur as initial clusters in other Qiang dialects. It is not clear to what extent this is due to a true phonetic change in Mawo, and how much of this difference is due to transcriptional difficulties:

Table 2.15 Correspondence of Mawo /ʳ, ɹ/ to rhotics in the other dialects

Gloss	Mawo	Yadu (Ekou)	Taoping	Mianchi	Longxi
brother (elder)	tə baʳ		$tu^{55}bʐɑ^{31}$		
big	bɑɹ	bɹɛ	$bʐɑ^{33}$	bʐà	bɹà, bà
dragon	bəʳk	ʐbə	$χbə^{241}$		
high/tall	buʳ	bɹɪ		bʐú	

Mawo (and Yadu) clusters may become simplified when in coda position. The numerals two, three, four, six, and nine demonstrate this change when they appear as 'teens'. Although the following examples are from Mawo, similar properties obtain for the

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Yadu numerals.

a; tɕi	one	*he tɕi*	eleven
ɣnə	two	*han*	twelve
khsi	three	*hesi*	thirteen
gʐə	four	*haʐ*	fourteen
ʁua	five	*ha ŋu*	fifteen
χtʂə	six	*hatʂ*	sixteen
stə	seven	*hast*	seventeen
kha˥	eight	*ha kha˥*	eighteen
rguə	nine	*ha rguə*	nineteen

2.1.2.2 Mawo Rhymes

Vowels:

The following vowels are found in uninflected words:

Monophthongs

Plain				Retroflex			
i	i:, y	u	u: (5)	i˥ (4), y˥ (1)		u˥	u:˥ (1)
e	ə	ʏ	ʏ: (1)	e˥ (2), e:˥ (1)	ə˥ ə:˥ (3)	ʏ˥ (1)	
a	a: (2)	ɑ	ɑ: (2)	a˥ a:˥ (2)		ɑ˥	ɑ:˥ (1)

Diphthongs

Plain			Retroflex		
(ie) (ue) (2)	uə	(uʏ)	ue˥ (5)	uə˥ (4)	uə:˥ (1)
ia (ya) (1) ua	ua: (1)		ua˥	ia˥ (1)	ua:˥ (1)
iɑ uɑ	uɑ: (3)		iɑ˥ (3)	uɑ˥ (5)	uɑ:˥ (1)

Comments:

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1) There are also vowels with offglides /ai, ɑu, əu, iu, uai, iau/ which are mainly found in Chinese loans. (SHK)

2) /ia:, ia:ˀ, ya, ya:, ya:ˀ/ appear only in inflected words. (SHK) However, in the data, /ya/ also appears in the Chinese borrowing *yan pi* 'pencil'.

3) Note that the native diphthongs all proceed from more close to more open. [JPE]

Final Consonants

As in Yadu, many of the possible final consonants and clusters are rare; most of the final clusters are *hapax legomena*. The following charts show that final affricates and voiced obstruents are generally less common than are other codas.

Simple Finals:

-p	-t	-ts (2)	-tʂ (5)	-tʃ (3)	-k	-q
-b (1)	-d (1)			-dʒ (1)		
-ɸ (1)		-s	-ʂ			-χ (1)
		-z (2)	-ʐ			
-m	-n				-ŋ	
	-l	-r (3)				
		-ʂ (3)				

Final Clusters:

-st	-zd (1)		
-rb (1)	-rg (1)		
-ʂp (1)	-ʂk (2)		
-xs (2)	-xts (1)	-xtʂ (1)	-xtʃ (1)
-ɣz (1)	-ɣl (1)	-ɣdʐ (1)	-ɣʐ (1)
-χp (1)	-χs (1)	-χl (1)	-χʂ (2)
-ʁdz	-ʁz (1)	-ʁl (1)	-ʁdʐ (2)

Comments:

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1) Voiceless stop codas are released, often with slight aspiration. (SHK)

2) Final /-b/ only occurs in rhotic environments. The following are the only instances of final /-b/ in the data:

wurb	bird's nest
qhəˈrb	eddy, vortex
tʂəˈb	ring a bell

I strongly doubt that [-rb, -ˈrb, -ˈb], all *hapax legomena*, are phonemically distinct finals. As in Yadu, I will continue to distinguish /-ˈ/ and other rhotics based on the following two observations: 1) The consonants in all final clusters agree in voicing. 2) There are voiceless consonants (including /p/) that may follow /-ˈ/. Hence, the (voiced) sound [-ˈ] is best considered to be part of the vowel nucleus, rather than an element of the coda:

khɑˈp	full
təkhaˈt	saw (n.)
ʁəˈt	broad bean
ʂquɑˈtʃ	bend[11]
quŋkhuaˈs	razor
khaˈʂ	August
ʁuˈŋ bəˈk tshu	kneel
khuˈq	wake up
phiɑˈq	wet

3) There is one instance in ZYC of /ˈ/ in an initial: *ˈbəˈq-phi*, 'piece of land' (p. 190). Given the fact that /ˈ/ represents vowel retroflexion, this must be a typographical error. It most likely should have been written /r/, as /rb-/ is an attested initial cluster, occurring in the (possibly cognate)*rbə tshi* 'rake', among other forms.

---

[11] Check gloss

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4) *PNQP* also demonstrates that in native vocabulary H. Sun's /e/ vowel is subphonemic. The distribution (with examples) is as follows:

/i/ -> [e] / [uvulars]_	qəp	'urn'
/a/ > [e] / _C_0 i	esi	'a day' (< /a/ 'one')
/iː/ > [eɹe ~ eː]	eɹe	'next year'
/ui/ > [e]	be	'plate'[12]
ʏ-i > [e]	dʐʏːdʐe	'hot' dʐe < dʐʏ-i (hot-AGR:3s)

The one other source of Mawo [e] is in recent Chinese loanwords. In this set of words, /e/ is phonemic:

pe	'north' (b)
pi	'pig'
pa	husk

Thus, it is clear that while from a synchronic perspective /e/ is a phoneme, it is of secondary historical origin.

2.1.2.3 Mawo Stress

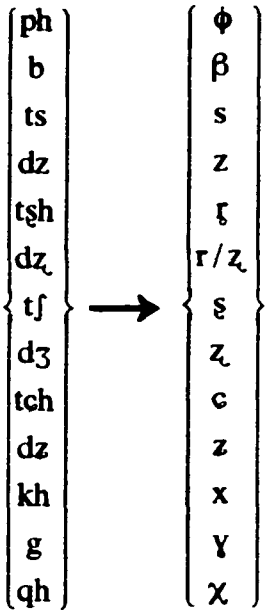
There are no phonemic tones in Mawo, but there is contrastive stress in some words. Stress is not marked in the data. (SHK) It is unfortunate that stress is not marked, as it is not predictable. Moreover, as J. Sun (*PNQP*:3) has observed, H. Sun himself pointed out that certain stops and affricates are lenited when they occur in unstressed word-medial position (*QYJZ*, pp43-9). The following chart from *PNQP*:3 summarizes those changes:

---

12 J. Sun's consultant pronounced this word [$b^{w}ɻ$]. Note that /uiˈ/ (*hapax*) is unaffected: *tsə gui*ˈ'ditch'.

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Table 2.16 Word-medial changes in unstressed syllables (*PNQP*)



This chart, coupled with observations given above, indicates that [β] is almost certainly an allophone of /b/, occurring in the weakened environments of word-initial clusters and intervocalically as the initial consonant of weakened syllables.

2.2 Southern Qiang

Southern Qiang dialects are characterized by simpler syllable canons than those found in Northern Qiang (e.g., total lack of consonant clusters in some varieties), and by the presence of tones or pitch/accent. They also have noticeably fewer consonants in their inventories; e.g., Ekou Yadu has 45 plain initials and fifty initial clusters, whereas Mianchi has 37 plain initials and three clusters. Southern Qiang dialects also have a much higher percentage of vocabulary that are borrowed from Chinese. For data collected in the 1950's, Northern Qiang dialects show a rate of borrowing of 15%, versus 30% in Southern Dialects (*QYJZ*). At the present time, Sinicization of vocabulary seems to be occurring at a faster rate in Southern Qiang than in Northern.

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In this section I will first present phonological summaries of Mianchi and Longxi, the two Southern Qiang sub-dialects on which I have done fieldwork. I will then present data on Taoping, taken from *QYJZ* and *ZYC*.

2.2.1 Mianchi phonological inventory

Syllable Canon.

The minimal Mianchi syllable consists of a vowel (V) bearing a tone or pitch (T/P). The onset may contain an initial consonant (C) or consonant cluster (CC) in which the second segment is a retroflexed fricative, or a semi-vowel. If there is no coda, the rhyme may contain either a monophthong (V) or diphthong (V Vf). Monophthongs and diphthongs may be nasalized or voiceless, but only if there is no final consonant. The only possible codas are nasals (N), which may not follow triphthongs. In short,

Mianchi: T/P
(C) (R) (V_i) V (V_f / N)

T/P = Tone/Pitch
R = /ʂ, ʐ/
V_i = /i, y, u/
V can be nasalized or voiceless
V_f = /i, u/ in native words, and /a, æ, e, ɛ/ in borrowings.
N = /n, ŋ/

2.2.1.1 Mianchi initials

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Simple Initials:

p	t	ts	tʂ	tɕ	k	q	
ph	th	tsh	tʂh	tɕh	kh	qh	
b	d	dz	dʐ	dʑ	g		
(f)[13]		s	ʂ	ɕ		χ	
		z	ʐ	ʑ		ʁ	ɦ
m	n			ɳ	ŋ		
	l						

Cluster Initials:

pʂ bʐ {mʐ}

Comments:

1) The distinction between /w,y/ is neutralized after palatal initials, where only /y/ occurs:

2) Stop [+dental] > [+labialized] / _ u

defecate *duá* [bduá] nail (v) *tù* [ptù]

The coarticulation in 'nail' sounds like the [-pt-] of the English word 'captain'. The articulation of this allophone is not visually distinct from /p-, b-/. Nevertheless, the consultant would not accept [p-, b-] as substitutes. Secondary articulations are found in other dialects of Qiang; Randy LaPolla (p.c.) reports that in Qugu Yadu the plosion of a retroflex affricate may blow the lips apart, causing a secondary coarticulated bilabial. This phenomenon also occurs before /u/ in two of Wen's dialects. In Ruodazhai secondary [ɸ, β] precede /s, z/, and [p, b] precede voiceless/voiced stops and affricates. In Jiuziying, /p, b/ occur before voiceless/voiced obstruents. In Jiuziying the conditioning environment has

[13] Parentheses indicate segments which only occur in borrowings, and onomatopoeics, like 'sneeze', below. Curly braces indicate segments that are rare or marginal in native vocabulary (five or fewer forms).

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been lost, leading to phonemic pre-labialized clusters:

Gloss	Jiuziying	Longxi	Mianchi	Taoping
water	ptsʅ	tsù	tsuɛ̀	tsuə^{33}
boy, son	tsʅ	tɕì	tsɨ̀	tʃʅ^{33}
small	ptʂʅ	-tsú (suffix)	-tsú (suffix)	
mole, wart (b)	tʂʅ	tsɨ̌	tʂɨ̌	tʂʅ^{13}
chopsticks	bdʏ	bə̀ tɕá	dù [bdù]	duə^{33}
give birth	dʏ			də^{33}

According to Wen's Longxi consultant(s), 'chopsticks' was pronounced *bu cia* (Wen 1950:39n). It appears that the labializing /u/ has been lost in the years between Wen's recording of data and my own.

3) [ɬ] occurred in some speakers' pronunciation of 'moon' as [ɬə], whereas the chief language consultant pronounced it [lə]. Although the consultant would criticize others for using the voiceless pronunciation, it preserves a trace of the Proto-Tibeto-Burman (PTB) *s- prefix (*s-la, STC 144). As this was the only occurrence of [ɬ] encountered, it is not recorded as a phoneme.

4) /ph, b/ > [pɕ, bʑ]/_i. (/p/ is unaffected) e.g.:

guest	*tè phì*	[pɕì]
picture	*bì*	[bʑì]
Qiang priest, shaman	*pí*	[pí]

This phonological rule is shared by Northern Qiang (cf. Table 2.3). Pumi also has a series of palatalized labial stops (Matisoff 1997), as does the SQ dialect Jiuziying (cf. 3.3.1.8.1).

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5) f ~ ɸ. These sounds occur only in borrowings; the alternation is a feature of the local variety of Mandarin, in which standard Mandarin /h/ is also pronounced [f ~ ɸ]:

(lɛ̀)-ɸù-rá	*tʂhà-fù*
wheat-bran (b)-skin	tea (b)-pot (b)
'(wheat) bran' (b)[14]	'teapot' (b)[15]

Table 2.17 Examples of Mianchi initials

p	peì	old (of person)	pià	pig	pù lò	kidney
ph	phaò tshù	pickax (b?)	phiè	CL for leaf	phù	clothing
b	bò lò	bug	bè zɨ	dirt	bá	old (of things)
(f)	feì	Cl for portion (b)	fù thà	crazy (b.)	fóŋ fòŋ	gap, interval (b)
m	mú pià	sky	mià-peí	old woman	mú tì	spark
t	tɛ̀ tì	straight, erect	tó tuì	slow	tú tyà	pull up (weeds)
th	thiò	sculpt	thoû	break into	thuà	stack up
d	dò ʁò	firewood knife	duá	defecate	deì	bean
n	nà	good	nò	thou	nè kò	pillow
l	là	arrow	lɛ̀	wheat, barley	lú	row (CL)
ts	mɛ̀ tsò	hold meeting	tsaó tsaò	only, alone	tsà	ride, straddle
tsh	tshɛ̀	goat	tshù là	rough	tshɨ́	thorn

[14] (b) indicates a lexical borrowing from Mandarin Chinese, or a word that is part borrowing and part native (in this case, the morpheme 'bran').

[15] *Chá hú* in standard Mandarin (pinyin transcription).

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dz	tɛ̀ dzwê	gather together	dzè kè	tooth	dzò lò	millstone
s	sé	tight	sù	mountain	sèi	wolf
z	zò	chisel	zɛ̀	piquant	zá	foodstuff
tʂ	tʂuà	handful (b?)	tʂâ	blow nose	tʂeì tʂá	chew, munch
tʂh	tʂhù	sweat	tʂhà ʂì	spider	tʂhè	drive animal
dʐ	dʐoù	tael, liang	dʐuá	bore (hole)	dʐì ló	limit, end
ʂ	ʂè bzǎ	flood	ʂù	age	ʂé	good
ʐ	(dè) ʐǎn thà	forgive (b)	ʐì thá	infect	ʐà	night (CL)
tɕ	tɕí	home	tɕá qà	often	tɕè	daughter
tɕh	tɕhì	voice	tɕhò	rice (cooked)	tɕhá	push down
dʑ	dʑuè	soldier	dʑà	stamp, chop	dʑí	ache
ɕ	ɕà	write	ɕì	iron	ɕí	lifetime (CL)
ʑ	ʑé	fly (v)	ʑóu	light-weight	ʑà	ox (CL)
ɳ	ɳà	and	ɳù	be worth	ɳó	operate (vehicle)
k	kú ~ kù	harvest	kɛ́ zì	self	kò	hide (v.t.)
kh	khò kǐ	test, examine	khuí	enclose	khaó thà	knock
g	goù pà	sole	guì	rust	gɛ́ gɛ̀	deceive
ŋ	ŋà	I, me	ŋá	have, exist	ŋó	silver
q	(lòu) qà tá	under (building)	qə̂	shout, yell	qé qè	headman
qh	qhoù	smoke (meat)	qhà	bitter	qhué	build (house)
χ	χá	yellow	χó-khuè	hound	χoù	tasty, fragrant
ʁ	ʁuà qó	five	ʁà	itch, tickle	ʁó	turn around (v.i.)

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fi	fià	that	fiá nə̌	darken	fià cə̌	sink (v)
pʂ	pʂí	white	pʂè	news, letter	pʂú thɛ̀	way, means
bʐ	nⱥ́ bʐà	parent's sister	bʐú	tall, high	bʐí	thin, slender
mʐ	mʐe^{35} tsà	afternoon	mʐì	rain	(only these two morphemes)	

Notes on forms:

1. For 'old woman' (/m-/), note that the tone on *peí* is different from *peì* 'old'. This is not an error, but an instance of the unpredictable nature of tone sandhi in this language.

2. For 'handful' (/tʂ-/), cf. Mandarin *zhuā* 'seize'.

3. For 'forgive', note that *thà* 'do' is a common suffix on borrowed verbs (Longxi *dà*, Taoping *tha*^{33}, Mawo *tha*).

4. fi- occurs only in the verb prefix 'down', and as an initial in deictic words. The second example here is the only occurrence of a high tone word with fi- initial. The 'down' morpheme is represented in the second and third examples, albeit with an unpredictable tone variation (it is usually in the Low-Falling tone). This morpheme is cognate to the 'down' prefix /ha/ found in Northern Qiang (LaPolla, p.c.).

Comments:

Palatals are often followed by non-phonemic palatalization of the following vowel. This is not indicated in the data.

The cluster /mʐ/ appears to be of secondary origin. There is no evidence for it in the other two dialects, even though Taoping has many initial clusters (cf. 2.2.3.1). For both 'afternoon' and 'rain' it appears that the initial /m/ is a reduced form of the weather

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morpheme /mú ~ mù/.[16]

2.2.1.2 Mianchi rhymes

Vowels

Monophthongs:

oral			nasal			voiceless		
i , y	ɨ	u	iN[17],(yN)			{i̥}	ɨ̥	{u̥}
e	ɘ	o	{eN}		{oN}	{e̥}		{o̥}
ɛ	ə		æN[18]	aN		{ɛ̥}		
æ[19]	a						ḁ	

Diphthongs:

oral								
		iu				ui		
ie		io	{ye}			ue		(uo)
			{yɛ}			uɛ		
	ia			ya			ua	

---

[16] My thanks to Professor Jackson T.-S. Sun for this observation.

[17] To avoid confusion with tone diacritics, nasalized vowels are indicated by -N.

[18] /æN/ occurs mostly in borrowings, but there is at least one native formdè *làæN tà* 'behind', where the vowel in question may have arisen due to vowel harmony.

[19] /æ/ usually occurs as a result of VH, when not borrowed from Chinese.

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		nasal		triphthongs	
	ou	(iaN)	{uaN}[20]	(uei)	iou
ei	ao	(yæN)	{uiN}		(iao)
ai					

voiceless: (ǫu)

Table 2.18 Examples of Mianchi rhymes

i	í dzè	arm	ýN tchì	fortune, luck (b)	á tʂhì là	sparrow hawk
y	ý ʂɨ	jade (b)	tshè cỳ cỳ	cicada	tchý thà	funny
e	tché	steelyard	dè	idle	mé mè	wind (n)
ɛ	tché	feces	dè	first	mè	extinguish
æ	ʐæ ʁoù	bone	kæ bʐí	onion (wild)	mæ qá	other person
ɨ	á tɨ	parent-in-law	χà sɨ	recognize	ì tʂɨ	fill in (barrel)
ɚ	ʂə phɚ	break (thread) (v.i.)	tɛ ə̀	stand up	phɚ́	open (eye)
ə	í nə qɛ	finger	nə́	red	lə	moon
a	bʐá	big	lə là	exchange	sè qá	select
u	fù ʐá	bran	dà pú	forehead	dù	chopsticks
o	qó	kernel (CL)	phò	tree	bò lò	insect, bug
iN[ĩ]	tìN pò	tip, top	khɛ̀-nìN nì	bell (m-b)	pìN tɚ́	kidney bean (b)
(yN)	ýN tchì	fortune, luck (b)	(hapax)			
{eN}	céN cèN	father's younger brother's wife	laǒ ʐèN	rowdy (b)	(only these two examples)	

20 This final occurs only in borrowings, with the exception of 'clump of trees (CL)' *tsuàN tsuáN*.

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æN	sæN	umbrella (b)	læN kuà	pumpkin (b)	tsæn thà	dip pen
aN	mì láN pà	mute	mù tié màN pé	pupil of eye	pàN páN	rod, stick
{oN}	bòN bó	protruding	tchòN kàN kàN	shin	χòŋ nòN	throat (b)
{i̱}	diá tchi̱	next year	tán phi̱	rafter	íŋ phi̱	earthen jar
{e̱}	(fià) pé tche̱	reduce, decrease	nə́ se̱	yesterday	zɨ́ tsé se̱	lucky day
{ɛ̱}	pé tchɛ̱	few	tă khɛ̱	probably (b?)	(only these two examples)	
a̱	(dè) sóŋ tha̱	loose (b)	khăn tha̱	to dry (grain) (b)	tiá tha̱	pick up (basket)
ɨ̱	dá tshɨ̱	play	dɛ́ mè tsɨ̱	final, last	cí tchɨ̱	waste
{u̱}	dzá khu̱	shy	tsé pu̱	this year	(only these two examples)	
{o̱}	ná tcho̱	lunch	(hapax)			
ia	(duè)-piá pià	purse lips	ʐuà (tiá)	knead (b)	ʐòu miá	mare
ie	(bà) diè	rest	biě	urine	giè tsɨ́	evening, night
iu	iá liù-phò	willow (b)	mí tiù	blind	à iú tè pù	join (sections)
io	diò	door	qhué thiò	quilt	tuà liò	hammer
ya	cyá	bright	tyà	weave	tchyà	step on
{ye}	yè	medicine (b?)	thyé	smoke (cigarette)	(only these two mor-phemes)	
{yɛ}	yɛ́	flat	cyè thá	peel with knife(b)	(only these mor-phemes)	
ue	ŋuè	correct, right	ʂɛ́ χuě	develop (a sore)	fià qhué	cover (v.t.)
(uo)	uò	goose (b)	uó tha̱	sunken, concave (b)	uó sìN	asparagus lettuce (b)

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ua	(mù) tʂhuá	shave	(mè) ʁwâ	call (person)	χuà là	wash
uɛ	ŋuè	know how to	duè	warm	dzé kuè	rat, mouse
ui	dè thuì	return a purchase	ʂé χuì	regret, repent	fià kuì kè	big enough
ei	ì séi tà	midnight	tɕíŋ tèi	moss (b)	tɕé (tsɨ) mèi	wife
ai	(kiè) kaì tà	ought to (go)	kán tsài	sugar cane (b)	qǎi qá	in the past, formerly
ao	tè tɕaò tɕè (zɨ̂)	worry (b)	phaò tshù	pickax	paò tɕò	sock, foot wrap (b)
ou	(dè) thoú	loose	dì sóu	three days from now	dòu miá	"poison cat" (kind of witch)
(ɋɥ)	piá tshɋ̀ɥ	pig trough (b?)	(hapax)			
(iaN)	iàN χò	matches (b)	ià phiæN iáN	opium (b)	(only these two forms)	
(iæN)	iæN ỳ	potato (b)	miæN χuà	cotton (b)	iæN tɕè	soap (b)
(yæN)	yæN pá	courtyard (b)	ɕyæN	tinea (b)	ɕyæN thá	danger
{uaN}	kuàN kuáN	food steamer	mà χuàN	leech (b)	tsuàN tsuáN	clump of trees
{uiN}	kuìN kuìN	wheel	(hapax)			
(iao)	iaò khù	short pants (b)	má tiaó nì	squirrel (b)	á thiaò-pù	sneeze
iou	ióu	sheep	ioú ɳù ɕì	continue	lioù χuàŋ	sulfur (b)
(uei)	ú khuéi	tortoise (b)	ʂuèi maò tsɨ	otter (b)	χuàŋ suèi lɔ́	yellow weasel (b)

Notes on forms:

1. Voiceless vowels are not marked for tone.

Comments:

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1) In all three SQ dialects I have treated the sounds in medial position as /i, u, y/, and not */j, w, ɥ/ for the following three reasons. First, treating these sounds as consonants would introduce CCC- clusters (e.g., TP *χtie*^{55}*bʐɑ*^{31} (lazy ('heart-big')) and affricate clusters (e.g., TP *tə*^{31}*tshie*^{33} 'wrong/mistaken', *dzyi*^{33}*la*^{55} 'wring (e.g. wet cloth)') to dialects that are cluster-poor. Second, in native vocabulary, these sounds occur entirely before simple vowels; thus, treating them as vowels does not complicate the native syllable canon. There are resulting triphthongs (above); however, all are Chinese borrowings. Third, this analysis is more consistent with published sources, making similarities and differences more apparent. For the sake of consistency, I treat these sounds as vowels in my reconstructions of Proto-Southern Qiang (PSQ).

2) The e/ɛ distinction is not stable, and many forms have variation. Nevertheless, there are consistent minimal pairs (in addition to those cited in the above table), such as

dɛ̀ bad *dè* spear, pike.

Each form cited with /e/ or /ɛ/ occurred at least one time with that pronunciation, and variation is noted for some forms in the appended lexicon. For comparative purposes, the distinction /e, ɛ/ is not significant.

3) A few of the /iao/ forms are onomatopoeic rather than borrowed, e.g., *á thiaò-pù* 'sneeze'.

4) Voiceless vowels occur only on unaccented syllables following voiceless obstruents, and have the following restricted distributions:

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i̯ - occurs only after /ph, tɕh/.
ɛ̯, u̯, o̯, ou̯ - are very restricted, only occurring in the above-cited examples.
e̯ - only occurs in the word 'reduce, decrease', and in a morpheme meaning '-day', such as 'yesterday', 'lucky day', 'today', etc.
a̯ - only occurs in the verb suffix thà̯ (appended to borrowed verbs), but only in seven instances.
ɨ̯ - occurs ten times.

Voiceless vowels do not appear to have phonemic status; they occur in a very restricted environment, and often as variants of voiced vowels (e.g., a̯). However, although they are not *distinctive* (no minimal pairs distinguished by voicing), they are *characteristic* of certain words, such as those in Table 2.18.

5) /y/ occurs as a full vowel only after palatals or Ø- initial; medially, it occurs in the same environments, and also following /t, l/. Nevertheless, /y/ is quite rare after /t,l/, occurring in only the following three morphemes (out of 49 instances of /y/ (1.6% of lexical items)): *cà lyà* 'discuss', *tú tyà* 'pull up (weeds)', *tyà* 'weave (basket)'.

6) Mianchi (as well as other Southern Qiang dialects) is subject to irregular vowel harmony. Compare the following:

dog	*khuè*	puppy	*khuà là tsú*
hand	*ì pá*	bracelet	*pè ku ì*
thunderbolt	*mù gó*	rainbow	*mè χoú*
tree	*phò*	bark (n.)	*phò-z̩à piá*
weather (morpheme)	*mù*	light, bright	*mù cà ~ mè cà*

There is no rule that can account both for the changes in 'puppy', 'bracelet', 'rainbow' and the lack of change in 'bark', 'thunderbolt', and the variation in 'light'. Although vowel harmony is always anticipatory, it does not appear to be regular in any of the dialects (e.g., Longxi has two words for 'menstruate': *phì sà lò*, *mà só lò*, both of the form 'm-blood-come'. The second form displays both vowel harmony and tonal dissimilation.) Because vowels in non-final syllables are subject to this irregular vowel harmony, proto-rhymes are much

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more difficult to compare and reconstruct than are proto-initials (henceforth, in lieu of 'proto-rhymes', 'proto-initials', I shall write '*rhymes', '*initials', etc.). In the comparative lexicon (Appendix A), PSQ *initials, *rhymes, and *tones are given in separate columns, so that attention may be given to specific problems. This method also allows for the independent comparison of the strength of attestation for each of these three components in a given lexeme.

Final consonants:

The nasals /-n, -ŋ/ may occur as finals:

Table 2.19 examples of Mianchi finals

-n	χùn-phɛ̀	spirit (b-m)	tʂhán χuà	groan, humph	tán phi̯	rafter
-ŋ	còŋ tɕì	turban	íŋ phi̯	earthen jar	tíŋ tsɨ̀	nail (b)

Comments:

1) The above-cited nasal codas are not homorganic with the following initial, and hence cannot be considered nasalized vowels with an anticipatory closure. Nevertheless, there is some variation between nasalized vowels and final nasal consonants. In some words, there appears to be a syllable final /-m/. However, this sound only occurs after nasalized vowels which are followed by labial initials, and is thus ruled to be of secondary origin:

folkdance	*tàN pɔ̀-soú*	[tàm pɔ̀ soú]
mute	*mì láN pà*	[mì lám pà]
tip	*tìN pò*	[tìm pò]

2) The codas /-n, -ŋ/ are very rare in native words, and often alternate with nasalized vowels:

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rod, stick	*pàN páN ~ pàn pán*
wooden tray (b)	*sè-phèn phén ~ sè-phèN phéN*[21]
dark sugar (b)	*χuàŋ thàN ~ χuàN thàN*

There are 22 instances in the data of unambiguous nasalized vowels /-N/ in native words, but only seven occurrences each of /-n/, /-ŋ/. Most occurrences of /-n/, /-ŋ/ are either in borrowings, or alternate with /-N/. It is not possible to reconstruct nasal vowels or codas for Proto-Southern-Qiang (PSQ); further research is required to uncover the origins of nasalization on native words.

3) In both Mianchi and Longxi, there are r-colored sounds that can be interpreted as final /-ɹ/, or as RV, as there is variation in their pronunciation. In Longxi, this sound often appears as a final [-ɹ] followed by a shwa. Since unambiguous syllable-final consonants are restricted to /n,ŋ/, and even these are found mainly in borrowings, I have chosen to interpret these rhotacized elements as RV. e.g.,

MC	envy, despise	*ù sù mí qè ʐà*	[qè ʐà ~ qèɹ]
MC	extinguish, exterminate	*tè kè bʐè*	[bʐè ~ bèɹ]
LX	feces	*qhà ɹə*	~ [qhàɹ]

I have recorded this as /ɹ/ in Longxi, because this sound does not vary with /z/, and because it is phonetically distinguishable from [ʐ], the allophone of /z/. In Mianchi, it is recorded as /ʐ/ because there is no other evidence for an independent /ɹ/ initial. Longxi /ɹ/ occurs almost exclusively with the vowel /a/, with the exceptions being a few forms with shwa ('feces' (above), 'treat, cure' /pò ɹə̨/), and one with /i/ ('color' /ɹí quí/).

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[21] Note that borrowed morphemes are subject to reduplication, as are native morphemes.

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4) There are regular patterns of alternation found in reduplicated verbs, involving /u-, y-/ diphthongs. The data show that the added syllable is prefixed to the base morpheme, and /u-, y-/ diphthongs are simplified to /u/. Indirect evidence for the preposing of the reduplicated syllable comes from the non-predictability of the vowel of the second syllable. Direct evidence comes from Longxi, which also has this phenomenon, and which includes the form /(ʁù) ʁuá/ 'drive animal', in which the first (optional) syllable must be the added one. Mianchi reduplications may be found for the diphthongs /ua, uɛ, ui/:

blink	tshù tshuá	tidy up	sù suɛ́
to count (b)	sú suà	hide, conceal (v.t.)	sù suɛ́
cut, slice (vegetable)	tʂhù tʂhuá	pull up (weeds)	tú tyà
fall (of hair)	thù thuì		

In spite of the great number of instances of this pattern, it is not completely productive, as there are Mianchi forms in which the full diphthong is reduplicated:

hot	khuɛ́ khuɛ̀
lack, be short (one person) (b.)	tɕhuɛ̀ tɕhuɛ̀-(à-tió-uɛ̀)
expand, swell	(tɛ̀) suɛ́ suɛ̀

Note that there is no predictable tone pattern in reduplicated words, except that there are no instances of two High tone syllables, an expected result, as discussed in the following section.

2.2.1.3 Mianchi Tones.

Inventory:

Following are the tones and their total and relative frequencies in the corpus (total number of instances = 6369).

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mà	Low-Falling, (L) (ma^{31}).	4288 instances.	67.3% of total
má	High level tone (H) (ma^{55}).	1775 instances.	27.9% of total
mă	Low (Falling) Rising (R) (ma^{13} ~ ma^{213}).	226 instances.	3.5% of total
mâ	High-Falling tone (F) (ma^{51}).	76 instances.	1.2% of total
ma^{35}	Mid-Rising tone (M) (ma^{35}).	4 instances.	0.1% of total

Examples:

Table 2.20 Examples of Mianchi tones

L	mà	Qiang nationality	mò	dream	ŋò	cow
H	má	oil	mó	corpse	ŋó	silver
R	tshŭ	vinegar (b)	tè taì pŭ	admit	dɛ̀ mŏ	earthquake
F	(mè) ʁwâ	call (person)	tæ̀ qà pû	obtain, reap	tɛ̀ mô	rub, abrade
M	pæŋ^{35}-khə̀	freshwater clam (b)	pei^{35} tɕí kù	spine (b)	mʐe^{35} tsà	afternoon

Comments:

1) 'Afternoon' is the only Mid-Rising form that is clearly not a borrowed lexeme, although the first syllable of 'afternoon' results from the coalescence of mù ~ mú with another morpheme (cf. 2.2.1.1). The remaining M form is *ŋæ^{35} uò*, 'wild goose (b?)'. In addition to the above forms, the initial syllable of *íŋ phʅ* 'earthen jar' is sometimes pronounced [iŋ^{35}].

2) R and F tones are not mere variants of L and H, as evidenced by the following minimal pairs:

R v. L	dʑɨ qɛ̌	complete	dʑɨ qɛ̀	run fast
F v. H	fià ʁô	bend over	ʁó ~ ʁò	willing

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Nevertheless, there are significant restrictions on the occurrence of the three rare tones. The Mid-Rising tone only occurs in one definitely native word ('afternoon'), and in no monosyllables. The R and F tones most often occur in the final syllables of verbs, where they are part of the aspect marking and person agreement. In verbs, R has only a falling component when it occurs non-finally; that it, it occurs as L. In nouns, R sometimes varies with L, as in χă nɐ̀ ~ χà nɐ́ 'necklace (b?)'. Some occurrences of R are clearly of secondary and recent origin, arising from a dropped or coalesced syllable, as in

thà ɐ́	~ thɐ̌	rabbit
qé ì sì sì	~ qaɪ sì sì	ancient times
fiă dʐì dʐá	~ fiă dʐɪ	crevice, crack

3) For those words that have no occurrence of M, R or F tone (most of the lexicon), the distribution of tones within polysyllables is more like pitch accent than tone, with a limit of one high pitched syllable per word. This restriction accounts in large part for the great difference in frequency between H and L tones cited above (L occurs 2.4 times as often as H). F and R do not occur more than once in a word, and F is limited to word-final position. F and H do not co-occur. R and H can co-occur, although there are only 35 instances. while there are 174 instances of collocation of R and L (L is 5.0 times more common in collocations with R than is H). The resulting picture is one of a half-developed tone system, which for most of the native lexicon (especially nouns) is really a pitch accent system, while some borrowings have lexical tone, and verbs seem to have a combination of pitch accent and morphological tone.[22] By comparing Mianchi with Longxi and Taoping

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22 One reviewer of an earlier version of this discussion contested that pitch accent languages do not distinguish H/L on monosyllables, H-H/L-L on disyllables, etc. However, it is just this condition which occurs in Japanese, a language universally held to be of the pitch accent sort (e.g., ɕ 'handle', *e*^{51} 'picture' in Hirosaki dialect (Haraguchi 1977:74, notation adapted)). In addition, Greek has the following monosyllabic minimal pairs distinguished by accent:

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one sees that this is the predominant pattern of SQ "tones." Taken together, they indicate a predominantly *pitch accent system for PSQ. The PSQ suprasegmental system is explored in detail in chapter IV. An autosegmental representation of MC pitch phenomena is offered in Table 4.3.

4) The following lexical items show that the tones of a compound are not predictable given the tones of its component morphemes[23]:

Table 2.21 Accent sandhi in Mianchi compounds

a. Disyllabic combinations

Low + Low:		
L + L -> L-L	bz̧à + mù = bz̧à-mù	adult (big-person)
L + L -> L-L	dɛ̀+bz̧à = dɛ̀-bz̧à	expand, inflate (pfx-big)
L + L -> L-L	diò + bz̧à = diò-bz̧à	front gate, door (door-big)
L + L -> L-L	lò + bz̧à = lò-bz̧à	stone, boulder (stone-big)
L + L -> L-H	là + bz̧à = là-bz̧á	long month (calque) (month-big)
L + L -> L-H	zɨ̀ + bz̧à = zɨ̀-bz̧á	bull ox (bull-big)
L + L -> H-L	tshɛ̀ + mù = tshɛ́-mù	wool (goat-fur)
Low + High:		
L + H -> H-L	sù + nə́ = sú-nə̀	gums (tooth-red)
L + H -> H-L	lò + pʂí = ló-pʂì	flint (stone-white)
High + Low:		
H + L -> H-L	lá + bz̧à = lá-bz̧à	eagle (eagle-big)
H + L -> H-L	mú + khuɛ̀ = mú-khuɛ̀	warm self by fire (fire-put.near.fire)
High + High:		
H + H -> L-L	tí + pʂí = tì-pʂì	panda (bear-white)

τίσ, τί	who?, which?, what?	τισ, τι	any(one/thing), some(one/thing)
πῇ	by which way? where?	πῃ	in some way
ποῖ	whither?	ποι	to some place
ποῦ	where?	που	somewhere, anywhere; to some degree, perhaps
πῶσ	how?	πωσ	somehow, in any way, at all

[23] For a similar situation in Pumi, cf. Matisoff 1997.

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b. Trisyllabic combinations:

<u>High + High + Low:</u>		
H + H + L -> H-L-L	nə́ + nə́ + tsɨ̀ = nə́-nə̀-tsɨ̀	bright red, glowing (red-red-sfx)
H + H + L -> H-L-L	mú + phú + diò = mú-phù-diò	tube to blow on fire (fire-blow-door)
<u>Low-High + Low:</u>		
LH + L -> L-L-H	ʁà mú + phò = ʁà mù-phó	almond tree (almond-tree)
LH + L -> L-L-L	bè liú + bʐà = bè liù-bʐà	bachelor (young.man-big)
<u>Low + Low-High:</u>		
L + LH -> L-L-H	phò + ʐà piá = phò-ʐà piá	bark of tree (tree-skin)
L + LH -> L-L-R	dè + bʐù bʐí = dè-bʐù bʐǐ	become smaller (pfx-small)

2.2.2 Longxi phonological inventory

The Longxi syllable has the same range of possible consonant, vowel and tone combinations as Mianchi, although the segmental and supra-segmental inventories are not identical.

Longxi: $\overset{T}{(C)\ (R)\ (V_i)\ V\ (V_f / N)}$

R = /ɹ/
V_i = /i, u/
V_f = /a, i, u, e, o/
N = /n, (ŋ)/

2.2.2.1 Longxi initials

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Simple Initials:

p	t	ts		tɕ	k	q	
ph	th	tsh		tɕh	kh	qh	
b	d	dz		dʑ	g		
(f/ɸ)		s		ɕ		χ	h
		z				ʁ	ɦ
m	n			ɳ	ŋ		
m̥[24]				ɳ̊	ŋ̊		
w	l		ɹ	j			

Cluster Initials: bɹ gɹ

Table 2.1 Examples of Longxi initials.

p	pà	thick, wide	poú	CL for book	pú	drip
ph	phà	splash	phiá	picture	phù	news
b	bà	low	biè phà	young man	bó	flock
(f/ɸ)	fà sɨ	vow (v) (b)	fù toú ~ fù toǔ	broad bean (b)	fə́	portion (CL) (b)
v	vù	thou	veí lià	yourselves		
m	mǒ	without	mà	CL for leaf	mú	dark
t	tà	wear (hat)	tuì	carry with pole	tó	cool

[24] The consultant claimed that this series of nasals were "emphatic," or fortis (not voiceless), and constitute a separate series; however, emphasis/fortis was not always apparent to the researcher. When the fortis quality was apparent, it sounded like pre-glottalization. Fortis nasals were recorded in the following words, although the sounds under consideration often sounded no different to the investigator than the unmarked varieties:

Qiang nationality	*m̥à*
pit, stone	*m̥ì*
other person	*m̥è ì*
buttonhole	*ɳ̊ù mià* (b?)
be	*ŋù*

Hereafter, these forms are recorded with the initials /m, ɳ, ŋ/ respectively.

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th	thà	that (less distant)	thuà	row (CL)	thó	soup (b)
d	dà	disappear	duà	lower half of body	dò gò	roll over
n	nà	good	nə̀	two	ní ɕi̯	yesterday
l	lià	thick (of paper)	là sà	song	lí kù	cubit
ts	mà tsà	glue	pià tsú	panda	pá tsù	flower
tsh	tshà	chisel, bore	tshù tshú	stomp feet	tshè	three
dz	dzù	plowshare	dzɨ̀	muscle, pulse	dzù	plowshare
s	sà	blood	suì qò	circle, linger	só	study
z	zà	net	zuè	target	zú zú	dissolve
ɹ	ɹà	write	ɹí quí	color	ʁuà ɹà	throw
tɕ	tɕà	daughter, female	tɕì	male	tɕý	carry (money)
tɕh	tɕhá	shallow	tɕhò	bold	tɕheí	raise (hand)
dʑ	dʑà	believe	(dʑỳ) dʑý	gasp	dʑuà	mouth
ɕ	ɕà	death	ɕì ɕí	tight	ɕù	harvest (v)
ɳ̊	ɳ̊à	kiss	ɳ̊í	black	ɳ̊ú	live (a life)
k	kuà	animal pack (CL)	kà	braid (v)	kú	suck
kh	khà	hand span	khù	dog	khú khuá	hot
g	guà	answer (v)	gà	pry	gú	nine
ŋ	ŋàn dà	doubt (b?)	ŋù	real, genuine	ŋú	silver
q	qà	I	què	pile up, fold	qó	drink
qh	qhà	bitter, salty	qhò	shoot	qhú	shed (skin)
χ	χà	smooth, slippery	χuá	thin (of person)	χò	kite, hawk
ʁ	ʁà	fish	ʁué	raise with hook	ʁèi	Han Chinese
h	hăn dà	weld (b)	haó dà	hoe (v) (b)	hà há pù	yawn

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ɦi	ɦià	down (pfx)	à ɦiù	start	ɦià dzó	ten
bɹ	bɹà	big	(hapax)			
gɹ	gɹò ɕì	sole of foot	(hapax)			

Comments:

1) Unlike Mianchi and other Qiang dialects, the distinction between dental and retroflex affricates and fricatives has disappeared, and the series /ts, tsh, dz, s, z/ freely varies with [tʂ, tʂh, dʐ, ʂ, ʐ]. This loss of distinction has probably occurred under influence from Mandarin, for the local variety of Sichuanese also does not preserve this distinction.[25]

2) /h/ only occurs in the two borrowings and the onomatopoeic form above, and in *hàN háN* 'corridor', where the origin of /h/ is unexplained, although one notes that /χ/ does not occur as an initial on native syllables with nasal final. The nasalization may also have arisen due to "rhinoglottophilia," an affinity between nasals and glottal sounds, described by James Matisoff.

3) [thi] does not occur in LX or MC, except in the following borrowings:

LX	iæn thí	spleen (b)	MC	thí thiè ~ thí thì	antimony (b)
MC	lò thì	set of steps (b)	MC	thí	shave (b)
MC	ɳæn thì	spleen (b)	MC	thì khə̀	hoof (b)

It appears that in both MC and LX *thi > tɕhi. Since borrowings do not undergo this transformation, one may infer that this rule is no longer operational in LX or MC. [ti] may

25 An observation based on the researcher's experience in Sichuan, and discussion with various researchers.

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occur in native words (37 instances in LX and 50 in MC), such as the following:

(LX)	tí-qhú	hard snot	(MC)	tì kù	porcupine
(LX)	ʁò tì	horse fodder	(MC)	tí	straight

/tɕh-/ may occur before non-high-front vowels, as in the initials chart above.

4) [v] ~ [β] only occurs in words derived from Proto-Qiang (PQ) *u 'you' (cf. Ronghong Yadu /ʔũ/). Specifically, it occurs in *ù* [vù] 'thou' (and its compounds), *ú-lià* [vú lià] 'we (incl)' (and the dual form), and *ué ì* [vé ì] 'yourself' (and its plural and dual forms). There are two possible analyses of this sound to consider.

a) This sound represents a morpheme /v/. Note the following contrasts:

[vé ì]	yourself	*pè ì*	now	*mè ì*	other person

These near-minimal pairs are enough evidence to support the existence of a morpheme /v/. The downside of this analysis is that it adds a new element to the phonological inventory (one not present in other Qiang dialects), just to solve one difficult case.

b) This sound is an allophone of Ø- / _#u. To support this claim, one may observe that a pure [u] never occurs word-initially. This rule has the advantage of not adding any new segments to the inventory, and also indicates the secondary origin of this rare sound. However, a u-drop rule will need to be written in order to get the reflexive form. Thus, I posit the following two ordered rules:

1. Ø > [v]/ _#u.
2. u > Ø/v_V.

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Rule #2 indicates that /u/ is not pronounced when it is between [v] and a vowel.

In the interest of segment economy and phonological consistency with other dialects, I will employ approach b). 'Yourself' will be written /ué ì/, etc.

As a lexical semantic aside, note that the first person inclusive plural/dual forms differ from the second person forms only by tone. The first morpheme of the first person exclusive forms is the word 'I'.

ù ɳí	you two	*ú ɳì*	we two (incl)	*qà ɳí*	we two (excl)21
ù lià	you (pl)	*ú lià*	we (incl)	*qà lià*	we (excl)

5) As demonstrated in the chart of initials, LX's two consonant clusters each have only one appearance in the collected data. Note that within LX there are two forms for 'big', *bɹà*, *bà* and that MC has *bʐà* for 'big'. The data suggest to us either that LX borrowed the cluster form from MC (or another dialect: Taoping has *bʐa*^{33}) after LX had lost consonant clusters, or else that the *bɹà* form is autochthonous, and may be undergoing the process of simplifying the cluster initial. The case of *gɹò cì* 'sole of foot' is less clear. Other sources do not include forms for 'sole of foot', and searching other dialects, no similar form for 'bottom', 'edge', etc. has been found. Nevertheless, Jackson Sun (p.c.) has pointed out the following evidence to suggest that this form may reflect a TB root *gro 'foot': the rGyarongic forms *gro* (Yelong), *krschwa* (Mu'erzong), and the Taraon form *groŋ*. The LX form could also reflect the STC root (r-)kaŋ, as TB *-aŋ > LX (and other dialects) /-o/ (*s-raŋ ~ m-raŋ 'horse' > LX *ʁò*, *maŋ 'dream' > *mò* (*zè*)).

2.2.2.2 Longxi rhymes

Vowels

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Monophthongs:

oral			nasal			voiceless		
i , y	ɨ	u	(iN)			ị	{ɨ̣}	ụ
e	ɚ	o	(eN)	(əN)	{oN}		ẹ	
(æ)[26]		a	(æN)		{aN}			

Diphthongs:

Oral

(ai)				iu	ei		eu
	(ao)		ie	io	{ye}		
			(iæ)	ia			

Nasal

ui	ou					(ouN)	
ue	uo		ieN		ioN		
	ua		(iæN)	iaN		(uæN)	uaN

Triphthongs

{uei}	(iua)
(uai)	(iou)
(iuæN)	(iao)

Table 2.1 Examples of Longxi rhymes

i	mì iá	bad (character)	tɕì piá	cheek, chin	ɕí	(hit one) time (CL)
y	ỳ	chicken	pià ɕỳ	boar	lỳ ɕỳ	finger ring

[26] The vowel /æ/ only occurs nasalized or before a nasal final, except for derived environments, as in the third person INC marker /bæ/. All other instances are borrowings, except for tshà ʁuæN 'thrush' (imitative?).

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e	sè	alive	pé	fathom	ʁà χé	awn of wheat
ɨ	sɨ́	who	ɻà ká pà tsɨ̀	bone	zɨ́ zá	crevice, crack
ɚ	fiɚ́	thick (porridge)	ɕuɚ	moss	ɚ̀ ~ ɚ́	CL for rope
a	ɳá	a little (CL)	qhà	bitter, salty	zǎ	bleat
u	ʁú tù	grain measure	sù	tooth	pú	buy
o	bò bò	tingle	dà qò	tired	ɕó	lean on
(æ)	iæn dá	grind (Ch. medicine)	iæn tsheí	pickle vegetables	iæn thí	spleen
(iN)	khə̀ líN	bell (b)	phìN	bottle (b)	tɕuè tíN	decide
(eN)	tɕêN	alkali (b)	thoù ɕèN	surrender (b)	(only these two forms)	
(æN)	χò ɕáæN	fennel, anise (b)	phæN tsɨ̀	plate (b)	nə̀-tɕhæN	two dollars (b)
(əN)	təN lòN	lantern	(hapax)			
{aN}	pàN bá qə̀	thumb	hàN háN	corridor	máN láN láN	cymbals
{oN}	lòN	CL for clump of trees	á còN	younger brother	fóN	letter (CL. b)
ị	ní cị	yesterday	dzá tɕị	next year	iæn[35] tɕhị	admire, envy (b)
{ʅ}	peí tsʅ tsʅ	shiny blue	ì dzí sʅ	front side	(sʅ) tɕhʅ tɕhá	redeem, ransom
ᵊ	ɳí (χᵊ χᵊ)	purple	qù lá qᵊ	straight, upright	zə̀ mᵊ cì	set on fire
ụ	phò-ɻà í-mụ	tailor	mụ bó bə̀	old woman	dá mụ	fog
(ai)	paì dà	discuss (b)	tshaí dà	guess (b)	qài à tɕì pú	a few years ago
(ao)	thao[35] dà	match (clothes) (b)	gaǒ dà	pry (b)	khao[35] dà	rely on
ie	liè mì	arm	də́ pié ɳí	black soybean	qə̀ tiè	blow up
iu	qhə̀-iú	anus	tə́ iú	enlarge	iú	grow

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ia	pià	pig	iá	ache	tə liá	admit
(iæ)	jæn[35] tɕhi̯	admire, envy (b)	iæn tsheí	pickle v(t) (b)	iæn thí	spleen (b)
io	ió	convince	pió sú	father's y. brother (b)	ió ì	her-/himself
{ye}	cyé tsɨ	boot (b)	fià dzyè dzý	broken to bits	cyé dà	peel with knife (b?) (only these forms)
ei	ʁèi	Han Chinese	nei[35] dzì tsí	last night	mù pèi	old man
{eu}	deú kù	forehead	(hapax)			
əi	à tshəì	hundred	tsəí	barnyard grass	ʁò-bəì	reins (horse-rope)
{ui}	suì qò	circle, linger	tuì	carry with pole	guí sɨ	clothing
ue	tuè	accord with	suè	ache	què	bundle (CL)
ua	ʁó qhuà	upper half of body	ʁuà sà	monkey	zuà ʁá	buckwheat
{uo}	suò bó	coffin	(hapax)			
ou	tɕhòu	bundle	tshoù	carry	pié tshoù	pig trough (b?)
{iaN}	tiàN	drop of (CL) (b?)	iàN χó	matches (b)	piàN zú	piglet
(ieN)	ià phièN iá	opium (b)	tiéN mà	tuber of elevated gastrodia (b)	(only these)	
(iæN)	phiæN	CL for page (b)	miæN χuá	cotton wadding (b)	iæN tɕhì	envy (b)
{ioN}	ióN	comfort, console	(hapax)			
(uæN)	cuæN	tinea (b)	tshà ʁuæN	thrush	lòN dzuæN	bamboo steamer (b)
(uaN)	khuáN	basket(CL) (b)	tsuáN	brick (b.)	(only these mor-phemes)	

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(ouN)	moùN	mǔ (measure of land (b)	(hapax)			
(iua)	ỳ-iuà kù	chicken shed (b)				
(iao)	thiaò tɕèn	conditions (b)	thiaó pò-pù	instigate (b)	thiaò ká-	spoon (b)
(iou)	sɨ́ lioú	pomegran-ate (b)	iæN lioú-phù	willow tree (b)	(only these)	
{uei}	kuèi tɕỳ	rule, custom (b)	suei^{35}	taxes (b)	dzueì	seed
(uai)	kuai^{35}-dà	blame so. (b)	kuai^{35}-dà	strange, odd (b)	(only these two forms)	
(iuæN)	iuæN bá	courtyard (b)	(hapax)			

Notes on forms given above:

1. The initial syllable of 'a few years ago' (/ai/) is not a borrowing, but of secondary origin, likely from /qe i/.

2. /iæ/ and /uæN/ only occur on the three forms given here.

3. In addition to the /ui/ forms given above, there are merely two other occurrences of this diphthong in Longxi: *ɹí quí* 'color', *tuì* 'spit (phlegm)'.

4. /iua/ only appears in this borrowed morpheme for 'animal shed'. Note that the tones on this syllable change with regard to the animal term it is compounded with:

chicken shed	*ỳ-iuà kù*
cow shed	*sɨ́-iuà kù*
horse shed	*ʁò-iuà kù ~ ʁó-iuá kù*
pig shed	*piá-iuá kù*

All four animal terms are low-toned when free-standing; 'horse' and 'pig' are high-toned in some compounds. I interpret this as a perseveratory pitch height rule affecting the first syllable of the borrowed component. Such a rule has not been noticed in any other segment of the Southern Qiang lexicon.

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Comments on coda-less rhymes:

1. /æ/ is included with plain vowels because it is redundantly nasalized.

1) /e/, /ei/ is clearly a phonemic distinction, as seen in the following minimal pairs:

peí	green	*pé*	fathom
χeí	on (the wall)	*χé*	awn (of wheat)

Nevertheless, in some cases, /e, ei/ is not a stable distinction. There are a few forms which allow free variation between /e, ei/:

queí ~ qué	abundant (methods)	*χé ~ χèi*	needle

Every form cited in the lexicon containing /e, ei/ has been pronounced at least one time with the given vowel, although some forms may allow variation, and not all variation is marked. This distinction does not hold for the PSQ level.

2) /ou/ ~ [əu]. /u/ ~ [ʊ]

3) /y, u/ are separate phonemes, even maintaining distinction after palatals, as the following minimal pairs show:

lỳ lý	roll up (fabric)	*lú*	blend with water
cỳ	fishy smelling (b)	*cù*	harvest (v)

However, there are restrictions on the environments in which each may occur. The vowel /y/ occurs only after palatals, /th, d/ (both hapax), /l/, Ø. The palatal environment is by far

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the most common. /y/ is more common in LX than in MC, with 129 instances (4.0% of corpus), as opposed to MC's 49 (1.6%). Although /u/ may occur as a rhyme after palatal initials in either dialect, /u/ does not occur medially after palatals in either LX or MC.

4) /i/ occurs after sibilants as [ɿ] and after their retroflex free variants as [ʅ].

5) Voiceless vowels in LX and MC are characteristic of certain syllables. They are not truly distinctive (no minimal pairs), but are stable non-predictable features in some words. In both LX and MC, they usually follow high tone syllables. In LX, reduplicated syllables that are voiceless can often be pronounced voiced, in which case they occur with a low tone. LX has the following restrictions on the occurrence of voiceless vowels.

i̥ / /tɕh-, c-/_(14 occurrences)

i̥ / /s-,ts-/_ (4 occurrences)

ə̥ / {[+sonorant], [-voice, + stop/+ fricative]}_ (8 occurrences)

u̥ / /p-, ph-, m-, t-, ts-, s-/_ (21 occurrences)

6) In a manner similar to that observed in MC and Northern Qiang, there is some interchange between final /-ɚ/ and the syllable /rə/. E.g.,

rust *cà-qhɚ* ('iron-feces') vs. feces *qhà ɹə*

Coda Finals: /n, (ŋ)/

Unambiguous native codas are rare. That is, almost all final /-n, -ŋ/ are either borrowings, or are followed by a homorganic initial, so that distinguishing between VN

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[V̈] and Vn/Vŋ is not possible. There are no unambiguous examples of /-ŋ/, and only two for /-n/, both of which follow the vowel /a/:

tshàn bù cì often *cuá qàn bè* sunrise

2.2.2.3 Longxi Tones

Inventory:

The following five tones are attested with the indicated frequencies (total of 6150 syllables in 3247 entries):

mà	Mid or Low-falling (L) (ma^{33} ~ ma^{31}).	(3912 instances)	63.61% of total
má	High level tone (H) (ma^{55}).	(2173 instances)	35.33%
mă	Low (falling) rising (R) (ma^{13} ~ ma^{213}).	(43 instances)	0.70%
ma^{35}	Mid-rising tone (M).	(19 instances)	0.31%
mâ	High-falling tone (F) (ma^{51}).	(3 instances)	0.05%

Table 2.1 Examples of Longxi tones

L	mà	leaf (CL)	zɨ̀	stick (CL)	fià sè	fade
H	má	like (to V)	zɨ́ (bè)	enough	fià sé	thirteen
R	mŏ	without (v.i.)	tsŏ dà	file down (b)	ʁuă tà	cry out
M	mo^{35}	disappear	tsa^{35} dà	deep fry (b)	$ʁua^{35}$ tà	use, employ
F	ʁò lû	stone	tɕêN	alkali (b)		

The third instance of the F tone is non-phonemic, and is discussed below.

As in Mianchi, the H and L tones together account for over 95% of the syllables in the corpus of data. (MC: 95.2%, LX: 98.9%). In LX as in MC, the Low-Falling tone is much more common than the High tone. Longxi does not restrict the number of High tones in native words, so the difference in frequency between High and Low-Falling tones is not

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as great as in MC (in MC the relative frequency of L to H tones is 2.4:1, whereas in LX it is just 1.8:1). Due to this lack of restriction on co-occurrence, LX is a true syllabic tonal system ("omnisyllabic" Matisoff 1998), with two primary tones and three rare tones (accounting for less than 1.1% of the corpus).

The R tone, while accounting for only 0.7% of the total number of entries, cannot be ruled out as merely secondary, the result of borrowing, etc. Observe the following corresponding forms in Longxi and Mianchi (the third example is a probable cognate, not definite):

gloss	Longxi	Mianchi
bleat, grunt, etc.	zǎ	zě
call	ʁuǎ	ʁuǎ
explain, notify	ə̌	quà tè ə̌ zɨ ('instigate')

Origins of this tone are explored in depth in 4.4.6.

The Mid-rising tone more clearly appears to be secondary. Out of nineteen instances, fourteen are probable or definite borrowings. Three of the remaining lexemes are the following '-day' terms (for comparison, and probable origin of these syllables, I also have included the Mianchi forms):

gloss	Longxi	Mianchi
tonight	pei^{35} dzì tsɨ́	pè gié tsɨ́
tomorrow night	tə̀ pei^{35} dzì tsɨ́	tæ̀ péi giè tsɨ́
last night	nei^{35} dzì tsɨ́	nə̀ gié tsɨ́

In this set, each of the M toned syllables appears to be a conflation of a syllable (probably cognate to MC gié/giè), along with the morphemes for 'today' (pú ʨi̯), 'tomorrow' (tə̀ bəí ʨi̯), or 'yesterday' (nɨ́ ʨi̯), respectively. At this time, I have no explanation for the origins of the M tone in the remaining two forms ('disappear', 'use, employ', (cf. tone chart, above)), although 'use, employ' replaces a M tone with a R tone on the first syllable of the passive form. Although these two forms are not yet explained, nevertheless, for seventeen

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out of nineteen forms (89%), the M tone is clearly of secondary origin.

For the F tone, the third instance (two are given in the chart above) is sub-phonemic, and shows the probable route of development of the tone in the one remaining autochthonous F tone word: *zá ká mù* 'armpit' (/ká mù/ ~ [kâm]). Unlike 'armpit', 'alkali' it is not evident that the contour tone on *ʁò lû*, 'stone' is of recent origin. Observe that Taoping has *ʁo*^{241} 'stone', also employing a contour tone. In section 4.4.6 I present further evidence for a shared origin of contour tones in SQ dialects.

In LX, as in MC, tones in a given word often vary. Most instances are verbs, and the variations may be affected by differences in tense/aspect/mood/voice. There does not appear to be any predictablility to this variation.

simmer	qó ~ qò
funny, amusing	χuá dà ~ χuà dá (b?)
heat (rice)	də́ ~ də̀

In addition, there is tonal variation in some classifiers and adjectives:

rope (CL)	ə̀ ~ ə́
row of grain (CL)	lú ~ lŭ
heavy (of color)	ɳ̩́ ~ ɳ̩̀

Words for the fingers also lack stable tones. During at least one session, I recorded the following (note that all but "index finger" have low tones on the first morpheme):

finger	lià cú	ring finger	liè-ná
middle finger	liè-sé	little finger	liè-tsá, liè bé
index finger	lié cú		

However, during another elicitation session, the consultant recited all of these forms with H tones on all syllables.

Other morphemes have stable variants; that is, the tones differ according to the

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compound, but each compound has a stable tone pattern. The following 'sheep' words are compounds in which the tone of the 'sheep' morpheme cannot be predicted from the environment:

sheep	ió [27]	lamb	ió mù tsù	
ram	iò dò	wild herbivore	iò χó	
ewe	iò mià	Mongolian gazelle	ʁò-ió	'horse-sheep'

2.2.3 Taoping phonological inventory

Aside from LX and MC, the Southern Qiang dialect with the most extensive lexical data is Taoping (TP), which has been chosen for comparison with MC and LX. It is more similar to MC, but its initials are more conservative. Among these three dialects, the correspondence of initials is much more straightforward than that of rhymes or tones. I first present Sun's phonological inventory of Taoping (*ZYC*, pp178, ff. Taoping data are from *ZYC* and Sun, 1981.) :

2.2.3.1 Taoping initials

Simple Initials[28]:

---

[27] PTB *yaŋ ~ yak.

[28] There is no special indication of borrowed morphemes or phonemes in this source. However, /f/ clearly occurs only in borrowings (as in MC and LX). Italics indicate segments that are not phonemic.

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p	t	ts	tʂ	*tʃ*	tɕ	k	q
ph	th	tsh	tʂh	*tʃh*	tɕh	kh	qh
b	d	dz	dʐ	*dʒ*	dʑ	g	G[29]
(f)		s	ʂ	*ʃ*	ɕ		χ
		z	ʐ	*ʒ*	ʑ		ʁ
m	n				ɳ	ŋ	
	l						

Consonant Clusters: χp, χb, χm, χt, χd, χn, χtʂ, χdʐ, χtʃ, χdʒ, χtɕ, χdʑ, χɳ, χk, χg, χŋ, χq, χG, pz, phz[30], bz, pʐ, phʐ, bʐ.

Comments:

1) The alveopalatal series [tʃ, tʃh, dʒ, ʃ, ʒ] is allophonic of the palatal series, occurring only before the apical vowel /ɿ/. There are two counterexamples of this rule in the data in *ZYC*, ʃe[55] 'die', and χdʒi[31] 'throw'. Given the overwhelming number of syllables that conform to our rule (thirty-eight out of forty), these two forms appear to contain errors. 'Die' is also the only instance of /ʃ/ in TP.

2) As in Northern Qiang, Taoping χ- assimilates to the place and voicing of the following initial. Combinations of χ + nasal are often pronounced as voiceless nasals. Many of the χ- clusters come from the PTB *s- prefix.[31]

3) Based on the observations and discussion of Mawo (2.1.2.1), and on the auxiliary Southern Qiang dialects recorded in Chang 1967 (especially Wasi, Jiuziying, Ruodazhai), it is clear that the /χ/ pre-initial assimilates to the voicing of the following initial; e.g., /χp, χb/

---

29 Occurs only in *χGa*^{24}*ce*^{33} 'gnaw'.

30 This cluster appears in the segment inventory, but not in the published data. It may be missing due to a typographical error, or may have occurred in a word that did not appear in the published list.

31 Thanks to James Matisoff for this observation.

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= [χp, ʁb], etc.

2.2.3.2 Taoping rhymes

Open syllables:

Monophthongs:

ɿ		
i , y		u
e	ə, əˀ	o
a		ɑ

Diphthongs:

				yi					
ie		io		ye					
								uə	
	ia				ya	yɑ[32]		ua	uɑ

Triphthongs:

					(uai)	
(ei)						
	(əu)			(iəu)		
	(ai)	(ɑu)			(iɑu)	

Comments

1) The apical vowel /ɿ/ occurs after dental, retroflex, and alveopalatal (palatal) fricatives and affricates. Given this wide distribution, /i/ would be a more accurate representation. I have not changed the original transcription.

2) /y/ is more common in TP (108 instances, accounting for 10.7% of the data) than in LX

32 Occurring only in last syllable of three plural pronouns; e.g., *qa^{31}thya^{55}* 'we'. Possible over-transcription.

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or MC, and occurs in wider environments. As with the other dialects, /y/ may occur after palatals and Ø. In addition, medial /-y-/ may follow /th, tsh, s, kh, χ/, and vocalic /y/ may occur after /d, z, l, χg, χd, χtɕ/.

3) Nasalized vowels are not recorded for Taoping.

Coda-bearing syllables:

in, an, un, ən, yn, ian, uan, yan, iŋ, aŋ, uŋ, əŋ, iɑŋ, uɑŋ, uəŋ.

2.2.3.3 Taoping tones

Inventory:

The following six tones are attested with the indicated frequencies. Total number of words = 1008[33] (1754 syllables):

a^{33}	764 instances	43.6%	a^{241}	94 instances	5.4%
a^{55}	495 instances	28.2%	a^{13}	43 instances	2.5%
a^{31}	337 instances	19.2%	a^{51}	21 instances	1.2%

The three tone categories in the left column account for 91% of the data, similar to the percentages in the other two dialects for the frequency of the principal tones. If the 33 and 31 tones are considered as one tone (as they are in LX), then the ratio of this tone's frequency (1101 out of 1754, or 62.8%) to that of the 55 tone (495/1754 = 28.2%) is 2.2:1, a figure comparable to MC's ratio of 2.4:1.

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33 I have attempted to eliminate all redundant entries between the two sources. Note that the two sources are based on the same body of data.

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2.2.4 Other Southern Qiang Dialects

Data from the auxiliary Southern Qiang dialects are presented throughout the subsequent chapters. Due to the small amount of data available, it is not feasible to perform an in-depth systematic comparison between these dialects and the key dialects. Some of these dialects have unusual phonological traits, such as fortis/lenis obstruents, that no doubt occasioned the quote from Shafer that heads this chapter. In **Ruodazhai** (Wen 1945:129) all vowels except /y, æ, ə/ occur with both rounded and unrounded variants; minimal pairs are presented below alongside Qiang cognates. For the first pair, 'throw away'/'dry in sun', Longxi appears to preserve a conditioning environment for lip rounding. However, for the other forms, there is no indication what features in PQ or PSQ might correspond to Ruodazhai lip rounding. In the following table, 'rd' indicates lip rounding, 'pl' indicates plain articulation, and underlined initials are fortis (cf. 3.3.1.9).

gloss	Ruoda-zhai	Longxi	Mianchi	Taoping	Jiuziying	Mawo	Yadu
throw away	ʁdʐi (rd)	sɨ dzuá		χdʒi^{31}	ʁdzi (attested in Chang 1967: p429n)		zdzu
dry in the sun	ʁdʐi (pl)	zé	ʂè dʐí	dʐi^{33}	dzi		
wide	le (rd)	lá	lá	lie^{33}	lə (ka) ('thick')		lɑ
accuse, report on	le (pl)	lá	lé		lə sʅ		
chisel	dzo (rd)		zò		ts'o		ʁzuə
to sit	dzo (pl)	fià zú	dzó	dzo^{33}	dzo	dzu	dzuə

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gloss	Ruoda-zhai	Longxi	Mianchi	Taoping	Jiuziying	Mawo	Yadu
blood	sa (rd)	sà	sà	sɑ^{33}	sa	sɑ	sɑ
who	sa (pl)	sɨ́	sɨ́ lè	sʅ^{55}	sa ti	sə	sə
kill	tshu (rd)	tsò tsó	tsɨ̀ tɕá	tʃʅ^{33}	tʂ'u	tʃə	tʃə
jump	tshu (pl)	tshó (tà)	soú	tshu^{33}	ʔts'u	qhsu	qhsu qhsu

I am not aware of this phenomenon occurring in any other dialect.

Wen's brief phonological inventory and glossary of Jiuziying (Wen 1950b) is a phonetic and lexical thumbnail sketch of a Southern Qiang dialect before a drastic increase in the linguistic pressure on Qiang that has been exerted by Mandarin Chinese since 1949. Although tones are not recorded, it appears to be phonetically very precise. In addition ot the lexical data, there are a few sentences with word/morpheme glosses scattered throughout the lexicon.

In the 1940's Jiuziying was undergoing cluster simplification via the loss of certain pre-initials. Wen 1950:20 documents this in the case of pre-initial /ʁ/, which "is always optional due to its lightness, e.g. /ʁza/ (easy) sometimes /za/. It is regularly omitted in juxtaposition, e.g. /ʁbe ʁbe/ [ʁbe be] (bent)." This kind of simplification of the SQ syllable canon has played an important role in the genesis of tones (cf. 4.4.3).

Jiuziying shares a number of allophonic properties with Mianchi (cf. 2.2.1.1). A characteristic of Jiuziying obstruents not found in the key dialects is the fortis/lenis distinction on the aspirated and voiced affricates; e.g., /ts'i/ 'to replace', /t̲s̲'i/ 'three'. Fortis initials come from PQ *velar and *uvular pre-initials (cf. 3.3.1.9). Jiuziying has voiceless nasal initials, which come from PSQ *χm- / *sm-:

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Gloss	Jiuziying	Taoping
pine	ɲi	χmɑ^{55}
smell (v.)	(tʏ) ɲie	χmi^{55}
snot	ɲe	χɳi^{55}tsuə^{33}
seven	ɲʏ	ɕiŋ^{33}

2.3 Conclusion

In this chapter I have presented not only the phonological inventories of the five key dialects, but also the special problems their transcriptions provide. In the next chapter I will discuss the diachronic phonology of Southern Qiang, and examine the special problems that it presents.

Because of the great degree of lexical divergence between Northern and Southern Qiang (only about 60% cognacy among 1800 commonly used words (*QYJZ* p182)), because of the phonological differences (e.g., simplification of clusters and tonogenesis in Southern Qiang, presence of finals in Northern Qiang), and because comparative Qiang studies are only at a rudimentary level, I have chosen in this dissertation to reconstruct Proto-Southern Qiang, rather than comparing Northern and Southern Qiang dialects directly. This method allows exploration and definition of the unique aspects of Southern Qiang, some of which would be lost by direct comparison with the Northern dialects, which are generally more conservative. The following chapter presents the methodological issues involved in reconstructing PSQ, as well as a systematic presentation of PSQ *initials, *rhymes, and *tones.

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Chapter III. Phonological reconstruction of Proto-Southern Qiang

"Ch'iang has been very badly altered phonetically, has many phonemes difficult to record, and has formed some compounds which -- because of the degenerate phonetic state of the language -- are difficult to recognize." (Shafer 1974)

"From the forms of some words, the Ch'iang seems to be older than the Classical Tibetan." (Wen 1941:71)

3.1 Introduction

This chapter aims to uncover the phonological relationships among the three key Southern Qiang dialects (Taoping, Longxi, Mianchi) and to propose the most economical phonological proto-system to account for their similarities and differences. While the primary data will be taken from these three dialects, we will allow ourselves to "peek" at Northern Qiang data to resolve ambiguities. This method allows us to identify initial clusters that are no longer directly evident in Southern Qiang dialects, but must have been present at the time of PSQ. It also enables us to resolve ambiguous rhymes when data from a key dialect are missing (cf. the assigning of 'wrinkle' to *ui, rather than *y, 3.3.2.2). We will also consult the Southern Qiang data presented in Chang 1967 ('*SQD*'), which includes the dialects Wasi, Lobuzhai, Zengtou, Jiuziying, Ruodazhai[1].

3.2 Methodological issues and reconstruction philosophy

Correspondences in Qiangic are often not as straightforward as a researcher would hope. A number of factors are at play that make comparison difficult. The observations made in this section about Qiang apply to many other languages in the Qiangic branch.

At this time nothing is known about Qiang dialect mixture or migration patterns, aside from some references in Chinese historical documents, where it is not clear to this

[1] Chang also includes data from Taoping (H. Sun 1962), but this is redundant with the other Taoping data.

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author that the group being referred to is the same as that which is today called "Qiang." These sources do make it clear that the Qiang have migrated both toward and away from the Chinese-speaking cities in their area. Little to nothing is known of the influences of languages other than Chinese (primarily on Southern dialects) and Tibetan (on Northern dialects), and it further remains unknown what other forces have shaped the phonologies and lexica of Qiang dialects.[2] For these reasons, I have taken parallel tacks in presenting cognate sets: in the support for each proto-segment, I first present the exemplary sets which follow the rules without exception. After thus establishing the phonological relationships among the dialects, I then present imperfect cognate sets (where these exist), in which not all phonological developments adhere to the established rule. Given the undeveloped state of the field, there are defective sets which are still "too good to throw away." Some of my sets will no doubt be revised by subsequent research; nevertheless, I wanted to provide here a basis on which such research may commence. Forms whose cognacy is in question are put in curly braces.

Not all reconstructions are equally definite. In some cases cognates are missing from key dialects. In addition, there are sets with inexplicable variations. Even sets that have a clear parent form in PTB may have problematic reflexes in at least one dialect (e.g., the reflexes of PTB *-wa, 3.3.2.2). The most difficult segments to correlate are generally rhymes, due to vowel harmony in some non-final syllables, and to unknown factors. In cases where the vowel is indefinite, *V will be given in the reconstruction. If it appears that the proto-vowel should be low, toward the upper front, or toward the upper back, then *A, *I, *U will be used in the reconstruction. For supporting forms where one dialect has an aberration in its reflex, the comments '(I!)', '(R!)' will be used to signal divergences in initials and rhymes.

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[2] E.g., the extent of borrowings from the closely related languages of rGyalrong and Xixia.

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Reconstructions are provided in the appendix, arranged and numbered by English gloss. The *initials, *rhymes and *tones/accents are provided in three separate columns, with all possible reconstructions given for each position. For *tones/accents, I have used the following convention:

a) If all dialects have the same pitch, then it is reconstructed unchanged.
b) If a majority of dialects agree on the *tone/accent, but there is counter evidence from one dialect, then the *tone/accent is reconstructed as 'L?' ('Low'), etc.
c) If the *tone/accent is ambiguous, then it is given as '-'.

The reconstruction of PSQ *suprasegmentals is quite complicated, and discussion is reserved for Chapter 4.

Sound laws and reconstructions provide a foundation for comparison with Northern Qiang; Appendix A presents NQ cognates alongside SQ etymological sets. This dissertation lays groundwork for reconstructing proto-Qiangic, and for doing principled sub-grouping of the entire branch. Nevertheless, it must be stated that even at the micro-level undertaken here, many questions arise as to the strength of attestation of certain roots, and many sound laws are far from regular for one dialect. Because of these irregularities at even the micro-level, I maintain that it is too ambitious to try to reconstruct Proto-Qiangic, or even Proto-Qiang (combining Northern and Southern dialects), without laying out clearly the relationships and correspondences which are described in this chapter. The primary purpose for dividing these two dialect groups and examining just one of them is to discern the lexical and phonological properties of intermediate stages, observations that would be lost if Proto-Qiang were reconstructed directly from the extant dialects. Nevertheless, as an aid to further research, I have included PTB roots from *STC* and from the STEDT project alongside the supporting forms. I have indicated with a question mark those PTB roots that may not be cognate to the Southern Qiang forms.

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The order of presentation of *segments is the same as for the synchronic discussion in Chapter 2, namely *initials followed by *rhymes, with supporting forms given for each. For each reconstructed segment there is given an estimate of the total number of supporting sets, to provide the reader with an additional measure for determining the strength of attestation. Because of the complexity of the genesis of tones in SQ, I will address super-segments in the following chapter.

As mentioned above, it has seemed best to me to include not only the exemplary sets, but also some of the 'bad' correspondences: sets in which one or more of the supporting forms is divergent from the sound laws, but nevertheless appears to be from the same etymological root. As an example, I cite the following, in which the second syllable of Longxi has inexplicably lost its initial. Note, however, that it has the same tonal pattern as Mianchi, and the same initial syllable as Mianchi and Taoping.

Gloss	Longxi	Mianchi	Taoping	PSQ
now	pè ì	pè tì	pə^{31}ti^{55}	*pè ti (L?)[3]

In the data there are many semi-regular sets similar to this one. For aberrant supporting forms such as the Longxi form cited here, much would be lost by their exclusion, and a more in-depth understanding of Southern Qiang dialectology is gained by their inclusion. Nevertheless, whenever possible, I will use exemplary sets to establish the validity of proto-segments before presenting more marginal correspondences. As mentioned above, aberrancies in support are indicated in the reconstructions, with irregular reflexes tagged by '(I!)', '(R!)', and '(T!)' to indicate unexplained initials, rhymes, and tones, respectively.

In cases where supporting forms disagree on a particular segment, such as the

[3] In this reconstruction, the pitch of the first syllable is uncontroversial, it is marked in the same manner as Longxi and Mianchi Low tones/pitches. The tone of the second syllable is only probable, and is thus given after the segmental reconstruction, and is followed by a question mark. For many PSQ roots, it is not possible to reconstruct the *tone/pitch.

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vowel in the initial syllable of 'now' (above), the unambiguous support of two forms is taken as indicative of the proto-form. Thus, PSQ 'now' is reconstructed **pe ti*, and not **pə ti*. In cases where the supporting segments (usually vowels) are wildly divergent, the aforementioned cover vowels *I, *A, *U, and *V will be used.

The purpose of these methods is to demonstrate the strength of attestation of PSQ proto-segments and proto-forms, as not all reconstructions are created equal.

3.3 PSQ phonological system

Proto-Southern Qiang appears to have had a relatively simple syllable canon, not much different from that found in extant dialects. As a maximal syllable, PSQ had an initial two-consonant cluster followed by a diphthong:

$$\overset{T?}{*\ (C1)\ (C2)\ V1\ (V2)}$$

For each dialect, segmental changes do not occur in isolation, but certain patterns may be observed; e.g., all three dialects tend to palatalize *dentals before high front vowels. In all three dialects labial, uvular, and *ŋ initials are unchanged from their PSQ reconstructions. There is no evidence in any dialect for PSQ **gi,[4] **ki, **ŋi (but *khi 'owe'), or **ɳə. The following three paragraphs summarize the changes to be found in each of the key southern dialects.

Longxi always palatalizes *dentals and *velar stops before high front vowels, except for *z, as [z] does not occur in Longxi. All *retroflex obstruents have become dentals, although Longxi preserves *r as a retroflex approximant (the other two dialects have lost evidence that PSQ *r was distinct from *ʐ). Most *palatals have become dentals

---

[4] Taoping has *χgie*^{241} 'stone' which contains the sequence /gi/. For irregularities related to this rhyme, see discussion under *velars, section 3.3.1.5.

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before /ɨ/, just as Proto-Lolo-Burmese *palatals have become dentals in the same environment in Lahu (Matisoff, p.c.). Longxi and Mianchi give evidence for *fi, but only two cognates have been discovered so far. All *cluster initials except for *br, *gr have been simplified to phonemes similar to one of the components of the *cluster. Thus, in most cases (*bz, *br, *sl, *χl, *χd, *χm), Longxi has more than one possible reflex of the cluster. For *χl, the initial has broken into two syllables (e.g., *ʁò lû* 'stone' PTB *r-luŋ (STC 88)). For *sl, evidence for the *cluster is preserved by free variation (*sì cuà* ~ *lə cuà*, 'moon' PTB *s-la (STC 144)). In Longxi, as in the other two dialects, *monophthongs are mostly unchanged, although Longxi and Mianchi do not preserve a distinction between *a and *ɑ. Nevertheless, there is often unexplained variation in the reflexes, which is due in part to vowel harmony processes that have not been applied evenly throughout the lexicon (cf. 2.3.1). Most *diphthongs have become monophthongs. Longxi and Mianchi /y/ does not appear to be relatable to PSQ *y, unlike Taoping.

Mianchi preserves *velar stops unchanged. It palatalizes much less regularly and extensively than Longxi, with only *l and *dʐ affected.[5] As in Taoping, *r > /ʐ/. As in Longxi, PSQ *ɕ has become /s/ before /ɨ/. Although Mianchi has more preserved more distinctions than Longxi in its consonantal inventory, it has irregular reflexes for *bz, *phr, *br, *χtʂ, *χdʐ; thus, with regard to clusters, it is about as innovative as Longxi. Except for unpredictable changes in *y and the loss of the *a/*ɑ distinction, monophthongs are unchanged from PSQ. Mianchi has evidence for seven out of nine *diphthongs.

Taoping is the most phonologically conservative of the three dialects, especially with regard to clusters and vowels (e.g., preserving the *a/*ɑ distinction). Nevertheless, in the expected environments it palatalizes dental stops and nasals, as well as voiceless retroflexes and velars, while palatals are unchanged. It directly preserves seven out of nine

---

[5] It may in fact be said to resist palatalization by hyper-correcting borrowings, as in Mianchi *ké*, Longxi *tɕí*, Taoping *tɕe*^{33} 'catty (half kilogram)' (Mandarin *jīn* [tɕi^{55}]).

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*diphthongs, but maintains no trace of *fi.

3.3.1 Initials

Following my reconstructions of PSQ proto-initials are the ones offered by Kun Chang (*SQD*, pp339-40). There are some striking differences between the two systems, which are discussed below.

The simple initials of PSQ are as follows:

Table 3.1 Proto-Southern Qiang initials[6]

	labial	dental	retroflex	palatal	velar	uvular	glottal
vl. stop	*p	*t			*k	*q	
asp. stop	*ph	*th			*kh	*qh	
vd. stop	*b	*d			*g		
vl. affric		*ts	*tʂ	*tɕ			
asp. affric		*tsh	*tʂh	*tɕh			
vd. affric		*dz	*dʐ	*dʑ			
vl. fric.		*s	*ʂ	*ɕ		*χ	
vd. fric.		*z	*ʐ	*ʑ		*ʁ	(*fi)
nasal	*m	*n		*ɲ	*ŋ		
approx.		*l	*ɾ				

Chang reconstructs the following simple initials:

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6 Parentheses in charts of *consonants and *vowels indicate proto-segments with two or fewer supporting sets.

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Table 3.2. Proto-Southern Qiang initials (*SQD*)

	labial	dental	palatal	retroflex	velar	uvular	glottal
vl stop	p	t			k	q	
asp. stop	ph	th			kh	qh	
vd. stop	b	d			g	G	
vl. affric		ts					
asp. affric		tsh					
vd. affric		dz					
vl. fric.		s			x		h
vd. fric.		z			ɣ		ɦ
vl. nasal	mh	nh			ŋh		
vd. nasal	m	n			ŋ		
vl. approx		l̥					
vd. approx	w	l	j	r			

The primary differences between these two systems are that I posit *palatal and *retroflex fricates where Chang reconstructs *clusters, and that Chang proposes voiceless *nasals and *lateral where I reconstruct *s- clusters. Differences between these two systems will be evaluated in the discussion of each series. Support for some of Chang's reconstructions is weak: he admits,

> "I do not have enough examples to support all the initials that I suggest for the proto-language. In some cases, however, the reconstructed initials are sufficiently reflected in these dialects." (SQD p439)

3.3.1.1 Labials

Labials are unchanged in all three dialects.

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***p** > LX, MC, TP /p/ (about 32 sets with reflexes in at least two dialects)

Gloss	Longxi	Mianchi	Taoping	PTB (*STC #*)
pig	pià	pià	pa^{33}	*pwak (43)
skin	ʑà piá	ʐà piá	ʐa^{55} pa^{55}	*p(w)ak (JAM)
snow	peì	mù pà	mə^{31}pɑ^{55}	*p-wal (JAM-LITB 8.0)
hole	zà pù	ʐè pù	ʐɑ^{33}pu^{33}	*puŋ (STEDT)
cheek	tɕì piá	tɕí pià	tʃʅ^{31} pa^{55}	*s-bi ≋ s-bay (STEDT)
body	ɕì pí	ɕì peí	ɕe^{55} pe^{33}	
buy	pú	dɛ̀ pó	po^{55}	
do	pù	pù	pu^{33}	
old (of people)	(fià) peì	(à) peì	pə^{33}	
thing	pà nà	pà nà	pɑ^{31}ne^{33}	
tomb	mú pú	mé pù	mə^{31}pə^{55}	

***ph** > LX, MC, TP /ph/ (about 15 sets)

Gloss	Longxi	Mianchi	Taoping	PTB
blow (with mouth)	phú	phú	phə^{33}	*pu (JAM)
price	phù	phɛ̀	phə^{33}	*pəw (41)
swell up	phú	phò	tə^{55} pho^{33}	*s-bwam (172)
clothing	phò	phù	phu^{55}	
plant (wheat)	phià	phià	phia^{33}	

***b** > LX, MC, TP /b/ (about 19 sets)

Gloss	Longxi	Mianchi	Taoping	PTB
bug, insect	bù ló	bò lò	bə^{31}dza^{31}	*bəw (27)
bury	bé	(fià) bí	be^{55}	
flour	bà lò	lɛ̀-bɛ̀-liù	ba^{31}ly^{33}	
low, short	bà ~ bè	bɛ̀	be^{33}	
man	biè phà	bè liú	ba^{33}phe^{55}	
old (of things)	bá	bá	bɑ^{33}	
pile up	bù	bò	bo^{241}	

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***m** > LX, MC, TP /m/ (about 40 sets)

Gloss	Longxi	Mianchi	Taoping	PTB
mushroom	mə ə˞	mɛ̀ ʐ̩ú	mɑ^{31}ʐ̩u^{33}	*g-məw (455)
mother	á mà	á mà	ma^{33}; mɑ^{55}mɑ^{55}	*ma (487)
NEG	mí	mì	mi^{55}	*ma (p96)
rice (cooked)	mà má	mà má	me^{33}	*may (p65)
fire	mú	mú	mi^{33}	*mey (290)
dark	mú	mò	mu^{33}	*mu:ŋ (362), *r-mu:k (357)
person	mù	mɛ̀	mə^{33}	*r-mi(y) (p127)
heart	ɕì mì	tié mù	χtie^{55} mə^{55}	?*moŋ (STEDT)
fruit	ɕì mì	sè mù	sie^{55}mə^{55}	
language,speech	zə́ mú	zuè mé	zʅ^{31}mə^{55}	
tears	mə lí qə̀	mù lé qɛ̀	mi^{55} ʁo^{33}	
cooked	(fià) mù	(fià) mù	mi^{33}	
cat	mà ɳù	mè ɳòu	ma^{31}ɳ̩y^{55} [8]	
wife	tɕè mì	tɕé (tsɨ́) mèi	tɕi^{55}me^{31}	(cf. 'person'?)

In addition to the above labials that I have reconstructed, Chang reconstructs the voiceless nasal *mh, based on the data to which he had access at that time. Although he gives data from Taoping, he only had access to the few forms in H. Sun 1962, and not to the more than one thousand forms in *QYJZ* and *ZYC*, or he would have seen that the voiceless nasals in Wasi, Zengtou, Jiuziying, and Ruodazhai come from PSQ *fricative-nasal clusters. The following table is based on his "Examples to Chart 9," with his blank Taoping column filled in with data from ZYC and QYJZ. I have included not only data concerning *m̥, but the other voiceless *nasals as well. Note that Lobuzhai, which is near Mianchi, has no voiceless nasals. A comparison with *STC* shows that many of these initials come from PTB *s-N clusters.

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[7] PST *k/m-ləy.

[8] There is no published PTB root, but cf. Lahu *mɛ́-ni.*

[9] There is no PTB root, but cf. Lahu *mɛ́-ni.*

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Table 3.3 Southern Qiang voiceless nasals

English	Wasi	Lobuzhai	Taoping	Zengtou	Jiuziying	Ruoda-zhai	PTB
hair	ɱə		χmə^{33}	ɱə	ɱə		*s-mul
smell (v.)	ɱe		χmi^{55}	ɱi	ɱje		*s-nam
name			χmə^{55}		ɦmə	ɱi	*s-miŋ
silver		ŋu	χŋu^{55}	ŋu	ɦŋu	ɦ̊hu	*s/d-ŋul
kneel	ŋotsho		χŋu^{55} tshu^{55}	gu əltsho	ɦŋu əltsho		
oil, fat			χɳo^{55}	ɳo	ɳʲe	ɳʲo	
red	ɳə		χɳi^{31} ɳi^{33}	ɳi	ɳi	ɳi	*s-nəy
nasal mucus	ɳe		χɳi^{55}tsu ə^{33}	ɳe	ɳe		*s-nap
seven	ɳe		ɕiŋ^{33}	ʃẽ	ɳə		*s-nis
nose			χɳi^{31} qo^{55} pə^{33}	ɳiqopə	ɳəpaqə	ɳə	*s-na

Strangely, Chang cites the Taoping form for 'nose', but alters the initial cluster to /ɳ/, whereas before oral sounds he retranscribes Taoping /χ/ as /h/. The set 'seven' has unexpected initial reflexes in Taoping and Zengtou. For more on numerals, and odd reflexes of prefixed proto-initials, cf. Matisoff 1995.

3.3.1.2 Dentals

The three dialects are prone to palatalize *dentals. For Longxi, it is difficult to distinguish *dz, *z.

*t > LX, TP {/tɕ/ /_*i, *y; /t/ elsewhere}, MC /t/ (about 25 sets). For the dental stops and nasal, Mianchi is without variation, but Taoping and Longxi palatalize before *high-front vowels, as evidenced by the last two examples in the chart.

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Gloss	Longxi	Mianchi	Taoping
hat	tà bá (χà)	tà bá	tɑ^{33}
lead (cow)	tá	tá	tɑ^{33}
plow (n)	tò	tò kè	to^{33}
upward (pfx)	tə̀ - ~ tə̀-	tɛ̀ -	tə^{31}
younger brother	tú-tsù	tòu tsú	tu^{55}tsuə^{31}
among, between	tɕì gó	gó tì	--
animal herder	khù pià cù mù	khuè-pià-tiù-mú ~ khuè-pià-tiú-mù	--
mule	--	kè tì	ke^{31}tɕe^{33}
see	à tɕó	tiú (cà)	tɕy^{33}

The data include the following two counter-examples. The first appears to be the result of a different proto-initial than *t, as both LX and Taoping differ from the expected reflexes of *ti. I posit some form of *CC-, but do not know what its segments would have been. In the set 'mince, chop' the /ia/ diphthong of Mianchi corresponds to the /e/ of Taoping, as expected (cf. 3.3.2.2). However, the Taoping initial has not palatalized, in contrast to the sets above.

Gloss	Longxi	Mianchi	Taoping
now	pè ì	pè tì	pə^{31}ti^{55}
mince, chop	--	tshoú tià	tshuɑ^{55} te^{55}

*th > LX{/tch/ /_i, /ts, tsh/_u; /th/ elsewhere}, MC /th/, TP {/tsh/ /_y; /th/ elsewhere} (about 11 sets). Taoping palatalizes only in the rare environment preceding /y/: Longxi palatalizes the most freely, a rule which could be quite recent, given the variation in 'quilt'. Following the supporting sets I offer a possible rule for the appearance of /ts/ in Longxi.

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Gloss	Longxi	Mianchi	Taoping
frost	pià thò	peì thoù	χpɑ^{31}thu^{33}
slow	--	phiè thá	phi^{31}thɑ^{55}
soup	thó	--	thu^{55}
that	thà	--	tha^{33}
there	thə gá	--	thə^{31}χe^{55}
drink	tɕhí	thié	thie^{33}
quilt	sù thiá ~ sù tɕhá	qhuɛ́ thiò	--
bucket/barrel	tsù tì	thiò	thio^{33}
sneeze (v.)	á tshù-pù	á thiaò-pù	χa^{55} tshye^{33} pu^{33}

It appears that Longxi deaspirates /tsh/ before /u/, as in the following correspondences:

Gloss	Longxi	Mianchi	Taoping
burn	à tsú	ʂɛ̀ thɛ̌ thoǔ	--
cut, slice (veg.)	tsù tsuá	tʂhù tʂhuá	tʂhu^{55}
sixteen	fiá tsú	fià tʂhòu	χɑ^{31}tʂhu^{33}
squirrel	zɨ́ kú tsù	tshù lié	--

However, there are at least two counterexamples:

Gloss	Longxi	Mianchi	Taoping
sneeze	á tshù-pù	á thiaò-pù	χa^{55} tshye^{33} pu^{33}
kick	tshù ~ tshú tá	tʂhù	tɕhye^{33}

'Sneeze' has probably maintained its aspiration due to onomatopoeia; I have no explanation for the aspiration in 'kick'.

*d > LX{/dz/ /_*i; /d/ elsewhere}, MC /d/, TP {/dz/ /_*i (hapax); /d/ elsewhere} (about 25 sets). Longxi palatalizes regularly, but Taoping in only one form. This aberrant form ('puttee') could be the result of dialect mixture, or of data having been recorded from multiple consultants.

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Gloss	Longxi	Mianchi	Taoping
bean	də̀ piá	deì	də^{33}
chopsticks	--	dù	duə^{33}
forehead	deú kù	dà pú	da^{31} χku^{33}
ghost, demon	dù	dù	du^{33}
hit target	dà uà	dɛ̀ uɛ̌	da^{31}ye^{33}
belt	dzí	dì	--
celebrate new year	dzá	diá dià	dia^{241}
day after tomorrow	sò dzí ɕi̯	sòu dì	sy^{55}dy^{31}
door	dzù ~ dzú	diò	dio^{241}
fine, small (of rice grains)	dzà	dì	--
many	dzú	dió	dio^{241}
puttee, leg wrap	{zù deí}	diòŋ dí	dzo^{33}de^{241}

***ts** > LX {/tɕ/ /_i,y (or *i, *y); /ts/ elsewhere}, MC, TP /ts/ (about 32 sets). This is the best-supported trend, although there are many sets which have other voiceless affricate reflexes. I first give the forms which provide the most clear-cut support (for Longxi palatalization of 'sharp', 'spring', note the presence of /i/ in Taoping):

Gloss	Longxi	Mianchi	Taoping	PTB
sour	tsuà	tsuí	--	*swa:r (42)
flea	tsó n̥ì	tsoú nə̀	tsu^{55}lu^{55}	*s-ləy (440)
sharp	tɕà	tsɛ̀	tsie^{33}	*s-ta (STC p22)
water	tsù	tsuɛ̀, tsuè	tsuə^{33}	*tšu (STEDT)
ride	tsà	tsà	tsɑ^{33}	?*dźon (72)
year, this	tsé pù	tsé pu̯	tsɿ^{31}pə^{33}	
rot, spoil	tɕý qá	tsuè qá	tsuə^{55}qɑ^{55}	
spring, summer	tɕà qeí	tsɛ̀-qɛ̀	tsie^{55}qə^{33}	
twig fence	tsà pià	tsà kí	--	
stove	tsò zò	tsɨ̀ qò	--	
grandchild	zɨ́-tsù	zé-tsù	zɿ^{31} tsuə^{33}	

The second morpheme of 'grandchild' is a diminutive suffix; the first morpheme is 'child' (PTB *za (STC 59)). Mianchi 'pain' may be a borrowing from Sichuanese.

The following sets appear to be reflexes of *ts, but are problematic in one or more of the dialects:

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Gloss	Longxi	Mianchi	Taoping	PTB
kill	tsò tsó	tsɨ tɕá	(tʃʅ^{33})	*g-sat (58)
soul, spirit	tsɨ́	--	(tshie^{33})	*tsu (Matisoff 1974, #36)
NEG IMP prefix	tsɨ̀-	{tɕì-}	tsʅ^{55}-	
flint, steel for flint	(tshà mià)	tsuè mià	--	

At this point, I have no explanation for the appearance of /tɕ/ [tʃ] in Taoping 'kill', except that it may reflect the reconstructed PTB velar pre-initial; another possibility is that there may be two roots for 'kill', with both forms represented in the Mianchi compound. The palatalization of Mianchi NEG IMP prefix may have come about from the phonetic processes which often accompany grammaticalization. The forms for 'flint' and 'soul' could just as easily be classified under *tsh.

*tsh > LX{/tɕh/ /_ i,y; /ts/ elsewhere}, MC /tsh/ TP {/tɕh/ /_ɨ, y; /ts/ elsewhere} (about 27 sets). *tsh seems to have remained fairly stable in all three dialects, with LX palatalizing similarly to *ts.

Gloss	Longxi	Mianchi	Taoping	PTB
bridge	tshá (tò)	(lò) tshá	tshie^{33}da^{241}	*dzam
lung	tshù	tshoù	tshu^{55}	PQic *C-tsos (STEDT), PTB *tsywap (239)
salt	tshɨ́	tshɨ̀-bé	tshʅ^{33}	*tsa (214)
thorn	tɕhí	tshɨ́	tshʅ^{31}	*tsow (276)
meat	pià-tshɨ̀	mɛ́ tshɛ̀	tʃhʅ^{55}	*tsil (p16)
bird	ì tshá	ì tshé	i^{31}tshie^{55}	
kneel	(ʁò) tshú	ŋó tshò	χŋu^{55}tshu^{55}	
pitiful	mə tshweì	mè tshuè pú zɨ̀	--	
pot, wok	tshà piá	tshà	tshie^{55}pa^{55}	
village	tshuá-kù	tshuá, tshuà qó	--	
squirrel	tɕhỳ lí qə	tshù lié	--	
sweet	tshú	tshú	tɕhy^{33}	

The second syllable of 'meat' (first syllable in Taoping) is glossed in STC as 'fat' (Mawo *tshɤ* 'fat (meat)'). Another possibility is that it is related to 'goat' (below); note that the tones are the same, and that the initials in Mianchi and Taoping are consistent. The first

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syllable of Longxi 'meat' is 'pig' (cf. Yadu *piɛs* 'meat', *piɛ* 'pig'). 'Sweet' looks as though it could be related to PTB *twi(y) (STC 166) or *dźim (STC 71). However, the following forms make it clear that as far back as PQic the initial was a voiceless aspirated affricate:

Ergong	tɕhɯ tɕhɯ
Ersu	tʃho^{55}
Namuyi	ntshɿ^{33}
rGyalrong	kə ɕçhi
Shixing	tɕhyɛ^{35}

The following *tsh sets are problematic for at least one dialect (problematic forms in braces):

Gloss	Longxi	Mianchi	Taoping	PTB
goat	{tɕhà}	tshɛ̀	tshie^{55}	PLB *tsit (STC p88)
phlegm	tshù	{tsù ʐɛ́}	tsho^{55}qhɑ^{33}χne^{33}	

The first syllable in Longxi, Taoping 'phlegm' is 'lung'. Mianchi 'phlegm' may have been influenced by *tsuè* 'water.' The only explanation I have for the palatalization of Longxi 'goat' is that it may have come from a form like *tshie or *tshia (cf. PLB *V-ciːt (TSR 27 Low)), with loss of *i and subsequent transphonologization of the initial.

*dz > LX /z/ (no [ʑ] in LX), MC, TP /dz/ (about 16 sets). Longxi has preserved the affricate nature of the initial in 'money' following a sonorant final. I have no explanation for the loss of voicing for this form in Mianchi. This irregularity indicates that it is probably an ancient borrowing, although the language of donation is not clear (Chinese has *qián*, Written Tibetan has *dŋul* (cf. 'silver')). Unlike the previous two affricates, there is no evidence of how Longxi treated *dz/_i,y. In fact, there are no unambiguous PSQ **dzi, **dzy, **zi, **zy forms, which probably indicates that in this environment *dz, *z had already palatalized at the time of PSQ.

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Gloss	Longxi	Mianchi	Taoping
frog	zò piá	dzò-piá	dzuɑ^{31}pu^{55}mɑ^{33}
heavy	zɨ̀	dzɨ̀	dzɿ^{33}
itch	zè zè	dzɨ̀ dzà	dzɿ^{31}zɑ^{241}
sit	fià zú	dzó	dzo^{33}
money	sàn dzé	(tsèn tseí)	ɕi^{33}dzie^{241}

*s > LX{/ɕ/_ i,y; /s/ elsewhere}, MC, TP /s/ (about 45 sets). These sets are all completely regular, with LX palatalizing as expected.

Gloss	Longxi	Mianchi	Taoping	PTB
fruit	ɕì mì	sè mù	sie^{55}mə^{55}	*sey (57)
blood	sà	sà	sɑ^{33}	*s-hwiy (222)
fingernail	liè sɨ́ qə̀	ì sè	sie^{55} qə^{55}	*m-(t)sin = m-tsyen (74)
autumn, winter	sò qeí	só qè	sio^{33}ko^{33}	
liver	ɕí ɹá	sè	sie^{55}	*m-sin (234)
day	ɕì	sè	sie^{33}	*s-nəy (GSTC)
wood, timber	ɕì tò	sè	sie^{33}	*siŋ (233)
learn	só	soú	tə^{31}sy^{55}	
understand	sɨ̀	sɨ̀ uà	sɿ^{55}	
crow (v.)	ɕí	tè sǐ	sɿ^{55}	
yesterday	ní ɕi̯	nə́ sę̀	ȵi^{31}sie^{33}	
comb (n.)	qə̀-ɕý	qè suí	qə^{31}suə^{33} [10]	

*z > LX, MC, TP /z/ (about 15 sets). As mentioned above, there are no palatalizations for this set, probably owing to very early palatalization of *zi, etc. While Longxi /zi/ occurs in forms such as *zì* 'turn around (self)' and *zí zí tsù* 'only, alone', these appear to be innovations, as no cognates have been found in Mianchi or Taoping (cf. discussion at *ʐ, below).

[10] PTB *m-si(y) (STC #466).

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Gloss	Longxi	Mianchi	Taoping	PTB
grandchild	zɨ́ tsù	zé tsù	zɿ^{31}tsuə^{33}	*za (59)
cry, weep	zǎ	zà	zɑ^{33}	
field	zù	zuè	zuə^{33}	
language, speech	zə̀ mú	zuè mé	zɿ^{31}mə^{55}	
tongue	zə̀ qə̀	zɨ́ qé	zɿ^{31}qə^{55}	

*n > LX, TP {/ɳ/ /_ i; /n/ elsewhere}, MC /n/ (about 17 sets). Taoping palatalizes regularly, but Longxi has one counterexample ('yesterday'). The palatalization appears to have occurred before present-day /i/, and not PSQ *i, as Mianchi allows the sequence /ni/ ('what'). How PTB *s- became PSQ *ts 'flea' is not clear (PTB *s-ləy (STC 440)). The PTB *l > n/ɳ changes may have been influenced by the local variety of Southwest Mandarin, in which /n,l/ distinctions are not maintained. However, this change may have occurred too early to have been influenced by Mandarin, as evidenced by the NQ forms (Mawo, Yadu *tsun*).

Gloss	Longxi	Mianchi	Taoping
good	nà	nà	nɑ^{33}
thing	pà nà	pà nà	pɑ^{31}ne^{33}
what	nə́ ì	ní lè	na^{55}
bed	ɳì sɨ́ qà	nè bà	ne^{55}ɕi^{33}
year, last	nə́ pù	né pù	ɳi^{31}pə^{33}
yesterday	ní ɕì	nə́ sę̀	ɳi^{31}sie^{33}
flea	tsó ɳì	tsoú nə̀	tsu^{55}lu^{55}

*l > LX {/ɳ/ /_ i; /l/ elsewhere}, MC {/ɳ/ /_*y; /l/ elsewhere}, Taoping /l/ (about 32 sets). For this set Taoping is completely invariant. I have no explanation for the fact that Mianchi palatalizes before *y ('come'), but not before /i/ ('expensive', 'thread'). To account for Mianchi 'come', the rule could be rewritten to include palatalization before /u/, but there would be no articulatory precedent for such a rule. Note that for 'come', the backing of *y probably occurred in Longxi before palatalization, but afterward in Mianchi. How PTB *s- became PSQ *ts 'flea' is not clear. The *l > n/ɳ changes were probably also influenced by

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the local variety of Southwest Mandarin, in which /n,l/ distinctions are not maintained.

Gloss	Longxi	Mianchi	Taoping	PTB
exchange	lə́ lá	lə là	$tə^{55}lɑ^{31}$	*lay (283)
kidney	pú lù	pú lò	$χpə^{33}$ lo^{55}	*rpul (STEDT)
pestle	tshɨ́ pù ʁò lù	sá dè ʁù lò	$ʁo^{241}lə^{33}$	*r-luŋ 'stone' (88)
clothes (CL)	lə̀	lɛ̀	$lɑ^{33}$	
expensive	phú lú	phɛ́ liù	$phə^{31}ly^{55}$	
host	tɕè lə pú	tɕì lɛ̀ pú	$tɕi^{55}lə^{55}pə^{33}$	
musk deer	tshɨ̀ lə̀	sè lə̀	$tchi^{31}lə^{33}$	
wide, broad	lá	lá	la^{33}	
come	lò	ɳ̩ù	ly^{33}	
thread	sà ɳ̩í	sè lì	$siɑ^{33}li^{55}$	

In addition to *l, Chang reconstructs PSQ *ɬ, based on the following two forms in Wasi, and their cognates. I have cited these forms below, along with cognates from Longxi, Mianchi, and Mawo. Taken together, it is clear that Wasi /ɬ/ is the reflex of PSQ clusters, and not of an independent proto-phoneme *ɬ.

eagle	PTB	*k/g-laŋ (STC 333, p72 n.)
	PSQ	*χlV
	Wasi	ɬa
	Taoping	$χuɑ^{55}$
	Zengtou	xwa
	Jiuziying	xa
	Ruodazhai	xwa
	Longxi	χò
	Mianchi	lá (bzɻà)
	Mawo	χlu

The Mawo form directly indicates that PQ had a *cluster initial. Among Southern Qiang reflexes, the fact that some dialects have velar and uvular fricatives while two have laterals is further proof that *xl- or *χl- survived into PSQ.

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moon/month	PTB	*s-(g)la (STC 144)
	PSQ	*slV
	Wasi	ɬa
	Lobuzhai	he (ʃya)
	Taoping	ʂʅ^{33} ('month') ɕy^{33}ɕya^{55} ('moon')
	Zengtou	ʂɯ
	Jiuziying	sɯ
	Ruodazhai	(hpe) ʂɯ
	Longxi	lə ɕuà, sì ɕuà
	Mianchi	lə, ɬə (some speakers)

For this set, the extant dialects preserve sibilants and laterals, with Longxi preserving both. The forms in these two sets unquestionably indicate different initial clusters at the PSQ level, and neither suggest the presence of *l in PSQ.

3.3.1.3 Retroflexes

For Longxi, the entire retroflex series of obstruents has disappeared, as noted earlier. All reconstructed retroflex 'fricates' (a cover term for affricates and fricatives), have merged with their corresponding dentals. For most segments, Mianchi and Taoping preserve retroflexion; however, for Taoping, both /tʂ, ʂ/ advance to dentals before /i/.

*tʂ > LX /ts/, MC /tʂ/, TP {/ts/ /_ i; /tʂ/ elsewhere} (about 24 sets).

Gloss	Longxi	Mianchi	Taoping
navel	pú tsɨ qà	pè tʂɨ tʂɨ	--
stinking	bə tsá	bù tʂá	--
pick up	tsé	(tɛ̀) tʂè	tsi^{33}
look at	tsà	kè tʂè	tsia^{33}
head	qà bá tsɨ	{qà bʐ́ tsɨ}	qə^{33} po^{55} tʂʅ^{33}

'Head' is the only problematic form; its dental initial in Mianchi probably arising by analogy with other Mianchi nouns, both native and borrowed from Chinese:

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Native Mianchi:		Borrowings from Mandarin:	
bachelor	à qó tsɨ	animal pack	tuó tsɨ
boot	bè tsɨ	brush	ʂuà tsɨ
child	kè bʐ̩ì tsɨ	sock	uá tsɨ

The evidence for a retroflex initial in the final syllable of 'head' is supported by Northern Qiang (Ekou and Ronghong Yadu, Mawo all have *qə patʂ*, indicating a retroflex affricate at the PQ level).

*tʂh > LX{/ts/ / _ u; /tsh/ elsewhere}, MC, TP /tʂh/ (about 22 sets). For discussion of Longxi deaspiration before /u/, cf. discussion of *th (3.3.1.2). Note that Taoping does not front *tʂh, *dʐ̩, or *ʐ̩, although *tʂ, *ʂ become dentals before /i/.

Gloss	Longxi	Mianchi	Taoping	PTB
eight	tshá	tʂhè qó	tʂhe^{33}	*(b-)g-ryat (163)
hundred	à tshəì	à tʂhì	tʂhi^{55}	*r-gya (164)
kick	tshù ~ tshú tá	tʂhù	tɕhye^{33}	
lay (egg)	fià tshɨ́	tʂhɨ́	tʂhi^{55}	
spider	tshɨ̀ tshɨ̀	tʂhà ʂɨ	tʂhŋ^{55}tʂhŋ^{31}	
cut (vegetable)	tsù tsuá	tʂhù tʂhuá	tʂhu^{55}	*tsywar=tśwar (240)

*dʐ̩ > LX{/dz/ /_ i; /dz, z/ elsewhere}, MC {/dz/ /_ ɛ; dʐ̩ elsewhere}, TP /dʐ̩/ (about 20 sets). This set is regular, but the palatalization of Mianchi before /ɛ/ is unusual, given that there is no palatalization before /i/ (long objects (CL)). PSQ *dʐ̩ comes from PTB *r-clusters.

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Gloss	Longxi	Mianchi	Taoping	PTB
laugh	(dá) zá ló	dʐà	dʐɑ^{33}	*rya-t (202)
long objects (CL)	zɨ̀	dʐí	dʐi^{241}	*s-riŋ (433)
strength	dzɨ̀ ~ zɨ̀	dʐà qà	dʐ ɿ^{241}qɑ^{33}	*(k/b)-ra(ŋ/m) (STEDT)
muscle	dzɨ̀	dzɛ̀	dʐ ɿ^{241}	*graw
matter, affair	zì	dʐɨ̀	dʐ ɿ^{33}	
tael, liang	zò	dʐoù	dʐu^{31}	
year before last	dzɨ́ pù ~ zɨ́ pù	dzɛ́ pù	dʐ ɿ^{241}pa^{33}pə^{33}	
limit, end	dzí tò	dʐì ló	--	
relatives	qà zè	kɛ̀ dzɛ̀	kie^{31}dʐi^{33}	

The only explanation for the lack of palatalization in Longxi 'matter', is that its initial would have gone to /z/, but has not, because Longxi lacks this phoneme. For 'muscle', cf. Mawo *gəʲ*.

*ʂ > LX /s/, MC /ʂ/, TP {/s/ /_ ɿ; /ʂ/ elsewhere} (about 7 sets). As stated above, *ʂ behaves in Taoping like *tʂ. All instances of /ʂ/ before /ɿ/ in Taoping are secondary; e.g., *ʂɿ*^{33} 'month' (PSQ *slV), *ʂɿ*^{13}*tsɿ*^{31} 'persimmon' (borrowing).

Gloss	Longxi	Mianchi	Taoping	PTB
pretty	(tsà) sé	pà ʂé	χpɑ^{33}ʂe^{33}	
alive	sè	ʂà	--	s-riŋ ⧓ s-raŋ (404)
age	pù sù	ʂù	--	
good	--	ʂé	ʂe^{33}	
irrigate, water	sù	--	ʂue^{55}	
outward (pfx)	sɨ̀ -	ʂɛ̀ -	sɿ^{31} -	
who	sɨ́	ʂí lè	sɿ^{55}	

*ʐ > LX {Ø/_ i, /z/ elsewhere}, MC, TP /ʐ/ (about 6 sets). 'Ax' is an ancient borrowing from Tibetan (Written Tibetan *sta ri*); given the fact that it is subject to the same phonological changes as 'stand', I take it to be a borrowing at the level of PSQ or earlier. As mentioned above, there is no contemporary constraint against /zi/ in Longxi, as evidenced by *zì* 'protect', *zí* 'hold in mouth', and about twenty other forms.

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Gloss	Longxi	Mianchi	Taoping	PTB
crack (v.)	zɨ́ zá	--	ʐɑ^{55}	
hole	zà pù	ʐè pù	ʐɑ^{33}pu^{33}	
watery, dilute	zò	ʐá	ʐe^{33}ʐe^{33}	
lie (n.)	ì zɨ̀	zè ʐə̀	--	
ax	tà í	tè ʐì	χta^{31}ʐi^{55}	
stand	tə̀ ì	(tè) ʐì	--	*g-ryap (246)

*r > LX /ɹ, ɚ/, MC, TP /ʐ/ (about 7 sets). Among the key dialects, only Longxi distinguishes *r and *ʐ. Jiuziying, which distinguishes /z, ɹ, ʐ/ has /ɹ, ɚ/ in its cognates for this set (no pattern has yet been established for the Jiuziying reflex of *ʐ).

Gloss	Longxi	Mianchi	Taoping	Jiuziying	PTB
bone	ɹà ká	ʐæ̀ʁoù	--	pts'ə ɚ	*rus (6)
skin (human)	ɹà piá	ʐà piá	ʐa^{55} pa^{55}	ɹa pi	*s-graw (121)
horn	ɹà ké	ʐè ké	ʐɑ^{33} qə^{55}	ɚ	*rwa-t (p113)
cry out, call out	qá ɹà	--	ʁuə^{33} ʐɑ^{33}	--	
outside	ɹà lì	ʁuà ʐà	ʐɑ^{55}lə^{55}	ɹa lu	
skin/flay	ɹà qá	ʐá qà	--	ɹa ke	
supper, dinner	ɹà tí	ʐà té	ʐɑ^{55}χte^{55}	ɹa χte	
dry	tə̀ ɚ	ʐí	ʐi^{55}kua^{55}	ɹə kua	

The following forms are ambiguous between *r, *ʐ, due to a lack of Longxi cognates, although Jiuziying suggests PSQ *r.

Gloss	Longxi	Mianchi	Taoping	Jiuziying
cliff	--	ʐà (ló)	ʐe^{33}	ɹa
saw (n.)	--	kè ʐí	kie^{33}ʐi^{55}	ka ɹe

The following two sets probably reflect PSQ *r- clusters (as in PTB *s/m-raŋ 'horse'). However, at this point, they are reconstructed with *plain initials, as there is no evidence for what form such a proto-cluster might have taken in PSQ. 'Divide', 'horse' are the only instances of the correspondence Longxi ʁ- vs. Mianchi, Taoping ʐ-.

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Gloss	Longxi	Mianchi	Taoping	Jiuziying	PTB
horse	ʁò	ʐ̩òu	ʐ̩u^{55}	ɹu	*s/m-raŋ (145)
divide	ʁò ʁó	ʐ̩ì ʐ̩oú	ʐ̩u^{33}ʐ̩u^{55}	dʐ̩l̩ ʦ'a ʦ'a	?*bra (132)

Like Longxi and Jiuziying, Wasi and Lobuzhai distinguish prevocalic /ʐ̩/ and /r/. However, there are not enough forms in the available data to establish their correspondence with the key dialects.

3.3.1.4 Palatals

SQD identifies three to four series of sibilant affricates and fricatives in extant dialects, but nevertheless only reconstructs a dental series. Apparently Chang preferred to reconstruct clusters (e.g., *tsjh*), rather than simple initials (e.g., *tch*). Chang maintained this approach in spite of his presentation of over thirty cognate sets of alveolar/palatal[11] and retroflex forms in an earlier part of the paper (pp 431-3), in which these initials were treated as unitary phonemes, rather than as clusters.

For this series, Taoping is the most stable, with no changes from the PSQ reconstructed initials. In Longxi, Mianchi *palatals tend to become dentals before /i̱/.

*tɕ > LX /tɕ/, MC {/ts/ /_ i̱; /tɕ/ elsewhere}, TP /tɕ/ (about 30 sets). Recall that Taoping [tʃ] is an allophone of /tɕ/ occurring before /ɳ/. 'This' apparently had variation as far back as PQ; TP is cognate with Mawo *tsa:*, Yadu *tsɑχ* ('these'). Similarly, MW has *ʁuɑ tsa* 'step over'. There is no explanation yet for the initial in Mianchi 'eleven'.

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[11] I have put these together because of his normalization and interpretation of Wen Yu. In his Chart 4 (p431) he transcribes on separate lines the Taoping affricates /tš, tšh, dž/ and /tʃ, tʃh, dʒ/. It is not evident which of these transcriptions is supposed to represent H. Sun's palatals. Regardless of his interpretation, Chang has apparently missed the fact that, properly phonemicized, Taoping has only three series of affricates (cf. 2.2.3.1).

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Gloss	Longxi	Mianchi	Taoping	PTB
cheek	tɕì piá	tɕí pià	tʃɿ^{31} pa^{55}	*(t)si (STEDT)
man (male person)	tɕì	tsɻ̀	tʃɿ^{33}	*s-kyu (STEDT)
house, home	tɕé kù	tɕí ~ tɕì qó	tɕi^{55}ko^{33}	*k-y(i/u)m (53)
eleven	fià tɕí	{fià tɨ́}	χɑ^{31}tʃɿ^{33}	*t(y)ik=g-)tyik (p84)
daughter	tɕà	tɕè	tɕi^{33}	*krwiy (244)
hard	{qò cà}	koù tɕà	χku^{55}tɕa^{31}	
older brother's wife	ʁuá tɕí	ʁuè tɕì	--	
this	tɕà	tɕà qó	{tsa^{33}}	
step over/across	(dà) ʁuá tɕà	(dɛ́) tɕà	{ʁuɑ^{33} tsɑ^{33}}	

The morpheme being compared in 'eleven' means 'one'; in Mianchi and Longxi it occurs only in compound numerals (Mianchi *à qó*, Longxi *à* 'one').

*tɕh > LX {/tsh/ /_ ɨ, *ɨ[12]; /tɕh/ elsewhere}, MC /tɕh/, TP {[tʃh] /_ ɿ; /tɕ/ elsewhere} (about 40 sets). Because it is not possible to distinguish aspiration before a voiceless vowel, Longxi 'year' is not inconsistent with the rule as stated. Again, Longxi shares a phonological rule with Lahu, where /ch/ -> tsh/_ ɨ.

Gloss	Longxi	Mianchi	Taoping	PTB
narrow	tɕhá	--	tɕhe^{33}	?*tśi:p ('shut, close', #370)
tread/step on	--	tɕhyà	tɕhya^{31}	
weigh	tɕhì tɕhí	tɕhé	tɕhe^{55}	
year, next	dzá tɕi̯	diá tɕhi̯	dɑ^{241}tʃhɿ^{33}	
feces	tshə̀	tɕhɛ́	tʃhɿ^{33}	*kləy > tšəy (125, STEDT)

*dʑ > LX {/dz, z/ /_ ɨ ; dʑ elsewhere}; MC /dʑ/; TP {[dʒ] /_ ɿ; /dʑ/ elsewhere} (about 20 sets). Note that the variation in Taoping is merely allophonic. I have no explanation for the appearance of /z/ in Mianchi 'wing', 'lightweight', or for the aberrations in Longxi 'square'. I have included them here because they warrant further examination and comparison.

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[12] The same rule is found in Lahu.

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Gloss	Longxi	Mianchi	Taoping	PTB
wing	dzuà ɹà	{zà kè}	$dze^{241}qe^{33}$	*g-(t)s(y)əw-k (STEDT)
believe	dzà	dzá (ʐà)	dza^{241}	?*(m-)kyen (223)
lightweight	dzó	{zóu}	dzy^{33}	?*r-ya:ŋ (328)
charcoal	mú dzí	mè dzí	--	
Jew's harp	dzuà pú	dzòu	--	
niece/nephew	dzì qhuá	dzì	dzi^{31}	
throw/discard	sɨ dzuá	--	$\chi dʒi^{31}$	
square	{zuè}	dzè dzè	$dʒ\gamma^{241}\chi dzo^{31}$	

For the initial of 'wing', cf. Mawo *gzi gua'*, Yadu *gzɪj pɑ*.

*ɕ > LX, MC {/s/ / _ ɨ; /ɕ/ elsewhere}, TP /ɕ/ (about 21 sets).

Gloss	Longxi	Mianchi	Taoping	PTB
ocean/lake	ɕó ~ ɕý	bú zì sɨ	$ɕye^{33}$	*ši (STEDT)
die	à ɕà	tɛ́ sɨ̌	$ʃe^{55}$	*səy (232)
iron	ɕà (mó)	ɕì	$ɕi^{55}$	*syam=śam (228)
lifetime (CL)	ɕí	ɕí	--	*(t)swar (STEDT)
clean	ɕó	ɕó tè	--	*syaŋ (pp 52-3)
hide (v.)	ɕù	--	$ɕye^{33}$	*kway (303)
body	ɕì pí	ɕì peí	$ɕe^{55}\ pe^{33}$	?*tši (STEDT)
brightness	cuá	ɕyá	$ɕya^{33}$	?*hwa-t (221) not likely, considering Ergong, etc.
bed	ɳì sɨ qà	--	$ne^{55}ɕi^{33}$	

The correspondences of this protosegment are regular, except for Taoping 'die', which is the only occurrence in Taoping of [ʃ] before a vowel other than /ɨ/. If it is not an error (cf. 2.2.3.1), then it follows the expected rule of *ɕ > [ʃ]/__ ɿ (taking the vowel from Mianchi as indicative). PSQ *ɕ comes from PTB *s and *š (*STC* *ś). 'Body' is a difficult form to etymologize because of the wide variance between Southern and Northern Qiang (Mawo ku ti, Yadu pəə' χuɑ). The PTB etymology of 'brightness' is called into doubt by Ergong *nshio nshio*, which points to a dental or palatal fricative as far back as Proto-Qiangic.

*ʑ > LX /z/ (Longxi lacks /ʑ/), MC, TP /ʑ/ (about 7 sets). The initial in Mianchi 'paper' is unexplained; the whole set may be a local pronunciation of Mandarin *zhǐ*.

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Gloss	Longxi	Mianchi	Taoping	PTB
dwell, live	qə́ zɨ́; zɨ gó	--	ʒʅ^{33}	
exist/be present	--	zì	ʒʅ^{33}	
ox (CL)	zà ~ zɨ	zà	--	
paper[13]	zɨ də	zè dzɨ	ʒʅ^{31}ʒʅ^{33}	
scold	zɨ tà	--	zi^{33}	

*ɳ > LX. MC. TP {/n/ /_ ə, ɳ elsewhere}(about 8 sets). There is no evidence for **ɳə, so the changes to /n/ are to be expected. PSQ *ɳ appears to correspond to Chang's *nj, as he does not explicitly state what proto-segment he posits for these forms. 'Breast', 'black', 'two', and 'ear' appear in his "Examples to Chart 9," with forms similar to those in the key dialects below.

Gloss	Longxi	Mianchi	Taoping	PTB
breast, milk	ɳà ɳá	ɳà ɳá	ɳy^{55}ɳy^{55}	*s-nəw-t/n (419, STEDT)
two	nə̀	nə̀ qó	ɳi^{55}	*g-ni-s (4)
ear	ɳì ká	nə̀ ké	ɳi^{31} kie^{33},	*r/g-na (453)
black	ɳí	nə̀	ɳi^{55}ɳi^{31}	*nak (88)
cat	mà ɳù	mè ɳòu	ma^{31}ɳy^{55}	
fist	qù ɳú	qù ɳá	χkue^{31}ɳi^{33}	

With the exception of 'black', PSQ *ɳ comes from PTB prefixed *n.

3.3.1.5 Velars

Among the three key Southern dialects, Mianchi is most stable, with no changes for any of the initials. Longxi palatalizes before /i/, and Taoping before /e/ (although not before /ie/).[14] The data do not show what happens to Taoping *velar stops before /i/. In general,

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[13] These forms may turn out to be borrowings. I do not know the local pronunciation of Mandarin *zhǐ* 'paper'.

[14] Curiously, although the Taoping data have no occurrence of /ki/ and one occurrence of /ke/ (/ke^{31}tɕe^{33}/ 'mule' (typo?)), there are fourteen occurrences of /kie/. I surmise that the sequence /ie/ has a different phonetic quality than its letters would indicate. For further discussion of transcription difficulties in the data appearing in *QYJZ* and *ZYC*, cf. 2.1.2, 2.2.3.

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there are very few instances of *velar plus /i/ (*khi 'owe', and *(χ)gi 'open (door)' are the only instances discovered so far, with no occurrences of **ki or **ŋi), so this must have been a very rare sequence at the PSQ level. There are a number of sets in which it is not possible to determine whether the reconstructed initial should be *k or *q, *kh or *qh, because both a velar and a uvular stop are represented among the reflexes.

*k > LX {/tɕ/ / _ i, y; /k/ elsewhere}, MC /k/, TP {/tɕ/ / _ e; /k/ elsewhere}/ (about 17? sets)

Gloss	Longxi	Mianchi	Taoping	PTB
ear	ɳì ká	nə ké	ɳi^{31} kie^{33}	*kyap (STEDT)
mother's brother	á kù	à kù	--	*kəw (255)
pillow	ɳì kù	nè kò	ko^{33}	*kum (482)
well (n.)	tsù kù	tsuè-kù	--	*kor (349)
building	kè	lòu-ké	--	?*k-y(i/u)m (STC 53) 'home/womb'
knot	kè tá	kɛ̀ tà tà	--	?*ki:l (373)
drop (of water)	kà tɕí	kɛ̀ kɛ̀	--	
go	kə̀	kiɛ̀ ɕì	kə^{33}	
hoe	tɕyà	kuà	kua^{33}	
mule	--	kè tì	ke^{31}tɕe^{33}	
orphan	ké pù	kè pù tsú	--	
rat, mouse	zɻ́ kú	dzé kuè	zɿ^{31}kuə^{33}	
saw	--	kè ʐ́ í	kie^{33}ʐ́i^{55}	
tail	suà kà	suà kè	suɑ^{55}kie^{33}	
weave		tyà	tia^{33}	

'Tail' looks like it could be related to PTB *k-lyak (STEDT), which would make it cognate to the following Qiangic forms:

Guiqiong	mi^{33}kue^{53}
Namuyi	mɛ^{33}qu^{55}
Pumi (Jinghua)	mɐ^{13}liɛ^{55}

Following are sets which, among the key Southern dialects, are ambiguous between PSQ *k, *q. However, evidence from the Northern dialects indicate that at the time of Proto-Qiang they all had velar initials.

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Gloss	Longxi	Mianchi	Taoping	Yadu	Mawo	PTB
inside (room)	kù kú	qò qó	$ko^{55}ko^{33}$	tɕu xu̯	ku ku	*kuŋ (STEDT)
garden	tsà-kù	tsɨ́ qǒ	$tshie^{55}kie^{33}$	tsɛ ku̯	kuz	*kram (Matisoff 1997a)
angry	tà qù tɕhì	tɛ̀ kuò tɕhì	$ko^{55}pho^{33}$	khuɪ khuɛ	khuə khua	
elder brother	à kò	qó qò	--	ku:	--	

In the sets 'cuckoo', 'horn' (below), Yadu and Mawo indicate PQ *q, although Southern Qiang dialects are ambiguous between *q, *k. 'Cuckoo' is the only instance of the sequence /qi/ in Longxi, and there are no instances in Mianchi. The support from Yadu is inconclusive.

Gloss	Longxi	Mianchi	Taoping	Yadu	Mawo	PTB
horn	ɹà ká	ʐè ké	$ʐɑ^{33}$ $qə^{55}$	ɹəχ	ɹəq	*r-ki (STEDT)
cuckoo	qí pù	koú pù	--	qu ʂput, kuput ~ kupət (RH)	--	

If Yadu and Mawo are indicative of the PQ *initial(s), then the variation *k ~ *q dates back to early Qiangic (cf. Namuyi *qhuə*^{53}, Shixing *qhuɐ*^{55}). In this case, Longxi and Mianchi have maintained the original velar stop, which is otherwise unattested in Qiangic.

*kh > LX, TP {/tch/ _*i (hapax); /kh/ elsewhere} , MC /kh/ (about 8 sets). Note that in Taoping, /kh/ may precede /y/ ('hot'). Taoping 'chin' may reflect both PTB prefixes.

Gloss	Longxi	Mianchi	Taoping	PTB
chin	--	khɛ̀	$mə^{31}sŋ^{33}kha^{33}$	*(m-)ka~(s-)ka (470)
dog	khù	khuɛ̀	$khuə^{55}$	*kwəy (159)
hot	khú khuá	khué khuɛ̀	$khye^{55}le^{33}$	*ka(:)ŋ (330, 331)
mortar	--	khueí khueí	$khə^{55}$	
span	khà	khá ~ khà	--	
owe	tɕhá	dè khí[15]	$tɕhi^{33}$	

In the following sets, it is not possible to distinguish between *kh and *qh:

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15 For this set, the Mianchi initial is more conservative than the NQ cognates; Mawo *tɕi*, Yadu *tɕhɛ*.

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Gloss	Longxi	Mianchi	Taoping	STC
smoke, tobacco	mù khú, mú-qhú	mù qhué	mə^{31}khuə^{55}	*kəw (256)
dry, warm by fire	qhuà	khuè	khye^{33}	

The variation in Longxi 'smoke' may indicate that the variation posited above existed at the PSQ level. Northern Qiang forms have velars in this position (Yadu *mu xɣ*, Mawo *mu xu*). Almost all Qiangic data point to Proto-Qiangic *kh-, although Shixing has a uvular initial:

Ergong	mkhɯ lɯ	Pumi.Jinghua	skhiɯ^{13}
Ersu	mɛ^{33}ŋkhɛ^{55}	Pumi.Taoba	xio^{35}
Guiqiong	mø^{33}xø^{53}	Queyu	khu^{53}
Muya	mũ^{35}khɯ^{55}	rGyalrong	tɐ khə
Namuyi	mu^{55}ŋkhu^{33}	Shixing	ɳɛ^{33}qhuɐ^{55}

Taken together, the Shixing and Southern Qiang data indicate that 'smoke' has had qh ~ kh alternation at as far back as Proto-Qiangic.

*g > LX, MC, TP /g/, (10 sets). PSQ *g comes from PTB *g and prefixed *k. As mentioned above, there is no evidence for PSQ **gi.

Gloss	Longxi	Mianchi	Taoping	PTB
wear clothes	gù	(tè) gù	guə^{33}	*gwa-n ~kwa-n (160)
foot	gò	goù	--	*r-kaŋ (p70)
turtledove	ỳ gù χó	guè guè	--	*m-krəw (118)
among, between, center	tɕì gó	gó tì	go^{33}	?*koŋ/kor (STEDT)
firm, secure	gù	guè	--	
grain, kernel	gù	tʂhɨ góu ~ tʂhɨ mɛ́ gòu	--	
lamp	mú gú	--	mə^{33}gu^{33}	
pair	gù	gú ('team (of cattle)')	gə^{241}	
thunder	mú gú	mù gó	mə^{55}go^{33}	
upside down	dó gó	guì ~ guí	--	

Further evidence for the etymology of 'foot' comes from other Qiangic languages (Daofu

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rko, Ergong *ʐko*). Taoping *dzi*^{55} is cognate with forms in Northern Qiang (Mawo *dʒa qu*, Yadu *dzu qu*).

*x, *ɣ. *SQD* reconstructs these proto-phonemes, which I maintain are not distinct from *χ, *ʁ. Following is the *SQD* support for PSQ *x (to which I have added Longxi and Mianchi, and missing Taoping cognates).

Gloss	Wasi	Lobu-zhai	Taoping	Zeng-tou	Jiuzi-ying	Ruoda-zhai	Longxi	Mian-chi
needle	xe	he	χe^{55}	xe	xe	xe	χé ~ χèi	χè
fragrant			χu^{55}	xu	xu	xu	χó	χoù
hunt			χo^{55} kə^{33}	xoxo	xosɯ	xoxo	qhò	ɕỳ χó
wash			χuə^{55} lɑ^{55}	xola	xwəla	xo	χò là	(ʁó) χuà là
green	xwe	hwi	χue^{33} χue^{31}	xwe	xu 'veget-able'	xwe	peí χə̀ χə̀ 'green and glossy'	χué
yellow	xa		χa^{55} χa^{33}	xæ	ʃje	xæ	χá	χá

The above are the principal sets given by Chang to support PSQ *x. It is evident that this proto-segment is the same as the one I have transcribed *χ, based on data that are better transcribed than those Professor Chang had access to.

The following set is problematic, and is discussed further under *fi (3.3.1.7). Unfortunately, the phonetic reality of [ɦ] is not explained in *SQD*, due no doubt to the difficulty of interpreting Wen's "impressionistic and cumbersome phonetic notation" (*SQD* p426). In Lobuzhai, this graph appears to refer to [fi], as the only lexeme given for which *ɦ* occurs is 'ten'; similarly, in Mianchi /fi/ only occurs in 'ten' and its compounds, in the

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downward verbal prefix *fià*, and in 'that' and its compounds. This is the same as the distribution of /h/ in Ekou Yadu.

Gloss	Wasi	Lobu-zhai	Tao-ping	Zeng-tou	Jiuzi-ying	Ruoda-zhai	Longxi	Mian-chi
ten		ɧadʒjo	χɑ^{31} dy^{33}	hady	xadu	xady	fià dzó	fià diú (qò)

PSQ *χ can often be traced to PTB *kr- initials:

wash	*kruw=krəw	STC 117
green	*kruŋ	STC 382
needle	*k-rap	JAM 1997a[16]

The complex fate of PTB *kr- is discussed further under PSQ *khr- (3.3.1.8.4).

The sets 'bowl', 'wheat', 'willing', 'five', 'downstairs', 'help', 'stone', and 'shout' are apparently the sets that Chang uses to reconstruct PSQ *ɣ. I have included these sets below (except for 'downstairs', which does not appear in the data for the key dialects), along with Longxi and Mianchi forms, and my PSQ reconstructions (at least of the initials). For all of these sets, Chang's *ɣ corresponds perfectly with my PSQ reconstruction *ʁ-. The forms for 'wheat' and 'stone' point to PSQ (and PQ)*χl-. The initials of Wasi correspond directly with those of Mianchi, and Zengtou with Taoping.

The correspondences may be summarized as follows:

[16] Written Burmese has an odd reflex *ʔap*, and Lahu has *gò?* (cf. Matisoff 1997a:21, TSR #191).

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Table 3.4 Reflexes of PSQ *ʁ, etc.

PSQ	Wasi	Lobu-zhai	Tao-ping	Zeng-tou	Jiuzi-ying	Ruoda-zhai	Longxi	Mian-chi
*ʁ	ɣ	ɣ	ʁ	ɦ	ɣ	ɣ	ʁ	ʁ
*ʁw	w	(ʐ)w	ʁu	ɦw, ɦu	ɣw	ɣw	ʁw	ʁw
*χl	l	ɣ	ʁ	ɦ	ɣ	ɣ	ʁ	l

The following are the supporting forms:

Gloss	Wasi	Lobu-zhai	Tao-ping	Zeng-tou	Jiuzi-ying	Ruoda-zhai	Longxi	Mian-chi	PSQ
bowl	ɣo	ɣu	ʁu^{241}	ɦu	ɣu	ɣwə	ʁú	ʁóu	*ʁu ~ *ʁou
will-ing	ɣu		ʁu	ɦu	ɣu		ʁò ~ ʁó	ʁoù ʐà ~ ʁoù ʐǎ	*ʁ-
five	wa	ɣwe	ʁuɑ^{33}	ɦwa	ɣwa		ʁuè	ʁuà qó	*ʁwa
help	wa	ʐɣwa	ʁuɑ^{31}	ɦoɦwa	ɣwa		ʁuà	tè ʁuà	*ʁwa
shout			ʁuə^{33}ʐɑ^{33}	ɦuʐa	ɣwi	ɣwəʐa	ʁuǎ tà	ʁuǎ	*ʁwa
wheat	le	ɣə	ʁuə^{241}	ɦwə	ɣə	ɣwə	ʁə̀	lè	*χlə/ɛ
stone	lo	ɣopja	ʁo^{241}	ɦo	ɣo	ɣo	ʁò lû	lò	*χlo

Taoping 'willing' is based on Chang's citation *ɦu*. I have not been able to locate this form in either *ZYC* or *QYJZ*. Of the above forms, two have PTB reconstructions in STC: five *l-ŋa (78), 'stone' *r-luŋ (88). The *l-ŋ initial of 'five' became a uvular initial before the division into Northern and Southern dialects (Yadu, Mawo *ʁuɑ*), although the velar nasal had been maintained as late as Proto-Qiangic:

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Ergong	wŋuɛ
Ersu	ŋua^{33}
Guiqiong	ŋɛ̃^{35}
Muya	ŋɑ^{35}
Namuyi	ŋa^{33}
Queyu	ŋua^{55}tɕã^{53}
rGyalrong	kə mŋo

Northern Qiang 'wheat' (Yadu, Mawo *ʁlə*), 'stone' (Mawo *ʁlu pi*) further indicate the presence of *χl in PQ.

*ŋ > LX, MC, TP /ŋ/ (about 10 sets). For this set there are no changes from proto-initial to extant dialects.

Gloss	Longxi	Mianchi	Taoping	PTB
bovine, cow	ŋò mià	ŋò	zɿ^{31}ŋu^{33}	*ŋwa (215)
cry, weep	ŋú	--	ŋə^{55}	*ŋəw (79)
be/copula	n̊ù [17]	ŋuɛ̀	ŋuə^{33}	
have/exist	ŋó	ŋá	ŋɑ^{33}	
know, be able to	ŋuɛ̀	--	ŋue^{33}	

3.3.1.6 Uvulars

No changes have occurred in the uvular series, with the possible exception of Taoping reflexes of *qh. It appears that in Taoping *qh > /χ/ /_ o, as there are no instances of the sequence /qho/ in the Taoping data.

*q > LX, MC, TP /q/ (about 52 sets, 18 of which have reflexes in all three dialects). PSQ *q- comes from PTB *k-, but it is not clear why certain PTB *k- forms have reflexes in PSQ *q, and others in *qh. It is also unclear how PTB *velars have become both velars and uvulars. The following sets show the clear relationship between PTB *k and PSQ *q. In the case of 'penis' the PTB *final has been syllabified.

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[17] As mentioned in 2.2.2.1, n., this Longxi initial is fortis.

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Gloss	Longxi	Mianchi	Taoping	PTB
head	qə́ bá tsɨ	qà bʐá tsɨ	$qə^{33}$ po^{55} $tʂ\gamma^{33}$	*s-koŋ ≋ s-kok (STEDT)
brain	qə́ ɳà	qè ɳà	$qə^{31}$ $χɳa^{33}$	(*s-nuk (483))[18]
comb (n.)	qə̀-cý	qè suí	$qə^{31}suə^{33}$	(*m-si(y) (466))
hold in mouth	qá	qoú	qu^{33}	*ku(w) (184)
lid, cover	tà-qó	tshà qù	$qu^{31}qu^{33}$	*gop ≋ kop (STEDT)
nose	tì bá-qə́	nə́ qɛ́ pì	$χɳi^{31}$ qo^{55} $pə^{33}$	*s-na(·r) (101)
face	qá qhuá	qà χà	--	(*kwa (STEDT))
fear	qò [19]	kòu	qu^{33}	*grâk~krâk (473)
I, me	qà	--	$qɑ^{55}$	*ka (p93)
penis	lià qə́	lià qɛ̀	--	*r-li-k (STEDT)
rooster	ỳ qú	ì qóu	$yi^{31}qu^{55}$	*s-kyu ('male')
strength	--	dʐà qà	$dʐ\gamma^{241}qɑ^{33}$	PLB *k-ra$^{2/3}$ (STEDT)
win	tə̀ qò	qà	$tə^{31}qɑ^{55}$; $da^{31}qe^{33}$	PLB *k-ra$^{2/3}$ (STEDT)
wrap	qú tá	--	$quɑ^{55}te^{55}$	*klup (479)
tongue	zə́ qə́	zɨ́ qé	$z\gamma^{31}qə^{55}$	
leaf	qə́ mà	(phò) cà qè	$tɕhɑ^{55}qə^{33}$	

The first morpheme of 'brain', 'comb', and 'head' is apparently 'head'. The etymologies for 'brain', 'comb' are in parentheses, because the root given is not that of the *q-initial syllable. The q- syllables in 'nose', 'tongue', 'leaf' may ultimately be the same morpheme, meaning 'pointed part' (cf. Longxi *qə́ dý*, Taoping *$qə^{55}tsie^{33}$* 'pointed'). 'Win' and 'strength' are apparently from the same etymological root, and provide evidence for this etymon outside of Lolo-Burmese.

*qh > LX, MC, TP /qh/ (about 10 sets). Many of these forms, like those under *q, may be traced to PTB *k. At this time it is not possible to discern the conditioning factors that determine whether PTB *k- is reflected by PSQ *q or *qh (e.g., 'bitter' (below) versus 'I' (above)). Note, however, that there are about twice as many PSQ *q sets as *qh sets.

---

[18] Roots in parentheses are supported by morphemes which are not the subject of the present comparison.

[19] 'fear difficulty'

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Gloss	Longxi	Mianchi	Taoping	PTB, etc.
bitter, salty	qhà	qhà	qhɑ^{55}	*ka (8)
fox	qhà guà	qhá guə̀	qhɑ^{33}χguə^{33}	cf. Akha *k'aˬ* 'animal prefix' [20]
mountain valley	qhuà cì	qhuá bzˬà ~ qhuà qó ~ qhuɛ̀	--	
noodles	qhà mì	--	qhɑ^{31}thu^{55}	
wall	qhà tsù	--	qhuə^{55}	

In addition to these two uvular stops, Chang (*SQD*) posits PSQ *G, apparently based on the only two published Taoping forms with this consonant: *χGɑ^{24}ʲce^{33}* 'gnaw' and *χGɑ^{31}zˬə^{55}qə^{33}* 'Xishangzhai (place name)', neither of which is cited in his paper. In the other key dialects, this cluster in 'gnaw' corresponds to /ʁ-/:

Mawo	ʁɑˈ ɬa
Yadu	ʁæ ɬi
Longxi	ʁà cà
Mianchi	ʁè ʁá

As mentioned in section 2.2.3.1, Taoping /G/ only occurs as the second element in clusters; it never occurs as an independent phoneme. Given its tenuous status in Taoping (there are no occurrences of the cluster /χʁ/, which I maintain is the true underlying form for /χG/), and the fact that there is no unique correspondence that may be established for it, there does not seem to be adequate evidence to posit *G as an independent PSQ phoneme. When investigating Dayang Pumi, Prof. Matisoff initially thought that there was such a sound in *qòdǔ* 'walnut', "but it proved to be illusory" (Matisoff, p.c.).

*χ > LX, MC, TP /χ/ (about 21 sets, 6 with reflexes in all three dialects). With the exception of 'wither', none of these forms are traceable to PTB.

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[20] I have Professor Matisoff to thank for pointing this out. The second syllable of 'fox' is from PTB *gwa (STC p34).

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Gloss	Longxi	Mianchi	Taoping	PTB
wither	fià χà	--	$tə^{31}χa^{55}$	*hwa:y [21]
fragrant	χó	χoù	$χu^{55}$	
full of food	tà χeì	χè ~ tà χé	$χə^{55}$	
needle	χé ~ χèi	χè	$χe^{55}$	
shoulder	liá χá	ì χé	$lɑ^{31}χɑ^{55}pi^{33}$	
wash	χò là	χuá là [22]	$χuə^{55}lɑ^{55}$	
yellow	χá	χá	$χa^{55}χa^{33}$	

In phonetic transcription, Chang uses /h/ where others use /χ/ (Taoping *ho* 'hunt' *ZYC* has $χo^{55}kə^{33}$, *hwəla* 'wash', *ZYC* $χuə^{55}lɑ^{55}$). PSQ *χ appears to be the same as Chang's *h; however, because he does not define which sets represent *h, it is not possible to state this correspondence definitely.

*ʁ > LX, MC, TP /ʁ/ (about 21 sets, 8 with reflexes in all three dialects). The first four forms indicate that PSQ *ʁ often comes from PTB *ŋ(w)a.

Gloss	Longxi	Mianchi	Taoping	PTB
five	ʁuè	ʁuà qó	$ʁuɑ^{33}$	*l-ŋa (78)
goose [23]	ʁò	uò	$ʁu^{31}$; $ŋan^{13}ʁo^{31}$	*ŋa-n (p99)
older brother's wife	ʁuá tɕí	ʁuè tɕì	--	*ŋwap (p50)
monkey	ʁuà sà	ʁuà sà	--	PKN *ŋa:w (p192)
bowl	ʁú	ʁóu	$ʁu^{241}$	
buckwheat	zuà ʁá	dzuà ʁá	$dzuɑ^{31}ʁɑ^{33}$	cf. Lahu *ğâ*
cry out, call out	ʁuǎ tà	ʁuǎ	$ʁuə^{33}$ $ʐɑ^{33}$	
hang (on wall)[24]	ʁué	tæ ʁuá	$ʁue^{33}$	
help[25]	ʁuà	tè ʁuà	$ʁuɑ^{31}$	
silk, satin	ʁuè	ʁuè	$ʁue^{33}χto^{33}$	

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[21] (JAM-LITB 6.2; GSTC #98)

[22] Bound form in 'wash basin'.

[23] The second form is 'wild goose'.

[24] These forms look much like Mandarin *guà*, but none of them appear with the suffix usually attached to borrowed verbs.

[25] Cf. Jingpho *gā* 'do communal labor', Lahu *ga* 'help'. My thanks to Jim Matisoff for pointing out these cognates.

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As shown under the discussion of *velars above (table 3.4), /ʁ/ in the three key Southern dialects corresponds to /ɣ/ in Wasi, Lobuzhai, Jiuziying, and Ruodazhai, and to /h̬/ in Zengtou and Taoping (Chang's transcription). In addition, Ruodazhai /h̬ž/ roughly corresponds to Jiuziying, Zengtou /žj/:

Gloss	Ruodazhai	Jiuziying	Zengtou
delicious	h̬žje	žje	--
sing	h̬žjo	žjo	žjo
stand	h̬ẓi	ri	ẓi
wait	h̬zy	zo	žju

Ruodazhai /h̬/ does not correspond to any segments in the key dialects. Aside from these forms, and the Chang forms cited in the discussion of *x and *ɣ (section 3.3.1.5), there are no regular correspondences that could be used to establish the presence of PSQ *h̬, although it is asserted in *SQD*.

3.3.1.7 Glottal

The only possibly reconstructible glottal sound is *ɦ. Although there is correspondence between Longxi and Mianchi; this sound has vanished completely from Taoping. Ronghong Yadu has /ɦ/ in the downward prefix, but not in 'ten'.

*ɦ > LX, MC /ɦ/, TP ?? (2 sets)

Gloss	Longxi	Mianchi	Taoping	Ronghong
DOWN (pfx)	ɦà -	ɦà -	ə˙	ɦa, ɦɑ, ɦo
ten	ɦà dzó	ɦà diú (qò)	$\chi\alpha^{31}dy^{33}$	hotɕu

Although there are only two cognate /ɦ/ morphemes in Longxi and Mianchi, they occur with high frequency because of their roles in verb morphology and in the number system. In addition, there are four other morphemes with /ɦ/ in Longxi or Mianchi. If *ɦ can be

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reconstructed for PSQ, then its reflex in Taoping is either /χ/ ('ten', 'bowl'), /th/ ('s/he'), or retroflexion of the rhyme ('DOWN'). The other occurrences of /fi/ are (probable non-cognates in curly braces):

Gloss	Longxi	Mianchi	Taoping
bowl, etc. (CL)	fiò	qó	χgy^{33}
that	{thà}	fià	{tha^{33}}
Tibetan	là fiú	{mà ʂà}	--
liter (liquid)	fiú	{cɛ́}	{pu^{55}}

3.3.1.8 Cluster initials

Among the three key Southern dialects, *clusters are preserved directly in Taoping, and to a very small extent in the other two dialects. All of the auxiliary Southern dialects preserve more clusters than do Longxi and Mianchi. It is my estimation that the near-total loss of clusters in Longxi and Mianchi is not as much a matter of dialect location as it is one of time of sampling. As shown in the dialect maps in the introduction, Mianchi and Longxi are geographically very close to the other SQ dialects. However, there are significant time differences between the times of data sampling: Wen Yu gathered his data in the 1930's and 40's, Sun Hongkai in the 50's, and I transcribed Longxi and Mianchi in the 90's. As early as the decade of the 1950's Sun Hongkai recorded the simplification and loss of initial consonant clusters in Taoping. The following chart shows the differences in pronunciation between older and younger speakers in the 1950's (*QYJZ*, p10). I have included Northern Qiang forms to show that these clusters are shared at the PQ level.

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Gloss	Older speakers	Younger speakers	Yadu	Mawo	PSQ
new	khsi^{55}	tshi^{55}	khsə	khsə	*khs-
comb (v.)	khʂuɑ^{55}	tʂhuɑ^{55}	khuɛ˧ xə˧	kha˧ la	*khruɑ
pianniu^{26}	khɕi^{55}	tɕhi^{55}	khʂɛ	--	*khɕ-
hot (spicy)	gzɿ^{241}	dzɿ^{241}	gzə	--	*gz-
plowshare	gʐue^{33}	dʐue^{55}	--	--	*gr-
light (weight)	gzy^{33}	dzy^{33}	gu˧ tsɛ	gʐə tsu	*gz-
mountain	qhsuə^{55}	tshuə^{55}	--	qhsəp	*qhs-

For the purposes of historical comparison, it is unfortunate that Sun only recorded the speech of younger speakers in his lexicon. Some of these forms provide the sole support for certain PSQ *clusters.

Due to the loss of clusters in Longxi and Taoping, data from auxiliary dialects will be used as needed to bolster reconstruction of PSQ *clusters. Mawo and Yadu data will also be used to demonstrate that clusters in Taoping are inherited from an earlier stage and are not innovations.

The three key SQ dialects provide evidence for the following *clusters:

(*pz)	*bz				
(*pr)	*phr	*br			
(*sm)	(*sn)	(*sl)			
*khs	*khr	*khɕ			
(*gz)	(*gz)	*gr			
(*qhs)	*qhr				
*χp	*χt	*χtʂ	(*χtɕ)	*χk	*χq
(*χph)					
*χb	*χd	*χdʐ	(*χdz)	*χg	(*χG)
*χm	(*χn)	(*χɳ)	(*χŋ)		
*χz	(*χz)				
*χl					

With the exception of the tentative reconstruction *gr, all PSQ clusters have either a labial or a fricative C_1. The articulation and voicing of *χ- in PSQ *clusters was no doubt affected by the place and voicing of C_2, as in extant dialects with clusters.

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26 A cross between a yak and a cow.

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Chang (*SQD*) reconstructs many more PSQ clusters than these. Below I have highlighted those clusters that appear to be the same as clusters or plain initials that I have also reconstructed. Note also that some sounds that I have reconstructed as clusters are *plain initials in Chang's system (e.g., my *χm is the same as Chang's *mh (m̥)). Following Chang's chart is a table that presents the cluster equivalents in the two systems (R = prefixed fricative, B = prefixed labial, G= prefixed stop):

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Table 3.5 PSQ *clusters, according to *SQD* (chart 10)

-j	-r	B-	B-j	B-r	R-	R-j	R-r	G	G-r
pj	pr				Rp				
phj	phr								
bj	br				Rb				
mj					Rm	Rmj			
mhj									
tj		Bt			Rt				
thj									
dj		Bd			Rd				
tsj	tsr	Bts	Btsj	Btsr		Rtsj	Rtsr	Gts	Gtsr
tshj	tshr	Btsh	Btshj	Btshr				Gtsh	Gtshr
dzj	dzr	Bdz	Bdzj	Bdzr		Rdzj	Rdzr	Gdz	Gdzr
sj	sr	Bs	Bsr					Gs	
zj	zr	Bz	Bzr					Gz	
lj									
ɬj									
nj					Rn	Rnj			
nhj									
kj	kr				Rk	Rkj			
khj	khr								
gj	gr				Rg	Rgj			
xj									
ɣj					Rɣ	Rɣj			
					Rŋ				
qj					Rq				
qhj									
ɢj									
hj									
ɧj									

The apparent equivalents are as follows:

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Chang (*SQD*)	Evans
*pr	*pr
*Rp	*χp
*phr	*phr
*br	*br
*Rb	*χb
*mh	*χm
*Rm	*sm, *χm
*Rt	*χt
*Rd	*χd
*nh	*χn
*tsj	*tɕ
*Rtsj	*χtɕ
*tshj	*tɕh
*dzj	*dʑ
*Rdzj	*χdʑ
*sj	*ɕ
*zj	*ʑ
*nhj	*χɳ
*tsr	*tʂ
*Rtsr	*χtʂ
*tshr	*tʂh
*dzr	*dʐ
*Rdzr	*χdʐ
*sr	*ʂ
*zr	*ʐ
*Bz	*pz, *bz
*Rn	*sn
*Rk	*χk
*gr	*gr
*Rg	*χg
*ŋh	*χŋ
*Rq	*χq

The mapping of equivalents is not entirely one-to-one, as *SQD* *Bz and *Rm each have two corresponding proto-clusters in my system. My reconstructed clusters *χl, *χG have no equivalents in *SQD*. Within each pre-initial series, support for reconstructions within both systems will be discussed.

Among the key SQ dialects Taoping is the main indicator for *clusters, and generally maintains the PSQ initial. However, the data are presented with the above-mentioned caveat that the Taoping data evidently contain both typographic errors and a propensity for over-transcription (as in the case of the alveo-palatal "series").

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Support for PSQ *clusters is much scarcer than for *plain initials, with the number of supporting sets ranging from one (*pʐ, *gr) up to eleven (*χg). I have placed in parentheses those *clusters whose support consists of two or fewer supporting sets. The poorly supported sets appear with the others in their respective series. However, *br is discussed before other *labial-r clusters, because it gives evidence for the reconstruction of *r over *ʐ as the second element of the clusters in its series.

3.3.1.8.1 Labial pre-initials

With the exception of *pz, *bz, *pr, Longxi and Mianchi reflexes of PSQ *labial clusters are highly problematic, and impossible (at this point) to further specify.

*pz > LX, MC /p/, TP /pz/ (2 sets)

Gloss	Longxi	Mianchi	Taoping	Jiuziying	PTB
intestines	{pù}	--	pzɿ^{33}	ptsɿ	*s-pa-y (STEDT), via metathesis? LX from PTB *pu (STEDT)
tiger	piá	pì dá	pzɿ^{31}dɑ^{33}	pei ʁda	

Cognates of 'intestines' can be found in Northern Qiang and Qiangic:

Yadu	piə	intestines
Mawo	tʃə pu	large intestine
Guiqiong	pi^{35}tɜ̃^{33}	intestines
Jinghua Pumi	pʒi^{55}	intestines
N. rGyalrong	tə◦pu	intestines / bowels

It is not yet clear whether these forms represent two Qiangic roots, or only one. There do not appear to be Qiangic cognates of 'tiger'.

*bz > LX /b/, MC /bʐ/, TP /bz/ (2 sets).

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Gloss	Longxi	Mianchi	Taoping
cloth	bù miá	bz̩ù miá	bzŋ^{31}me^{33}
sunrise	cuá qàn bè	--	bzia^{31}

SQD combines *bz, *pz under the reconstruction *Bz. In addition to Taoping and Mianchi, Wen's Zengtou, Jiuziying and Ruodazhai preserve these two clusters (*SQD* chart 2, changed to Wen's transcription). The initial *cluster of 'thin' is apparently from metathesis of the *r final.

Gloss	Zengtou	Jiuziying	Ruodazhai	PTB
thin (of paper)	bzŋ	bzŋ	bzŋ	*pe:r (340)
intestines	pzŋ	ptsŋ	pzŋ	
tiger	pzŋ da	pei ʁda	pzŋ da	
cloth	bzŋ me	bə n̩i	bzŋ me	

It is not apparent why *SQD* blurs the voicing distinction between these two *clusters in reconstructing Proto-Southern Qiang *Bz.

In addition to bilabial clusters that are inherited from PSQ, Jiuziying, Zengtou, and Ruodazhai all have many secondary bilabial clusters which are similar to those found in Mianchi (2.2.1.1). As in Mianchi (cf. 2.2.1.1), there are two types of secondary bilabial clusters, the first of which occurs under the following conditions:

Ø > [bilabial stop]/ _ [dental/retroflex obstruent] *u

Secondary bilabialization of this type may be seen in the following forms taken from Wen 1950b (Taoping forms are cited for comparison):

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Gloss	Jiuziying	Taoping	PTB
water	ptsɿ	tsuə^{33}	*twiy=twəy (168), *tšu (STEDT)
ignite, kindle	ptsɿ	tsuə^{33}	
mountain	pts'ɿ	tshuə^{55}	
swallow (v.)	bdzɿ	sɿ^{31}dzuə^{33}	
chopsticks	bdʏ	duə^{33}	
field	bʐɭ	zuə^{33}	

All of the Jiuziying words with secondary bilabial cluster initials have transphonologized the lip-rounding of the *vowel to form the labial pre-initial. Bilabialization of obstruents accounts for the data that SQD presents to support the following *clusters, none of which I see a need to reconstruct:

*Bt
*Bd
*Bts *Btsj *Btsr
*Btsh *Btshj *Btshr
*Bdz *Bdzj *Bdzr
*Bs *Bsr

Jiuziying also has secondary bilabial clusters that are the result of palatalization of labial initials. Unlike the previous class of clusters, here the bilabial closure is phonemic:

Ø > ɕ/ [voiceless bilabial stop]_ i

Gloss	Jiuziying	Longxi
spittle	pcie ɹa	piă
plant (v.)	(ə-) pc'ie	phià

As indicated in the above rule, this process only occurs with /p, ph/, and not with /b/. For the Jiuziying forms, the palatalization is barely audible, although Wen mistook it as primary:

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> When used as the so-called prefixes ["pre-initials" -- JPE] /p/ and /b/ are in general much less prominent than the root initials.... But in a few cases, they are rather heavy and make the root initial inaudible. E.g. /pcie ɹa/ (spittle) sounds rather like [pie ɹa] than [cie ɹa],..." (Wen 1950b:19)

While it is clear that these palatals are of secondary origin, it is equally clear that this rule is either irregularly applied in Jiuziying or that the palatalization was not always audible to the researcher, as it does not show up in any of the 'pig' words, nor in borrowed vocabulary:

Gloss	Jiuziying
pig	pie
lard	pi(e) sa
flat (b)	pi pi
slow (b)	p'i t'a

***br** > LX /b(ɹ)/, MC /bʐ/, TP /bʐ/ (6 sets). That *br may be traced back to PQ, and even PQic, may be seen by the following sets:

Gloss	Longxi	Mianchi	Taoping	Yadu	Mawo	Qiangic and PTB
rope	bèì	bʐè	bʐe^{33}	--	biʂa	Ersu *pʂʅ*^{55} Dayang Pumi *bʐěN* rGyalrong *tə brɛ*
ashes	mù-bè	--	mə^{33}bʐi^{241}	bu ʐu	tɕi ɕi buʐ	?PTB *pla (137)
break (v.i. of rope, etc.)	--	{ʂə phə̌}	bʐe^{33}	--	--	Ergong *bʐe* Taoba Pumi *thə*^{13}*pʐɛ*^{13} rGyalrong *kə mbrɐt* PTB *N-prat (STEDT)
child	tɕí bí	kɛ̀ bʐì tsɨ	tʂi^{33}bʐi^{33}	--	--	--
big	bɹà ~ bà	bʐà	bʐɑ^{33}	bɹɛ	bɑɹ	--
thin, slender	bé	bʐí	bʐi^{33}	bə ʁɛj	bʐə tsi ~ bəɹ tsi	--

In addition to these forms, there are two sets for which the Taoping form is aberrant in not preserving evidence for *r. The first set is 'high': Longxi *bó*, Mianchi *bʐú*, Taoping *bu*^{33}; Yadu *bɯ*, Mawo *bu*^{ˊ}. This form may be traced back to Proto-Qiangic, at which time it still preserved the nasal prefix of PTB *m-raŋ (STC p43) (rGyalrong *kə mbro*, Namuyi *da*^{55}*mo*^{33}). Note that in Qiang the /b/ pre-initial has originated either from denasalization of the initial, or has arisen epenthetically between *m-r due to speakers' mis-timing of

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articulators (n.b. rGyalrong form) with subsequent loss of *m. Ergong *bzi* indicates that other sub-branches of Qiangic have denasalized the prefix. The second such set is 'smallpox': Taoping bo^{241}, Jiuziying *bɯo*, Mawo *bu*$^{\cdot}$. I reconstruct this etymon as *bro; there is no explanation for the reduction of the cluster in Taoping, except for the general trend of cluster simplification observed in SQ dialects.

Another variation occurs in words for 'stinking', for which there were apparently two forms at the PSQ level, one with initial *br (Taoping, Zengtou, Jiuziying, Ruodazhai), and a two-syllable form with plain *b- initial that can be traced back to PQ (Longxi, Mianchi, Yadu, Mawo):

gloss	Taoping	Zengtou	Jiuziying	Ruoda-zhai	Longxi	Mianchi	Yadu	Mawo
stink-ing	bʐ̩l^{33}	bʐɯ	brɯ	bʐɯ	bə̀ tsá	bù tʂá	bə χtʂɛ	da bə χtʂi

For this PSQ *cluster, I have reconstructed *br rather than *bz̩ because Longxi maintains the distinction between *r and *z̩ (3.3.1.3), and indicates a reflex of *r in 'big'. However, there is not enough evidence to claim a distinction between *br, *bz̩ in PSQ. My reconstructed *br corresponds directly with the *SQD* sets that Chang apparently uses to support both *br and *Bzr (there is no indication of how he distinguishes these two). With the exception of 'stinky' (above), the sets he gives are as follows (I have filled in some missing Taoping forms):

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gloss	Wasi	Lobuzhai	Taoping	Zengtou	Jiuziying	Ruodazhai
thin (in diameter)	bri	bre	bʐi^{33}	bʐi	bri	bʐi
rope	bre	bri	bʐe^{33}	bʐe	bre	bʐe
large	bra	bra	bʐɑ^{33}	bʐa	bre	bʐa
high			bu^{33}	bu	bru	bu

For all remaining rhotacized proto-clusters, I reconstruct *r.

*pr > LX /p/, MC /bʐ/, TP /pʐ/ (hapax)

Gloss	Longxi	Mianchi	Taoping	Jiuziying
thick, wide	pà	bʐà	pʐe^{55}	ptsʅ bɹi ('large intestines')

The Mianchi and Jiuziying reflexes show voicing assimilation of the pre-initial; all Mianchi clusters (pʂ, bʐ, (mʐ)) agree in voicing. Although the Mianchi and Jiuziying forms appear to be cognates of 'big' (cf. *br, above), Longxi and Taoping, combined with Northern Qiang forms indicate that these two words are distinct at the PSQ and PQ levels:

Gloss	Ekou Yadu	Ronghong Yadu	Mawo
big	bɹɛ	bɑ	bɑɹ
thick, wide	--	po	pu

'Thick (in diameter)' is the only set that *SQD* uses to support *pr/*Bzr (Zengtou *pʐe* , Jiuziying *pe*).

*phr > LX /ph/, MC /pʂ/, TP /phʐ/ (about 8 sets, with 4 supported by LX, MC). For 'open (eye)', 'tear,rip' Mianchi has apparently transphonologized the *r of the proto-initial into vowel rhotacization:

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Gloss	Longxi	Mianchi	Taoping	Yadu	Mawo	Qiangic
white	phé	pʂí	phz̩i^{55}	phɯʂ	phi	Ergong *phʂɯ phʂu*, Namuyi *phu^{55}lu^{55}*,Taoba Pumi *phz̩ã^{55} mə^{53}*, rGyalrong *kə pram*
letter, news	phù	pʂè	--	phɯe	zət phi	--
means, way	--	pʂú thè	phz̩ɿ^{33}	--	phə˧	Pumi.Taoba *rə^{35}phz̩ẽ^{35}*, Shixing *ri^{33}pɑ^{55}*
wet, moist	phà	--	phz̩e^{31} phz̩e^{55}	--	phiɑ˧q	--
lime	--	--	χo^{33}phz̩i^{55}	--	kɑ rpu	--
open (eye)	tə phé	phə́	phz̩a^{55}	--	--	Ersu *pa˧^{55}*
tear, rip	phú phú	ʂè phù phə̀	phz̩i^{33}	phɯ phɯɛ	phi˧ phi˧	Ergong *pʂi*, Namuyi *mphʂɿ^{35}*, rGyalrong, *kɐ prə*, Shixing *pɑ^{55}rɛ^{33}*

For 'white', Matisoff reconstructs PQic *pram (Matisoff 1997b), probably related to PTB *plu (STC p41); n.b. Namuyi *phu^{55}lu^{55}*. 'Tear, rip' is no doubt descended from PTB *mrak~brak (STC #147); however, the devoicing of the initial in the entire Qiangic branch is mysterious. It may reflect the PTB *s- prefix, which marks both causation and increased verb valence.

The following set appears, based on the Taoping and Longxi forms, to reflect PSQ *phr (PTB *pruk (STC 391). However, the Mianchi reflex suggests a different PSQ *initial, as does the Yadu form; there are no supporting forms in Qiangic outside of Qiang.

Gloss	Longxi	Mianchi	Taoping	Yadu
scratch	phà dá	phiá	phz̩ɿ^{31}phz̩ɑ^{55}	dzɛ ɸɛ˧

It appears that in PQ there was variation between *phrɑ ~ *phia.

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In addition to the abovementioned labial clusters, *SQD* proposes *mj, *mhj, apparently based on the following (Taoping forms in parentheses are not cited in *SQD*):

gloss	Wasi	Lobu-zhai	Taoping	Zengtou	Jiuziying	Ruoda-zhai	Longxi	Mianchi
NEG	mji		(mi^{55})	mi	mi	mi	mí	mì
eye	mə (mhə)	mjapu	mi^{55}	mi	mi	mi	mí- (in com-pounds only)	mè tié
smell (v)	mhe		(χmi^{55})	mhi	mhje			mí
pine tree	mhja	ʂpja	(χmɑ^{55})	mæ	mhje			mià-phó

I reconstruct these as follows:

NEG	*mi	PTB *ma (p96)
eye	*mia	PTB *s-myak ≋ s-mik (402)
smell (v)	*smi	PTB *m/s-nam (464)
pine tree	*smia	

For NEG, I hold that the -j- in Wasi is an over-transcription; there is no evidence from the other dialects to add a medial to this syllable. For 'eye', Lobuzhai provides the only evidence in Southern Qiang for medial *-i- (PTB *s-myak ≋ s-mik, STC 402). However, Mawo *mi* ~ *mja* demonstrates that the PTB alternation *ya ≋ *i has been maintained to the present, with certain dialects reflecting *ya (Lobuzhai, Mianchi(?), Mawo), and the rest reflecting *i. I have reconstructed as diphthongs what *SQD* presents as sequences of *jV. I have chosen this analysis of PSQ for the same reasons that I chose it for Mianchi and Longxi (cf. Chapter 2).

3.3.1.8.2 Dental pre-initials

*sm > LX ɕ /_ i; x _ u; MC /m/, TP /χm/, Jiuziying /ɱ/ (three sets)

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Gloss	Longxi	Mianchi	Taoping	Jiuziying	PTB
body hair	ɹà-χù	mù	χmə^{33}	qʏ ɱʏ [27]	*s/r-m(u/i)l (pp 15 - 16)
smell, sniff	ɕí tà	mí	χmi^{55}	(tʏ) ɱie	PTB *m/s-nam (464)
pine (n.)	--	mià-sé	χmɑ^{55}	ɱi	

Mianchi and Taoping do not distinguish PSQ *sm- and *χm-. However, Longxi voiceless fricatives and Jiuziying voiceless nasals provide evidence that these *clusters were separate at the level of PSQ. For 'smell' most Qiangic languages reflect PQic *sn-, as evidenced by the following verbs for 'smell/sniff':

rGyalrong (DQ)	snə no
rGyaNW (SHK)	kæ nam nam
Ergong	snɯ no
Jinghua Pumi	xə^{13}ɱiə^{55}
Taoba Pumi	xə^{35}ɱõ^{35}
Shixing	by^{55}ɱo^{55}
Queyu	tə^{35}lu^{55}nũ^{55}
Muya (SHK)	kʰɯ^{55}nɯ^{53}
Zhaba (SHK)	tə^{35} lu^{55} nũ^{55}

However, Namuyi *hĩ^{33}hĩ^{55}* indicates that a *sm- root for 'smell' must also be reconstructed at the PQic level (cf. *hũ^{33}* 'feather, hair (of head)').

*sl > LX /s, l/, MC /l, ɬ/, TP /ɕ, ʂ/ (hapax)

Gloss	Longxi	Mianchi	Taoping	PTB
moon	sì ɕuà ~ lə ɕuà	ɬə ~ lə	ɕy^{33}ɕya^{55}, ʂl^{33} [28]	*s-gla (144)

SQD appears to treat this initial as *ɬ. However, the fact that the PTB *cluster was maintained in PSQ is clear from the alternations in all three dialects. It appears that evidence for this *cluster is disappearing: in Mianchi, only certain speakers pronounce

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[27] 'head hair'

[28] PTB *s-la (STC #144).

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'moon' as *łə̀*.

SQD proposes the dental and obstruent clusters *tsj, *tshj, *dzj, *sj, *zj, *nj, *tsr, *tshr, *dzr, *sr, *zr, which I have reconstructed as the palatal and retroflex series *tɕ, *tɕh, *dʑ, *ɕ, *ʑ, *ȵ, *tʂ, *tʂh, *dʐ, *ʂ, *ʐ. *SQD* also proposes PSQ *łj, but does not provide any support for this cluster. Chang provides two sets that apparently support *lj:

gloss	Wasi	Lobuzhai	Taoping	Zengtou	Jiuziying	Ruodazhai
come	lju		ly^{33}	ly	lu	ly
wide	la		lie^{33}			le

'Come' I have reconstructed as PSQ *ly (Longxi *lò*, Mianchi *ȵù*). 'Wide' is more complex, as there appear to be two similar roots with similar semantics:

wide, broad	PSQ	*la
	Taoping	la^{33}
	Wasi	la
	Longxi	lá
	Mianchi	lá

Without support from Taoping, it is not possible to distinguish between the two proto-vowels. External evidence for *lɑ comes from Yadu *lɑ*.

wide, thick	PSQ	*lie or *lia
	Ruodazhai	le
	Taoping	lie^{33}
	Mianchi	lià

External support is lent by Mawo *li*, Yadu *liɛ*.

*sn > LX /ɕ/, MC /n, ti/, TP /ɕ, χt, χȵ/ (four sets). The cluster *sn- is problematic in Qiang. There is direct evidence for the preservation of PTB *s-n- into Proto-Qiangic, with the strongest evidence coming from rGyalrong and from Ersu, in which the *s- prefix has been syllabified:

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Gloss	PTB	Ersu	rGyalrong
heart	*s-niŋ (STC 367)	sɿ^{55}ȵi^{55}	tə ʃnɛ
seven	*s-nis (STC 5)	ʃɿ^{55}ɲ^{55}	kə ʃnəs
nose	*s-na(·r) (STC 101)	sɿ^{55}nbu^{55}	tə ʃna

Thus it is clear that at the level of Proto-Qiangic, the Tibeto-Burman proto-cluster remained *sibilant + nasal. Additional support comes from 'ear of grain' (PTB *s-nam (Matisoff 1997a)), although the etymon is not attested in rGyalrong or Ersu:

Ergong	sno ʐmɛ
Jinghua Pumi	ɲiə^{55}
Taoba Pumi	ɲi^{53}
Queyu	ʂa^{35}ȵe^{53}

Within Qiang itself, the situation becomes more complicated. In Northern Qiang, all nasality of the proto-cluster has disappeared: Yadu reflexes have /ʨʦ-/ and Mawo has /st-/. Although there is no direct evidence for *nasality, the reflexes of PTB *s-n- are regular:

Gloss	Yadu	Mawo
heart	ʨʦɪj miɛ	sti: mi
seven	ʨʦə	stə
nose	ʨʦyəs	stʏ-q
ear (of grain)	ʨʦəχ	stiɑq

In Southern Qiang, the reflexes in Mianchi and Taoping are inexplicably irregular, although Longxi is regular:

Gloss	Longxi	Mianchi	Taoping
heart	ʦì mì	tié mù	χtie^{55}mə^{55}
seven	ʦí	ná qò	ciŋ^{33}
ear (of grain)	ʦà qà	lè tì	χti^{55} qə^{33}
nose	--	nà qɛ́ pì	χȵi^{31}qo^{55}pə^{33}

Because the Longxi form *tì bá-qà* 'nose' does not appear to be cognate to the other two forms, the key dialects are ambiguous in their support for this *cluster -- their forms could

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come from *χn- (cf. xyz). However, the Northern Qiang forms (above), coupled with the auxiliary dialects Wasi and Zengtou unequivocally support *sn-:

Gloss	Wasi	Lobuzhai	Zengtou	Jiuziying	Ruodazhai
heart	ʂtjeme		tjemə	htje	
seven	hne		šẽ	nhe	
nose			ňiqopə	nhəpaqə	nhe

We note that all SQ dialects have denasalized the initial *cluster of 'heart'. For 'seven', 'nose' only Mianchi and Jiuziying have consistent reflexes of the proto-cluster. I have no explanation at this time for this irregularity in Southern Qiang. Nonetheless it is clear from the Jiuziying reflexes of 'seven', 'nose' that as late as the time of PSQ, at least these two forms had preserved PTB *sn- in something like its original shape. It seems especially unusual to me that Taoping, with its relatively great number of initial clusters, has no regular reflex of *sn-. Chang's *Rn- appears to correspond with my PSQ *sn-, and possibly *χn (cf. 3.3.1.8.5).

3.3.1.8.3 Palatal pre-initials

SQD reconstructs *nhj (*n̥ʲ), based apparently on the following:

gloss	Wasi	Lobu-zhai	Taoping	Zengtou	Jiuziying	Ruoda-zhai	Longxi	Mianchi
slip-pery	nha			nha	ňhja	nha		(z̥ĭ) nà
oil, fat			(χn̥o^{55})	ňo	ňhje	ňhjo	n̥í n̥à 'oily'	
red			(χn̥i^{31} n̥i^{33})	ňi	ňhi	ňhi	ɕí	ná

Again, it is clear that if Chang had had access to the Taoping forms, and to the Longxi

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forms, he probably would have reconstructed this initial as a cluster, perhaps our *χɲ- (3.3.1.8.5). Note that in my reconstruction of *χɲ, I have omitted 'slippery', because Jiuziying, not a key dialect, is the only variety to show evidence for a palatal *initial. 'Oil, fat' may come from a prefixed PTB root *nam (STEDT). 'Red' is from PTB *(r-)ni (p46).

As an aside, I should point out that Chang's retranscription of Jiuziying in this set truly puzzles me. Wen (1950b) transcribes these words as *ɲia* 'slippery', *ɲio* 'oil', *ɲi* 'red', without the double palatalization that Chang's *ňhj- indicates.

3.3.1.8.4 Velar pre-initials

PSQ *velar clusters are not attested by Taoping's younger speakers. For some clusters there is additional support from auxiliary clusters. I have included data from Taoping's older speakers (OS), where available, alongside data from younger speakers (YS).

*khs >LX {tsh_ e; /tch/ elsewhere}; MC /s/, TP (OS) /khs/, TP (YS) /tsh/ (3 sets). There is a fourth set 'tremble' supported by Mianchi, Jiuziying, and NQ. 'Three' comes from PTB *g-sum (STC 409). Underlined initials in Jiuziying are fortis.

Gloss	Longxi	Mianchi	Taoping OS	Taoping YS	Sanqi-zhai	Jiuzi-ying	Yadu	Mawo
three	tshè	sí qò		tshi^{55}	'qsi	ts'i	khsə	khsi
new	tchí	sí	khsi^{55}	tshi^{55}	'qsɿ	ts'i	khsə	khsə
god	à bú tchì	à pà-sé		tshie^{33}	'qsɿ	ts'e		khsi
tremble		lɛ̀ sɛ̀ sè				ts'a		khsa^{2} ma

**kr. As mentioned earlier, there is insufficient evidence to reconstruct PSQ *kr-. PTB *kr- has two types of reflexes in Southern Qiang. 'Gall', 'sweat', 'skin' show the pattern

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PTB *kr- > PSQ *χ(tʂ)[29]. 'Satiated', 'needle', 'be born', 'shoulder', 'wash' demonstrate PTB *kr > PSQ *χ. It is not yet clear what conditioning factors favored one PSQ reflex over another.

Gloss	LX	MC	TP	PSQ	Mawo	Yadu	PTB
gall	tsɨ́	tɕɨ́	χtʂə^{55}	*χtʂə	xtʂə	xtʂə	*m-kri-t ~ s-kri (412)
sweat	tsù	tʂhù	χtʂuə^{55}	*χtʂu(ə)	xtʂə	xtʂuə	*s-krwal ≪ s-(ŋ)krul (STEDT)
skin		tshɛ́ pià	tʃhɿ^{31} pa^{33}	*χtʂi			*m-k-rəy (STEDT)
satiated	tə χeì	χè ~ tə χé	χə^{55}	*χe ~ χə	χə		*kru (STEDT)
needle	χé ~ χèi	χè	χe^{55}	*χe	χe	χɛ	*k-rap (JAM 1997a)
to be born; live; green	peí χə̀ χə̀ ('green and glossy')	χué ('green')	χue^{33} χue^{31} ('green')	*χue	χu ('give birth')	χɑʂ ('green')	*kruŋ (382)
wash	χò là	(ʁó) χuà là	χuə^{55}lɑ^{55}	*χuə	χlɑ	xluɑ	*krəw (117)
shoulder	liá χá	ì χɛ́	lɑ^{31}χɑ^{55} pi^{33}	*χɑ ~ χe	dʒɑ χu	lu χu pɑtʂ	KMR *k(r)oŋ/k (STEDT)

*khr > LX {ɕ/_y; tsh elsewhere}; MC {tɕh/_i; tʂh elsewhere}; TP (OS) /khʂ/, TP (YS) /tʂh/ (4 sets). I have reconstructed this as *khr, rather than **khʂ due to the retroflexed vowels

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[29] cf. Lolo-Burmese:

Gloss	W. Burmese	Lahu	PLB
sweat	khrwê	kɨ̄	*?grwəy^{2}
gall	khre	kɨ	*?grəy^{1}

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in Northern Qiang, which indicate PQ medial *r. Longxi and Mianchi 'comb' may not be cognate, which would make the correspondences more regular.

Gloss	Longxi	Mianchi	Taoping	Mawo	Yadu	notes
comb, brush (v.)	(cý)	(qà tó suí)	khʂuɑ^{55} (OS), tʂhuɑ^{55}	kha^{1} la	khuɛ^{1} xə^{1}	cf. PL *ʔb(r)iy^{2} (STEDT)
eight	tshá	tʂhè qó	tʂhe^{33}	kha^{1}	khɛ^{1}	SQ initial cluster suggested by Jiuziying *tsha*. *b-r-gyat (163).
hundred	à tshəì	à tʂhì	tʂhi^{55}	khi^{1}	(ɛ) khɛ^{1}	*r-gya (164). PSQ *vowel supported by Jiuziying *tshi*. PQ *kr i/e. cf. 'eight'.
rice (un-cooked)	tsheì	tɕhɨ				LBZ, JZY *khri*; ZT, RDZ *qhə*

*khc > LX /c, tsh/; MC /s, c/; TP (OS) /khc/; TP (YS) /tɕh/ (3 sets). More sets are needed in order to sort out the distributions in Longxi, Mianchi, Jiuziying. Further evidence may lead to the division of this *cluster.

Gloss	Longxi	Mianchi	Taoping OS	Taoping YS	Jiuziying	Yadu	Mawo
pianniu	zɨ cù		khci^{55}	tɕhi^{55}	c'i	khʂɛ	
musk deer	tshɨ lə	sè lə		tɕhi^{31}lə^{33}	*ts'ʅ ʐ ʅ*.	khʂu	khʂəʐ
leaf		(phò) cà qè		tɕhɑ^{55} qə^{33}		tʂhu khʂu	khcaq

*gz > LX (?); MC /z/; TP (OS) /gz/; TP (YS) /dz/ (hapax).

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Gloss	Longxi	Mianchi	Taoping OS	Taoping YS	Yadu	Mawo	PTB
hot (spicy)	--	zɛ̀	gzɿ^{241}	dzɿ^{241}	gzə	--	*(ts/dz)a-t (62)
official		zɛ́ qà		dzɿ^{33}	gzə	gzə	

The Longxi form *tcì* appears to be related to *tcí* 'prick, stab', rather than to this etymon.

*gʑ > LX /dʑ/, MC /ʑ/, TP (OS) /gʑ/, TP (YS) /dʑ/. (hapax) For 'light (weight)', it is clear by comparison with NQ that the Proto-Qiang form was *gry. Taoping preserves the PQ vowel and Northern Qiang preserves evidence of the *r- component. Because the Longxi and Mianchi reflexes of PSQ *gr are different (below), it is apparent that this *cluster lost its rhotacization before the PSQ dialects split.

Gloss	Longxi	Mianchi	Taoping OS	Taoping YS	Yadu	Mawo	PTB
light (weight)	dʑó	zóu	gzy^{33}	dʑy^{33}	gu' tsɛ	gʐə tsu	?*r-ya:ŋ (328)

*gr > LX /gɹ, dz/. MC /g, dʐ/, TP (OS) {gʑ /_ y, gʐ elsewhere}, TP (YS) {dʑ _ y, dʐ elsewhere} (at least 2 sets). Taoping (OS) and Taoping (YS) palatalize this cluster before /y/.

Gloss	Longxi	Mianchi	Taoping
sole of foot	gɹò cì, guà cì	goù pà	--

It is unfortunate that 'sole of foot' is not recorded in Taoping or in the auxiliary dialects; however, the presence of /gr/ in the cluster-impoverished Longxi is a strong indicator for this reconstruction. *SQD* and the older speakers of Taoping provide the following evidence for *gr, which is not supported by Longxi or Mianchi:

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gloss	Wasi	Lobu-zhai	TP (OS)	Zengtou	Jiuziying	Ruoda-zhai	Longxi	Mianchi
plow-share	dʐwur	grwu	gʐue^{33}	dʐwu	bdʐɯ	bdʐɯ	dzù	dʐù

The velar nature of this PSQ *cluster is given additional support by Ronghong Yadu *gu:* ('plowshare' is not recorded for Ekou Yadu or Mawo).

The following sets are suggestive of *gr-, but are not conclusive:

gloss	Longxi	Mianchi	Taoping	Mawo	Yadu	notes
four	zɨ	zɨ qó	dʒʅ^{33}	gʐə	gʐə	?STC 410 *b-liy. JZY *dzʅ*.
give 2	zɨ́	zɨ́		gʐə	gʐə	JZY *dzʅ*.
square (cf. 'four')	(zuè)	dzɛ̀ dzɛ̀	dʒʅ^{241} χdzo^{31}	gʐə ʏdʐu	gʐə ɣrɥ	TP m2 is cognate with MW.

SQD reconstructs the *velar stop clusters *kj, *kr, *khj, *khr, *gj, *gr, and the fricative clusters *xj, *ɣj. The only velar-r clusters that occur in Chang's data are Lobuzhai /khr, gr/ and Jiuziying /khr/. /khr/ occurs in 'rice (raw)', which I have reconstructed with initial cluster *qhr (below). /gr/ occurs in the above-cited 'plowshare'. I do not know why Chang posits *kr, unless it is for reasons of symmetry.

There is no evidence that I can find in *SQD* to support the positing of the *palatalized velars. There is one palatalized velar form, Ruodazhai *gjeta* (a place name), but that hardly seems adequate evidence for the suggested proto-cluster. It may be that these *clusters are proposed in order to reconcile some odd correspondences, but without stronger evidence, this appears to be an unnecessary multiplication of entities.

3.3.1.8.5 Uvular Pre-initials

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Like the plain *uvulars, the reflexes for this group show little variation, with the most variation appearing in Longxi. *χ- clusters often come from PTB *r-, *s- cluster initials. While Longxi, Mianchi usually provide no direct evidence for PSQ *clusters, it is these two dialects that differentiate *χp, *χph. As mentioned in 2.2.3.1, Taoping /χ/ pre-initial agrees in voicing with the following initial; the same appears to be true of PSQ *χ- (cf. Jiuziying reflexes of PSQ *χm-). The auxiliary dialects Lobuzhai, Jiuziying, and Ruodazhai share this assimilation rule, which appears to go back to the level of Proto-Qiang. Because there is no distinction to be make between *χg and *ʁg, e.g., I will reconstruct these as *χg, etc. As in Taoping, *χ- probably assimilated (somewhat) to the place of articulation of the following initial.

*qhs > LX (?), MC /s/, TP (OS) /qhs/, TP (YS) /tsh/. (2)

Gloss	Longxi	Mianchi	Taoping OS	Taoping YS	Yadu	Mawo	PTB
dance, jump	tshó tà (also 'pulse')	soú tà (also 'pulse')		$tshu^{55}$ $tɑ^{55}$	qhsu qhsu	qhsu	
mountain	--	sù	$qhsuə^{55}$	$tshuə^{55}$	--	qhsəp	

*qhr > LX /tsh, qh/, MC /tɕh, tʂh/, TP /qh/ (three forms).

For this PSQ *cluster, Mianchi does not have a regular reflex; the more common Longxi reflex is /tsh/, with /qh/ appearing in 'shoot', an instance of Matisoff's 'prefix preemption' (Matisoff 1972b). PSQ *qhr is best supported by direct evidence from the supplementary dialects, bolstered by support in the key dialects in the following set:

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gloss	Wasi	Lobu-zhai	Taoping	Zengtou	Jiuziying	Ruoda-zhai	Longxi	Mianchi
rice (raw)	tʂhɯ	khri	qhə^{33}	qhə	khri	qhə	tsheì	tɕhɨ

That the PSQ pre-initial was *qh and not *kh (as apparently supposed in *SQD*, which does not propose *qhr) is bolstered by the pre-initials in Ruodazhai and Taoping, and further supported by Northern Qiang (Yadu, Mawo *qhə*ˀ).

Additional evidence for PSQ *qhr comes from the following sets:

gloss	Taoping	Longxi	Mianchi	Yadu	Mawo
shoot (v)	qhɑ^{33}	qhò	tʂhà	qhuˀ	qhuˀ
cut firewood	qhe^{33}	{tshuá (cut down tree)}		qhɛˀ qhɛˀ	qhəˀ qheˀ

'Shoot' is apparently unrelated to PTB *ga:p (STC 219), as there is a difference in voicing, place, and in the presence of rhotics in Qiangic (Queyu *kə^{35}ɾə^{53}*). The Longxi form for 'cut down tree' is ambiguous between PSQ *qhr- and PTB *tśwar (STC 240), and probably reflects the latter; Taoping *tʂhu^{55}*, Mianchi *tʂhù tʂhuá* 'cut vegetable' apparently reflect this latter root. To further complicate matters, Yadu and Mawo have *qhuaˀ* 'cut vegetable', whose rhyme and semantics suggest another *qhr- etymon, but the form is instead probably related to 'cut firewood'.

*χz > LX, MC /z/; TP {ʐ/ _i; z elsewhere}; RDZ, JZY /ʁz, z/ (3 sets). Ruodazhai is the only SQ dialect with direct evidence for this cluster.

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gloss	Longxi	Mianchi	Taoping	Ruodazhai	Jiuziying	Yadu	Mawo
near	zɨ zà	qè zí, ì dzà	kie^{31}ʐi^{55}		ʁza ~ za		kə dzɑ
tongue	zə̀ qə̀	zɨ qé	zɿ^{31}qə^{55}		ʁzəqe	zəχ	zəq
wait	zò	zoù	zy^{33}	ʁzy	zo	zu liu	ziu

*χʑ > LX /ʐ/, MC, TP /ʑ/; RDZ /ʁʑ/ (2 sets). Ruodazhai gives the only direct evidence for this *cluster.

gloss	Longxi	Mianchi	Taoping	Ruodazhai	Yadu	Mawo
delicious	zə̀ nà	ʑé		ʁʑe	zɛ	zʏ
sing			zo^{241}	ʁʑo		ʐɑ' mɑ tʃə

*χl > LX /ʁ, ʁ_ l/, MC /l/, TP /ʁ/ (at least 5 sets). This *cluster is not directly evidenced in Taoping. Longxi 'stone' and 'break/snap' provide the most direct evidence for existence of the *cluster in SQ. Further evidence is provided by Northern Qiang, which shows that this cluster pre-dates PSQ. Moreover, the correspondences of /ʁ/ to /l/ in extant Southern Qiang dialects show that the cluster persisted into Southern Qiang. The reflexes in Jiuziying are /ʁg, ɣ/, and are probably conditioned by the height or backness of the following vowel, although more data are needed in order to propose a rule. 'Wash, bathe' appears to have syllabified the initial of a PQ *cluster. However, it may also be the case that NQ has reduced the initial syllable of a *disyllabic form. The PSQ form for 'wash, bathe' is reconstructed *χuə (L) lɑ (L).

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Gloss	Longxi	Mianchi	Taoping	Jiuziying	Yadu	Mawo
late, tardy	ʁà	là	ʁue^{33}	ʁgue	dɑ ʁlɑ	ʁlɑ
stone, flying stone	ʁò lû, ʁò ló	lò	ʁo^{241}	ɣo	ʁlə ɸuɛ' ('flint')	ʁlu pi
wheat, barley	ʁà	lɛ̀	ʁuə^{241}	ɣʏ	ʁlə	ʁlə
break/snap	ʁà là	(té) lŭ	ʁe^{33} ('break')	--	dɑ ʁliə	ʁe
tears	mə lí qə	mù lɛ́ qɛ̀	mi^{55} ʁo^{33}	--	ʁləχ	ʁləq
wash, bathe	χò là, ʁá là (swim)	χuà là	χuə^{55}lɑ^{55}	xuʏ la	xluɑ, ʁluə (bathe)	χlɑ

Sets such as these demonstrate the advantage and necessity of "peeking" outside the particular family or branch undergoing reconstruction. Without considering Yadu and Mawo it would be impossible to discern which proto-cluster should be reconstructed at the PSQ level to account for the correspondences in the daughter dialects.

I do not fully understand the meaning of 'flying stone', except that the consultant insisted that *ʁò ló* was a 'fēi shí' ('flying stone'), while *ʁò lû* was a 'shí tou' (stone, rock). As far as I can tell, 'flying stone' refers to rocks falling or rolling off mountains, cliffs, etc. (PTB *r-luŋ (STC #88), Mawo *ʁlu pi*).

Longxi 'break/snap' is one of the few words in Southern Qiang that preserves traces of the PTB *s- causative prefix, as seen by the pair:

ʁà là	break (branch) (v.i.)
(tə) χà là	break (branch) (v.t.)

'Tears' appears to come from PTB *m-p(l)i-k (STEDT). The first syllables of the Southern Qiang forms either descend from 'eye' (PTB *mik ≠ *myak, Taoping *mi^{55}*), or the original *m- prefix changed to its current pronunciation through semantic association with 'eye' and folk etymology. The PTB etymon does not suggest an origin of the /ʁ/

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component, which could cast doubt on the association of reflexes to etymon. Nevertheless, four of the dialects do preserve the PTB final *stop, which gives greater credence to the proposed etymology.

*χp > LX, MC /p/, TP /χp/ (about 10 sets).

Gloss	Longxi	Mianchi	Taoping	PTB
bamboo	pò (tí)	pù	χpu^{55}	*g-pwa (44)
fart	--	pè	χpe^{55}	*p/bu-n (STEDT)
kidney	pú lù	pú lò	χpə^{33} lo^{55}	*pil/r ⋇ rpul (STEDT)
pus	pù	pù	χpu^{55}	*s-bu (STEDT)
frost	pià thò	peì thoù	χpɑ^{31}thu^{33}	*s-pwa(l) (Matisoff 1998b)
patch	pà qó	pè tʂhì	χpe^{33}	*pwa (STC 122, Matisoff 1998b)
thirsty	tsù tə pià	pià	χpa^{55}	
granary	--	pè qè	χpə^{33}	
pretty	--	pà ʂé	χpɑ^{33}ʂe^{33}	
January	--	pè lə	χpe^{55}ʂɿ^{33}	

This cluster cannot be traced to any particular PTB *initial, although all of the PTB roots have *p- or *b- initials.

This proto-cluster apparently corresponds to *SQD* *Rp. *SQD* cites 'pus', 'mend', 'shaman', and 'jackal/wolf'. Data in the key dialects do not have labial consonants in 'jackal'; however, the other three sets are supported:

gloss	Wasi	Lobu-zhai	Taoping	Zengtou	Jiuziying	Ruoda-zhai	Longxi	Mianchi
sha-man	ʂpji	ʂpji				hpi	sɨ pí ~ spí	pí
pus			(χpu^{55})	pu	hpu	hpu	pù	pù
mend			χpe^{33} ('patch')	pe	hpa	hpe	pà ɕì	pè

'Mend' is apparently related to *pwa 'patch', cited above.

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*χph > LX, MC /ph/, TP /χp/ (about 2 sets). This protocluster is indicated by aspirated stops in Longxi and Mianchi, and by a non-aspirated cluster in Taoping. There is no corresponding *cluster proposed in *SQD*. Northern Qiang cognates have ph- initials (Mawo, Yadu forms mean 'blow with mouth').

Gloss	Longxi	Mianchi	Taoping	Yadu	Mawo	PTB
blow (of wind)	phú tà	mè mè phú	χpo^{33}	phə	phɤ	*pu (STEDT)
urinary bladder	ɳ̩ò phó	biè phò dá	pa^{55} χpo^{55}			*po(ŋ/k) ⋈ boŋ (STEDT)

If 'blow' is from PTB *pu, then it may have been combined with the *s- causative prefix to produce the PSQ *cluster.

*χb > LX, MC /b/, TP /χb/ (about 6 sets). This protocluster corresponds to *SQD* *Rb.

Gloss	Longxi	Mianchi	Taoping	PTB
difficult, tired	bà	bà	χbɑ^{231}	*bal (28)
nest	ỳ (tshá) bù	ì tshè bú	i^{31}tshie^{55}χbu^{241}	*r-bu ⋈ pru (STEDT)
dragon	bú	bú	χbə^{241}	
drum	bò	bù	χbu^{241}	
rest	bà ì	(bà) diè	χbɑ^{241}ɳ̩i^{31}	
think	bà ló	bè dzoú ~ bè dz̩oú	χbɑ^{33}χdz̩u^{33}	

In addition to 'dragon', 'drum', and 'fatigue/tired', *SQD* supports this *cluster with 'yak' (Lobuzhai *ʐbu*, Jiuziying, Ruodazhai *ɦbo*, Mianchi *bò*).

*χm > LX /m/, MC /m/, TP /χm/, Jiuziying /ʁm/ (about 7 sets). For the first six sets, Longxi has /m-/ reflexes. Many of these clusters come from PTB and PQ *r- and *s- clusters. PSQ *χm- corresponds to Mawo rm- (except for 'sky').

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Gloss	Longxi	Mianchi	Taoping	Jiuziying	Mawo	PTB
dream	mò zè	mò	χmu^{55}	ʁmo	rmu ʁe	*r-maŋ (82)
sky	mù tó	mú pià	χmə^{33} da^{241}pə^{33}		mu tup	*(r-)məw (488)
name	zə mú	mɛ̀ mɛ́; mɛ̀	χmə^{55}	ʁmʏ	rmə	*r-miŋ (83)
fertilizer	mì	mù	χmi^{55}		rmi	?*s-baŋ (p21)
corpse	mó	mó	--	ɚ mu	rmu	*s-maŋ (STEDT)
forget	dà mù	dɛ̀ mǔ	χmi^{55}		rmə	
Qiang (autonym)	mà	mà	χmɑ^{33}	ɚ ma	rma	

Taoping and Jiuziying initials appear to be unchanged from PSQ *χm-; Jiuziying and Longxi have different reflexes for *χm- and for *sm- (3.3.1.8.2), showing that these clusters were separate in Proto-Southern Qiang[30]. Taoping is the only Qiang dialect to bear evidence for a cluster in 'sky' (Yadu has the same form as Mawo); which may indicate influence from rGyalrong *te rmu*. Jiuziying has syllabified the pre-initial of 'corpse' and 'Qiang'. PSQ *χm- appears to come from Qiangic *rm-:

Gloss	Ergong	rGyalrong
dream	ntshɛ lma	ta rmo
sky	--	te rmu (*STC*)
name	lmɯ	tə rmɛ
forget	lmu	--
corpse	--	ɣmɐ (NW rGyalrong (SHK))

*χt > LX. MC /t/, TP /χt/ (about 18 sets). Note that 'pig slop' is literally 'pig-dinner'. My reconstructed *χt corresponds to *SQD* *Rt. Those clusters that can be traced to PTB come

[30] how hyphenate?

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from prefixed or plain *t-. 'Ax' is a borrowing from Tibetan, ultimately from PTB *s-ta 'knife' (STC 22). Nevertheless, it follows the established sound laws, which suggests that the word was borrowed before Southern Qiang underwent cluster simplification.

Gloss	Longxi	Mianchi	Taoping	PTB
soak/immerse	tə̀	fià tɛ̌ ~ fiă tɛ́ tɛ̀	χtə^{33}	*(m-)ti-s (p16)
thousand	tú	--	χto^{55}	*s-toŋ (32)[31]
egg	ì tə̀	ì té	χtə^{55}	*n/s-tow (STEDT)
pull up (weeds)	té	tú tyà; tuè	χtue^{33}	*tyak=tək (p52)
ax	tà í	tè ʐ̩ì	χta^{31}ʐ̩i^{55}	WT sta ri
bark (v.)	té tá	tè tá	χte^{33}	
pig slop	piè-tì	pià-té	pa^{33}χte^{33}	
supper, dinner	ɻà tí	ʐ̩à té	ʐ̩ɑ^{55}χte^{55}	
straight	tí	tí	χtə^{55}	

SQD support for *Rt consists of the following sets, as well as 'heart' (but cf. 3.3.1.8.2). The set 'cold' includes Taoping *htu* (*χtu* ?), which does not appear in the published sources H. Sun 1962, *QYJZ, ZYC*, which have *mən^{31} pe^{55}*. The support for 'feed (vt)' in the key dialects are words that mean 'dinner'. 'Blind' shows secondary palatalization and affrication in Lobuzhai, Taoping, Zengtou, Ruodazhai, and Longxi. However, Wasi (whose pronunciation of this form is probably closest to that of PSQ *χtya ^{32}), Jiuziying, and Mianchi preserve the *stop.

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31 This could also be an ancient borrowing from Tibetan (Written Tibetan *stoŋ*).

32 The pre-initial fricative probably comes from a *uvular stop + vowel (cf. Mawo *qətʃa / qətʃa*). The first syllable appears to be 'eye' (Mawo *qən*). All other extant Qiangic languages have reflexes of PTB *s-mik ~ *s-myak (STC 442), although Xixia has *kạɯ^{l}* (MVS-Grin) or *Gar* (NT-SGK).

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gloss	Wasi	Lobu-zhai	Taoping	Zengtou	Jiuziying	Ruoda-zhai	Longxi	Mianchi
fire tongs		šjeṣtje		šite	hte		cà-tè	cì-tè ~ cí-tè
straight	ṣti		(χtə^{55})		hti		tí	tí
feed (vt)		ṣtji	(ʐɑ^{55} χte^{55})	tje	htje	hte	ɻà tí	ʐà té
cold	ṣtu	tho	htu		htu			
pull			(χtue^{33})	twe	htwa	htye	té (pull weeds)	tuè (pull weeds)
blind	ṣtya	ṣtšya	(χtɕya^{33})	tšyæ	htwa	hcçyæ	fià tɕuà	tuà

*χd > LX /dz/ /_*V[+high], /d/ elsewhere; MC /d/; TP /χd/ (about 8 sets). The reflexes of *χd in Longxi and Mianchi are indistinguishable from those of *d. 'Lip' is the only set that has an identified PTB etymon, although five of the sets have cognates in NQ. This *cluster appears to be identical to *SQD*'s *Rd (apparently supported by 'back', 'cloud', 'ladder', 'mouth/lip', 'thigh'[33]).

Gloss	Longxi	Mianchi	Taoping	Yadu	Mawo	PTB
lip	dzuà-kú	dué-ʐà	χduə^{33}	--	ɣdzɑ:$^{'}$	m/s-d(y)u-l/r/n (STEDT)
cloud	dá mù	dá mò	χde^{33}	zdɑm	zdʏm	
ladder	dì ká	dè tɕí	χdə^{33}gie^{241}	zə də	zdɑ	
deer	--	dá	χdɑ^{33}	zdu	zdu	
back	--	dé	χde^{33} tɑ^{33}	(stɛ gɛ)	(sta ka)	
right (hand)	--	dá	χdɑ^{241}			
gun	cà-dzù	--	ci^{55}χdio^{241}			
give	--	dá	χdɑ^{31}			

[33] 'Thigh' is not a strong set, as Jiuziying *hdyeke* is the only form to lend support for a *cluster, and Wasi *dwake* does not have the expected initial *ʐd-* cluster (cf. *ʐde* 'back').

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PSQ *χd- corresponds to NQ zd-. Both Longxi and Mawo have palatalized 'lip', which reflects the *y medial of the PTB reconstruction. This suggests a PSQ reconstruction of *χdya.

'Back' is a problematic form, as there is another Taoping form *de*^{241} without the pre-initial. In addition, the apparent NQ cognates differ in voicing, although Wasi has *ẓde*, with the expected initial cluster. Qiangic probably has multiple 'back' roots with similar initials, as evidenced by the following:

Daofu	dʑɑu	back
Ergong	rə^{33} stot^{53} smɛt^{53}	lower back
rGyalrong	tə mtʰɛk	small of back
Namuyi	dʑu^{33}tsɛ^{33}tsɛ^{33}	back

*χn > LX /n/, MC /n/, TP /χn/ (about 2 sets). This protocluster apparently corresponds to *SQD* *Rn, as does *sn- (cf. 3.3.1.8.2).

Gloss	Longxi	Mianchi	Taoping	Mawo	PTB
twenty	nà sá	nà sá	(χ)nə^{31}sɑ^{33}	ɣnə su	*g-ni-s (4)
hatch	--	né	χne^{55}	zdi	

This protocluster is poorly supported in the key dialects, and not at all in the auxiliary dialects. The Mianchi and Taoping forms for 'hatch' could also descend from PSQ *sn-. However, Mawo *zdi* points to a voiced pre-initial; as does the more distant Ergong *ʐŋa*. Note that /χ/ is optional in Taoping 'twenty', and does not appear at all on *ɳi*^{55} 'two'.

Within Taoping, most of the basic metal terms have an initial (or pre-initial) /χ/:

gold	χqɑ^{33}	silver	χŋu^{55}	copper	χa^{55}
rust	χguə^{33}	tin	χtʃʅ^{33}		

While this similarity might appear at first to be due to analogical developments, the uvular initials of all five forms are at least as old as PQ. 'Gold', 'silver', 'tin' had *cluster initials in PSQ, as evidenced by the auxiliary dialects.

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gloss	Wasi	Lobuzhai	Taoping	Zengtou	Jiuziying	Ruodazhai
gold	hka	ʂko^{31}	χqɑ^{33}	qa	hqa	hka
silver		ŋu	χŋu^{55}	ŋu	ẖŋu	ŋhu
tin	ʂtʂɯ	ʂtʂɯ	χtʃʅ^{33}		tsɯ	htʂɯ

Earlier evidence comes from Northern Qiang and Qiangic:

gold	Mawo, Yadu	ʂqu	cf. Tai *kam^{34}
silver	Ergong	ʐŋən	PTB *(d-)ŋul
tin	Yadu	xtʂə	

'Rust' and 'copper' are not supported in the auxiliary SQ dialects, but their cognates in NQ show the origins of Taoping /χ/ ('rust' is discussed further under *χg, below):

gloss	Mawo	Yadu	PTB
rust	ʈsa	dzɛr quɑ (probably *dzɛ rqua*)	*(t)sa:y (Matisoff 1985[35] #108)
copper	χɑ ɸi	χɑ˧ xuɛ˧ ('brass')	

*χtʂ > LX /ts/. MC { tɕ /_ i, tʂ elsewhere}, TP /χtʂ/ (about 5 sets). With the addition of further data, this set may end up being split into two or more *clusters, given the aspiration of Mianchi 'sweat'. With the exception of 'chew', all instances of PSQ *χtʂ- come from PTB *Cr- initials.

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[34] My thanks to Professor Matisoff for this observation.

[35] Hereafter this is abbreviated *GSTC*.

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Gloss	Longxi	Mianchi	Taoping	PTB
chew	tsà tsá	tʂeì tʂá	χtʂɑ^{33}	*C-tsat (*GSTC* #25)[36]
louse	tsí	tʂì	χtʂi^{33}	*śrik (439)
six	tsú	tʂóu qò	χtʂu^{33}	*d-ruk (411)
(sixteen	fiá tsú	fià tʂhòu	χɑ^{31}tʂhu^{33})	
gall	tsɨ́	tɕɨ́	χtʂə^{55}	*m-kri-t ~ s-kri (STEDT)
sweat	tsù	tʂhù	χtʂuə^{55}	*s-krwal ≠ s-(ŋ)krul (STEDT)

The form 'sixteen' is included to indicate that PSQ, or at least Mianchi and Taoping, had a dissimilation rule which irregularly dropped word-medial *χ- after a cluster with *χ- pre-initial, as in Taoping *χdzʅ^{33}dzʅ^{31}* 'smooth' (all examples from Taoping). Repetition of plain *χ-, however, was not affected (*χue^{33}χue^{31}* 'green', *χo^{31}χo^{33}* 'stone/pit', *χa^{55}χa^{33}* 'yellow'), and even among clusters there are counterexamples (*χgy^{33}χgy^{33}* 'round', *χtɕa^{33}χtɕa^{33}* 'magpie', *χbɑ^{33}χdzu^{33}* 'think'). Given this rule, the aspiration in the second syllable of 'sixteen' would be compensatory for the loss of initial *χ-. The first column in the following table gives three reduplicated Taoping forms for which one expects χ- as a pre-initial on the second syllable. The second column gives three counterexamples, showing that application of this restriction was not complete, like dissimilations in other language families. The third column shows that plain χ-initial was not subject to any restrictions, no doubt to prevent total loss of syllable onset. Mianchi has lost all *χ-clusters; at this point, only 'sixteen' gives evidence that Mianchi shared the dissimilation with Taoping.

χCi...Cj		χCi...χCj		χV...χV	
red	χɳi^{31}ɳi^{33}	round	χgy^{33}χgy^{33}	drive away	χɑ^{55}χo^{33}
right, just	χte^{55}te^{33}	think	χbɑ^{33}χdzu^{33}	green	χue^{33}χue^{31}[37]
smooth	χdzʅ^{33}dzʅ^{31}	magpie	χtɕa^{33}χtɕa^{33}	stone/pit	χo^{31}χo^{33}
sixteen	χɑ^{31}tʂhu^{33}			yellow	χa^{55}χa^{33} [38]

[36] There is also a PQic reconstruction *N-t(s)a in the STEDT database; this is certainly a daughter form to the given PTB form.

[37] Longxi *peí χə̀ χə̀, ɳí χə̀ χə̀*; Mianchi *χué χuè tsɨ́* 'green and glossy'.

[38] Mianchi has *χá χà tsɨ́* 'bright yellow, golden'.

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*χdʐ > Longxi /z, ts/, MC /dʐ, dz/, TP /χdʐ/ (about 4 sets). Mianchi shows variation ('think') in its reflex of this *initial. I have no explanation for the Longxi initial for 'nit'.

Gloss	Longxi	Mianchi	Taoping	PTB
nit	{tsì gú}	dʐú	χdʐə^{31}	*s-row (278)
think	--	bè dzoú ~ bè dʐoú	χbɑ^{33}χdʐu^{33}	
dew	zɨ́ qə́	dzé qè	χdʐə^{33}qə^{55}	
star	zɨ̀ bà	dʐè	χdʐe^{33}pe^{55}	

*χtɕ > LX {/ts/ /_ɨ; ɕ elsewhere}, MC /tɕ/, TP /χtɕ/ (3 sets). [tʃ] in Taoping 'tin' is an allophone of /tɕ/, appearing before /ɨ/ (cf. 2.2.3.1). 'Love' is based in part on Mawo *χtɕi*. This set apparently corresponds to *SQD* *Rtsj.

Gloss	Longxi	Mianchi	Taoping
magpie	cà cá	tɕà tɕá	χtɕa^{33}χtɕa^{33}
tin	tsɨ́	tɕɨ́	χtʃ^{33}
love	cì ə́	--	--

In addition to these forms, *SQD* cites the following evidence from the auxiliary dialects for the *cluster:

gloss	Wasi	Lobu-zhai	Taoping	Zengtou	Jiuziying	Ruoda-zhai	Longxi	Mianchi
money	ʂtšjī dze		(ɕi^{33} dzie^{241})	šidžje	htšidze		sən dzé	tsèn tseí

While Wasi suggests the presence of PSQ *χtɕ-, it is almost certain that some of these forms are borrowings from Mandarin *jīn zi* 'gold, coins'.

*χdz > LX /dz/, MC /?/, TP /χdz/ ~ [χdʒ] (about 4 sets). This set is very poorly supported, and reflexes are scarce, even in Taoping. Some additional support for 'rain' comes from Jiuziying, whose initial cluster is almost identical to that of Taoping. *χdz apparently corresponds to Yadu zdz-; the NQ forms for 'rain' are not cognate.

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Gloss	Longxi	Mianchi	Taoping	Jiuziying	Yadu
throw/discard	sɨ dzuá	--	χdʒi^{31}	--	zdzu
rain (v.)	--	--	χdza^{33}	ʁjie	--

This protocluster seems to correspond to *SQD* *Rdzj, which is supported by the following three sets. I have classified 'open' under *χg- (Yadu *ʐgɛ*, cf. *χg, below).

gloss	Wasi	Lobu-zhai	Taoping	Zengtou	Jiuziying	Ruoda-zhai	Longxi	Mianchi
seal, stamp	džja				ɧdžje	žja		dzà
painful			(ze^{241})	žje	ɧdžje			dzí
open		ʐge	(χgie^{241})	ge			gà	

The Yadu cognate for 'painful' is *zdzɪ*, 'ill'. I have divided Chang's 'open' into two sets; in addition to the above, there are the following sets which support PSQ *χdzi: Wasi *ʐdžji*, Jiuziying *ɧdʐi*, Mianchi *dzí*.

*χɳ > LX {/ɕ/ /_i; /ɳ/ elsewhere}, MC {n /_ə; ɳ elsewhere}, TP /χɳ/ (5 sets). Recall that /ɳ/ does not occur before /ə/ in any key dialect. *χɳ does not correspond to any protoclusters in *SQD*. The initial in the first syllable of Longxi 'oil' may be due to reduplication of the second syllable.

Gloss	Longxi	Mianchi	Taoping	PTB
brain	qə ɳà	qè ɳà	qə^{31} χɳa^{33}	*s-nəw-k (STEDT, from STC 483)
red	ɕí	nə́	χɳi^{31}ɳi^{33}	*r-ni (pp 46, 91)
yoke, cow collar	--	nè tsù	χɳa^{31}tsuə^{33}	?*g-n(y)a (STEDT)
stir-fry	ɕì ɕá	{dʐì dʐá}	χɳa^{33}	
oil, oily	ɳí ɳà	--	χɳo^{55}	

*χk > LX , MC {/k, q/}, TP {/χq/ /_ɑ; /χk/ elsewhere} (6 sets). The forms for 'bat' mean

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"the salt-stealer" ('salt'-'steal'-AGT)[39]; the variation in the Longxi forms for 'steal', 'bat' show the difficulty in identifying a regular reflex of PSQ *χk. In order to bolster this reconstruction, I have included supporting forms from the key NQ dialects.

Gloss	Longxi	Mianchi	Taoping	Mawo	Yadu
forehead	deú kù	--	da^{31} χku^{33}	zdu ʂku	zdu ʂku
garlic	kà	kè tù	χkə^{55}	tɕi-ʂk	--
steal	tə kù	kú pù ~ kù	χkə^{55}	ʂkuə	ʂquəχ
bat (animal)	tshí-qù-mù	--	tshɿ^{55}χkə^{33}mə^{33}	--	--
hard	qò cà	koù tcà	χku^{55}tca^{31}	ʂku ʂtɕi	ʂku ctcu
ugly	khú, tsà qhú	--	--	--	mo ʂku

The NQ forms for 'steal' show that the velar/uvular variation seen in Longxi 'steal', 'bat' predates PSQ. It is not clear why 'hard' has a /q/ initial in Longxi, but this may be an influence from *qò* 'difficult' (Jiuziying *χku* 'hard', *χqa* 'difficult'). PSQ *χk appears to correspond to *SQD* *Rk.

*χg > LX /g/, MC {/dz/ /_*i; /g/ elsewhere}, TP /χg/ (7 sets). This cluster does not correspond to any particular PTB *initial.

Gloss	Longxi	Mianchi	Taoping	PTB
fox	qhà guà	qhá guə̀	qhɑ^{33}χguə^{33}	*gwa (p34)
nine	gú	gú qò	χguə^{33}	*d-kəw~d-gew (13)
open (door)	gà	dzí	χgie^{241}	*ka (469)
answer	guà	--	χgye^{33}	
rust	cà-gù	guì	χguə^{33}	
left (hand)	--	guì	χgy^{33}	
retreat	--	gɛ̀ gú pù	χgə^{31}kə^{33}	

This *cluster corresponds to SQD *Rg, which is based on 'nine', 'Chinese', 'goat', 'round'. 'Chinese' lacks the right correspondences, no doubt due to its xenogeneic origin. 'Goat' is based on an apparently erroneous Taoping form; 'nine', 'round', however, are solid supporting sets:

---

[39] Mianchi has *iàn laò sueì*, a borrowing from Mandarin meaning "salt mouse."

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gloss	Wasi	Lobu-zhai	Taoping	Zengtou	Jiuziying	Ruoda-zhai	Longxi	Mianchi
nine	gwu	ʐgwu	χguə^{33}	gwə	ɧgwe	ɧgwə	gú	gú qò
round			χgy^{33} χɛy^{33}	gwə	ɧgu	ɧgy		

*χŋ > LX /ʁ, ŋ/, MC /ŋ/, TP /χŋ/ (2 sets). Only Mianchi and Taoping have regular reflexes of this *initial. Because these two morphemes are the only ones in Taoping with this initial, and both forms have the same phonetic environment, there is a possibility that χ- is of secondary origin, although its appearance before /ŋ-/ in these words is not predictable from synchronic data (*ŋu^{55}tɕi^{55}*, 'enclosure').

Gloss	Longxi	Mianchi	Taoping	PTB
silver	ŋú	ŋó	χŋu^{55}	*(d-)ŋul (pp 15, 173))
knee	ʁò qə́	ŋò kɛ́	χŋu^{55}	

*χq > LX, MC /q/, TP /χq/ (5 sets). The correspondences in this set are completely regular, with the exception of 'under', in which *χq > TP /qh/. *χq- only occurs before PSQ *ɑ. PSQ comes from PTB *Ck- initials.

Gloss	Longxi	Mianchi	Taoping	Yadu	Mawo	PTB
cook/boil	qò	qà	χqɑ^{33}	ʂqu	ʂqu	(*glak~klak (124))
difficult	mə qeí; qò	(pù) qà	χqɑ^{33}	ʂqu	ʂqu	*kak (TIL #70)
mouth	qà	--	χqɑ^{55}	zdɛ kʯ	ʂqu	*m-ka (468)
gold	qú	qà	χqɑ^{33}	ʂqu	ʂqu	
under	qà	qà	qhɑ^{31} lə^{33}	ʂqul	ʂqul	

This set is regular in its correspondence among Southern Qiang dialects, and with Mawo. Taoping has transphonologized the pre-initial *χ- of 'under' into aspiration, although it has

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preserved *χ in *dʑɑ*^{33}*χqɑ*^{33} 'underarm'. This cluster corresponds to *Rq in SQD, wherein it is supported by 'gold', 'mouth'.

*χG > LX, MC /ʁ/, TP /χG/ (hapax). Taoping provides the only direct evidence in Qiang for this *cluster. Secondary evidence comes from the correspondence of Jiuziying /ɣ/ to the other dialects' /ʁ/. Namuyi *ŋqhɛ*^{33} suggests that some form of this cluster may go back to PQic (this cluster is very rare in Namuyi: the only other instance of it is *ŋqha*^{55} 'fat (meat)').

Gloss	Longxi	Mianchi	Taoping	Jiuziying	Yadu	Mawo
gnaw	ʁà cà	ʁè ʁá	χGɑ^{241}ʨe^{33}	ɣa	ʁɑˈɬa	ʁæ ɬi

No evidence is given in *SQD* for the proposed PSQ clusters *qj, *qhj, *Gj, *hj (*χj?) *hj (*ʁj?).

3.3.1.9 Fortis initials

Among the Southern Qiang dialects investigated by Wen there are some from Li county (Jiuziying, Jiuzitun, Hou'ergu, Sanqizhai) which distinguish fortis and lenis initial clusters or affricates. In Sanqizhai these occur as ejectives /'q, 'G/, followed by sibilants. Cognates of these forms occur in the other dialects with fortis fricates in initial position (examples from Jiuzitun, which is very similar to Jiuziying); Northern Qiang cognates have velar/uvular stop pre-initials followed by sibilants.

Gloss	Sanqizhai	Jiuzitun	Mawo
god	'qsʅ	ʦ'e	khsi
new	'qsʅ	ʦ'i	khsə
dung	'qsʅ	ʦ'ʅ (Jiuziying)	qhʂə
three	'qsi	ʦ'i	khsi
iron-calabash	'Gzɑ	ʣe	xtʂəp (Yadu)
bubble up	'qso	tʌ ʦ'u	
spring up	'qsu	tʌ ʦ'u	

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These fortis initials present corroborative support for the PSQ *clusters which are otherwise only attested among Taoping's older speakers (e.g., *khsi*^{55} 'new' (3.3.1.8)). They also demonstrate just how similar the Southern Qiang language of the 1940's and 50's was to Northern Qiang. It appears that Wen's fortis consonants arose from transphonologization of pre-initial aspiration, followed (in most dialects) by cluster simplification. Therefore there is not adequate evidence to posit glottalization or ejectivity as PSQ phonological traits.

3.3.2 Rhymes

The rhyme correspondences of Southern Qiang are not as clearly evident as those of the initials, due at least in part to irregular vowel harmony and patterns of reduplication that weaken the vowel of the first syllable. Nevertheless, certain patterns of correspondence are clear.

3.3.2.1 Monophthongs

I reconstruct the following monophthongs:

*i, *y	*ɨ	*u
*e	*ə, ɚ	*o
*a		*ɑ

Chang (1967) proposes a very similar system (note that his *ɯ is equivalent to *ɨ):

*i	*ɯ	*u
*e	*ə	*o
*a		*ɑ

Chang has eliminated /y/ from the phonemic inventory of the dialects he considers, and hence from his reconstruction. Although /y/ is clearly a phoneme of modern dialects (e.g. Longxi *ỳ* 'chicken'), my own reconstruction of PSQ *y is still tentative.

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***a > LX, MC, TP /a/, (about 70 sets, 8 sets represented in all three dialects)**

Gloss	Longxi	Mianchi	Taoping	PTB
believe	dzà	dzá (ʐà)	dza^{241}	?*(m-)kyen (223)
brain	qə ȵà	qè ȵà	$qə^{31}$ $χȵa^{33}$	*s-nuk (483)
hard	qò cà	koù tcà	$χku^{55}tca^{31}$	*s-ra (STEDT)
one	à	à qó	a^{31}	*a (JAM-LITB 7.1)
how many	nà ó; nà ná	ȵà qó (lɛ̀)	$na^{33}tci^{55}na^{33}$	
sneeze (v.)	á tshù-pù	á thiaò-pù	$χa^{55}$ $tshye^{33}$ pu^{33}	
magpie	cà cá	tcà tcá	$χtca^{33}χtca^{33}$	
wide, broad	lá	lá	la^{33}; lie^{33}	

The first two syllables of 'sneeze' probably have an onomatopoeic origin (the third syllable of 'sneeze' is 'do'), as does the word 'magpie' .

***ɑ > LX /a/, MC {/e/ / _ Cu, /a/ elsewhere} TP /ɑ/ (about 57 sets)** For this series, Taoping is indicative, as Longxi and Mianchi do not distinguish /ɑ, a/; hence all supporting sets of *a, *ɑ bear Taoping reflexes. Mianchi has predictable vowel harmony ('armpit', 'bracelet', 'hole', 'in back', 'mushroom', 'think'). I have put first the forms which come from PTB *a roots; the remainder are arranged alphabetically.

Gloss	Longxi	Mianchi	Taoping	notes
bitter, salty	qhà	qhà	$qhɑ^{55}$	*ka (8)
chew	tsà tsá	tʂeì tʂá	$χtʂɑ^{33}$	*C-tsat (GSTC 25)
crow (n.)	--	nə-ŋá	$nə^{33}ŋɑ^{55}$	?*ka (STC pp 99-100)
difficult	{mə qeí; qò}	(pù) qà	$χqɑ^{33}$	*kak (TIL #70)
difficult, tired	bà	bà	$χbɑ^{241}$	*bal (29)
exchange	lə́ lá	lə̀ là	$tə^{55}lɑ^{31}$	*lay (283)
father	á pà	--	$pɑ^{55}pɑ^{33}$	*pa=pwa (24)
gnaw	ʁà cà	ʁè ʁá	$χGɑ^{241}ce^{33}$	*ŋrat ⋇ *ŋyat(STEDT)
hungry	(dà) sù pá	--	su^{55} $pɑ^{55}$	*s-pa(ŋ/k) ('thirsty', STEDT)
I, me 1	qà	--	$qɑ^{55}$	*ka (p93)

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Gloss	Longxi	Mianchi	Taoping	notes
I, me 2	--	ŋà	ŋɑ^{55}	*ŋa (406)
laugh	(dá) zá ló	dʐà	dʐɑ^{33}	*rya-t (202)
mother	á mà	á mà	ma^{33}; mɑ^{55}mɑ^{55}	*ma (487). Taoping indicates variation for PSQ. LX, MC are ambiguous, reflecting either *a, *ɑ.
mouth	qà	qá	χqɑ^{55}	*m-ka (468)
strength	--	dʐà qà	dʐʅ^{241}qɑ^{33}	?*k-ra (STEDT *(k/b)-ra(ŋ/m))
seed	--	zueí-zà	zuə^{31}zɑ^{241}	First syllable from *dzəy (STEDT)
armpit	zá ká mù	dzà ké	dzɑ^{33}χqɑ^{33}	MC has undergone vowel harmony with subsequent loss of the conditioning syllable, maintained in LX.
ask	(tà) zà zí	{dʐɨ dʐɨ}	dʐɑ^{31}dʐʅ^{33}	Two syllable etymon. MC has lost the *ɑ syllable and reduplicated the *ɨ syllable.
bathe, wash	χò là	cì pé-ʁuà là	ɕe^{55}p e^{33}χuə^{55}lɑ^{55}	
bear fruit	--	ʂè dʐǎ	sie^{55}mə^{55}dʐɑ^{241}	
big	bɹà ~ bà	bʐà	bʐɑ^{33}	
bracelet	pà-kù	pè kuì	pɑ^{55}kie^{33}	Vowel harmony in MC
crack (v.)	zɨ zá	--	ʐɑ^{55}	
cry out, call out	qá ɹà	--	ʁuə^{33} ʐɑ^{33}	
cry, weep	zǎ	zà	zɑ^{33}	
deer	--	dá	χdɑ^{33}	
earring	ɳì mà	nè mà	nə^{31}mɑ^{33}	
encounter/ meet	tsó pà	--	a^{55}tsu^{33}pɑ^{33}	
folkdance	tshó tà-zə mù	soú tà	tshu^{55}tɑ^{55}	
give	--	dá	χdɑ^{31}	

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Gloss	Longxi	Mianchi	Taoping	notes
gold	{qú}	qà	χqɑ^{33}	There appears to be PQ and PSQ variation between *χqɑ ~ *χqu (Lobuzhai *ʂko^{31}*, Yadu and Mawo *ʂqu*).
good	nà	nà	nɑ^{33}	
hat	tà bá (χà)	tà bá	tɑ^{33}	
have/exist	{ŋó}	ŋá	ŋɑ^{33}	TP reflects PQ variation (Yadu, Mawo ŋuə).
hole	zà pù	ʐ̩è pù	ʐ̩ɑ^{33}pu^{33}	Vowel harmony in MC. Second syllable from *puŋ (STEDT)
in back	--	mè tshɨ́	mɑ^{31}tʃhɿ^{33}	Vowel harmony in MC
lead (cow)	tá	tá	tɑ^{33}	
noodles	qhà mì	--	qhɑ^{31}thu^{55}	
old (of things)	bá	bá	bɑ^{33}	
plain (n.)	bà tò	dá tʂhì-bà	bɑ^{33}	
plate	--	tshì bá	χu^{33}bɑ^{33}	
pretty	--	pà ʂé	χpɑ^{33}ʂe^{33}	
rest	bà ì	(bà) diè	χbɑ^{241}ɳ̩i^{31}	
return (vt)	--	tù bà	dɑ^{31}bɑ^{241}	
ride	tsà	tsà	tsɑ^{33}	
right (hand)	phà tó qò	dá	χdɑ^{241}	
roll (v)	lè cà	--	lə^{55}cɑ^{55}	
slow	--	phiè thá	phi^{31}thɑ^{55}	
soft	mà mà	--	mɑ^{31}lɑ^{33}	
soft	--	zà là	mɑ^{31}lɑ^{33}	
step over/across	(dà) ʁuá (tɕà)	--	ʁuɑ^{33}tsɑ^{33}	
supper, dinner	ɻà tí	ʐ̩à té	ʐ̩ɑ^{55}χte^{55}	
think	bà ló	bè dzoú ~ bè dʐ̩oú	χbɑ^{33}χdʐ̩u^{33}	Vowel harmony in MC

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Gloss	Longxi	Mianchi	Taoping	notes
tie (fire-wood) into a bundle	--	tsò dʐá	dʐɑ^{33}	cf. Ergong *mdzo lɛ* 'wrap'
vulva	--	thà bá	thɑ^{31}bɑ^{33}	TP 'buttocks'. Cf. E. rGyalrong *tsʰan pa.*
waist	tà qà	--	χtɑ^{33}sɑ^{33}	

*i > LX, MC, TP /i/ (about 15 sets with support from all three dialects). PTB *-ik > PSQ *i ('leopard', 'louse'). 'Black' comes from a PTB -ak root.

Gloss	Longxi	Mianchi	Taoping	PTB
black	ɳí	nə	ɳi^{55}ɳi^{31}	*nak (p88)
smell, sniff	cí tà	mí	χmi^{55}	*m/s-nam (464, STEDT)
child	tɕí bí	kɛ̀ bʐì tsɨ	tʂi^{33}bʐi^{33}	? *b-ləy (448)
hand	lì pá	ì pá	i^{55}	cf. Yadu *jə pɑ*
host	tɕè lə pú	tɕì lɛ̀ pú	tɕi^{55}lə^{55}pə^{33}	*k-y(i/u)m (STC 53) 'home/womb'
leopard, panther	cì	sì	si^{55}	*zik (61)
louse	tsí	tʂì	χtʂi^{33}	*śrik (439)
ax	tà í	tè ʐì	χta^{31}ʐi^{55}	WT *sta ri*
NEG	mí	mì (ŋuɛ́)	mi^{55}	?*ma (p96)
bird	ì tshá	ì tshé	i^{31}tshie^{55}	
new	tɕhí	sí	tshi^{55}	
niece/nephew	dzì qhuá	dzì	dzi^{31}	
now	pè ì	pè tì	pə^{31}ti^{55}	
spin (yarn),	lì	lì	li^{33}	
thread	sà ɳí	sɛ̀ lì	siɑ^{33}li^{55}	

The following two sets are good for two dialects, but have /ɨ/ for the third:

Gloss	Longxi	Mianchi	Taoping	PTB
long objects (CL)	zì	dʐí	dʐi^{241}	*s-riŋ (433)
crow (v.)	cí	tè sĭ	sɿ^{55}	

*e > LX /e, ei/, MC /e, ɛ/, TP /e/ (at least 7 sets with support from all three dialects).

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Gloss	Longxi	Mianchi	Taoping	PTB
needle	χé ~ χèi	χɛ̀	$χe^{55}$	*kəp (52)
rope	beì	bʐè	$bʐe^{33}$	? *bi (STEDT)
bark (v.)	té tá	tè tá	$χte^{33}$	
drunk	(ɕì) tà χeì	ʂɛ̀ χè	$sɿ^{31}xe^{55}$	
short, low	bà ~ bè	bè	be^{33}	
pretty	(tsà) sé	pà ʂé	$χpɑ^{33}ʂe^{33}$	
top	qà teì	qɛ́ tè	$qɑ^{31}te^{33}$	

*ɨ > LX, MC /ɨ/, TP /ɿ/ (at least 9 sets with support from all three dialects). Some instances of this vowel appear to come from PTB *əy ('four', 'heavy'). The last syllable of 'head' is a common noun ending, much like Mandarin *zi* [$zɿ^{31}$], from PTB *za (STC 59).

Gloss	Longxi	Mianchi	Taoping	PTB
four	zɨ̀	zɨ̀ qó	$dʒɿ^{33}$	*b-ləy (410)
heavy	zɨ̀	dzɨ̀	$dzɿ^{33}$	WT ldźi-ba. (95)
salt	tshɨ́	tshɨ̀-bé	$tshɻ^{33}$	*tsa (214)
understand	sɨ̀	sɨ̀ uà	$sɿ^{55}$	*syey (182)
head	qə bá tsɨ̀	qà bʐá tsɨ̀	$qə^{33}$ po^{55} $tʂɿ^{33}$	
spider	tshɨ̀ tshɨ̀	(tʂhà ʂɨ̀)	$tʂhɿ^{55}tʂhɿ^{31}$	
tin	tsɨ́	tɕɨ́	$χtʃɿ^{33}$	

*o > LX, MC, TP /o/ (at least 5 sets with support from all three dialects).

Gloss	Longxi	Mianchi	Taoping	PTB
flying stone, stone	ʁò ló ~ʁò lû	lò, gò-bʐà, lò-bʐà	$ʁo^{241}$	*r-luŋ (88)
urinary bladder	ɳò phó	biè phò dá	pa^{55} $χpo^{55}$	*po(ŋ/k) ≋ boŋ (STEDT)
hunt	qhò	ɕỳ χó	$χo^{55}kə^{33}$	
plow (n)	tò	tò kè	to^{33}	
wild goose	ŋa^{35} ʁò	ŋæ^{35} uò	$ŋan^{13}ʁo^{31}$	

'Goose' has a PTB root *ŋa-n (STC p.99); however, Taoping *ŋan*^{13} is probably a borrowing from Tibetan (WT *ŋaŋ pa*) as final consonants in extant SQ dialects are secondary. Benedict (STC) has observed that final -o, -e in TB languages are usually secondary. At least 16 instances of Southern Qiang /o/ are from PTB *-aŋ (cf. 3.3.2.3).

*u > LX, MC, TP /u/ (at least 5 sets with support from all three dialects). 'Nest', 'pus' reflect PTB *-u. The third syllable of 'sneeze' is 'do' (LX, TP *pù*).

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Gloss	Longxi	Mianchi	Taoping	PTB
nest	ỳ (tshá) bù	ì tshè bú	$i^{31}tshie^{55}\chi bu^{241}$	*r-bu ≋ pru (STEDT)
pus	pù	pù	χpu^{55}	*s-bu (STEDT)
hungry	(dà) sù pá	sù	su^{55} $pɑ^{55}$	? *si, *sok (STEDT)
hole	zà pù	ʐè pù	$ʐɑ^{33}pu^{33}$	*puŋ (STEDT)
sneeze (v.)	á tshù-pù	á thiaò-pù	χa^{55} $tshye^{33}$ pu^{33}	

In spite of these correspondences, there are about forty-eight sets in which it is not possible to distinguish between PSQ *u and *o, because both /u, o/ are present in the supporting forms (and sometimes /y/ in Taoping or Longxi). Note the following:

Gloss	Longxi	Mianchi	Taoping	PTB
bamboo	pò (tí)	pù	χpu^{55}	*g-pwa (44)
dream	mò zè	mò	χmu^{55}	*r-maŋ (82)
lid, cover	tà-qó	tshà qù	$qu^{31}qu^{33}$	*gop ≋ kop (STEDT)
phlegm	tshù	tsù ʐé	$tsho^{55}qhɑ^{33}\chi ne^{33}$	*tšu (STEDT)
silver	ŋú	ŋó	$\chi ŋu^{55}$	*d-ŋul (p15)[40]

For most of these sets equivocal sets, the protovowel is determined by simple majority, or by peeking at the vowels present in Northern Qiang. This alternation is not unheard of in other branches of TB. Benedict has observed that "the high medial vowels *u and *i of TB are well maintained in Tibetan, Kachin and Lushei, but partial or complete replacement by lower vowels (o ~ e ~ a) is characteristic of Burmese, Garo and many other TB languages." (*STC*:75) Ronghong Yadu has some variation between /o/ and /u/, as noted by LaPolla: "The functional loads of the /u/ - /o/ contrast and the /i/ - /e/ contrast are not very great: in many cases /o/ and /u/ are interchangeable, and /i/ and /e/ are interchangeable." (LaPolla 1996:10)

*y > LX {o/ [dental] _ , u/ [velar] _ , ?? elsewhere}, MC {ui/ [velar] _ , iu/ l _ , ou/s _ , ?? elsewhere}, TP /y/ (five solid sets). The first three sets are lent additional support by /y/ in Mawo and /(i)u/ in Yadu (*siu does not occur in Yadu). The second syllable of Mianchi

[40] Auxiliary dialects suggest PSQ *u (Table 3.3)

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'flour' demonstrates the vowel harmony mentioned above under *ɑ. Because of the small number of correspondence sets and the restricted range of attested initials, it is not clear what the full extent of Longxi and Mianchi reflexes of *y might be.

Gloss	Longxi	Mianchi	Taoping	notes
come	lò	--	ly^{33}	Mawo *ly*, Yadu *liu*
flour	bà lò	lɛ̀-bɛ̀-liù	$ba^{31}ly^{33}$	Mawo *ly*, Yadu *liu*
learn	só	soú	$tə^{31}sy^{55}$	Mawo *sy*, Yadu *su*
round	pà-kù	pɛ̀ kuì	$χgy^{33}χgy^{33}$	LX, MC 'bracelet' ('hand-round')
left (hand)	--	guì	$χgy^{33}$	

For 'sweet' PSQ *y may be traced to PTB *yəw. However, the apparent Longxi reflex is aberrant:

Gloss	Longxi	Mianchi	Taoping	notes
sweet	tshú	tshú	$tchy^{33}$	PLB *khyəw (p60)

Because the reflexes of PSQ *y in Longxi and Mianchi are elusive, I only propose *y in those sets where it is corroborated by NQ. For the following two sets, Taoping /y/ is a reflex of PSQ *iu, as the sequence /iu/ does not occur in Taoping (cf. *iu, 3.3.2.2):

Gloss	Longxi	Mianchi	Taoping	Mawo
see	à tɕó	tiú (ɕà)	$tɕy^{33}$	kuə tiu
ten	fià dzó	fià diú (qò)	$χɑ^{31}dy^{33}$	hə diu

*ə > LX, MC, TP /ə/ (about 8 sets)

Gloss	Longxi	Mianchi	Taoping	PTB
arrow	-	lə	$lə^{33}$	*bla (449)
crow (n.)	--	nə-ŋá	$nə^{33}ŋɑ^{55}$	
exchange	lə́ lá	lə là	--	*lay (283)
father's older brother's wife	à nə́	ʁuè nə́	--	
head	qà bá tsɨ	qà bʐ́ tsɨ	$qə^{33}$ po^{55} $tʂ\text{ɿ}^{33}$	
musk deer	tshɨ̀ lə	sɛ̀ lə	$tchi^{31}lə^{33}$	
there	thə̀ gá	--	$thə^{31}χe^{55}$	
tomorrow	tə̀ bəí ɕi̱	tè péi	$tə^{31}pə^{33}$	

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In addition to these instances of *ə, there are also occurrences of /ə/ which may be attributed to reduplication, grammaticalization, or proto-variation. Reduplication accounts for the first syllables of 'exchange' (Longxi *lə́ lá*, Mianchi *lə̀ là*) and 'harmonious' (Mianchi *nə̀ nà*; cf. *nà* 'good'). It appears that the vowel of Taoping *nə*^{33} 'also' has arisen due to the types of phonological processes common to the evolution of functor words (Longxi *ná*, Mianchi *ɳà*).

The Taoping form for 'twenty' *(χ)nə*^{31}*sɑ*^{33} appears at first to have undergone vowel harmony (*ɳi*^{55} 'two'). However, the following chart shows that this process did not affect 'thirty', even though 'three' and 'two' have the same rhyme in Taoping (cf. also *i*^{55}*sɑ*^{33} 'arm'). Comparison with NQ forms show that PQ had variation in the vowel of 'two' (Ronghong is similar to Taoping). Dialect-internally, this variation is preserved in the Taoping forms 'two', 'twenty'.

Gloss	Longxi	Mianchi	Taoping	Mawo	Ronghong	PTB
two	nà	nà qó	ɳi^{55}	ɣnə	hɑ-ɳi [41]	*g-nis
twenty	nà sá	nà sá	(χ)nə^{31} sɑ^{33}	ɣnə su	ju su	
three	tshè	sí qò	tshi^{55}	khsi	χsə	*g-sum
thirty	tshè sá	sí sà	tshi^{31}sɑ^{33}	khsiɑ su	χsu su	

In addition to these clearly cognate sets, however, there are many sets in which it is not possible to tell whether *ə is the proto-vowel, or whether another vowel has neutralized to schwa:

Gloss	Longxi	Mianchi	Taoping
bean	də piá	deì	də^{33}
now	pè ì	pè tì	pə^{31}ti^{55}
vapor	lə	(tchì) lè	--

While /ɚ/ occurs in Longxi and Mianchi, and /ə'/ in Taoping, there is no evidence for PSQ *ɚ. The sets 'mushroom', 'branch' show that /ɚ/ is a reflex of *r- or *ʐ-initials; that is, the

[41] The Ronghong form is 'twelve' ('ten-two'). The plain form for 'two' is *je* (cf. 'twenty').

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/ʐ-/ initial of the second syllable of Mianchi, Taoping 'mushroom' corresponds to the /ɚ-/ rhyme of Longxi. Similarly, the /ʐ/ of the first syllable of Taoping 'branch' corresponds to the rhotacization of the second syllable of the Mianchi form (note that the morphemes in the two dialects are in different order). The /ɚ-/ of the next two Mianchi words appears to be related to the /-ʐ/ clusters of Taoping, and so would have its origin in *r- clusters. The origin of Taoping /ə˞/ ($qə^{31}ə^{˞55}$ 'front', $sɿ^{31}ə^{˞55}$ 'willow', $ə^{˞31}$- 'down (pfx)', and a few others) is unknown.

Gloss	Longxi	Mianchi	Taoping	notes
mushroom	mə ɚ	mɛ̀ ʐú	$mɑ^{31}ʐu^{33}$	PST *g-run ⧓ g-rin (GSR 485c)[42]
branch	cì kə̀ mà	phò khɚ	$ʐe^{55}kha^{31}$	*ka(:)k (327) or *kap (338)
hoof	tsú kə̀	thì khɚ	--	*kwa (Matisoff, 1998b
open (eye)	tə̀ phé	phɚ	$phʐa^{55}$	
tear (v.), rip	phú phá	ʂɛ̀ phù phɚ	$phʐi^{33}$	

There are many SQ sets where ə ~ ɨ following sibilants. For these it is not possible to determine whether to reconstruct PSQ *ə or *ɨ. The following three sets demonstrate this problem:

Gloss	Longxi	Mianchi	Taoping
gall	tsɨ́	tɕɨ́	$χtʂə^{55}$ [43]
lie (n.)	ì zɨ	zè ʐə̀	--
tongue 1	zə̀ qə̀	zɨ́ qé	$zɿ^{31}qə^{55}$ [44]

*ɚ > LX, MC /ɚ-/; TP ? (two sets).

---

[42] The first syllable is from *g-məw (STC #455).

[43] Mawo, Yadu have *xtʂə*, suggesting a reconstruction of *χtʂə for PSQ.

[44] Mawo, Yadu *zəq* suggests a PSQ reconstruction of **zə qə*.

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Gloss	Longxi	Mianchi	Taoping	Yadu
raise (livestock, child)	pə̀ ə̀	ì pɛ́ ə̀		pəə^{1}
testicle	bə̀			bəə^{1}

*Voiceless vowels.

The following sets give evidence for *voiceless vowels in PSQ:

Gloss	Longxi	Mianchi	Taoping
today	pú ʨ̩	pɛ́-sɚ̩	--
year, next	dʑá ʨ̩	diá ʨʰ̩	dɑ^{241}tʃʰ^{33}
yesterday	ní ʨ̩	nə́ sɚ̩	ȵi^{31}sie^{33}

The second morpheme of 'today' and 'yesterday' is reconstructed *siɚ̩, and *ʨ̩ is one possible reconstruction of PSQ 'year, next'. If voiceless rhymes are truly reconstructible for PSQ, then their distribution is very limited.

3.3.2.2 Diphthongs

*ie, *ia, *io, *iu,*ye, *ya, *uɑ, *ui, *ue, *uə

At this time, these ten *rhymes are the only reconstructible diphthongs. Note that none of them increase closure over their duration.

*ie > LX {a/ [velar] _, ɨ/ [dental sibilant] _, /i/ elsewhere}; MC {i/ [palatal] _, e/ [dental fricate, velar] _, /ie/ elsewhere}; TP /ie/ (17 sets). This series is reconstructed with the aforementioned caveats about the phonetic nature of Taoping /ie/ (3.3.1.5, note). PSQ *ie comes from PTB *i + nasal rhymes ('heart', 'liver', 'wood', 'fingernail'), from *ik (drop), from *ey ('drink', 'fruit'), and from *əy ('day').

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Gloss	Longxi	Mianchi	Taoping	notes
drink	tɕhí	thié	thie^{33}	*they (STEDT). Attested in Qiangic and Northern Naga.
urine	bí	biě	bie^{241}	Qiangic *nbi (Chapter IV), *C-bi (STEDT)
heart	cì mì	tié mù	χtie^{55} mə^{55}	*s-niŋ (367)
day	cì	sè	sie^{33}	*s-nəy (GSTC)
fruit	cì mì	sè mù	sie^{55}mə^{55}	*sey (57)
god	à bú tɕhi̱	à pà-sé	tshie^{33}	
liver	cí ɹá	sè	sie^{55}	*m-sin (234)
saw	--	kè ʐ́í	kie^{33}ʐ́i^{55}	Qiangic root: Ergong *kɛ ʐ́ɛ*, Yadu *khɛ́*
spring, summer	{tɕà qeí}	tsè-qè	tsie^{55}qə^{33}	
tight	cí ~ tɕí	sé	--	
wood, timber	cì tò	sè	sie^{33}	*siŋ (233)
drop (of water)	zɨ́	{tɛ̀}	dzie^{33}	*tik ⩙ dzik ⩙ n-dzak (STEDT)
fingernail	liè sɨ́ qə̀	ì sè	sie^{55} qə^{55}	*m-(t)sin = m-tsyen (74)
soul/spirit	tsɨ́	--	tshie^{33}	
open (door)	gà	dzí	χgie^{241}	
tail	suà kà	suà kè	suɑ^{55}kie^{33}	

In addition to these sets, however, there are many which are clearly cognate, and in which at least one form suggests *ie, but other form(s) do not. E.g.,

Gloss	Longxi	Mianchi	Taoping
pot, wok	tshà piá	tshà	tshie^{55}pa^{55}
garden	tsà-kù	tsɨ́ qǒ	tshie^{55}kie^{33}

*ia > LX {a /[palatal, s]_, /ia/ elsewhere}, MC {a /[palatal]_, ɛ/ s _ , /ia/ elsewhere}, TP {a /p,l_, e /m_ ; /ia/ elsewhere} (18 sets). For this set the three dialects are about equally

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divergent. PSQ *ia has at least three PTB sources: *ya ('skin', 'shoulder', 'penis'), *Vy ('cheek', 'dig', 'flint), and *ak ('pig', 'side', 'thirsty'). Note that for this rhyme, the approach taken in Chang 1967 would be to reconstruct initial palatal clusters (Professor Matisoff, p.c.).

Gloss	Longxi	Mianchi	Taoping	PTB
skin (human)	ɻà piá	ʐà piá	ʐa^{55} pa^{55}	*pya ~ pra (STEDT)
shoulder	liá χá	--	lɑ^{31}χɑ^{55}pi^{33}	*m-lyan/ŋ (p120)
penis	lià qə	lià qɛ̀	--	*b/m-l(y)aŋ (STEDT, cf. GSR 8871)
cheek	tɕì piá	tɕí pià	tʃʅ^{31} pa^{55}	*s-bi ≋ s-bay (STEDT)
dig	bù liá	--	qhə^{31}la^{55}	*la:y (288)
flint, steel (for flint)	tshà mià	tsuè mià	--	*mey (STEDT)
pig	pià	pià	pa^{33}	*p-wak (43)
side	piá pú	--	pa^{33}pu^{33}	*(s)pa(ŋ/k) (STEDT)
thirsty	tsù tə pià	pià	χpa^{55}	*s-pa(ŋ/k) (STEDT)
female (animal)	mià	mià	--	?*m-na (187), ?*mi (STEDT)
flat	pià qó	piá pià	--	?*pe:r (330)
New Year	dzá	diá dià	dia^{241}	
cloth	bù miá	bʐù miá	bzʅ^{31}me^{33}	
plant (wheat)	phià	phià	phia^{33}	
shovel	cà piá	cì-piá	--	
thick (of paper)	lià	lià (liù)	--	
thread	sà ɳí	sɛ̀ lì	siɑ^{33}li^{55}	
write	--	cà	sia^{55}	

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*io > LX {u /[palatal]_ ; o / s_ , ?? elsewhere}, MC {/o/ /s_; /io/ elsewhere}, TP {o/[palatal]_; /io/ elsewhere} (5 sets). Recall that PSQ *th > Longxi *ts*/_u. The sequence /sio/ does not occur in Longxi or Mianchi. This diphthong apparently occurred only after dentals (the palatals in Longxi ('door', 'many') and Taoping ('puttee') are phonologically conditioned secondary developments). This diphthong is not yet relatable to any rhyme in PTB.

Gloss	Longxi	Mianchi	Taoping
door	dʑù ~ dʑú	diò	dio^{241}
many	dʑú	dió	dio^{241}
bucket/barrel	--	thiò	thio^{33}
puttee, leg wrap	--	diòŋ dí	dzo^{33}de^{241}
autumn, winter	sò qeí	só qè	sio^{33}ko^{33}

*iu > LX /o/, MC /iu/, TP /y/ (3 sets). The reconstruction of this rhyme is further bolstered by Mawo /iu/ in 'ten' and /u/ in 'say' (*ɹiu does not occur in Mawo).

Gloss	Longxi	Mianchi	Taoping	Mawo
ten	fià dzó	fià diú (qò)	χɑ^{31}dy^{33}	hə diu
see	à tɕó	tiú (ɕà)	tɕy^{33}	kuə tiu
say, speak; tell	--	diú; diù	dʑi^{241}; dy^{33}	ɹu

*ye > LX {ue/ #_ , /ua/ elsewhere}; MC /uɛ/; TP /ye/ (7 sets). /y/ does not occur in the Longxi and Mianchi environments for which we have evidence for *ye. It is not clear which PTB *rhyme(s) gave rise to PSQ *ye. One possibility is given for 'full'.

Gloss	Longxi	Mianchi	Taoping	PTB
full	suà	suè	sye^{55}	?*l-tyam ≋ l-dyam (226)
answer	guà	--	χgye^{33}	
dry, warm by fire	qhuà	khuè	khye^{33}	
hit target	(dà uà)[45]	dè uě	da^{31}ye^{33}	
useful	ué	--	ye^{13}	
hot	khú khuá	khué khuè	khye^{55}le^{33}	
turn (body)	(suè)	suè	ɕye^{33}lɑ^{55}	

[45] The Longxi form probably reflects a different root, cf. Mawo *də wa*.

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'Turn (body)' may be from *sue, with subsequent palatalization(s) in Taoping. However, the remaining Taoping instances could not have arisen via palatalization.

*ya > LX {/ya/, with palatalization of initial}, MC, TP {/ya/ /[palatal]_; /ua/ elsewhere}(4 to 7 sets). There are no PTB etyma that can be related to words with this rhyme.

Gloss	Longxi	Mianchi	Taoping
blind	fià tɕyà	--	χtɕya^{33}
brightness	ɕyá	ɕyá	ɕya^{33}
tread/step on	--	tɕhyà	tɕhya^{31}
hoe	tɕyà	kuà	kua^{33}

For 'blind', 'brightness', 'tread', the PSQ roots are identical to the Taoping forms. For PSQ 'hoe' I reconstruct *kyà. There is one apparent reflex of PTB *ya, Longxi *pɑ^{31}χtə^{55}* 'stomach' from PTB *l-tya ≠*l-twa (STEDT).

The following three sets are promising, but inconclusive. 'Ten thousand' and 'tile' are phonetically very similar to their Mandarin counterparts (*wàn* 'ten thousand', *wǎ* 'tile'). If 'sprout' comes from a *ya etymon, then it has lost /y/ in Longxi and Mianchi, probably in the process of palatalizing the initial.

Gloss	Longxi	Mianchi	Taoping
ten thousand	ʁuá	à uá	χgya^{33}
tile	ʁuà	ià	χgya^{33}
sprout (n)	cà qə	cà qè lè kí	χgya^{33}qə^{33}

*ya is a problematic rhyme, with many sets (more than ten) where at least one item suggests *ya, but at least one item suggests a different *rhyme. This discrepancy is especially vexing in those sets with good correspondence of *initial (and sometimes *tone). This hints that *ya was not stable, and often palatalized the *initial or assimilated to its place of articulation. The following examples illustrate this kind of difficulty:

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Gloss	Longxi	Mianchi	Taoping
broom	tɕyé-là	dʐuà	dzya^{241}
Jew's harp	dzyà pú	dzòu	--
lip	dzyà-kú	duɛ́-ʐà	χduə^{33}
sweep	ɕyè té	suɛ́ mɛ̀	sya^{33}ma^{33}
weave	--	tyà	tia^{33}

For 'weave', NQ forms suggest *-ia: Mawo *ti ti*, Yadu *tɕɪ tɕɛ*.

*uɑ > LX, MC /ua/, TP /uɑ/ (11 to 13 sets). The correspondences among the three dialects are very regular, and although two sets can be traced to PTB *a:w, the exact relationship of this PSQ *rhyme to PTB is not yet clear.

Gloss	Longxi	Mianchi	Taoping	notes
tail	suà kà	suà kè	suɑ^{55}kie^{33}	*swa-p (STEDT: attested in Qiang, Dafang Yi)
mountain valley	qhuà ɕì	qhuá bʐà ~ qhuà qó	--	?*klu:ŋ (127)
monkey	ʁuà sà	ʁuà sà	--	PKN *ŋa:w (192). For initial correspondence, cf. 'five', below
buckwheat	zuà ʁá	dzuà ʁá	dzuɑ^{31}ʁɑ^{33}	
help	ʁuà	tè ʁuà	ʁuɑ^{31}	
far	--	ʐí χuà	χuɑ^{33}	
step over/ across	(dà) ʁuá (tɕà)	--	ʁuɑ^{33}tsɑ^{33}	
village	tshuá-kù	tshuá, tshuà qó	--	
thigh	duà qà-pà	duà-bʐà	--	
thin (of humans)	χuá	χuá	--	
meal, (CL)	tuá	tuá	--	

The following two sets have correspondences that are slightly defective. However,

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evidence from Mawo suggests that *uɑ is a good PSQ reconstruction for these rhymes.

Gloss	Longxi	Mianchi	Taoping	Mawo	PTB
five	ʁuè	ʁuà qó	ʁuɑ^{33}	ʁuɑ	*l-ŋa (78)
cry out, call out	ʁuǎ tà	ʁuǎ	ʁuə^{33} ʐɑ^{33}	ʁu ʁua	?*a:w (273)

The following table shows that the reflexes of PTB *wa is not predictable in Southern Qiang. 'Lungs', 'conceal' are set apart because their PTB codas appear to have affected the rhyme ('lungs') or both the rhyme and the initial ('conceal'). 'Face' is an instance of PTB *wa > PSQ *uɑ (the sequence *qhuɑ does not appear in Taoping).

Table 3.6. Reflexes of PTB *-wa

Gloss	Longxi	Mianchi	Taoping	PTB
bamboo	pò (tí)	pù	χpu^{55}	*g-pwa (44)
cattle	ŋò mià (female)	ŋò	zʅ^{31}ŋu^{33}	*ŋwa (215)
face	qá qhuá	qà χà	qhɑ^{31}qhɑ^{33}	*kwa (STEDT)
fox	qhà guà	qhá guə̀	qhɑ^{33} χguə^{33}	*gwa (p34)
hand span			tu^{33}	*m-twa (165)
shine; light	mú χuà χuà (shiny black)			*hwa-t (221)
tail/buttocks	suà kà	suà kè	suɑ^{55}kie^{33}	*swa-p (STEDT attested in Dafang Yi, Qiang)
tooth	sù	sú-nə̀ (gums ('tooth-red'))	suə^{55}	*s-wa ≋ p-wa (437)
rain	meì	m-ʐì	ma^{31}ʐi^{55}	*r-wa (443)
wear, dress	gù	(tè) gù	guə^{33}	*gwa-n ~ kwa-n (160)
lungs	tshù	tshoù	tsʰu^{55}	*tśwap (239)
conceal, hide, shun	cù	kò (b?)	cye^{33}	*kway (303)

*ui > LX {/u/ /[velar]_; /ui/ elsewhere}, MC /ui/, TP /uə/ (3 or 4 sets). Taoping does not have the diphthong /ui/. In the post-velar environment, Longxi and Mianchi reflexes of *ui

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are indistinguishable from *y; hence, without the Yadu evidence for a *back vowel, 'wrinkle' could be reconstructed with either rhyme. None of these forms can be related to PTB reconstructions.

Gloss	Longxi	Mianchi	Taoping	Mawo	Yadu
carry with pole	tuì	tuì	qə^{55}tuə^{33}	tʏ	tuə
rust	ɕà-gù	guì	χguə^{33}	--	dze rqua
swallow (v.i.)	--	zuì	sʅ^{31} dzuə^{33}	sə ʁzə	sə ɣzɻ
wrinkle	ɻà gù	guì	--	--	χɻ

*ue > LX /u, ue/, MC /ue/, TP /ue/ (8 sets). I have no explanation for the variation in Longxi reflexes; however, Mianchi and Taoping are invariable. Recall that Mianchi /e, ɛ/ are not considered distinctive when comparing with other dialects.

Gloss	Longxi	Mianchi	Taoping	PTB
turtledove	ỳ gù χó	guè guè	--	*m-krəw (118)
real, genuine	ŋù	ŋuè	--	
irrigate, water	sù	--	ʂue^{55}	
green, blue	--	χué	χue^{33}χue^{31}	
know, be able to	ŋuè	--	ŋue^{33}	
pitiful	mà tshweì	mè tshuè pú zɨ	--	
silk, satin	ʁuè	ʁuè	ʁue^{33}χto^{33}	
pull up (weeds)	--	tuè	χtue^{33}	

In addition to the above forms, the following set appears to contain reflexes of PSQ *ue, although the Mianchi form contains the wrong vowel; it may have been influenced by Mandarin *guà* (hang on wall).

Gloss	Longxi	Mianchi	Taoping
hang (on wall)	ʁué	{tɛ̀ ʁuá}	ʁue^{33}

*uə > LX /u/, MC /uɛ/, TP /uə/ (6 sets). PSQ *uə comes from PTB *əy, *əw.

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Gloss	Longxi	Mianchi	Taoping	PTB
dog	khù	khuè	khuə^{55}	*kwəy (159)
smoke, tobacco	mù khú, mú-qhú	mù qhué	mə^{31}khuə^{55}	*kəw (256)
water	tsù	tsuè, tsuè	tsuə^{33}	*m-t(w)i ≠ m-twəy (168)
rat, mouse	zɨ kú	dzɛ́ kuè	zɿ^{31}kuə^{33}	
field	zù	zuè	zuə^{33}	
be/copula	ŋ̊ù	ŋuè	ŋuə^{33}	

3.3.2.3 Final nasals

Although there are nasalized vowels in Longxi and Mianchi, and nasal codas in all three dialects, none of these forms correspond among SQ dialects. Nevertheless, SQ dialects bear direct evidence for the preservation of PTB *-am into PSQ, and suggestive evidence for PTB *-aŋ.

*am > LX {e / pr_ , /a/ elsewhere}; MC {ɨ / ts_, /i/ elsewhere}; TP /i/ (7 sets). That PTB *-am survived into PSQ is evidenced by the different vowels that reflect this rhyme in the key dialects, indicating that the coda disappeared after the dialects had diverged. To my knowledge, this is the first evidence that has been offered to show that some PTB *codas were preserved as finals as late as PSQ. The Taoping reflex of 'garden' shows vowel harmony with the second syllable. Longxi has added an echo vowel to the *-m of 'iron' which has preserved the PSQ (and PTB) *coda in the form of an initial[46]; the second syllable is optional and does not appear in compounds (e.g., 'rust' *cà-qhə̀* ('iron-feces')). In Longxi 'dry' *ram > *ra > ɐ.

[46] For more on echo vowels in Qiang, cf. 4.4.3.

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Gloss	Longxi	Mianchi	Taoping	PTB, etc.
bear	tɕá	tí	ti^{33}	*d/g-wam (461)
ear of grain, spike	cà qə̀	lɛ̀ tì	$χti^{55}qə^{33}$	*s-nam
iron	cà (mó)	ɕì	$ɕi^{55}$	*syam (228)
smell, sniff	ɕí dà	mí	$χmi^{55}$	*m-nam (*s-pfx?) *m/s-nam (464)
white	phé	pʂí	$phʐi^{55}$	PQic *pram
dry	fiə́, tə̀ ə́	ʐí	$ʐi^{55}kua^{55}$	rGyalrong *kə ram*

*aŋ > LX /o,u/; MC /o, u, ou/; TP /u,o/ (17 sets). As noted elsewhere (Wen 1950. C. Huang (p.c.)), /o/ and /u/ distinctions are often fluid in Qiang dialects; the reflexes of PTB *aŋ are no different from other sets where /o/ corresponds to /u/. Because there is not a unique reflex of PTB *-aŋ, it is still not possible to say with certainty whether *aŋ was distinguished in PSQ or whether it had already been lost. However, the fact that *am was retained strongly suggests that PTB *aŋ, a more common rhyme, was also retained in PSQ. The following PTB *aŋ roots are reflected in Southern Qiang, and are arranged by strength of support, with etyma reflected in all three dialects shown first, etc.

Gloss	Longxi	Mianchi	Taoping	PTB
chest	ʁó qhuà	(tié mù zè)	$ʐu^{55}dzʅ^{33}qə^{33}$	*b-raŋ (LaPolla 1985)
deaf	ɳì bò	bù	$ɳi^{31}kie^{33}bu^{241}$	*(b/p)a:ŋ (STEDT)
dream	mò (zè)	mò	$χmu^{55}$	*r-maŋ (82)
high	bó	bʐú	bu^{33}	*m-raŋ (p43)
horse	ʁò	ʐòu	$ʐu^{55}$	*s/m-raŋ (145)
blend with water	lú	(fià) ló		*laŋ (STEDT 'water/river/valley')
body/corpse	mó	mó		*s-maŋ (STEDT)

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Gloss	Longxi	Mianchi	Taoping	PTB
clear, pure, clean	ɕó	ɕó tè		*(t)syaŋ=syaŋ (pp. 52-3)
fat/omentum		loù	lu^{55}	*l(w)aŋ (STEDT)
heel	gò qə́	goù mù sà		*gwa-ŋ (STEDT)
side	piá pú		$pa^{33}pu^{33}$	*(s)pa(ŋ/k) *(STEDT)
thou		nò	no^{55}	*naŋ (407)
born/birth		ʂɛ̀ bŭ		*braŋ (135)
hole/orifice			dzo^{33}	*dwa(:)ŋ (169)
lean			$dz̩o^{241}$	*n-džaŋ (STEDT)
roast, toast, burn	(tə χú)			*ka:ŋ (330)
back/spine	tsò bò			*g/b-liŋ≠g/b-lyaŋ (STEDT. Cf. *GSR* 76a-c)

Given the fact that there is no direct evidence of the preservation of *-ŋ into any of the documented Qiang dialects, and given the fact that the vowel correspondences cannot be set apart from *o/u alternation, the above forms are reconstructed in Appendix A with the PSQ vowel alternation *o/u, although the PTB etyma are noted.

3.4 Summary of correspondences

In the following tables summarizing Southern Qiang correspondences, the strength of attestation is denoted by the number of supporting sets. Numbers followed by a plus sign generally indicate the number of sets that have reflexes in all three key dialects.

Initials

PSQ	Longxi	Mianchi	Taoping	# of sets
*p	p	p	p	32
*ph	ph	ph	ph	15
*b	b	b	b	19

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PSQ	Longxi	Mianchi	Taoping	# of sets
*m	m	m	m	40
*t	/tɕ/ /_*i, *y; /t/ elsewhere	t	/tɕ/ /_*i, *y; /t/ elsewhere	25
*th	/tɕh/ /_i, /ts, tsh/_u; /th/ elsewhere	th	/tsh/ /_y; /th/ elsewhere}	11
*d	/dz/ /_*i; /d/ elsewhere}	d	/dz/ /_*i (hapax); /d/ elsewhere	25
*ts	/tɕ/ /_i,y (or *i, *y); /ts/ elsewhere	ts	ts	32
*tsh	/tɕh/ /_ i,y; /ts/ elsewhere	tsh	/tɕh/ /_ɨ, y; /ts/ elsewhere	27
*dz	z (no [ʑ] in LX)	dz	dz	16
*s	/ɕ/_ i,y; /s/ elsewhere	s	s	45
*z	z	z	z	15
*n	/ȵ/ /_ i; /n/ elsewhere}	n	/ȵ/ /_ i; /n/ elsewhere}	17
*l	/ȵ/ /_ i; /l/ elsewhere	/ȵ/ /_*y; /l/ elsewhere	l	32
*tʂ	ts	tʂ	/ts/ /_ i; /tʂ/ elsewhere	24
*tʂh	/ts/ / _ u; /tsh/ elsewhere	tʂh	tʂh	22
*dʐ	/dz/ /_ i; /dz, z/ elsewhere	/dz/ /_ ɛ; dʐ elsewhere	dʐ	20
*ʂ	s	ʂ	/s/ /_ ʅ; /ʂ/ elsewhere	7
*ʐ	Ø/_ i, /z/ elsewhere	ʐ	ʐ	6
*ɨ	ɹ, ə	ʐ	ʐ	7
*tɕ	tɕ	/ts/ /_ ɨ; /tɕ/ elsewhere	tɕ	~ 30
*tɕh	tsh /_ ɨ, *ɨ; /tɕh/ elsewhere	tɕh	[tʃh] /_ ʅ; /tɕ/ elsewhere	~ 40
*dʑ	dz, z /_ ɨ ; dʑ elsewhere	dʑ	[dʒ] /_ ʅ; /dz/ elsewhere	~ 20
*ɕ	s / _ ɨ; /ɕ/ elsewhere	s / _ ɨ; /ɕ/ elsewhere	ɕ	21
*ʑ	/z/ (LX lacks /ʑ/)	ʑ	ʑ	7
*ȵ	n /_ ə, ȵ elsewhere	n /_ ə, ȵ elsewhere	n /_ ə, ȵ elsewhere	8
*k	/tɕ/ / _ i, y; /k/ elsewhere	k	/tɕ/ / _ e; /k/ elsewhere	17??

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PSQ	Longxi	Mianchi	Taoping	# of sets
*kh	/tɕh/ _*i (hapax); /kh/ elsewhere	kh	/tɕh/ _*i (hapax); /kh/ elsewhere	10
*g	g	g	g	10
*ŋ	ŋ	ŋ	ŋ	10
*q	q	q	q	52
*qh	qh	qh	qh	10
*χ	χ	χ	χ	21
*ʁ	ʁ	ʁ	ʁ	21
*ɦ	ɦ	ɦ	??	2
*pz	p	p	pz	2
*bz	b	bz	bz	2
*br	b(ɹ)	bz	bz	2
*pr	p	bz	pz	1
*phr	ph	pʂ	phz	8
*sm	ɕ /_ i; x _ u	m	χm	3
*sl	s, l	l, ɬ	ɕ, ʂ	1
*sn	ɕ	n, ti	ɕ, χt, χɳ	4
*khs	tsh_ e; /tɕh/ elsewhere	s	(OS) /khs/, (YS) /tsh/	3
*khr	ɕ	s	(OS) /khʂ/, (YS) /tʂh/	1
*khɕ	ɕ, tsh	s, ɕ	(OS) /khɕ/; (YS) /tɕh/	3
*gz	?	z	(OS) /gz/; (YS) /dz/	1
*gz	dz	z	(OS) /gz/, (YS) /dz/.	1
*gr	gɹ, dz	g, dz	(OS) {gz /_ y, gz elsewhere}, (YS) {dz _ y, dz elsewhere}	2
*qhs	tsh	s	(OS) /qhs/, (YS) /tsh/	2
*qhr	tsh, qh	tɕh, tʂh	qh	3
*χl	ʁ, ʁ_ l	l	ʁ	5
*χp	p	p	χp	10
*χph	ph	ph	χp	2
*χb	b	b	χb	6

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PSQ	Longxi	Mianchi	Taoping	# of sets
*χm	m	m	χm	7
*χt	t	t	χt	18
*χd	dz /_*V[+high], /d/ elsewhere	d	χd	8
*χn	n	n	χn	2
*χtʂ	ts	tɕ /_ i, tʂ elsewhere	χtʂ	5
*χdzˌ	z, ts	dzˌ, dz	χdzˌ	4
*χtɕ	ts /_i; ɕ elsewhere	tɕ	χtɕ	2
*χdz	dz	?	χdz	~ 4
*χɳ	ɕ /_i; /ɳ/ elsewhere	n /_ə; ɳ elsewhere	χɳ	5
*χk	k, q	k, q	χq /_ɑ; χk elsewhere	6
*χg	g	dz /_*i; g elsewhere}	χg	7
*χŋ	ʁ, ŋ	ŋ	χŋ	2
*χq	q	q	χq	5
*χG	ʁ	ʁ	χG	1

Rhymes

The rhyme *aŋ is given in parentheses to indicate that its existence is surmised, rather than proven.

PSQ	Longxi	Mianchi	Taoping	# of sets
*i	i	i	i	15
*y	o/ [dental] _ , u/ [velar] _ , ?? elsewhere	ui/ [velar] _ , iu/ l _ , ou/s _ , ?? elsewhere	y	5
*e	e, ei	e, ɛ	e	7
*a	a	a	a	70
*ɨ	ɨ	ɨ	ɿ	9+
*ə	ə	ə	ə	7
*u	u	u	u	5+

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PSQ	Longxi	Mianchi	Taoping	# of sets
*o	o	o	o	6+
*ɑ	a	/e/ / _ Cu, /a/ elsewhere	ɑ	57
*ie	a/ [velar] _, ɨ/ [dental sibilant] _, /i/ elsewhere	/i/ / [palatal] _, e/ [dental fricate, velar] _, /ie/ elsewhere	ie	17
*ia	a /[palatal, s]_, /ia/ elsewhere	a /[palatal]_, ɛ/ s _ , /ia/ elsewhere	a /p,l_, e /m_ ; /ia/ elsewhere	18
*io	u /[palatal]_ ; o / s_ , ?? elsewhere	/o/ /s_; /io/ elsewhere	o/[palatal]_; /io/ elsewhere	5
*iu	o	iu	y	3
*ye	ue/ #_ , /ua/ elsewhere	uɛ	ye	7
*ya	ya, + palatalization of initial	/ya/ /[palatal]_; /ua/ elsewhere	/ya/ /[palatal]_; /ua/ elsewhere	4 to 7
*uɑ	ua	ua	uɑ	11 to 13
*ui	/u/ /[velar]_; /ui/ elsewhere	ui	uə	3 to 4
*ue	u, ue	ue	ue	8
*uə	u	ue	uə	6
*am	e / pr_ , /a/ elsewhere	ɨ / ts_, /i/ elsewhere	i	7
(*aŋ)	o,u	o, u, ou	u,o	16

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Chapter IV. Contact-induced tonogenesis in Southern Qiang

4.1. Introduction

As mentioned previously, the Southern dialects (SQ) exploit tones to make lexical distinctions, while the Northern dialects (NQ) lack tonal phenomena. Attempts have been made (e.g., Liu 1998a) to correlate the tones of Southern Qiang with certain phonetic features of NQ dialects (e.g., consonant cluster initials and vowel quantity/quality/rhotacization). This chapter presents evidence that Southern Qiang was a pitch accent language which has undergone contact-induced tonogenesis; viz., after undergoing phonological simplifications that made SQ dialects tone-prone, lexical borrowings from a tonal language (Sichuanese Mandarin) caused the beginnings of tonal distinctions. Some dialects (Longxi, Taoping) have developed full-blown tonal systems, while others (Mianchi, Heihu) have layers of tonal strata over pitch accent systems. There appear to be phonetic motivations for some accented syllables and for certain minor tones, which are of relatively recent origin.

This chapter consists of six sections. In the following section I introduce the tonal systems of the key SQ dialects. In section 4.3 I present arguments that tone in Southern Qiang is an innovation, and not a retention which was lost in Northern Qiang. In 4.4 I propose a course of development for the genesis of tones in Southern Qiang, and in the fifth section I set forth evidence that the development of the SQ *pitch-accent system was influenced by tonogenetic factors. I close the chapter with some suggestions for further research that would indicate whether SQ dialects are becoming more or less tonal.

The Qiangic branch of Tibeto-Burman consists of languages and dialects with phonemic tone (e.g., Southern Qiang, Pumi, Queyu, Zhaba, Muya, Guiqiong, Shixing, Namuyi), as well as those without it (e.g., Northern Qiang, rGyalrong, Daofu/Ergong). Most, if not all, Qiangic tone systems differ from prototypical syllabic tone systems, such

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as those found in Mandarin Chinese or Thai. **Pumi** has been analyzed as having pitch accent, or word tone, in which the entire word is the Tone-Bearing Unit (TBU) (Ding 1998, 1999). Likewise, **Ergong/Daofu** has tones that are non-phonemic (H. Sun, et al. 1991 (henceforth *ZYC*) p218, Dai 1989), and **rGyalrong** appears to have a word-tone or pitch accent system (*ZYC*:209). According to Huang 1991, rGyalrong is a language in which syllables carry "customary pitch" rather than tone: among 3,000 commonly used words she found only one pair of monosyllables distinguished by tone, and ten disyllabic minimal pairs. Nagano (1984), while conceding that "every word has a somewhat fixed pitch pattern," unequivocally claims that "tone is not distinctive at all." J. Sun has observed that

> (G)lottalized and non-glottalized syllables are associated with different pitch patterns in rGyalrongic languages, and are often interpreted as involving some kind of tonal contrast by certain linguists. For instance, Lin briefly mentions the tense-marking tonal alternation in the Ergali variety of Guanyinqiao (Lin 1993:749-50) but fails to mention similar phenomena in his lengthy descriptions of Muerzong and Caodeng sound systems (Lin 1993:489-509; 526-604).(J. Sun 1998:7n)

Following J. Sun and the major sources, I regard rGyalrong as non-tonal.[1]

Within Southern Qiang, tone serves different functions in different dialects, and not all dialects are tonal to the same extent. Before delving into the origins of SQ tone, I shall first present brief descriptions of the tones in the three SQ dialects that will be examined in this chapter.

4.2 Descriptions and origins of Southern Qiang tones

In this chapter, I consider the tones of the three key dialects. In addition to data on these three dialects, there is some information about tones in other SQ dialects that can be found in Wen 1943a (Wasi), 1945 (Hou'ergu), 1950b (Jiuziying), and Wen and Fu 1943

[1] For an overview of Tibeto-Burman tone systems, cf. Matisoff 1998

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(Lobuzhai). However, these sources contain insufficient data for systematic comparison, as only a few forms in each article are marked for tone, and hence are employed to a lesser extent. In this section I review the tonal structures of the three key dialects, and discuss the origins of their secondary tones. In order to facilitate discussion, some tables are repeated from Chapter II.

4.2.1 Taoping

Of all varieties of Southern Qiang, this is the only dialect for which extensive tonal data have been published (e.g., H. Sun 1962, *QYJZ*, *ZYC*, Chang 1967, Liu 1998a, *et al.*). According to Liu 1998b:17 there were 4,900 speakers of Taoping (Li county) in 1990. Taoping has six tones (33, 55, 31, 241, 13, 51), which differ greatly in frequency and distribution. In the Taoping lexicon, they occur with the following frequencies, and with the given restrictions (1754 syllables in 1008 words):

a^{33}	764 instances	43.6%	Occurs with all initials
a^{55}	495 instances	28.2%	Occurs with all initials
a^{31}	337 instances	19.2%	Occurs with all initials
a^{241}	94 instances	5.4%	Occurs with voiced initials only
a^{13}	43 instances	2.5%	Occurs in borrowings from Mandarin fourth tone, and in coalescence
a^{51}	21 instances	1.2%	Occurs in borrowings from Mandarin third tone

Tones 33, 55, and 31 (the major tones) may all co-occur in any order, with 31-33 as the most common combination. The three minor tones of Taoping (241, 51, 13) occur in just 9% of its lexicon. The 241 tone has a shared origin with Longxi and Mianchi Low-rising tone (cf. 4.4.6).

The remaining two minor tones occur on borrowings from Mandarin. According to Yang 1984:901, Li County Mandarin has the following tones:

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Yin-Ping	55
Yang-Ping	31
Shang	53
Qu	25 ~ 35
Ru	44

The 51 tone occurs exclusively in borrowings from Mandarin third tone, or *shang sheng*, (cf. 3.5.3), which in Li County is pronounced 53:

Gloss	Taoping	Mandarin
well	$tsiŋ^{51}nə^{33}$	*jǐng*
friend	$phuŋ^{31}iəu^{51}$	*péng yoǔ*
wristwatch	$ʂəu^{55}piɑu^{51}$	*shoú biaǒ* (sandhi tones, from *shoǔ biaǒ*)
chair	$i^{51}tsɿ^{31}$	*yǐ zi*
harmonica	$khəu^{51}tɕhin^{31}$	*koǔ qín*
acre	mu^{51}	*mǔ*

The 13 tone occurs on borrowings from Mandarin fourth tone , or *qu sheng* (pronounced 25 locally), with the exception of two dual pronouns, which appear to have coalesced, probably from the addition of $ɳi^{55}$ 'two' after the sandhi forms of the personal pronouns $qɑ^{55}$ 'I' and $kuə^{55}$ 'you':

Gloss	Taoping	Mandarin
mole	$tʂɿ^{13}$	*zhì*
story/tale	$ku^{13}sɿ^{13}$	*gù shì*
mark	$tɕi^{13}χɑu^{13}$	*qì haò*
change/transform	$pian^{13}thɑ^{33}$	*biàn*
clean (v.)	$kan^{55}tsin^{13}pu^{33}$	*gān jìng*
eighth	$ti^{13}pɑ^{33}$	*dì bā*
we (dual)	$qɑŋ^{13}tʃɿ^{33}$	(cf. $qɑ^{31}thyɑ^{55}$ 'we')
you (dual)	$kuəŋ^{13}tʃɿ^{33}$	(cf. $kuə^{31}thyɑ^{55}$, 'you (pl.)')

4.2.2 Longxi

According to my own fieldwork, Longxi (Wenchuan county, 3,300 speakers in 1990 (Liu 1998b:17)) has two major tones (L, H), and three minor tones (R, M, F). 98.9% of Longxi syllables occur with a major tone. The phonetics, frequency, and distribution of Longxi tones are as follows (6150 syllables in 3247 entries):

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à	Mid or Low-falling (L) ($ma^{33} \sim ma^{31}$)	63.61% (3912 instances)	all initials
á	High level tone (H) (ma^{55})	35.33% (2173 instances)	all initials
ă	Low (falling) rising (R) ($ma^{13} \sim ma^{213}$)	0.70% (43 instances)	voiced initials
a^{35}	Mid-rising tone (M)	0.31% (19 instances)	borrowings, coalesced syllables
â	High-falling tone (F) (ma^{51})	0.05% (3 instances)	coalesced syllables, borrowing, syllabified pre-initial

Longxi major tones have the following distribution in 1452 native disyllables:

Table 4.1. Distribution of major tones in native Longxi disyllables

σ1 \ σ2	L	H
L	620	505
H	176	151

The development of the minor tones in Longxi (and in Mianchi) has been affected by Wenchuan County Mandarin, which has the following tones:

Yin-Ping	55
Yang-Ping	31
Shang	42
Qu	13
Ru	44

The three instances of Longxi High-falling tone have three separate origins, as given below:

alkali	tɕêN	borrowing: (Mandarin *jiǎn* (local tone = 42))
armpit	kâm	coalescence: (< /ká mɯ̀/)
stone	ʁò lû	*RC cluster: (PTB *r-luŋ[2], Mawo *ʁlu pi*)[3]

[2] All Tibeto-Burman reconstructions are from Benedict (1972), unless marked otherwise. Those marked STEDT are from the Sino-Tibetan Etymological Dictionary and Thesaurus project of James Matisoff. Proto-Qiang (PQ) and Proto-Qiangic (PQic) reconstructions

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Taken together, these three lexemes present a picture of an emerging tone. In this case, the tone has come into being through both external and native linguistic influences. Considering the increased rate of borrowing in Southern Qiang, this tone will probably increase in strength and number through the introduction of more Mandarin third tone syllables. This set, along with the other minor tone data, show how readily these languages create new tones, once the feature of pitch has been exploited to distinguish lexical items.

Almost all instances of the Longxi Mid-Rising tone are borrowings from Mandarin. The following words show that this tone cannot be correlated with any particular Mandarin tone, as tones 2, 3, 4 of standard Mandarin are all represented, with fourth tone being the most common (local tones are indicated following the *Hanyu Pinyin*. With the exception of full Sichuanese forms taken from my own field notes, Sichuanese tone marks are based on the analysis of Yang 1984):

gloss	Longxi	Mandarin
deep fry	tsa^{35} dà	*zhá* (42)[4]
blame someone	kuai^{35}-dà	*guài* (13)
taxes	suei^{35}	*shuì* (13)
try, test	kao^{35} dà	*kǎo* (53)

The above forms show that tone assignation on borrowings is often arbitrary. This may indicate that the forms were borrowed from Chinese before Longxi had developed tone (the hypothesis found in Liu 1998a). Alternatively, it may be a further indication of the instability of SQ tones; that is, that the tones on these borrowed forms have flip-flopped after entering Longxi. A third possibility is that when these forms were borrowed, Longxi

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are my own, unless otherwise noted.

[3] The origin of the tone on this particular syllable is discussed in section 3.6.

[4] 'Deep fry' and 'try, test' may reflect the influence of standard *Putonghua*.

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speakers assigned them random tones. Longxi Mid-Rising tone cannot be completely correlated with local tones, as local Sichuanese forms with 35 tone may be borrowed into other Longxi tones; e.g., *tshà tshà* 'eraser, rubber' (local Sichuanese *tsha*^{35} *tsɨ*^{21}).

Coalescence of syllables is the other demonstrable origin of this tone, as in *mo*^{35} 'disappear', from *mò fió* 'there is not' from *mì + ŋó* NEG + EXIST[5]. The tones of the following 'night' words are probably due to coalescence, although I have not been able to discover what the underlying morphemes are (these words also have strange tonal properties in Mianchi, allowing two high tones):

gloss	Longxi	Mianchi
tonight	pei^{35} dzì tsɨ	pè gié tsɨ
tomorrow night	tə pei^{35} dzì tsɨ	tæ péi giè tsɨ
last night	nei^{35} dzì tsɨ	nə gié tsɨ

4.2.3 Mianchi

Tones in Mianchi (Wenchuan county, 15,700 speakers in 1990 (Liu 1998b:17)) are added onto a pitch accent system of high and low (-falling) pitch, in which native words may only have one high-pitched, or accented, syllable. Mianchi pitch accent is a simpler type of word tone than is found in Risiangku Tamang, in which there are four tones, each of which is spread over a phonological word (Mazaudon 1973). On the contrary, in Mianchi a phonological word (usually mono- or disyllabic, although longer forms also occur) may be accented or unaccented, and the accent may occur on any syllable, although there are some restrictions; e.g., only verbs with Low-rising tones occur with accented DIR prefixes. While unaccented and accented syllables account for 95% of the vocabulary, there are contour tones on the remaining five percent:

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[5] These morphemes also combine to form *mŏ* 'without'.

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à	Unaccented (L) (ma^{31})	67.3% (4288 instances)	all initials
á	Accented (H) (ma^{55})	27.9% (1775 instances)	all initials
ǎ	Low (Falling) Rising (R) (ma^{13} ~ ma^{213})	3.5% (226 instances)	all initials
â	High-Falling tone (F) (ma^{51})	1.2% (76 instances)	all initials
a^{35}	Mid-Rising tone (M) (ma^{35})	0.01% (4 instances)	borrowings and coalesced syllables

Major pitches/tones on native disyllables occur with the following distributions (1213 instances):

Table 4.2. Distribution of major tones in native Mianchi disyllables

σ1 \ σ2	L	H
L	565	416
H	232	0

In accordance with the obligatory contour principle (OCP), only one accented syllable may occur per word. High-Falling and Mid-Rising tones do not co-occur with accented syllables, indicating that they are underlyingly accented (or 'High'). Low-rising may co-occur with accented syllables, indicating that it is unaccented. Following Yip (1995) the tones may be diagrammed as follows. Capitals denote register and lower case denotes pitch within register.

Table 4.3. Autosegmental representation of Mianchi pitch phenomena

Tone abbr's:	L	R	H	F	M
	σ	σ	σ	σ	σ
	|	|	|	|	|
	L	L	H	H	H
	|	∧	|	∧	∧
	l	l h	h	h l	l h
surface pitch:	31	(2)13	55	51	35

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This notation captures the above-mentioned phonetic generalizations and restrictions. However, it does not reveal the historic fact that Mianchi is essentially a pitch accent language, nor does it predict the wide discrepancies in the distribution of tones. In order to accurately reflect historic and distributional realities, I will continue to refer to Mianchi L and H syllables as (un-)accented, and the other syllables as tonal.

As would be expected, accent sandhi occurs on compounds involving more than one accented syllable. However, Mianchi accent sandhi is complex and unpredictable, as shown in the following chart (the last instance in the chart shows interplay between accent and tone):

Table 4.4. Accent sandhi in Mianchi compounds

a. Disyllabic combinations

Low + Low:		
L + L -> L-L	bz̩à + mù = bz̩à-mù	adult (big-person)
L + L -> L-L	dɛ̀+bz̩à = dɛ̀-bz̩à	expand, inflate (pfx-big)
L + L -> L-L	diò + bz̩à = diò-bz̩à	front gate, door (door-big)
L + L -> L-L	lò + bz̩à = lò-bz̩à	stone, boulder (stone-big)
L + L -> L-H	lə̀ + bz̩à = lə̀-bz̩á	long month (calque) (month-big)
L + L -> L-H	zɨ̀ + bz̩à = zɨ̀-bz̩á	bull ox (bull-big)
L + L -> H-L	tshɛ̀ + mù = tshɛ́-mù	wool (goat[6]-fur)
Low + High:		
L + H -> H-L	sù + nə́ = sú-nə̀	gums (tooth-red)
L + H -> H-L	lò + pʂí = ló-pʂì	flint (stone-white)
High + Low:		
H + L -> H-L	lá + bz̩à = lá-bz̩à	eagle (eagle-big)
H + L -> H-L	mú + khuɛ̀ = mú-khuɛ̀	warm self by fire (fire-put.near. fire)
High + High:		
H + H -> L-L	tí + pʂí = tì-pʂì	panda (bear-white)

[6] It is not clear at this point whether to relate this morpheme to PTB *kye·l (STC 339), or whether it may be cognate to PLB *V-cit (TSR 27).

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b. Trisyllabic combinations:

<u>High + High + Low:</u>		
H + H + L -> H-L-L	ná + ná + tsì = ná-nà-tsì	bright red, glowing (red-red-sfx)
H + H + L -> H-L-L	mú + phú + diò = mú-phù-diò	tube to blow on fire (fire-blow-door)
<u>Low-High + Low:</u>		
LH + L -> L-L-H	ʁà mú + phò = ʁà mù-phó	almond tree (almond-tree)
LH + L -> L-L-L	bè liú + bz̧à = bè liù-bz̧à	bachelor (young.man-big)
<u>Low + Low-High:</u>		
L + LH -> L-L-H	phò + z̧à piá = phò-z̧à piá	bark of tree (tree-skin)
L + LH -> L-L-R	dè + bz̧ù bz̧í = dè-bz̧ù bz̧ǐ	become smaller (pfx-small)

There are a few borrowings from Chinese with more than one accented syllable (*tá pí fáŋ* 'analogize', *tán kueí* 'Chinese angelica'). There is also at least one object-verb close collocation that has two accented syllables: *zá tʂí* 'winnow' (grain-winnow); this form is apparently treated by native speakers as two words, otherwise it would be the only native H-H form out of more than 1200 disyllables. Certain kinds of trisyllabic and longer words may have two H syllables, indicating that they contain more than one phonological word:

Chinese borrowings:

tsú cén z̧èn 'ancestor'
tíŋ tíŋ má 'dragonfly'

Phrasal words:

sú-dòu-pù-mú
hide?-ghost-do-AGT
'poison cat (kind of witch)'

qaì qá-kì-zuè mé
before-NOM-speech
'story, tale'

Conjoined words:

nà-sá-ɳà-à-qó
two-ten-and-one-CL
'twenty-one'

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New compounds (calques from Chinese):

zɨ qé-tsú
tongue-small
'uvula'

In the Lobuzhai dialect (Wenchuan county), the major tones 55 and 31 can sometimes be pronounced 51, 33, but the variation is apparently not predictable (Wen and Fu 1943:24).

Other Qiangic languages are similarly capricious in the behavior of their pitches and tones. E.g., Pumi (Ding 1998, 1999, Matisoff 1997) has more tones that occur on poly-syllables than on mono-syllables, and tone sandhi cannot be predicted. Likewise, Huang (1991) notes that in Muya, the high tone can alternate with the rising tone in the second syllable of a disyllabic word. Zhaba 55, 33 tones are often pronouced with 53, 31 tones in monosyllables or in word-final position, with no apparent predictability (Dai, et al. 1992 (henceforth *TBL*), p.644).

The Mianchi Mid-Rising tone can be shown to be purely secondary, occurring only in instances of borrowing and coalescence, as in the following exhaustive list of Mianchi MR lexemes found in the data (local Mandarin tones given in parentheses):

Gloss	Mianchi	Mandarin
freshwater clam	pæŋ^{35}-khə̀	Sichuanese [phæŋ^{35} khə^{31}]
spine	pei^{35} tɕí kù	beì (13) jǐ gǔ
wild goose	ŋæ^{35} uò	yě (53?) é
afternoon	mʐe^{35} tsà	(see below)

In addition to the above forms, the initial syllable of *íŋ phɟ* 'earthen jar' is sometimes pronounced [iŋ^{35}]. The development of contour on the first syllable is probably related to the devoicing of the rhyme of the second syllable. However, this is not a regular pattern, hence no rule can be written for this change. 'Freshwater clam', 'spine', and 'wild goose' are all borrowings from Sichuanese Mandarin. The first syllable of 'afternoon' is the only

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native Mianchi syllable with Mid-Rising tone; it clearly results from a combination of *mè ~ mù ~ mú* 'weather morpheme' with something like *ʐe (unattested). In fact, the only other instance of /mʐ-/ in Mianchi is also a case of syllabic coalescence involving this ubiquitous 'weather morpheme'[7]: *mʐì* 'rain' (cf. Taoping Qiang $ma^{31}ʐi^{55}$). While there is no direct evidence for the reconstructed morpheme *ʐe in Mianchi, it has an apparent reflex in Longxi (PSQ[8] *ʐ > Longxi /z/) and possibly in two other Qiangic time words:

Longxi	zà mià	noon
Pumi (Taoba)	$ȵɛ^{35}rə^{55}$	morning
Shixing	$ȵi^{33}ri^{35}$	morning

The High-Falling (F) tone in Mianchi is the second-most common minor tone, with 76 instances in the nearly three thousand words that I elicited. F only occurs on the final syllable of a verb or verb phrase; it cannot be followed by another syllable. In many cases F appears on suffixes such as CAUS (*zî ~ zì ~ zí*):

knock down (wall)	ʂà dʐuà zî
eliminate, die out	tè sì zî
cause landslide	fià dʐuà zî

It may also occur on BOR (*thâ ~ thà ~ thá*, a suffix meaning 'do' which is appended to borrowed monosyllabic verbs):

cover (v.t.)	fià lòŋ thâ
live	χò thâ
surround	fià uì thâ

---

[7] This morpheme appears as the initial syllable in many words related to the sky and weather:

sky	mú pià	thunder	mù gó
sun	mè sí	rainbow	mè χoũ
light, brightness	mè cà, mù cà	snow	mù pà

[8] Proto-Southern Qiang.

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F also occurs on the first and second person agreement/future tense marker FUT:1,2 (*uâ ~ uá ~ uà*):

frighten (FUT:1,2)	sɨ uâ
embrace (FUT:1,2)	mì ŋà uâ
clear, obvious (FUT:1,2)	sɨ uâ

In many instances, High-Falling occurs in free variation with the High level tone:

complete, finish	tɛ̀ ɕô ~ tɛ̀ ɕó
tingle	tshù tshû ~ tshù tshú
recall	tɛ̀ bɛ̀ dʐoû ~ tɛ̀ bɛ̀ dʐoú ɕà

'Recall' demonstrates the fate of High-Falling tone in discourse, as High-Falling tone can only occur on the last syllable of a verb phrase. If a syllable with underlying High-Falling tone is followed by another morpheme, it loses its tone and has only accent (or one could say that it loses its contour and has only High register and high pitch). Because of this fragility, out of more than five hundred sentences elicited in Mianchi, only one sentence contains a High-Falling tone:

ɦà-í ù-kù ʑiê.
3-s has.just slept
S/He just slept.

The exact origin and meaning of this morphological tone are not clear. Nevertheless, it is clearly of recent origin, given that "[h]allmarks of diachronically young tones include *low lexical frequency* and *involvement in morphological* alternations." (Matisoff 1998:18, emphasis his). The restriction of this tone to the final syllables of verb phrases indicates that it has arisen secondarily, and that it may come from either the suprasegmental remnant of a bygone suffix, or it may have an intonational origin. The Qiangic languages have a great tendency to innovate and re-order their verbal affixes (cf. Evans 1998b), so

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there is as yet no principled manner to determine what erstwhile morphological component the Mianchi High-Falling tone may reflect.

4.2.4 Suprasegmentals in other dialects

In addition to Mianchi, there are other SQ dialects in which tone plays a minimal phonological role. **Heihu** (Mao county), a SQ dialect that is near the NQ area, uses tone only to distinguish Chinese borrowings from native words and from other borrowings (Liu 1998a). According to Wen Yu, **Jiuziying** is a pitch accent dialect:

> The unpredictability of tones is also noticeable. Only when two or more syllables are in juxtaposition is a pitch-accent definitely required, especially for homophones... (Wen 1950: 21)

He cites the following Jiuziying minimal pairs, for which I have included cognates from Taoping, Longxi, and Mianchi. I have changed Wen's postvocalic tone marks to be consistent with those used in the Longxi and Mianchi data. There are apparently no monosyllabic minimal pairs. For the forms cited, there is no apparent regular correspondence among the tones.

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Table 4.5. Jiuziying tonal minimal pairs and Southern Qiang cognates

Gloss	Jiuziying	Taoping	Longxi	Mianchi
last year	nɤ́ pɤ́	ɳi^{31}pə^{33}	ná pù	né pù
two years	nɤ̀ pɤ̀			
pheasant	í dzú	i^{31}dzy^{241}	ỳ-zó	
friend	ì dzù		ì zù ~ ỳ zù	ì dzòu
inside	kò kò	ko^{55}ko^{33}	kù kú	qò qó
elder brother	kó kò		à kò	qó qò
uncle	pà pá	pe^{33}pe^{33} (paternal, elder)	á pà	
father	pá pà	pɑ^{55}pɑ^{33}		

Unfortunately, these forms represent the total of the suprasegmental Jiuziying data that are given. Nevertheless, whatever the exact nature of Jiuziying pitch phenomena, it is clear from Wen's remarks that tone is a phonological feature of minimal significance, and that something closer to word tone or pitch accent is at work, rather than the standard syllabic tone of a language like Mandarin.

In Hou'ergu (Li county) tones are variable on monosyllables; e.g., *t'ie* 'eat' occurs with three different tones, depending on the directional prefix: *sʅ^{33} t'ie^{53}*, *sʅ^{33} t'ie^{21}*, *dæ^{5} t'ie^{33}*). However, tones are stable on polysyllables, pointing to a word tone system in this dialect. Unfortunately, Wen was not able to perform a comprehensive analysis of the tones of Hou'ergu, and wrote that further analysis is needed to distinguish tone and intonation (Wen 1945:134-7).

In contrast to the tonal and semi-tonal systems of Southern Qiang, NQ dialects have lexical stress; Liu has described stress in the Mawo dialect as predominantly occurring on the first syllable of polysyllables (Liu 1998a, 1998b), although there are a few minimal pairs that are distinguished by stress (examples and Mawo data from Liu 1998a:1):

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Table 4.6. Comparison of Mawo stressed syllables with Southern Qiang forms

Gloss	Mawo	Taoping	Mianchi	Longxi
ear	'nəku	ɳi^{31}kie^{33}	nà ké	ɳì ká
pillow	nə 'ku	ko^{33}	nè kò	ɳì kù
pianniu (yak-cow hybrid)	'khɕi χu	khɕi^{55} (old spkr) tɕhi^{55} (young spkr)		zɨ (possibly not cognate)
paper	khɕi 'χu			
cover (v.)	'a χu		fià qhué	qhú
a box (CL)	a 'χu		χò	χó

The above table clearly shows that stress in Mawo cannot be correlated in a direct way with any particular tone(s) of SQ dialects.

LaPolla describes the stress of the Yadu dialect of Northern Qiang as predominantly trochaic (LaPolla 1996:19). LaPolla and Liu's descriptions are equivalent for disyllables, which account for most of the polysyllabic lexical items in Qiang. Stress is placed irrespective of the semantics of the given syllable; e.g., prefixes are just as likely to carry stress as are free morphemes. The following examples (from LaPolla 1996: 18-19) show that, despite trochaic tendencies, Yadu tone placement is not predictable (note that in 'short' there are vocalic changes that occur with stress placement):

fia	prefix	+	*tʂha*	'deep'	>	*fiátʂhəʐ*	'cause to be deep'
tə	prefix	+	*watsi*	'short'	>	*təwátsi*	'become short'
tɕa	prefix	+	*watsi*	'short'	>	*tɕáwətsi*	'still short'

Full verb phrases are subject to the same type of stress placement as lexical items:

fiá-mə-tɕí-xtʂápə-tɕ	fiá-xtʂəp-ɳike
DIR-NEG-yet-dark-GEN	DIR-dark-CLP
'before it got dark'	'after it got dark'

Unlike Yadu stress placement, and the placement of tones in Longxi and Taoping, Mianchi

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directional prefixes (DIR) may only be accented before verbs with Low-rising tone, with the lone exception of *ʂɛ́ ɳù* 'come out':

lose, be defeated	ʂɛ́ tǐ
darken	ɲá nə̌
contract illness	té tiě
to be in surplus	dé dʐǔ

Before verbs of all other pitches/tones, DIR prefixes in Mianchi are unaccented and toneless.

4.3. Evidence that tone is an innovation in Southern Qiang

As discussed above, each of the key dialects has tones that are clearly of secondary origin. The evidence and arguments in the remainder of this section point to the relatively recent beginnings of SQ tone systems themselves.

It has generally been accepted that the non-tonal NQ dialects more accurately reflect the suprasegmental state of Proto-Qiang, and that phonemic tones in Southern Qiang are an innovation. In this case, the burden of proof is upon those who assert that Northern Qiang did have tones and lost them, rather than on those who do not make this claim. Nevertheless, the following observations are offered to lend further support to the claim that Southern Qiang has introduced tone to an otherwise non-tonal language.

4.3.1. Lack of inherited tone from earlier stages

There is at this point no evidence that proto-Qiangic was a tonal language. On the contrary, as mentioned above, the most phonologically conservative languages and dialects (e.g., rGyalrong, Daofu/Ergong), languages which preserve PTB initials and codas, do not have phonemic tones. rGyalrongic dialects have non-phonemic pitches associated with glottalized or non-glottalized syllables, but no evidence for an established system of

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tonemes. Similarly, it is probable that the pitch variations observed in Ergong (e.g, *ZYC*:218) are also secondary effects of a (non-transcribed) glottalic trait.

With no evidence for tones at the time depth of proto-Qiangic, the origin of SQ tones cannot reasonally be claimed to pre-date Proto-Qiang. In fact, like rGyalrong and Ergong, Northern Qiang, the phonologically conservative sister to Southern Qiang, bears no evidence of ever having had tones. In NQ dialects, even borrowings from Mandarin are toneless (e.g., Yadu *jaŋ sə* 'color'). The complete lack of tonal phenomena in Northern Qiang suggests that tones arose after the Northern and Southern dialects had diverged from each other.

4.3.2. Weak role of tone in tonal dialects

As mentioned in section I, SQ dialects that border the NQ area (e.g., Heihu) use tone to distinguish Mandarin Chinese borrowings; they are not used to distinguish native words from each other. This minimal degree of functionality runs contrary to expectations for a longstanding tonal system. Similarly, Wen Yu observed that tones are not required on Jiuziying monosyllables, hardly a trait of languages with established tonal systems (Wen 1950). Liu (1998a) claims that as one proceeds from North to South across the SQ dialects, the role played by tone in the phonology increases. Nevertheless, even Mianchi, perhaps the southernmost variety of Qiang, and one located far from the influence of the Northern dialects, has essentially a pitch accent system, with true tones occurring on less than five percent of its syllables.

In addition to the dialects in which tones play a minimal role, there is often variation in the tone(s) assigned to a lexeme within dialects that are unequivocally tonal. During at least one elicitation session I recorded the following Longxi 'finger' words:

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finger	*lià cú*	ring finger	*liè-nâ*[9]
index finger	*lié cú*	little finger	*liè-tsá, liè bé*
middle finger	*liè-sé*		

However, during another session the consultant pronounced all five of these forms with high tones on all syllables. These variations indicate that, while tones are phonemic in Longxi, they are much less stable than expected for an established syllabic tone system.

As mentioned above, Lobuzhai tones have variation in their pitch patterns. Wen (1950) cites such examples as so^{31} $ɲi^{31}$ ~ so^{33} $ɲi^{33}$ 'thread'. However, not all forms participate in this variation (e.g., "among the mid-falling tones are those that can be pronounced mid-level" (p24, translation mine)).

Further evidence for the weak role of tone in SQ dialects comes from the widely diverging frequency of occurrence of tones in each dialect, as given in sections 1.1.1 to 1.1.3. In Longxi and Mianchi, Low tones/pitches are about twice as common as High tones/accented syllables, and minor tones occur on only a few percent of the vocabulary. By contrast, in Lolo-Burmese languages, whose tonality can be traced back to the first millenium, tones *1 and *2 occur with virtually identical frequency (Matisoff 1998:9).

4.3.3. Correlation of tone with phonological simplicity

Liu (1998a) claims that the role of tones in the phonology of a given Qiang dialect is roughly inversely proportional to that dialect's consonantal complexity (e.g., presence and number of CC- initials, presence of codas, etc.). This relationship follows typological expectations, as has been frequently noted (Haudricourt 1954, Matisoff 1972, 1973, 1998, Mazaudon 1977, Thurgood 1997, etc.). Within Qiang, the Northern dialects have the most complex syllable canons, and have no trace of tone systems; that is, they are at one extreme

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[9] Cf. Lahu *là?-nɔ=dà?* 'finger=good'. The second syllable of the Longxi form also means 'good'.

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end of Liu's spectrum. Northern Qiang, being in other respects phonologically more conservative than the SQ dialects, has apparently maintained a state that typologically does not give rise to tone systems. The SQ dialects on the other hand, which are phonologically more degenerate and which have simpler syllable canons, possess tones. That is, tonelessness appears to be a conservative trait and tonality an innovative trait within Qiang.

While this observation may hold for many SQ dialects, Taoping, the most oft-cited SQ dialect, does not fit this pattern. It is phonologically more complex than either Longxi or Mianchi, but has been presented by H. Sun as having a clear-cut six tone system. When Liu and H. Sun gathered data in the 1950's, elderly speakers of Taoping still maintained complex initial clusters, which, according to *ZYC*, they pronounced with the same tones as did the younger speakers. Following are H. Sun's examples (*QYJZ*:10) of the differences between the speech of older and younger Taoping speakers. I have included data from two NQ dialects to show how similar the complexity of Old Taoping was to Northern Qiang, and data from Longxi and Mianchi to demonstrate the cluster simplification that has occurred in contemporary SQ dialects.

Table 4.7. Fate of initial clusters in Taoping

Gloss	Yadu	Mawo	Older TP speakers	Young TP speakers	Longxi	Mianchi
new	khsə	khsə	khsi^{55}	tshi^{55}	tchí	sí
comb (v.)	khuɛ^{1} xɐ^{1}	kha^{1} la	khʂuɑ^{55}	tʂhuɑ^{55}	cý	qà tó suí
pianniu	khʂɛ	--	khɕi^{55}	tɕhi^{55}	--	--
hot (spicy)	gzə	--	gzɿ^{241}	dzɿ^{241}	--	zè
plowshare	--	--	gʐue^{33}	dʐue^{55}	dzù	dʐù
light (weight)	gu^{1} tsɛ	gʐə tsu	gzy^{33}	dzy^{33}	dzó	zóu
mountain	--	qhsəp	qhsuə^{55}	tshuə^{55}	--	sù

In accordance with this principle, note that Longxi has merged the PSQ retroflex

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and dental series (Evans 1998a), and that Longxi is much more tonal than is Mianchi. The merger was apparently recent, as obstruents in this series may be pronounced with either retroflex or dental articulation. In spite of the correlation that has been drawn by Liu, phonological simplicity does not by itself predict the role of tone in a given dialect; otherwise Mianchi, which has only three consonant clusters, would be more tonal than Taoping, with 24 clusters in the speech of its younger speakers.

Much like H. Sun's Old Taoping, the SQ dialect data of the 1940's is much more conservative than either of the dialects that I have transcribed. Wen Yu's dialects all have more initial clusters than do Longxi and Mianchi. As an example, Lobuzhai has 22 initial clusters: /bɹ, bʐ, p'ɹ, k'ʐ, gʐ, ɹm, ɹŋ, ʂp, ʂt, ʂk, ʐb, ʐd, ʐg, ʂp, çp, çt, jb, jd, ʂtʂ, ʐdʐ, ççç, k'tʂ'/ (Wen and Fu 1943). Similar to Mianchi and Longxi, it has two major tones (55, 31) and two minor tones (15, 21/11). Hou'ergu (Li county) has at least 21 initial clusters, alongside four tones; however, because Wen and Fu did not present any monosyllabic minimal pairs, it is not clear how tonal Hou'ergu was at that time, or whether it had word tone rather than syllabic tone.

4.3.4. Correlation of tonality and borrowing

> "The function of tones often stands in direct proportion to the amount of borrowing from Chinese [i.e., Sichuanese Mandarin -- jpe]. The greater the proportion of Chinese borrowings in the lexicon, the greater the role of tones in the phonological system." (Liu 1998a:2, translation mine)

The influence of Sichuanese Mandarin on Southern Qiang cannot be overstated. The Qiang villages that are within walking distance of Wenchuan City, the seat of the county of that same name, are all linguistically Sinicized, and there are no speakers of Qiang within them, with the possible exception of a few elderly semi-speakers. Likewise, there is a high ratio of Chinese borrowings in SQ dialects. Liu (1998a) claims that among

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the dialects that she recorded in the 1950's, about 30% of the words in the lexica of SQ dialects had been borrowed from Chinese (e.g., H. Sun 1988 claims that in Zengtou (in the Taoping dialect) 30.2% of 3406 vocabulary items were borrowed), while the figure for NQ dialects was about 10%. The 30% figure that Liu cites no doubt played a large role in the acquisition of tones by the phonologically conservative Taoping dialect. In the dialects for which I have personally gathered data, the rate is much lower; e.g., Mianchi has a rate of borrowing of about 16%, and Longxi about 9%, out of over 3,000 lexical items.

Given these arguments for the late origin of tone systems in Southern Qiang, important questions remain regarding the processes by which SQ dialects became tonal. The following section addresses these mechanisms.

4.4. Process of tonogenesis in Southern Qiang

Classic tonogenesis occurs with the loss of segmental information: segmental distinctions (usually in the initial or coda) are lost, and the distinction that these segments carried (e.g., by voicing) are transphonologized onto the pitch of the vowel. However, tones in Southern Qiang cannot be traced to the reduction of any particular contrasts; they do not correspond to contrasts in initial voicing in earlier stages of the language, nor to the presence or absence of voiced or voiceless proto-finals. Rather, tones in Southern Qiang apparently arose through a three-stage process: first the dialects became increasingly "tone-prone" (Matisoff 1998), then became tonal (to varying degrees) through the influence of Mandarin, and then developed native tones.

SQ dialects have apparently undergone the following six stages in developing tones. Not all dialects appear to have progressed through all six stages; e.g., Heihu has not developed its own tones (the final step).

4.4.1. Lexical stress

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As discussed above, Proto-Qiang did not inherit a system of tones from Proto-Qiangic. NQ dialects have a system of (mostly) trochaic stress on disyllables (Yadu: LaPolla 1996, Mawo: Liu 1998a, b). Although most disyllabic words are stressed on the first syllable, there are a few minimal pairs distinguished by stress (cf. section I).

Southern Qiang still bears evidence of stressed syllables in the tone patterns of native disyllables. I maintain that the fact that the pattern LH is 1.8 to 2.8 times more common than HL in Longxi and Mianchi implies that Southern Qiang once had stressed syllables, apparently with an iambic pattern in disyllabic forms.[10] Of course, this piece of statistical data is merely suggestive. In spite of the equivocal statistics, given the fact that the phonologically conservative Northern dialects have word stress and lack tone and pitch accent, it appears that SQ dialects would also have had lexical stress at the time that they separated from Northern Qiang. The lone counterexample is a disyllabic word shared by Longxi and Taoping that is high on both syllables in both dialects: Taoping *qua*^{55}*te*^{55}, Longxi *qú tá* 'wrap'.

4.4.2. Development of pitch accent

The second phase in SQ supra-segmental development was the change from lexical stress to pitch accent. It is not clear what factors facilitated this shift. Nevertheless, this phase is directly reflected by the prohibition against two accents in a Mianchi word, by the relative scarcity of HH disyllables in Longxi, by Wen's (1950) reference to Jiuziying as a pitch accent language, and possibly by the tones on native forms in Heihu.

In spite of this evidence for a *pitch accent system, establishing exactly which syllables in PSQ were *accented is a non-trivial problem. Within each dialect there is a fair

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[10] This stress pattern would not have been as extreme as it is in Jingpho, in which initial syllables are often reduced to *Cə*. SQ initial syllables have all of the tones and vowels that are found in final syllables, with the exception of certain minor tones which only occur finally.

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amount of fluidity in the pitches or tones of certain words, as noted above. This fluidity leads to unpredictable changes, such as the fluctuations in Longxi 'finger' terms, and Mianchi accent sandhi. High tone/pitch does not correlate perfectly across dialects, as might be expected for a system of pitch accent turned tone. Dialects of pitch accent languages often differ in their accent rules, as seen by a comparison of the Nagoya and Tokyo dialects of Japanese (Haraguchi 1977:59):

Gloss	Nagoya	Tokyo
bamboo	tàké, tàkè-gá	tà ké(-gá)
cherry	sàkùrá(-gá)	sàkúrá(-gá)
head	àtàmá(-gà)	àtámá(-gà)
boots	nàgàgútú(-gá)	nàgágútú(-gá)
to warm	àtàtámérù	àtátámérù

To discern which syllables are in the *accented class I selected sets with cognates of Taoping 55 in all three dialects. There were 139 High syllables in Taoping that had cognates in both Longxi and Mianchi. Of these 139 sets, the following 39 (28%) had High tones/accents in all three dialects (numbers following glosses identify the syllable under comparison):

Table 4.8. PSQ *High syllables

Gloss	Longxi	Mianchi	Taoping	PSQ	PTB (etc.)
bird 2	ì tshá	ì tshé	i^{31}tshie^{55}	*tshV	Guiqiong *tshγ^{55} tshγ^{33}*
breast, milk	ȵà ȵá	ȵà ȵá	ȵy^{55}ȵy^{55}	*ȵa	*nəw (419)
bury	bé	(fià) bí	be^{55}	*be	*bip ~ pip (376)
buy	pú	dè pó	po^{55}	*pV	*par (p35)
cut (vegetable)	tsù tsuá	tʂhù tʂhuá	tʂhu^{55}	*tʂhu(a)	*tśwar (240)
divide	ʁò ʁó	ʐ̩ì ʐ̩oú	ʐ̩u^{33}ʐ̩u^{55}	*Cro	Muya *ji^{35}ruu^{35}*
dry	fiɕ, tà ɕ	ʐ̩í	ʐ̩i^{55}kua^{55}	*ram	rGyalrong *kə ram*

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Gloss	Longxi	Mianchi	Taoping	PSQ	PTB (etc.)
flea 1	tsó ɳ̩ì	tsoú nə̀	tsu^{55}lu^{55}	*tso	Ersu *ntsho^{55} lo^{55}*
folkdance 1	tshó tà-zə̀ mù	soú tà	tshu^{55}tɑ^{55}	*tsho	Muya *tsho^{55} la^{55}*
frog 2	zò piá	dzò-piá	dzu ɑ^{31}pu^{55}mɑ^{33}	*dzV	*s-bal (p15)
gall	tsɨ́	tɕɨ́	χtʂə^{55}	*χtʂə	*(m-) kri-t (412)
head 2	qə̀ bá tsɨ̀	qà bʐ̩á tsɨ̀	qə^{33} po^{55} tʂʅ^{33}	*pa	?cf. TP *bʐ̩ɑ^{33}* 'big'
horn 2	ɻà ká	ʐ̩è ké	ʐ̩ɑ^{33} qə^{55}	*kə ~ qə	*r-ki (STEDT)
hot 1	khú khuá	khué khuè	khye^{55}le^{33}	*khye	
house, home 1	tɕé kù	tɕí	tɕi^{55}ko^{33}	*tɕi	*k-y(i/u)m (53)
ice 2	tsù pá	tsuè pá	tsuə^{31}pe^{55}	*pa ~ pe	Queyu *pi^{55}pã^{33}*
language, speech 2	zə̀ mú	zuè mé	zʅ^{31}mə^{55}	*mV	
lay (egg)	fià tshɨ́	tʂhɨ́	tʂhi^{55}	*tʂhɨ	
learn, teach	só	soú	tə^{31}sy^{55}	*sy	Mawo *sy*, Ersu *so^{55}so^{55}*
name	zə̀ mú	mè mé	χmə^{55}	*χmV	*r-miŋ (83)
new	tɕhí	sí	tshi^{55}	*khsi	Mawo *khsə*
open (eye)	tə̀ phé	phá	phʐ̩a^{55}	*phrV	Ersu *pa^{55}*
rooster	ỳ qú	ì qóu	yi^{31}qu^{55}	*qu	rGyalrong *pkɐi ko*
rot, spoil	tɕý qá	tsuè qá	tsuə^{55}qɑ^{55}	*qɑ	Mawo *tsə qɑ*
shoulder 2	liá χá	ì χé	lɑ^{31}χɑ^{55}pi^{33}	*χa	KMR *k(r)oŋ/k (STEDT)
silver	ŋú	ŋó	χŋu^{55}	*χŋu	*(d-)ŋul (p15)
skin (human) 2	ɻà piá	ʐ̩à piá	ʐ̩a^{55} pa^{55}	*p(i)a	*pya ~ pra (STEDT)
smell, sniff	ɕí tà	mí	χmi^{55}	*smi	Jinghua Pumi *xə^{13}ɳiə^{55}*
smoke, tobacco 2	mù khú, mú-qhú	mù qhué	mə^{31}khuə^{55}	*qhuə, *khuə	*kəw (256)
sneeze (v.)	á tshù-pù	á thiaò-pù	χa^{55} tshye^{33} pu^{33}	*χa	E. rGy. *xa ts^{h}iau*

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Gloss	Longxi	Mianchi	Taoping	PSQ	PTB (etc.)
straight	tí	tí	χtə^{55}	*χtI	Ergong *lthø thɯ*
sun	mù ɕí	mè sí	ma^{33}sɿ^{55}	*si	? *s-nəy (Matisoff 1985)
supper, dinner 2	ɻà tí	ʐà té	ʐɑ^{55}χte^{55}	*χte	
weigh	tɕhì tɕhí	tɕhé	tɕhe^{55}	*tɕhe	*ki:n (369), Lahu chɨ
what	nə̀ ì	ní lè	na^{55}	*nV	Mawo *ɳi ka*
white	phé	pʂí	phʐi^{55}	*phram	PQic *pram (Matisoff 1997a)
who	sɨ́	ʂí lè	sɿ^{55}	*ʂɨ	Ergong *sɯ*
wild pig 2	pià χó	pià χá	pa^{33}χa^{55}	*χa	Yadu *piɛ χu*
yellow	χá	χá, χá χà tsɨ̀	χa^{55}χa^{33}	*χa	? rGy *ksər po* < WT *ser po*

Such a low percentage of correlation does not present obvious evidence for a shared *accent feature; it must be compared with the likelihood of chance correspondence of Highs/accents. 35.3% of Longxi syllables and 27.9% of Mianchi syllables are High/accented. Thus, the likelihood of High pitch occurring by chance on both Longxi and Mianchi cognates of a Taoping High syllable are 9.8% (0.35 x 0.28 = .098). The correspondence in the above chart is 28%, or 2.9 times the expected frequency from chance. Given the fact that the correspondence of High tones is about three times better than chance correspondence, it can be inferred that most of these sets reflect a PSQ *High. Nevertheless, for a given member of this set it is remotely possible that it had a *Low pitch in Proto-Southern Qiang, but then subsequently developed Highs in each dialect.

4.4.3. Phonological reduction of syllable canons and segmental inventories

Even a casual perusal of wordlists from NQ and SQ dialects reveals that contemporary Southern Qiang has a much simpler syllable canon than does Northern (e.g., Table 7).

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The Yadu and Mawo syllable canons are as follows:

Yadu (plain vowels):	(C) (C_i) V (V) (C) (C_f)
Yadu (long vowels):	(C_i) (V) V:
Yadu (rhotacized vowels):	(C) (C_i) (V) (V) V˞ (C) (C_f)
Yadu (long rhotacized vowels):	(C) (C_i) (V) V:˞ (C_f) [11]
Ronghong Yadu:	(C) (C_i) (V) V (V) (C) (C_f) [fric] [glide] [glide][fric]
Mawo (short vowels):	(C) (C_i) V (V) (ˀ) (C) (C_f)
Mawo (long vowels):	(C) C_i (V) V: (ˀ/q [12])
Mandarin borrowings in Yadu and Mawo:	(C_i) V (V) (V) (N)

Yadu and Mawo syllables with rhotacized vowels all have initial consonants; this is due to the fact that NQ vowel rhotacization comes from PQ *r-cluster initials, as seen in the following comparison of Mawo rhotacized syllables with cognates in other dialects (Mawo -ɹ, -˞ are allographs of the same phoneme, as are Yadu -ɹ, -˞ (Evans 1999, chapter 2)):

Table 4.9. Cognates of Mawo rhotacized syllables

Gloss	Mawo	Yadu (Ekou)	Taoping	Mianchi	Longxi
brother (elder)	tə ba˞		tu^{55}bʐɑ^{31}		
big	bɑɹ	bɹɛ	bʐɑ^{33}	bʐà	bɹà
dragon	bə˞k	ʐbə	χbə^{241}		
high/tall	bu˞	bɹɪ		bʐú	

[11] According to Dai 1992:636 (henceforth *TBL*), Yadu has native rhotacized triphthongs with long vowels /iæ:ə˞, iɑ:ə˞, yɑ:ə˞, uæ:ə˞/; however, these are not attested in the data.

[12] There is one instance of a coda following a Mawo long vowel: *ti:q* 'top'.

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In contrast to NQ syllables with both initial and final clusters, and long and rhotacized vowels, the syllables of Southern Qiang are much simpler. Not only do SQ dialects lack all but nasal codas (which are of secondary origin), they have a significantly reduced inventory of initial clusters, and, aside from Heihu, make no distinctions of vowel quantity. While Mawo has 71 initial clusters and Yadu has 50; Taoping has 24. Mianchi has three, and Longxi has only only two:

Taoping (native): $\overset{T}{(C)\ (C_i)\ V\ (V)}$

Taoping (borrowed): $\overset{T}{(C_i)\ V\ (V)\ (V)\ (N)}$

Mianchi: $\overset{T/P}{(C)\ (R)\ (V_i)\ V\ (V_f / N)}$

T = tone
P = pitch
R = /ʂ, ʐ/
V_i = /i, y, u/
V can be nasalized or voiceless
V_f = /i, u/ in native words, and /a, æ, e, ɛ/ in borrowings.
N = /n, ŋ/

Longxi: $\overset{T}{(C)\ (R)\ (V_i)\ V\ (V_f / N)}$

R = /ɹ/
V_i = /i, u/
V_f = /a, i, u, e, o/
N = /n, (ŋ)/

All Qiang codas are of secondary origins. NQ final consonants come from initials of succeeding syllables whose rhymes have been devoiced (Mawo *pa˞ xə*, Yadu *pɑ χʁ˞* 'claw') and then lost (Mawo *a* 'one', *ʂə* 'month', *aʂ* 'January'). SQ nasalized vowels and final nasals come in some cases from Chinese borrowings (e.g., Taoping *phian*^{55}*thɑ*^{33} 'cheat, swindle', Mandarin *piàn*). Origins of other nasals are unclear; however, no final nasals are traceable to PSQ. In the history of Qiang, original PTB *codas were lost, as seen in the

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following cognate sets:

Gloss	PTB	Mawo	Yadu	Taoping	Longxi	Mianchi
pig	*pwak	pi	piɛ	pa^{33}	pià	pià
eye	*s-mik ~ *s-myak	--	mɪj	mi^{55}	ɳ̩í má toù	mù tié ~ mè tié
stone	*rluŋ	ʁlu pi	dzuɑ-ʁl (millstone)	ʁo^{241}	ʁò lû	lò
horse	*s-raŋ ~ *m-raŋ	ɹu	ɹu	ʐ̩u^{55}	ʁò	ʐ̩òu
dream	*r-maŋ	rmu ʁe	ku ʐ̩mu	χmu^{55}	mò zè	mò
high/tall	*m-raŋ	bu^{ˈ}	bɹ, tɪ wɹ	bu^{33}	bó	bʐ̩ú

At least two PTB finals were syllabified by the addition of a succeeding vowel before historic codas disappeared (Mawo, Yadu, Longxi 'iron'; Yadu 'black'). In Northern Qiang, these final syllables could be reduced to codas again (Mawo 'black'):

Gloss	PTB	Mawo	Yadu	Taoping	Longxi	Mianchi
iron	*śam	su^{ˈ} mu	su:^{ˈ} mu	ɕi^{55}	ɕà mó	ɕì
black	*nak	ɳ̩iq	ɳ̩ɹχ, ɳ̩ɹ xᵊ^{ˈ}	ɳ̩i^{55}ɳ̩i^{31}	ɳ̩í	nə

The preservation of PTB *finals through the addition of echo vowels is sporadic: the two sets above are the only instances discovered so far.

Aside from reattached historic codas, NQ codas are of a completely secondary origin, arising from the devoicing and loss of word-final rhymes, which are often still visible in Southern Qiang. The following table shows that NQ sonorant and obstruent finals alike have this origin. The range of vowels corresponding to Mawo final -*tʂ* ('head', 'bedbug', 'bone', 'calf') shows that it is Northern Qiang that has lost rhymes, and not Southern Qiang that has acquired them. In 'July', the final morphemes ʂ/ʂɿ^{33}/lə́/lə are all reflexes of PTB *s-la 'moon':

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Table 4.10. Secondary origins of Mawo syllable finals

Gloss	NQ:Mawo		SQ: Taoping	Longxi	Mianchi
head	qə patʂ	$qə^{33}po^{55}tʂ\text{ɿ}^{33}$	qə́ bá tsɨ̀	qà bʐá tsɨ̀	
bedbug	dzuxtʂ	$dzu^{241}\chi tʂi^{31}$	--	--	
bone	ɹə pætʂ	--	ɹà ká pà tsɨ̀		
calf	dzi ʂputʂ	--	mà lià tsú	ŋò bò tsú	
horn	ɹəq	$ʐɑ^{33}qə^{55}$	ɹà ká	ʐè ké	
July	stəʂ	$ciŋ^{31}ʂ\text{ɿ}^{33}$	ɕí lə́	nə́ lə̀	
meat	pis	--	pià-tshɨ̀	pià-tshɛ̀	
flea	tsun	$tsu^{55}lu^{55}$	tsó ɳì	tsoú nə̀	

This reattachment of codas in Northern Qiang is the third phase in Benedict's syllabicity cycle (Benedict 1983.113). Looking at cognate sets like those in Table 4.10, Benedict observes that the general trend of TB/ST has been to go from PTB/PST *disyllabic (or perhaps "sesquisyllabic") to monosyllabic (e.g., PTB *g-sum = *gəsum 'three' > Taoping *tshi*^{55}), and then from monosyllabic to disyllabic again (e.g., Mianchi *sí qò* 'three' — all single-digit numbers in Mianchi must be followed by classifiers, making them disyllabic). Northern Qiang, due to its trochaic stress pattern, has proceeded to monosyllabicity again via loss of rhymes in final syllables. Thus, it is fairly evident that early in the history of Qiang, the loss of coda position in the syllable lead to the addition of echo vowels, turning (some) codas into second-syllable initials. At a later time, Northern Qiang trochaic stress patterns lead to the devoicing and apocope of final vowels, re-introducing codas.

Aside from some nasals, *codas were never attached in Southern Qiang, greatly reducing the number of possible syllables. This shrinkage of the syllable canon has made Southern Qiang susceptible to the introduction of tones. In addition to the loss of finals, the inventory of initials has also been reduced. This reduction makes finding cognates and establishing sound laws difficult, and may in part account for the low rates of cognacy observed between Qiangic languages (cf. Table 4.12 below).

A further indication of how much the SQ dialects have changed since the 1930's and 40's is Wen Yu's statement that "[f]rom the forms of some words, the Ch'iang seems to

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be older than the Classical Tibetan." (Wen 1941:71)

Considering the complex initial clusters of Taoping's older speakers and of Wen's Lobuzhai and Hou'ergu data (all of which have tones), it appears that the loss of codas, rather than simplification of initials, has played a greater role in making these dialects tone-prone. In SQ dialects there is no hard-and-fast correlation between simplicity of initials and the role of tones.

4.4.4. Increased borrowing from Chinese

According to Qiang oral tradition, their ancestors migrated to the current Qiang areas about 2,000 years ago. During the Shu-Han period (221-263 A.D.) there was a Han Chinese garrison led by General Jiang Wei in Weizhou (modern Wenchuan), indicating that there has been contact between these two groups for at least 1700 to 2000 years.

As transportation has improved, and as the influence of Han Chinese culture has increased, more and more borrowings from Sichuanese Mandarin have been introduced into the Qiang language. A major force for change is that beginning in the early years of primary school, all classroom instruction is in Mandarin. This influence often leads to lexical replacement; in the village of Mianchi, my consultant would quiz others on their knowledge of certain native words such as *tuà liò* 'hammer'. There were no speakers who had the native form in their active lexicon, they could only produce the borrowed form *tʂhuèi tʂhuèi*. Similarly, my consultants' children used Mandarin numerals even when they were speaking Qiang.

In addition to full borrowings, there are words that are half-borrowed and half-native. Borrowed disyllabic verbs are suffixed by *pù* (Mianchi, Longxi), *pu*^{33} (Taoping); morphemes meaning 'do'. Monosyllabic borrowed verbs are suffixed by *thà ~ thá* (Mianchi), *dà ~ dá* (Longxi), or *tha*^{33} (Taoping), a morpheme of unclear semantics. I have labeled these suffixes that are used to mark borrowed verbs 'BOR', 'b' indicates morphemes

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borrowed from Chinese.[13]

Longxi	*gù-dá* b-BOR 'estimate'	Mianchi	*tʂuà-thá* b-BOR 'dip into water'

Borrowings can take native affixes (note the introduction into Mianchi of a word with two high/accented syllables):

Mianchi	*kóŋ sɨ-qà* b-LOC 'store, shop'

or be compounded with native lexemes:

Longxi	*qá-χò là-phən tsɨ* face-wash-b 'wash-basin'	Mianchi	*kaì-phá tsɨ* front-b 'apron'

as well as being borrowed as full independent lexemes (cf section I, *et passim*).

4.4.5. Use of Chinese tones on borrowings

The apparent next step in SQ tonogenesis was the use of Chinese tones to distinguish borrowings. According to Liu's (1998a) description, Heihu is currently at this stage of tonogenesis. She presents the following examples in which tones distinguish Mandarin borrowings from each other:

cæn^{55}	township	*cæn*^{35}	elephant
xo^{31}*xo*^{55}	box	*xo*^{55}*xo*^{55}	cover
cæn^{55}*tʃan*^{53}	township mayor	*cæn*^{35}*tʃan*^{53}	county mayor
min^{31}*tsʅ*^{55}	name	*min*^{55}*tsʅ*^{55}	plastering trowel

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13 In addition to to *t'a* affixed to borrowed verbs, Hou'ergu appends *nə*^{5} to borrowed nouns (*a*^{21} ***wts'ə***^{5} ***nə***^{5} 'one inch', Mandarin ***cùn***), and *ɲi* to borrowed adjectives (*p'i*^{53} *ɲi*^{33} 'flat', Mandarin ***píng***). (Wen 1945:137-8)

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Liu claims that tones also distinguish Mandarin borrowings from native vocabulary. From her examples it appears that the native "tones" are actually accented (High) and unaccented (Low) syllables, as in Mianchi, or that there is a two-tone system, as in Longxi. However, more data than the four native forms included in her paper are needed to establish with certainty whether Heihu has pitch accent on native vocabulary:

native	gloss	borrowed	gloss
xui^{55}	above	*xui*^{35}	meeting
tshu^{55}	cough	*tshu*^{35}	vinegar
tɕhi^{55}	narrow	*tɕhi*^{31}	chess
pa^{31} *pa*^{55}	old person	*pa*^{31} *pa*^{35}	handle

The use of tones to distinguish borrowings from each other and from native vocabulary is common among SQ dialects. The following sets of examples from Longxi and Mianchi show that the reflection of original Mandarin tones in SQ borrowings is not predictable.[14] Although many cases behave like Liu's Heihu examples, where the phonetics of the tone in Qiang approximate the local variety of Mandarin, there are numerous examples in which the SQ phonetics differ from that of the donor language. In the first set of examples below, some tones are those which would be expected, given the local Mandarin tones. A notable exception is the pair 'milk' and 'crowd in', which are the same word in Mandarin. Note that in the pair 'rescue'/'wring' a tonal distinction is also made on the native BOR suffix:

Longxi	take notes	tɕì dà	jì (24)	milk (v)	tɕí (dà)	jǐ (42)
Longxi	rescue, save	tɕoǔ dà	jiù (24)	wring (kerchief)	tɕoù dá	jiū (31)
Mianchi	crowd in	ì tɕì thá	jǐ (42)	deposit, check	ì tɕí thà	jì (13)

14 Likewise, Wen and Fu observe that in Lobuzhai the borrowed word *ɣo*^{31} 'goose' can be pronounced on any tone (Wen and Fu 1943:24)

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In the following pair, Mandarin tonal distinctions are lost by Longxi:

Longxi	pear	lì tsɨ	lí zi (55)	plum	lì tsɨ	lǐ zi (42)

For the following two pairs tones are used to make a distinction not made in Mandarin, as the initial syllables of 'make analogy' and 'compete' are the same Mandarin morpheme, as are 'remember' and 'take notes'.

Longxi	make analogy	pì dà	dǎ bǐ (42) fāng	compete	pì dá	bǐ (42) sai
Longxi	remember	tɕí dà	jì (42)	take notes	tɕì dà	jì (42)

Another verb with the same pronounciation and tone in Mandarin as 'remember' which Longxi has borrowed is *tɕí dà*, 'avoid as taboo'. Note that the tone on the borrowing is different from that of 'take notes'.

In the following Mianchi pair, tone alone is used to distinguish a minimal pair that is both tonally and segmentally distinguished in Mandarin:

Mianchi	monk	χò càN	hé shang (24)	fennel, anise	χò cáN	huí xiāng (55)

Liu (1998a) presents borrowings in Taoping that differ in tone from their corresponding Mandarin words (Some forms differ from the way they are transcribed in *ZYC*. For these words both forms are given; Liu's form appearing first. It appears that in the printing of Liu 1998a all instances of *a* were transcribed a.). Tones are taken from Yang 1984:

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Gloss	Taoping	*Putonghua*	local tones
cupboard	$gu\text{ə}^{33}$	guì zi	(24)
character	$dz\text{ɿ}^{241}$ $dz\text{ɿ}^{241}$, $dz\text{ɿ}^{33}$ $dz\text{ɿ}^{241}$	zì	(24)
wolf	la^{33}, $l\text{ɑ}^{55}$	láng	(31)[15]
bean (kind)	$d\text{ə}^{33}$	doù zi	(24)
chisel	dzo^{241}	zaó zi	(44)

For these forms the tones are completely different from those of local Mandarin. To account for this discrepancy, Liu suggests that they were borrowed from Mandarin before Southern Qiang acquired tone. It is also possible that there were tones in Taoping at the time the words were borrowed, but that the tones have since shifted, as Liu (1998a:7) claims that "Qiang tones are in the midst of change."

4.4.6. Development of "home-grown" tones.

As the syllable canon continued to simplify, and as the number of Mandarin borrowings increased, the role of tones in SQ dialects increased in significance. In Longxi and Taoping, the high pitch became a high tone, with multiple highs allowed in a single word (although still less common than other combinations). In addition, phonological changes led to the development of new minor tones, aside from those that already existed on borrowings. Taoping 241 tone only occurs with voiced initials, and Longxi Low-rising only occurs with voiced or Ø-initials on native words.[16] This restriction no doubt reflects the factors that conditioned the genesis of these two tones; hence, their origins must be relatively recent, and they may have arisen via similar processes. The fact that Taoping 241

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15 Note the loss of nasal final in borrowings. Borrowed lexemes that preserve nasal codas or have nasalized vowels are presumed to be recent; e.g., Longxi *tshuǎN* 'string (of pearls)'.

16 Out of 27 native Longxi words with this tone, there are three exceptions to the voiced-initial rule: *lə́ qhuǎ* 'honeycomb (incomplete)' (probably from PTB *kwa:y 'bee' (STC 157)), *piǎ* 'saliva', *qeǐ* 'first'. The tone on 'first' is clearly the result of coalescence (cf. Taoping $qə^{31}ə^{55}$). 'Saliva' was pre-nasalized in Proto-Qiangic (cf. Ersu $nphs\text{ɿ}^{55}$. Namuyi $mp^{h}i^{33}$ 'spit (v.)'), one of the sources of Low-rising tone (see below). The origin of the tone on 'honeycomb' is not clear.

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must occur with voiced initial consonants (more than 90 instances, no borrowings) strongly suggests that the genesis of this tone involved voiced initials. Given the fact that SQ tones are unstable ("in the midst of change" (Liu 1998a:7)) and often unpredictable, it would be expected that if the 241/Low-Rising tone had a phonetic basis, that evidence for this origin would be imperfectly preserved. It appears that TP 241 and Mianchi and Longxi Low-Rising tones share a common origin (for the sake of convenience, I term this the *Contour tone). Although the data are equivocal, they do suggest that these tones come from *Low-toned or *unaccented syllables with initial sonorant clusters. As these clusters simplified, their (hitherto segmental) distinction was maintained by a new contour tone. *Low/*unaccented syllables without sonorant pre-initials remained low/unaccented. The hypothesis may be written as follows ('R' represents sonorants):

PSQ *R C_i V -> C_i V Contour tone rule (CTR)
[- accent] [+ contour]

Because application of the rule has removed direct evidence for these *clusters from SQ dialects, support is taken from Northern Qiang, Qiangic, and PTB. Due to the inherent instability of tones in Southern Qiang, there are no examples of this tone that occur in all three dialects. Cross-linguistic comparison with tonogenetic processes in other language families shows that these clusters sometimes function differently than other voiced initials with regard to tonogenesis. Thurgood has observed:

> The literature on registers and tones is full of examples in which voiced obstruents have a different tonal effect than do voiced sonorants. Among the Chamic register languages, both the voiced obstruents and the voiced sonorants result in breathy voice in Western Cham, but in Haroi only the voiced obstruents lead to breathy voice — the voiced sonorants retain a clear voice quality; among the Chamic tone systems Phan Rang Cham and Tsat, the voiced obstruents consistently produce a low tone (mediated through a breathy voice stage), while the voiced sonorants consistently have a higher-toned reflex.... In another part of the world, Maddieson (1984:13) notes that in several Chadic languages, the voiced obstruents have different tonal effects than do the voiced sonorants: Podoko (Anderson and Swackhamer 1981), Kera (Ebert 1977), and Lame. (Thurgood 1997:20)

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The similarities between the tonal developments in Chamic and Qiang are striking: not only do both Qiang and Cham have dialects with and without tone, but, like Qiang, tonal Cham dialects have acquired tone under heavy linguistic pressure. The following parallels may be drawn (cf. Matisoff 1998:26):

Table 4.11. Parallels between Cham and Qiang

Western Cham	Hainan Chamic (Tsat)	Northern Qiang	Southern Qiang
sesquisyllabic	mono-syllabic	rich in consonant codas	no native codas (some nasal codas)
phonational	tonal	syllabic stress	tonal (& semi-tonal)
Influenced by sesquisyllabic, phonational Mon-Khmer languages.	Influenced by mono-syllabic, tonal languages (Chinese, Hlai, etc.)	Influenced by coda-rich, toneless rGyalrong, Tibetan	Influenced by tonal Chinese (nasals codas only)

Similarly, it appears that there may be a diffusional relationship between the tone systems of Karenic and Lolo-Burmese (Matisoff 1998:23, 1973:81).

The effect of sonorant pre-initial clusters on tones has also been observed in three Hmong-Mien languages (Zongdi, Liangzi, Lanjin), where prenasalized obstruent initials have produced complex pitch contours in B1 toned words (Wang and Mao 1995, cited in Ratliff 1999). In the Hmong-Mien complex contour tones Wang and Mao describe, the contour and the prenasalization that has provoked it still coexist. As in the Hmong-Mien data, most of the *sonorants involved in the genesis of *Low-Rising tone were nasals, and the reflexes of this tone are the only complex contour tones in all three dialects.

PSQ *RC clusters may be further broken down into two types of clusters, *NC, with a nasal pre-initial followed by an obstruent, and *RN, with an oral sonorant followed by a nasal. In addition to these *RC clusters, it appears that some Mianchi *CR clusters

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may have undergone a similar tonogenetic process by phonetic analogy with the CTR. Establishing the existence of PSQ *RC clusters is not simple, because in most cases direct evidence for the PSQ *cluster must come from other Qiangic languages. Rates of cognacy between Qiangic languages tend to be in the teens, as shown in the following table from Huang 1991, based on the comparison of 1500 lexical items:

Table 4.12. Rates of cognacy among Qiangic languages

	Qiang	rGyalrong	Queyu
Queyu (Xinlong)	16	15	--
Muya	14	15	19
Zhaba	12	14	18
rGyalrong	12	--	15
Pumi (Jiulong)	16	15	22
Daofu	13	13	17
Ersu (Jiulong)	17	14	18
Guiqiong	10	10	12

These rates are so low that for many SQ *low-rising sets, there are no outside supporting forms. In this chapter, only those forms are given where outside support is attested.

*NC- initials

PSQ *NC- is the most common *RC cluster, supported by 'bark/yell', 'bear fruit', 'call/cry', 'urine', 'dragon', 'break', 'smallpox', 'saliva', 'pile up (earth)', and 'collapse'.

'bark, yell, grunt', etc. Taoping lacks the expected tone on 'cry, weep'.

Longxi	zǎ	bark, bleat, etc.
Mianchi	zě	bark, bleat, etc.
Taoping	zɑ^{33}	cry, weep
Mawo	ʁdz̨i	bark (v.)
rGyalrong	kə ŋɐ ndzok	bark (v.)
Namuyi	ndz̨o^{55}	cry out/yell
PQic	*nzVk	
PTB	*zuk	(STEDT)

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'bear fruit'

Mianchi	ʂè dʐă
Taoping	sie^{55}mə^{55}dʐɑ^{241}
Longxi	á zó
Muya	ndʐe^{55}bu^{53}
rGyalrong	wu ʃi kə ndzok

The Longxi form may not be cognate: although Longxi /z/ comes from PSQ *dʐ, *et al.*, but the tone and vowel do not correspond to the Mianchi and Taoping forms. If it is cognate, its High tone has prevented application of the CTR. Regardless of the status of Longxi, the Mianchi and Taoping forms are adequate to establish correspondence.

'cry out, call'

Longxi	ʁuă	also 'cluck'
Mianchi	ʁuă	
Taoping	ʁuə^{33}ʐɑ^{33}	
Mawo	ʁu ʁua	
Ergong	ŋgɛde	
Muya	ŋGɐ^{35}	cry / weep
Namuyi	ŋgu^{55}dzu^{55}	cry / weep
NW rGyalrong	ka◦ŋa mbri	cry / weep

Although the Qiangic correspondences for this set appear unusual, they are not without support: Ergong *ŋgɛ cin*, Taoping *ʁua^{33}*, 'go through (a hole)'; rGyalrong *mbro*, Longxi ʁò, PTB *m-raŋ, 'horse'. There is no explanation for the tone change in Taoping, although Longxi and Mianchi are consistent with the CTR.

In 'urine' Mianchi and Taoping have undergone the Contour Tone Rule; Longxi, because of its High tone, has not. Comparison with other Qiangic languages shows that Proto-Qiangic had an initial cluster, probably *nb, with place assimilation of the pre-initial in Namuyi and Northern rGyalrong, and denasalization in Ergong:

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'urine'		
Mianchi	biě	
Taoping	bie^{241}	
Longxi	bí	
Ergong	lbi	
Ersu	nba$^{\cdot 55}$	
Namuyi	mbɛ^{33}	
N rGyalrong	tə◦rə◦mbi	
PQic	*nbi	(STEDT *C-bi)

'Dragon' had an initial three-consonant cluster, as evidenced by Written Tibetan and Ergong. It is probable that this is an ancient borrowing from Tibetan. Written Tibetan /fi/ in ZYC represents 'a-chung', a Tibetan consonant which probably contained both nasal and glottal components, perhaps /ʔn̥-/ or /ʔə̃-/ (Matisoff 1972:16n). In this case, it was the loss of the nasal component that initiated the Contour tone rule in Taoping, while the rest of the cluster was maintained. High tone/pitch in Longxi and Mianchi blocked the application of the rule in those dialects:

'dragon'[17]	
Longxi	bú
Mianchi	bú
Taoping	χbə^{241}
Mawo	bə$^{\cdot}$k
Ergong	mbʐu
Ersu	ɳ^{33}dzɛ^{55}
Guiqiong	ndʐu^{35}
Muya	ndʐu^{35}
Namuyi	ə$^{\cdot 55}$dʐa^{33}
Taoba Pumi	bʐo^{55}
Queyu	ndʐu^{53}
Shixing	mɐ^{33}dʒuɛ^{55}
rGyalrong	ta rmok
Written Tibetan	fibrug

'Break' is from PTB *N-prat (STEDT project; attested in Burmish, Qiangish, Geman). The difference in voicing between Mianchi and Longxi /ph/ and Taoping /b/ is further evidence that the PTB *nasal prefix and voiceless initial were maintained into PSQ,

[17] This may be related to 'snake', below.

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causing voicing of the initial in Taoping (as in Ergong, Muya, Taoba Pumi, rGyalrong), but not in Longxi or Mianchi (as in Namuyi, Jinghua Pumi).

'break (v.i. of rope, etc.)'

Mianchi	ʂə̀ phə̌	
Longxi	phú phá	
Taoping	bʐe^{33}	
Ergong	bʐe	
Muya	ndʐuɐ^{53}	
Namuyi	mphsi^{35}ŋgɛ^{33}	
Jinghua Pumi	thə^{13}pʐɛ^{13}	
Taoba Pumi	tə^{35}bʐɛ^{35}	
rGyalrong	kə mbrɐt	
PTB	*N-prat	(STEDT)

'Smallpox' appears to be a borrowing from Tibetan that entered Southern Qiang before application of the CTR. All three Qiangic cognates support the reconstruction of an initial *nasal and an *r of some sort, rGyalrong is almost identical to the WT form.

'smallpox'

Taoping	bo^{241}
Mawo	bu^{ˀ}
Guiqiong	sɿ^{55}npɔ^{53}
Pumi (Jinghua)	bʐõ^{13}
rGyalrong	tɐ mbrɐm
WT	lha fibrum

'get, have'. This set is reflected in Mianchi, and in other Qiangic languages.

Mianchi	tɛ́ tiă	get, obtain
rGyalrong	ndo	have
Ergong	ntɕho	"
Muya	ndʑø^{35}	"
PQic	*nto	

'spit, saliva'

Longxi	piă	saliva
Ersu	nphsɿ^{55}	spit (v.)
Namuyi	mpʰi^{33}	"
Pumi (Jinghua)	kʰə^{13} pʰʒɯ^{13}	"
Written Tibetan	dbjugs	"
PQic	*nphiu	

Mianchi and Taoping do not have cognates for this root. These forms appear to be

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reflexes of PTB *N-pat 'vomit', although some may be reflexes of PTB *m-ts(y)il (STC 231) or *m-twa (STC p58), with the labial and dental positions metathesizing between the initial and the prefix, while the features of [nasal], [obstruent] remain unmoved. Aside from *lə̌ qhuă* 'honeycomb (not yet completed)', 'saliva' is the only Longxi native monomorphemic syllable with voiceless initial and Low-rising tone. Given the prenasalized cognates, this anomaly lends further support to the argument that the Low-rising tone emanates from the loss of a sonorant pre-initial.

'pile up (earth)' Proto-Qiangic *nbu. SQ evidence comes only from Taoping.

Taoping	bo^{241}
Longxi	bù
Mianchi	bò
Guiqiong	nbu^{35}
Shixing	bũ^{55}

*RN- initials

PSQ 'forget' and 'lend' both had *sonorant-nasal cluster initials. For the set 'forget', Taoping has preserved the conditioning environment, and has not undergone CTR, because of its High tone. It is not clear why Longxi lacks Low-rising tone for this form. It may have had a High tone (like Taoping) at the time of cluster simplification, and thus would have been impervious to the tone change.

'forget'

Mianchi	dɛ̀ mŭ
Longxi	dà mù
Taoping	χmi^{55}
Ergong	lmu
Jinghua Pumi	thə^{13}ɱə^{13}
rGyalrong	kɐ jməs

There are two other cognate sets in which Ergong /lm/ corresponds to Taoping /χm/: both Taoping forms have high tones, and are thus prevented from undergoing CTR (note that 'name' has High cognates:

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Gloss	Ergong	Taoping	Longxi	Mianchi	PTB
dream	ntshɛ lma	χmu^{55}	mò zè	mò	*r-maŋ (STC 82)
name	lmɯ	χmə^{55}	zè mú	mè mɛ́	*r-miŋ (STC 83)[18]

In Taoping 'lend', which may be a borrowing from Tibetan, the contour tone has shifted to the directional prefix. For reasons not yet clear, Longxi lacks the contour tone.

'lend'		
Taoping	da^{241}ɳi^{33}	
Mianchi	dɛ̀ ŋɛ̌	
Longxi	nì cá	
Ergong	ʐŋi	
PTB	*r-ŋya	(*STC* 190)

For borrowings from Tibetan that occurred after application of the CTR, *RN clusters are maintained, and tones are unchanged, as in 'stir-fry' and 'sunny' (Mianchi 'stir-fry' is of questionable cognacy):

Gloss	Tibetan	Taoping	Longxi	Mianchi
stir-fry	rŋod (WT)	χɳa^{33}	cì cá	(dzì dzá)
sunny	ɣnam taŋ (Amdo)	χɳa^{33}		

*RC- initials

'Stone', 'open (door)', 'wheat/barley', 'sing', and 'collapse' are the only instances discovered thus far of the Contour Tone Rule applying to forms with *r- pre-initial. The Longxi form for 'stone' has an unusual tone. As presented in Section I, Longxi High-falling is extremely rare, with only three instances on lexemes. For reasons not yet clear, the application of the CTR produced a High-falling tone in this instance. This is one of few Longxi forms I have come across to date in which the PSQ *prefix has syllabified (cf. *zè mú* 'name' (Yadu *ʐmə*, Mawo *rmə*, PTB *r-miŋ). It is not clear why the Contour tone rule did not apply to Mianchi, or if it did, why the tone has subsequently changed. Note the

[18] Longxi has syllabified the pre-initial.

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occurrence of the rare rising tone on the Lobuzhai form.

'stone'		
Taoping	ʁo^{241}	
Longxi	ʁò lû	
Mianchi	lò	
Lobuzhai	ɣo^{15} pia^{55}	
Mawo	ʁlu pi	
PTB	*r-luŋ	(STC 88)

For 'open (door)' the CTR has applied in Taoping, even though the PSQ *cluster has been retained. For Longxi, either the rule did not apply, or its tone has since changed.

'open (door)'	
Taoping	χgie^{241}
Longxi	gà
Yadu	z̨ge
Mawo	rga
PQ	*rga ~ rge

'Wheat, barley' (Proto-Qiangic *rlV) may be related to Written Tibetan *gro*. The differing initials of Taoping and Longxi versus Mianchi are additional indicators of the presence of *rl- in the PSQ form. The Written Tibetan form may be a metathesis of PTB *r-ga (James A. Matisoff, p.c.; cf. Lahu *g̈â* 'buckwheat').

'wheat, barley'		
Taoping	ʁuə^{241}	wheat
Longxi	ʁə̀	wheat, barley
Mianchi	lɛ̀	wheat, barley
Mawo	ʁlə	wheat
Ergong	lau	wheat
Queyu	lai^{55}	barley

Among the key dialects 'sing' is supported only by Taoping. However, Ruodazhai has preserved the PSQ *cluster initial (note that PSQ *χ- > *ʁ- / _C [+voice]):

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'sing'
Taoping ʐo^{241}
Ruodazhai ɧžjo
Mawo ʐ̩ɑ˧ mɑ tʃə
PSQ *χʑo

In 'break/snap' Longxi has syllabified the initial, as in 'stone' (above). Yadu preserves the PQ *cluster:

'break/snap'
Longxi ʁə̀ là
Mianchi (té) lǔ
Taoping ʁe^{33}
Mawo ʁe
Yadu dɑ ʁliə
Guiqiong lɛ̃^{35}
PSQ *χlV

The set 'collapse' is an application of the CTR with direct support from Mawo, and additional support from rGyalrong; Longxi has not undergone CTR, or has since reverted to Low tone.

'collapse'
Mianchi ɦà dʐ̩uǎ
Longxi (à) dzà
Mawo ʁdzɑ
rGyalrong kə mtʃɐt
PSQ ʁdzɑ
Proto-Qiangic *mtʃwat

In addition to the foregoing applications of the Contour Tone Rule, there are at least two instances of contour tone generation on a SQ word with *CR- initial ('snake', 'ashes'). Because these forms have retained their *r coloring, I posit that this rule was applied by analogy with *RC clusters, as there is no loss of conditioning factors to condition the tone.

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'snake'

Mianchi	bʐ̩ě
Jinghua Pumi	bɐ^{13}ʐ̩ɑ^{55}
Taoba Pumi	bɐ^{35}re^{53}
Shixing	bɑ^{33}ro^{55}
rGyalrong	kha brɛ
Ergong	mphʂi
PTB	*b-ru·l (STC 447)

It appears that in Southern Qiang, the semantics of 'snake' may have been extended to include 'rope', given the similarity of the forms:

Gloss	Longxi	Mianchi	Taoping	PTB
snake	bù tshɨ	bʐ̩ě	bə^{31}guə^{241}	*b-ru:l (447)
rope	beì	bʐ̩è	bʐ̩e^{33}	

'ashes'

Taoping	mə^{33}bʐ̩i^{241}.
Mawo	tɕi ɕi buʐ̩
Yadu	tɕu xu bu ʐ̩ʉ

Onto the original stock of *Low-Rising forms, Southern Qiang has grafted tones directly from Chinese words, and has added those that have arisen from native words through coalescence, disambiguation strategies, and in Taoping, tone sandhi. It appears that in Mianchi, intonation has also played a role in the expansion of this tone. The degrees to which these three sources of Low–rising tones have exerted influence vary by dialect. In the following discussion, I present these secondary origins for (Low-) Rising forms in Mianchi, Longxi, and Taoping, roughly in decreasing order of impact.

Chinese borrowings.

Out of all 228 instances of Low-Rising in the Mianchi data, at least 62 (27.2%) are borrowings or probable borrowings. In most cases of borrowing, the source syllable is in the Mandarin fourth tone, which in Standard Mandarin (*Putonghua*) is High-Falling [a^{51}], but in local Sichuanese has a low-rising contour [a^{13}].

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Gloss	Mianchi	Mandarin
frame	tɕă tsɨ̀	jià zi
song (CL)	twăn	*duàn*
again	tsaǐ	*zaì*
file (tool)	tshŏ	*cuò*

The tones on these borrowings are stable and are not in variation with major tones, even within utterances. Continued contact with Chinese reinforces the pitch of borrowings, keeping them from being absorbed into other tones.

In Longxi, 13 out of forty syllables (33%) with Low-rising tone are borrowings from Sichuanese fourth tone words:

Gloss	Longxi	Mandarin
chisel	tshŏ tsɨ̀	*cuò zi*
mole, wart	tsɨ̌	*zhì*
vinegar	tshŭ	*cù*
weld	hăn dà	*hàn*

Among the Taoping forms with 241 tone, unlike all other Taoping tones (major and minor), and unlike the Low-Rising tone classes in Longxi and Mianchi, there are no borrowings from Mandarin. This lack is no doubt due to the fact that the phonetic shape of this tone is so different from any found in Sichuanese (or standard *Putonghua*). However, in the Taoping 13 tone 39 out of 41 instances are borrowings from Chinese (95%), indicating that this tone is a borrowed tone (examples given in 1.1.1).

Coalescence of syllables.

The following two Mianchi lexical items show the emergence of Low-Rising tone due to coalescence, which in the second case involved haplology (with the pitch contour changing from H-L to Low-rising). In the case of 'ancient times' the reduction of a full syllable to a mora parallels the apocope of vowels in NQ dialects (cf. 4.4.3)

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ancient times	qé ì sì sì ~ qaǐ sì sì
soak, immerse	fià tɛ̌ ~ fiǎ tɛ́ tɛ̀

In the following Mianchi sentence, the tone on *qǎ* 'already' is clearly secondary, resulting from the coalescence of the two syllables *qé ì* into one; these two syllables appear in free variation with *qǎ* [~ qaǐ] in the phrase *qé ì sì sì ~ qaǐ sì sì* 'ancient times'.

ù kì qɛ̀-brì-tsì tæ̀ bz̧à qǎ mɛ̀?
2s POSS child UP big already Q
Has your child grown up (already)?

In Longxi, there are also a few instances of Low-Rising that have resulted from the coalescence of two syllables:

without (v.i.)	*mǒ* (< *mò fió* 'there is not' < *mì + ŋó* NEG + EXIST)
speak, tell	*ǎ-* (< *qá ɻà*)

Coalescence has not been observed in Taoping as a source of 241. This may be due to a lack of recording of variant forms.

Disambiguation strategies.

Another function of LR and 241 tones is the disambiguation of native vocabulary. I have observed this process in Longxi and Taoping, and it may be present in Mianchi also. For the following Longxi verbs (an exhaustive list), the DOWN prefix /fià/ is pronounced with Low-Rising tone to disambiguate the Low-toned verbs to which it is attached from homophonous verbs which take the same directional prefix. This is surprising because directive prefixes are often chosen for their disambiguating properties; *viz.*, homophonous verbs often require different orientational prefixes from each other (Evans 1998b, *et al.*). It appears that in the case of the following pairs of Low-toned Longxi verbs, speakers sense that their semantics require all of them to take the DOWN prefix, which causes a shift in

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disambiguating function from prefix *selection* to prefix *tone*. These are the only instances in the SQ data of a directive prefix occurring in a minor tone. In fact, the High tone on the prefix of 'penetrate' is also marked, as DIR almost always take the Low tone. It appears that Longxi speakers are employing both Low-Rising and High tones in this disambiguating function. The verbs are listed with their homophones, which in some cases (penetrate/sink, ripe/aged) appear to be cognate.

complete	fiă tù	reduce	fià tù tú
penetrate	fiă tì ~ (fiá) tí tí	sink (v)	fià tì
reduce (swelling)	fiă gù	fall into trap	fià gù
ripe	fiă peì	aged, elderly	(fià) peì

In Taoping, the following pairs of words are disambiguated by the opposition of 241 and a major tone whose register is also Low. As in the Longxi cases, the words in each pair are in the same syntactic class.

back of body	de^{241}	hoop	de^{33}
bowl	$ʁu^{241}$	goose	$ʁu^{31}$
rest	$χbɑ^{241}ɳi^{31}$	think	$χbɑ^{33}χdʐu^{33}$
right (side)	$χdɑ^{241}$	deer; fat/oil	$χdɑ^{33}$
turbid/muddy	$ʁuə^{241}$	late	$ʁue^{33}$

Tone sandhi

Another source of 241 tone syllables in Taoping, not seen in the other dialects (and not discussed in Liu 1998), is tone sandhi. Taoping, like Mianchi and Longxi, has irregular and unpredictable tone sandhi. However, only Taoping makes regular use of a minor tone as a sandhi tone, as in the following names for months (the final syllable in each form means 'month', and is unchanged from its citation form):

$ʁuɑ^{33}$	'five'	+	$ʂʅ^{33}$	'month'	=	$ʁuɑ^{241}ʂʅ^{33}$	May
$χguə^{33}$	'nine'	+	$ʂʅ^{33}$	'month'	=	$χguə^{241}ʂʅ^{33}$	September
$χɑ^{31}dy^{33}$	'ten'	+	$ʂʅ^{33}$	'month'	=	$χɑ^{31}dy^{241}ʂʅ^{33}$	October

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Like the tone sandhi phenomena observed in Mianchi, Taoping sandhi is far from regular, as Taoping has many instances of 33 toned syllables in sequence:

mi^{33}tsie^{33}	blunt (< *mi^{33}* 'not' + *tsie^{33}* 'sharp')
χgy^{33}χgy^{33}	round
ʐɑ^{33}pu^{33}	cave, hole
χde^{33}le^{33}	fog

Intonation patterns

In Mianchi declarative sentences, final unaccented syllables are sometimes pronounced with Low-Rising tone. However, most unaccented morphemes do not have Low-Rising allomorphs, and among those that do there is no way to predict whether a particular sentence will have a Low or Low-Rising final syllable:

fià-ŋá à-zí djù qɛ̀.
3-p 1-POST speak already.
They already spoke to me.

fià-jí fià tɕí-thà qɛ̌.
3-s DOWN memorize-BOR already
S/he memorized (it).

Because this phenomenon is restricted to sentence-final position, I have termed it an intonation pattern, although further study is needed to discern the exact nature of this pitch behavior.

4.5. Some possible tonogenetic influences on PSQ *pitch accent

In Table 4.8 I have presented evidence for a PSQ category of *High (or *accented) which developed into Longxi and Taoping High tones, and which remained accented in Mianchi. Having thus correlated these Highs/accents with each other, the question remains whether there is some phonetic motivation for the SQ High category. As has been widely noted, in cases where tonogenesis is conditioned by changes in initials, voiceless initials

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almost invariably yield higher tones than do voiced (Haudricourt 1954, Mazaudon 1977, Hombert, Ohala, Ewan 1979, Matisoff 1998, etc.). The present data suggest a similar relationship in the development of the PSQ *accented or *high category, although it is not the same as syllabic tone. Table 4.8 demonstrates that there is a statistically significant occurrence of voiceless initials on PSQ *high words. Setting aside PSQ clusters *phr ('open', 'white'), *χm ('name'), *sm ('smell'), and *χŋ ('silver'), where there may be a mix of voicing (the voicing status of PSQ pre-initial *χ is not yet clear), there are 27 *voiceless and 7 *voiced initials in the set. This ratio of 3.9:1 is a much greater spread than is found in samples of the major tones of the extant dialects (note that even if the instances of the four excluded clusters are all counted as voiced, the resulting ratio is 27 to 12 or 2.3:1). The following chart, based on a sampling of each dialect, gives relative frequencies of voiced and voiceless initials for the major tones. For each tone in each dialect syllables were counted until there were 100 instances of a voicing type. For each major tone, voiceless initials significantly outnumber voiced initials:

Table 4.13. Southern Qiang major tones and voicing of initials

TP 55 tone	TP 31 tone	TP 33 tone	LX High tone	LX Low tone	MC High tone	MC Low tone
vl - 100 vd - 51	vl - 100 vd - 95	vl - 100 vd - 83	vl - 100 vd - 66	vl - 100 vd - 78	vl - 100 vd - 76	vl - 100 vd - 85

The above table shows that for each of the three dialects, voiceless initials are more common than voiced in major tones. The rule does not apply to Longxi Low-Rising and Taoping 241, minor tones that only occur with voiced initials. In each dialect the greatest discrepancy between voiced and voiceless initials occurs in the high tone. Taoping has the greatest difference, with voiceless initials about twice as common as voiced on high-toned syllables. Nevertheless, even this discrepancy is smaller than the ratios of 2.3:1 or 3.9:1

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observed in the PSQ *High series. Thus it appears that at the time of PSQ, *High syllables occurred with voiceless initials with at least as great a frequency as they do in modern Taoping, although voicing cannot be used to predict pitch.

Superficially, this distribution could be used to argue that PSQ developed a phonemic high tone, conditioned by voiceless initials. However, there are at least four arguments against this position. First, Southern Qiang would have undergone a shift away from tone and toward pitch accent in Mianchi and Jiuziying, and a complete disappearance of phonemic tone from native vocabulary in Heihu -- all under the tonogenetic conditions of simplification of the syllable canon and increased borrowing from Mandarin. Second, the proposed SQ *High tone would have been very unstable; e.g., 71.2% of high tone syllables in Taoping do not have highs on both cognates in the other two key dialects. This type of capricious tone change is highly uncharacteristic of syllabic tone systems. Third, there was no systematic loss of syllabic information from Proto-Qiangic that would have conditioned the evolution of this tone. That is, PSQ *High does not correspond to any particular feature of Proto-Qiangic syllables. rGyalrong cognates of SQ *High forms cited above are presented in table 4.14 to substantiate this claim. Note that cognate rGyalrong initials may contain sonorants or voiceless obstruents, single consonants or clusters, and that syllables may be open or checked:

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Table 4.14. rGyalrong cognates of PSQ *High syllables

Gloss	Longxi	Mianchi	Taoping	rGyalrong
breast, milk	ɳà ɳá	ɳà ɳá	ɳ̡y^{55}ɳ̡y^{55}	tə nu
cut (vegetable)	tsù tsuá	tʂhù tʂhuá	tʂhu^{55}	ka ra ntsik
divide	ʁò ʁó	ʐ̡ì ʐ̡oú	ʐ̡u^{33}ʐ̡u^{55}	ka kro
dry	fiə́	ʐ̡í	ʐ̡i^{55}kua^{55}	kə ram
frog 2	zò piá	dzò-piá	dzuɑ^{3} ^{1}pu^{55}mɑ^{33}	kha ʃpa
gall	tsɨ́	tɕɨ́	χtʂə^{55}	tə mdʒə kri
house, home 1	tɕé kù	tɕí	tɕi^{55}ko^{33}	tə tʃəm
name	zə́ mú	mɛ̀ mɛ́	χmə^{55}	tə rmɛ
rooster	ỳ qú	ì qóu	yi^{31}qu^{55}	pkɐi ko
silver	ŋú	ŋó	χŋu^{55}	po ŋi
smoke, tobacco 2	mù khú, mú-qhú	mù qhué	mə^{31}khuə^{55}	tɐ khə
straight	tí	tí	χtə^{55}	ka sto

That there is no correlation between these consonant types in rGyalrong and the evolution of PSQ *High is evidenced by the many cases of rGyalrong sonorants and voiceless obstruents that correspond to PSQ *Low, as in the following representative sets:

Gloss	Longxi	Mianchi	Taoping	rGyalrong
be/copula	ŋ̊ù	ŋuɛ̀	ŋuə^{33}	ŋos
drum	bò	bù	χbu^{241}	tə rbo

Fourth, given the fact that voiceless initials are also the most common phonation type of Low pitch syllables, voicelessness cannot be considered a determining feature for *High Nevertheless, it does seem that PSQ syllables with voiceless initials had a greater *tendency* toward High pitch than did those with voiced initials. The development of *pitch accent in Southern Qiang was apparently influenced by the phonetic properties of tonogenesis.

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4.6. Suggestions for further research

The next step in understanding the genesis of tones in Southern Qiang would be to re-survey the SQ villages where data were collected in the 1930's, 40's and 50's, and to discover how these dialects have fared under increased linguistic pressure from Mandarin. It is very likely that semi-tonal dialects (e.g., Jiuziying, Heihu) have reduced their inventories of initial clusters in the past few decades as a result of this influence and have moved much closer to developing syllabic tone. Furthermore, in pitch accent dialects like Mianchi, where the speech of younger generations includes an increased number of lexical replacements from Chinese, it would be insightful to survey older, middle-aged, and younger speakers to discover whether younger speakers have begun to allow two high pitches on native words, which would indicate a shift toward syllabic tone. No doubt there are many unexpected results that would come out of such research. Huang Bufan reported at the Workshop on Qiangic Languages and Linguistics (Academia Sinica, Taipei, November 6 - 7, 1999) that the tones of Taoping are much different now than the way that they were reported in 1950's. At that same meeting it was reported that while 70% of the Taoping speakers spoke Qiang in the 1950's, only 30% do so now.

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Chapter V. Conclusions and further directions

5.1 Conclusions

The data and analysis presented in this dissertation lead to several conclusions. First, it is clear that the traditional generalization that NQ dialects are more conservative than SQ bears revising. It is true that NQ dialects preserve many archaic features, such as complex cluster initials; nevertheless, *r- initials and clusters are often better preserved in SQ dialects, as evidenced by the following sets, taken from the appendix (cf. Table 2.15):

Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	notes
ax	tà í	tè ʐ̩ì	χta^{31}ʐ̩i^{55}	sta L ʐ̩i H	sta:ˀ	stɛj	< WT *sta ri*, from STC 22 *s-ta 'knife'
tall, high	bó	bʐ̩ú	bu^{33}	br o/u (H)	buˀ	bɯ, tu wɯ	JZY bru. *m-raŋ (146).

For 'tall, high' note that Yadu, considered to be less conservative than Mawo, has preserved the initial cluster, while Mawo has transphonologized *br to bVˀ.

As shown in chapters II and III, Longxi tends to be the least conservative of the SQ dialects. Nevertheless, in the case of 'iron', it reflects the PTB form more closely than does Mawo, often considered the most conservative NQ dialect: LX *cà (mó)*, MW *suˀ muˀ*, PTB *syam (228). There are many instances in which NQ has innovated final /-ˀ/ (also transcribed -ɹ, 2.1.1.1). For the following sets, it is not clear what phonetic motivation may be offered to explain the occurrence of NQ final rhotics:

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Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	notes
house, home	tɕé kù, qò, ké	tɕí ~ tɕì qó	tɕi^{55}ko^{33}	tɕ e/i H k/q o (L)	tɕi, qu:^{1}	tɕɪ	*k-y(i/u)m (53).
strength	qú			qu -	gə^{1} qu^{1}	qu	Cf. PLB *k-ra^{2} (WB ʔâ, LH g̃â ('strength', CL for person).

That these forms lacked rhotics in Proto-Qiang is suggested by their Qiangic cognates:

'home'
Muya tɕe^{55}khu^{53}
Namuyi jy^{55}qo^{33}
Queyu jɛ^{55}ku^{55}

'strength'
Pumi (Jinghua) qa^{13}
Pumi (Taoba) ka^{35}

Not surprisingly, it is much more common that NQ forms retain evidence for a medial *rhotic that has been lost in the SQ data:

Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	notes
blue	phú			phu -	phiɑ^{1}wa		Jinghua Pumi *pʒa^{55}*
man (male adult)	biè phà	bè liú	ba^{33} phe^{55}	bE L ph a/e -	bə^{1} ɸu		Ergong *bzɯ.*
shave	khuá			khuɑ -	khua^{1}	khuɛ^{1}	Muya *ɣui^{53}*, Pumi (Jinghua) *ʐi^{55}*

The data in these two tables show that *ɹ* in Northern Qiang corresponding to Ø in Southern Qiang is ambiguous. Reconstruction of Proto-Qiang will require case-by-case peeking at outside Qiangic data in order to resolve this ambiguity.

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Another conclusion that should be drawn from the data and discussion in this dissertation is that a second model of tonogenesis is needed. In this model (applicable only to certain languages), external linguistic pressure from a tonal language combines with existing prosodic features and a tone-prone syllable canon to bring about the existence of syllabic tone. While other accounts of the origin of East Asian tone systems do take into consideration the influence of languages such as Chinese, the discussion presented here is the first documented case of which I am aware in which tonogenesis has occurred without any concomitant loss of segmental information.

5.2 Suggestions for further research.

The present work is a significant first step toward reconstructing Proto-Qiang. The reconstruction of Proto-Qiang will present a more unified and ancient basis for comparison with other Qiangic languages. It will also make clear what sound changes occurred between PTB and PQ. In order to accurately reconstruct Proto-Qiang phonology and lexicon, extensive data from more dialects are needed. Ideally, lists of 3,000+ words in five to seven SQ dialects and four to five NQ dialects would provide a solid basis for reconstructing PQ etyma, and for teasing out the influences of Mandarin, Tibetan, and rGyalrong. This reconstruction of Proto-Qiang would play a crucial role in determining which other languages should be considered Qiang's nearest relatives.

The great discrepancies in the phonologies of H. Sun's and Wen's data on the one hand, and the much simpler Mianchi and Longxi data on the other suggest that SQ dialects are rapidly losing initial consonants and clusters, and perhaps becoming more tonal. In order to resolve this question, I would like to suggest a re-surveying of the dialect locations that were investigated in the 1930's and 50's. A comparison of these two bodies of data should compare phonological features, including tones and clusters, as well as the degree of lexical replacement. Ideally, the samples would include the speech of older, middle-aged,

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and younger people, in order to most accurately ascertain the rate of lexical replacement and phonological change. As an example, a survey of Mianchi would show that *ɬ* ('moon') is preserved in the speech of older speakers and middle-aged women, but not in the speech of middle-aged men or young speakers. It would also show that young speakers often use the Chinese numeral terms. It is hoped that by compiling the characteristics of the speech of three generations in a village, and by comparing it with the speech of forty to sixty years ago, we will gain some insight into the rate of phonological and lexical change. As mentioned previously, Qiang seems to possess the distinction of increasing in number of speakers at the same time that the language is dying. A longitudinal study like that recommended here would help quantify the rate at which Qiang is disappearing as a language.

The third project that I would like to suggest would be to perform a morphological survey of Northern and Southern dialects, similar to that done by Wen Yu for pronouns (Wen 1941) and by Evans for verbs (Evans 1998b), but on a larger scale. A comparison and reconstruction of PQ morphology could be combined with a lexical and phonological comparison to determine how Qiang should best be divided into dialects and sub-dialects.

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Appendix A

Qiang cognate sets with Proto-Southern Qiang reconstructions

Introduction

PSQ reconstructions are given with spaces between the *initials and *rhymes in those cases that have multiple possibilities for one of those elements. Reconstructions that are unambiguous are written without spaces. *Tones are always preceded by a space, to prevent the interpretation of 'L', 'H' as finals. For a summary of PSQ correspondences, cf 3.4. No attempt is made in this present work to systematically relate NQ cognates, either to each other, or to SQ forms. There are some sets ('ant', etc.), which only have NQ support, and for which no PSQ reconstruction is suggested. There are also some sets ('height', etc.) for which the reconstructions are semantic, rather than phonological. For these sets, reconstructions are of the form 'high'-'low', etc. There are also sets with just one SQ form and a PTB reconstruction ('burn 2'). *Pitches/tones are only reconstructed in cases where there are at least two dialects showing a tone/pitch, and no counterexamples. If there is one counterexample the tone/pitch is reconstructed in parentheses: '(L)' or '(H)'. If the data are equivocal, the PSQ pitch is represented by a hyphen "-."

Reconstructions in the 'notes' field are PTB roots from STC; set numbers and page numbers refer to that work, except as noted. Reconstruction of *vowels is often a non-trivial task. There are many sets which are clearly cognate, but in which it is not possible to tell whether to reconstruct *i or *ɨ, e.g. In equivocal cases, the *vowel is reconstructed *i/ɨ. In other cases, the cognates suggest that some type of non-back non-low vowel should be reconstructed, but it is not possible at this time to further refine the vowel to be reconstructed; here I have proposed *I. Similar situations occur for other places of articulation. In instances where it is not at all possible to refine the *vowel, I merely reconstruct *V. There are also sets with strong support for variation, where more than one

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vowel is well supported, but in which the forms are so similar that it seems inappropriate to separate them into separate cognates; e.g.,

Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu
carry with pole	tuì	tuì	qə^{55}tuə^{33}	tui ~ tuə L	tʏ	tuə

Naturally, some sets that are missing data from a key dialect are ambiguous -- Taoping is the only SQ dialect to preserve the *a/*ɑ distinction; if support only exists in Longxi and Mianchi, then *a is reconstructed. Where applicable, NQ forms are used to disambiguate PSQ *vowels. For many *clusters, Jiuziying fortis initials are the only evidence for retention of those clusters into PSQ. *Clusters are only reconstructed in those cases with direct evidence for them in SQ, usually from Jiuziying or Taoping.

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
1	a time (CL)	dù	doú		d u/ou -			
2	ache		dzí		dzi -		zdzɪ	
3	add (salt)	(tshɬ) ʁá	(tshɬ́) ʁé		ʁ a/e H			ml = 'salt'
4	adult	mù bà	bʐà mù		'big person'			Both mean 'big person', although the morpheme order is different
5	again	thó dà ɕɪ		ɕi^{33}; ɕy^{33}	ɕ i/y -	ji		
6	age	pù sù	ʂù		pu - ʂu L	pə	ʂuəs	
7	ago, before	qè í	dɛ̀ qɛ̀		qe L		qəə' qəə' tɑ ('in ancient times')	
8	agree	ʁò	ʁoù		ʁo L		ʁu	
9	AGT suffix	mù	mù ~mú	mə^{33}	mu (L)			probably from 'person'.
10	alive	sè	ʂà		ʂ e/a L	ha qhsi	qhsuə	PSQ *ʂ may come from PQ *qhs.
11	alone		à-qó-tsɬ		q o/u -		stu xɣ tʃu	Yadu [x] is allophone of /q/

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
12	also, and 1	ná	ɳà	nə^{33}	na (L)			TP appears to have undergone sound changes that are common to functors, changing *a to /ə/. 'Also' is the only form in which /ɳ/ in Mianchi corresponds to /n/ in Longxi and Taoping. At present I have no explanation for this apparent palatalization, other than the unpredictability of phonological developments in functors.
13	also, and 2		lɛ̀		le -	l̩	lə (RH)	
14	among, between	tɕì gó	gó tì	go^{33}go^{33}	ti L go H	tiu ɣu	ɹɛ gu̧	also 'middle' *s-tay (299)
15	angry	tə̀ qù tɕhì	tɛ̀ kuò tɕhì	ko^{55}pho^{33}	k u/o (L) tɕhi L	khuə khua	tə khue (RH)	Both NQ and SQ use UP prefix with this verb.
16	animal pack's worth	kuà	kuí		k uV -			
17	ankle	(pà qə̀)	lò sɨ́ kuè		kue -		lo sə kuæi	
18	answer, reply	guà		χgye^{33}	χgye L	hujɑ	hɛ quez̧ guə	
19	ant					tiu ku	tɕu khu'	SQ forms borrowed from Chinese

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
20	anus	tshɔ́ qə́-(zà pù)	tɕhè zò-ʐ̩è pú		'feces' 'hole'	qhʂo ʐu	qhʂə ʐ̩ʉ	SQ buttocks-hole. MC has undergone a tone change in m1
21	appear	sɨ̀ tɕy̌	ʂè tɕǐ		tɕ i/y L			
22	appear-ance, shape	qə̀ bú	bú		bu H			
23	apply (ointment, etc.)	mú má	mà		mɑ -		mə mɑ	*rhyme is based on NQ
24	arm 1	liè mì			l V -		lo pu	?*lak (86). ?*mu·k (394)
25	arm 2		í dʑè		dʑe -	dʒa pu, dʒu pu		
26	arm 3					dʒapu, dʒu pu	lo pu	NQ *pu
27	arm 4 (remove?)	(liè mì)	í dʑè	i^{55} $sɑ^{33}$	i H		jɑ pɑ 'hand'	JZY ji.
28	armpit	zá ká mʉ̀	dzà kɛ́	$dzɑ^{33}χqɑ^{33}$	χqɑ (H)	dʒæ βlæ ʂqul	zdzi xqɑ	?*g-li ~ *k(a)li (265). ?*mu·k (394)
29	arrange, put in order	sɨ̀			sl -		ʂe	
30	arrive	pà gə́	((dɛ̀) phɛ̌)		p a/e L		kɛ pɛ	
31	arrow	-	lə̀	$lə^{33}$	lə L	ɣdʒa (<WT?)	jə	*bla (449)

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
32	ashes	mù-bè	tɕiè-bè zɿ	mə^{33}bz̩i^{241}	br i/e L	tɕi ɕi buz̩	tɕu xu bu z̩ʉ	LX, TP m1 = 'fire'
33	ask	(tə) zà zí	dz̩ɨ dz̩í	dz̩ɑ^{31}dz̩ʅ^{33}	dz̩ɑ L dz̩i (H)	dz̩ɑ	(kɛ rɛ)	Two syllable etymon. MC has lost the *ɑ syllable and reduplicated the *i syllable.
34	askew, slanting	dà qhuá		(tɕhye^{55} qɑ^{55})	qhuɑ H	qhuɑ	dɑ qhuɑ	
35	autumn, winter	sò qeí	só qè	sio^{33}ko^{33}	s (i)o (L) qe (L)	mu ʂu	suəχ 'winter'	cold-m ('season'?)
36	awl	ŋ̩ò			ŋ̩o -		ʁɛ ŋ̩ɛ	
37	ax	tà í	tè z̩ì	χta^{31}z̩i^{55}	sta L z̩i H	sta:'	stɛj	< WT sta ri, from STC 22 *sta 'knife'
38	back basket	gú			gu -		guə', (ɑ) z̩gʉ (a basket-ful)	
39	back of body 1		dé	de^{241}	de -			
40	back of body 2	tsò bò			bo -		tsup (poss-ibly cognate with m1)	m2 < *g/b-liŋ~g/b-lyaŋ
41	back, behind		dè læN tà	χde^{33} tɑ^{33}	χde L			

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
42	backstrap	bià dzí	bà dì		b ia/a L di -			m2 = 'belt'
43	bad					mɑ˧	mɛj	
44	bamboo	pò (tí)	pù	χpu^{55}	χpu (L)	ʂpu	ʂpu	*g-p(w)a (44)
45	bark (n.)	ɕì (phù) ɹà piá	sè ʐà piá, phò-ʐà piá		'tree-skin'			
46	bark (v.)	té tá	tè tá	χte^{33}	χte (L) t a/ɑ (H)		tɛ	MC tone changes with 'dog': khwè té tà.
47	bat (animal)	tshí-qù-mù	(iæn laò sueì)	tshʅ^{55}χkə^{33} mə^{33}	'salt-stealAGT'	-(piʂ pɑlɑ)		cf. 'steal', MW? MC has borrowing ("salt mouse")
48	be/copula	ɦù	ŋuè	ŋuə^{33}	ŋuə L	ŋuə	ŋuə	cf. 'existential/locative'
49	beam	qhò tá	tà		ta -	rbʏʁl		
50	bean	dò piá	deì	də^{33}	də L	(b)	--	could be an ancient borrowing. Mandarin doū.
51	bear (n.)	tɕá	tí	ti^{33}	tiam (H)	ti	tɕɪ	*d/g-wam (461)
52	bear fruit	á zó	ʂè dʐă	sie^{55}mə^{55} dʐɑ^{241}	dʐɑ	si˧ mi dʐu		*contour tone
53	beat (drum)	tè, ɦó tá	tuà tɕá		t e/a (H)		dzɛ tɛ	also other pfxs with LX tá. MC [pt]. cf. 'hammer', STC 317 *tow, ?*tuk (387)
54	bed 1	ɳì sì qà	nè bà	ne^{55}ɕi^{33}	ne (L) s i/i L			
55	bed 2		nè bà		ba -	bu ta	tʂhuɑn bu	PNQ has *bu

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
56	bedbug 1	bə̀ tɕhá-bə̀ lò	bù tʂá		b ə/u L			
57	bedbug 2	bə̀ tɕhá-bə̀ lò	bù tʂá	dzu^{241} χtʂi^{31}	χtʂ i/a (H)			
58	bedbug 3			dzu^{241} χtʂi^{31}	dzu -	dzuxtʂ		
59	beg	ɕà	tɕhò ɕí mù		ɕ a/i -			
60	begin			da^{241}ye^{33}	ye -	da wa		m1 is DIR
61	beginning	lə̀ tɕó (of month)			tɕo -		tɕəχ	
62	believe	dzà	dzá (ʐà)	dza^{241}	dza (L)	sti ʔʁʔ	ctɕɛ	?*(m-)kyen (223)
63	belly	pù	tɕhè-pè toú	pu^{33}	pu L		pu	LX 'intestines'; MC VH, *kwa ?
64	belt	dzí	dì		di -		dzɪj dzɛ	?*du-t ~ *tu-t (421)
65	bend 1	ʁú ʁuá zì			ʁuɑ -	dʒɑ ʁuɑ' si (elbow)	lɑ ʁuə' sɑ (elbow)	
66	bend 2					ʂquɑ'tʃ	dzəq quə', nu qu' (bend at the waist)	?*koy or STC *ku[·]m (307)
67	bend over	ì ʁú	fià ʁô, ì mò ʁò		ʁ u/o -		qu' ʁə' (bent)	monophthongs

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
68	big	bɹà ~ bà	bz̩à	bz̩ɑ^{33}	brɑ L	bɑɹ	bɹɛ	
69	billy goat (male sfx)	tɕhà dò	tshè dzè		'goat' - dV L			MC has dz̩ú for male dog. (?) TP 'goat'
70	bird 1	ì tshá	ì tshé	i^{31}tshie^{55}	i L tshV H			TP 'sparrow'
71	bird 2			dze^{241}ye^{55} mə^{33}	ye -	wə	wu tsɛ	*(b)wa (99)
72	bite 1	zé			dz/zV -	dzi dzi	kə dzɑ (of mosquito)	?*wa (424)
73	bite 2		ʁà					*wa (424)
74	bitter	qhà	qhà	qhɑ^{55}	qhɑ (L)	qhɑ	qhɑχ	LX 'bitter, salty'. PTB *ka (8)
75	black	ɳ̩í	nà	ɳ̩i^{55}ɳ̩i^{31}	ɳ̩i -	ɳ̩iq	ɳɹχ, ɳɹ χə	*prefixed? *nak (p88)
76	blade of grass (CL)	ə̀					(ɑ) rɑ	
77	blame	phià	(mɛ̀) phí		phi(a) -			
78	blanket	tshà ì	tʂhà kí		tʂha L		tʃan	
79	bleat, bray, grunt, etc	zǎ	zě		Cz a/e L		zɪj	PQic *nzVk (cf. Chapter IV)
80	blend with water	lú	(ɦià) ló		l o/u H			*laŋ (STEDT 'water/river/valley')

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
81	blind	fià tɕyà	mí tiù, tuà	χtɕya^{33}	χtya L	qətʃa	kʰə'p	YD 'blind person'. WS ṣtya, LBZ ṣtšya, JZY htwa.
82	block up/plug	tsɨ tsɨ 'stop up'	tɛ̀ ʈʂuà ké, ʈʂɨ 'stop up'		χtʂV L	xtʂə	χtʂə	STC 422 *tsuw
83	blood	sà	sà	sɑ^{33}	sɑ L	sɑ	sɑ	*s-hwiy (222)
84	blow (of wind, etc.)	phú	phú	χpo^{33}, phə^{33}	χphu (H)	phʏ	phə	PTB *pu (JAM)
85	blue	phú			phu -	phiɑ'wa		Jinghua Pumi pʒa^{55} suggests PQic *pr.
86	board, plank	bú	--	bu^{33}ə'^{33}	bu -	bu	bu	
87	body	ɕì pí	ɕì peí	ɕe^{55} pe^{33}	ɕ i (L) p i/e (H)		(pə' ʂən, pəə' χuɑ)	
88	body dirt		tò ʐ̩ í					*(k)ri(y) (459, 460).
89	body hair, fur, feather	ɻà-χù	mù	χmə^{33}	smu L	huŋ pa, hu pɑ (' feather')	-xu pɑ	*s-mul (pp 15 - 16)
90	boil (n.), sore	qò lò	qà	qu^{31}lu^{55}	qu L lu -	qu lu	tsʰuɑi mi	
91	boil (porridge)	qò	qà		q o/a L		ʂqu	YD tu χsu 'be boiling (water)'.

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
92	boil (v)	tshú	--	tshu^{33}	tshu -			*tsyow (275).
93	bold, dare to	tɕhò		tɕhy^{33}	tɕh y/o L	khɕu	khʂu	WT sdo-ba (STC 267)
94	bolt/lock door 1	quà	diò-quà	qɑ^{55}suɑ^{31} (s2 is b)	quɑ L	qu sɑ	quə sɑ:$^{˩}$ ʁu	
95	bone	ɻà ká	ʐæ ʁoù	ʐɑ^{31} kie^{33}	rɑ L kV -	ɻə pætʂ, ɻə◦patʂ	ʐek patʂ, ə$^{˩}$ patʂ	n.b. not in zyc data from STEDT questionnaire
96	book	dzì tsà ì	dzɨ tshà		ts/tsh a L	zət phi	ləɣz	m1 is probably 'paper', borrowed from Mandarin zhǐ.
97	born/birth		ʂè bŭ		bu -			*braŋ (135)
98	bottom	qà tò	qà tà		q a/ɑ L t a/o L	ʂqul; qə li		MW 'underneath (n.)'
99	bovine, cow 1	ŋò mià (female)	ŋò	zʅ^{31}ŋu^{33}	ŋ o/u L	ŋuə	ŋuə, ʐə, su ʁu	*ŋwa (215)
100	bovine, cow 2	sɨ̀			sə -	sə ʁu	su ʁu tɕɑ:$^{˩}$	YD shed (cow)/fence (ox)
101	bow					sə spiʐ	sə	*d-liy (462). or = 'arrow'
102	bowl	ʁú	ʁóu	ʁu^{241}	ʁ u/o (H)	ʁu tʂɑ	ʁuɑ tʂɑ	
103	bowl, etc. (CL)	fiò	(qó)	χgy^{33}	χg y/o (L)			
104	bracelet 1	pà-kù	pè kuì	pɑ^{55}kie^{33}	pɑ (L) kui (L)			VH in MC

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
105	bracelet 2					dʒɑ di	ji dɛ	
106	braid	kà	kè piá	kie^{33}	kie L	xlia pi	qə xliɛ piɛ, khliɛ piɛ (v.)	
107	brain	qə̀ ɳà	qè ɳà	qə^{31} χɳa^{33}	qə L χɳa L	qi ɳi	qə◦ni	'head-brain', *s-nuk (483)
108	bran 1			pə^{31}tsʅ^{33}	pə -	pa	ʁlə ɸəs	MW husk = bran. *Vowel based on YD, TP.
109	bran 2	zuà-ʁà	(lè)-fù-ʐá		'wheat-(bran) (b)-skin'			
110	branch	çì kə̀ mà	phò khə̀	ʐe^{55}kha^{31}	kh ə/ə/a L		raji (RH)	*ka·k (327)
111	brand, iron	piá	pià		pia -			
112	break	qà tshɨ́	tè tʂhě		tʂh i/e -			?STC 185 *tśat
113	break	dà ʁè	ʂè ʁè ('break open')	ʁe^{33}	ʁe L	ʁe	dɛ ʁɛ', dɑ ʁliə, χliə (v.t.)	
114	break (rope, etc.) 1	(dà) bà (v.i.)		bʐe^{33}	br e L		dɛ bɹɛ	
115	break (rope, etc.) 2	phú phá (v.t.)	ʂə̀ phə̌ ʔʁʔ		phre L		phɹɪ phɹɛ	May simply be *bre with *s-prefix. STC 254 *be ~ *pe. LX shows *s- CAUS

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
116	break/snap	ʁə̀ là	(té) lǔ	ʁe^{33} ('break')	χlV L	ʁe	dɑ ʁliə	
117	breast, milk 1	ɳ̩à ɳ̩á	ɳ̩à ɳ̩á	ɳ̩y^{55}ɳ̩y^{55}	ɳ̩a (L) ɳ̩a (H) ~ ɳ̩y ɳ̩y			STC 419 *nuw. JZY ɲy ɲy.
118	breast, milk 2					pɑ pɑ	pɑ pə	
119	breath	mú sú					məs	STC 485 *sak
120	bridge	tshá (tò)	(lò) tshá	t shie^{33}dɑ^{241}	tsham (H)	tshi	tshuɑ	*dzam
121	bright (ness)	ɕyá	ɕyá, mù ɕà	ɕya^{33}	ɕya -	pɑz̩ ʔʁʔ	tɛ ʂuɛ	
122	broken	dà bà	tɛ̀ bɛ́ bɛ̀		b a/e L			STC 254 *be ~ *pe.
123	broom		dʑ̩uà	dʑya^{241}	dʑya L	dʑ̩ɑ		
124	brother (elder) 1	à kò	qó qò		ko -		ku:	*Initial based on LX, YD. *kuw (255)
125	brother (elder) 2	tú bà		tu^{55}bz̩ɑ^{31}	tu H - 'big'	tə ba'	stuəm (brothers)	cf. 'big'. Yadu mə = 'younger bro, addr. by sister'
126	brother (younger)	tú-tsù	tòu tsú	tu^{55}tsuə^{31}	tu H tsuə L	təχtʂɑ		brother-small
127	bucket/ barrel	tsù tì ʔʁʔ	thiò	thio^{33}	thio L	tsəp; thu		LX m1 = 'water'

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
128	buckwheat	zuà ʁá	dzuà ʁá	dzuɑ^{31}ʁɑ^{33}	dzuɑ L ʁɑ (H)	dzə	dzuɑ ʁɑ	TP, MW = "sweet buckwheat", ?STC 150 *mruw
129	buff leather	bà lò zuà	bè liù tʂhì		ba L liu L			
130	bug, insect, worm	bù ló	bò lò	bə^{31}dza^{31}	b u/o L lo (L)	bu lu	bəl	PTB *bəw (27)
131	build 1	tshù	tʂhú		tʂhu -			
132	build 2	qhù	qhué		qhue -		khliɛ	
133	building	kè, lò kè	lòu-ké		lo L ke -			MC 'multistory building'.
134	bull	zɨ	zɨ-(bʐá)		zɨ L	(?)		
135	bundle (of things)	què, qú tá ('wrap')	quà	quɑ^{55}te^{55} ('wrap')	q ua/ue (L)	quə'que' 'wrap'	qu quɛ 'wrap'	STC 479 *klup, MC qhuà 'bundle wrapped in cloth', khuè 'bundle of rags'
136	bundle, bunch (of vegetables)	tsuà	tʂuà		tʂua L			
137	burn 1	dà uà			uɑ -		dɛ wu	
138	burn 2	à tsú			*tsu -			STC 275 *tsyow.
139	bury	bé	(fià) bí	be^{55}	b e/i H			STC 376 *bip ~ *pip.
140	butterfly					khɕam tɕhi	khʂɑn piɛ	

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
141	buttocks		thà bá ('vulva')	thɑ^{31}bɑ^{33}	thɑ L bɑ -	stɑ sɑ, sta◦ba, sta◦pa	stɑ stɑ, stɑ piɛ	≠ 'feces'. multiple MW sources
142	buy	pú	dè pó	po^{55}	p o/u H	pu	pə	?STC 293 *b-rey
143	calf of leg	duà qà-tsá	duà-bz̧ù bz̧ í		'leg-small'			
144	cane, vine	zə̀ bə̀ lí	lè bz̧è		br ə/e L			other sylls cognate? cf. 'rope'
145	carpenter	ɕì zì-pù-mù		sie^{55}dzŋ^{33}	'wood'- dzɨ L	ʂɑŋ dzu		LX m3,4 = 'do'-AGT
146	carry in lap	què	tà quà		q ue/ua L			
147	carry on back	bià	bià	ba^{33}	bia L	bi	biɛ	STC 26 *ba
148	carry on back (of animal)	qá	ké					This is a probable set, but more data are needed before positing a reconstruction.
149	carry with pole	tuì	tuì	qə^{55}tuə^{33}	tui ~ tuə L	tʏ	tuə	
150	cast, cast aside		dè tʂhù	tʂhi^{33}	tʂh u/i L			
151	cat	mà ɳù	mè ɳòu	ma^{31}ɳy^{55}	ma L ɳu (L)		pu ɳu	This root appears to be onomatopoeic. There is no published PTB root, but cf. Lahu mɛ́-ni.
152	catch	tsé		kuə^{55}tsi^{33}	tse ~ tsi -	kuə tsi	kɛ tsɛ	

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
153	catch on fire	uà	dè uě		uɑ/ue L			
154	catty (half kg.)	tɕí	ké	tɕe^{33}	ke (H)	tə		b?
155	causative sfx	-zɨ́	-zɨ		-zɨ (pitch varies with stem)		-ʐə̊ (RH)	
156	center	tɕì gó		go^{33}	go -			
157	centipede	də̀					dəə'	
158	chaff 1	zuà pú	dzuè pú		dz ua/ue L		dzəχ pɑ χɑ (of high-land barley)	m1=food? STC#170 *pwa·y
159	chaff 2	zuà pú	dzuè pú	pə^{31}bʐɑ^{33}	pu (H)	pa	ʁlə pɑ χɑ (wheat), dzəχ pɑ	MW 'husk'
160	charcoal	mú dʑí	mè dʑí		m u/i (H) dzi H		mu dzɪχ	m1 = 'fire'
161	chase after	χù χù		tə^{55}χo^{33}	χ u/o L	?ʁ? tʂhi		TP χɑ^{55}χo^{33} 'drive away', ?STC 354 *s-nuŋ
162	cheap			mi^{55}phə^{55} ly^{55}	phə - liu -	phə ma la	mo xliu	

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
163	cheek	tɕì piá	tɕí pià	$tʃ\gamma^{31}$ pa^{55}	tɕi L pia (H)	(kə tʂə)		m2 = 'skin'. *(t)si (STEDT), *s-bi ⧓ *s-bay (STEDT)
164	chest	ʁó qhuà		$z_{\downarrow}u^{55}$ $dz\gamma^{33}$ $qə^{33}$	Cr o/u H qhuɑ -	ɹu qhuɑ	jə qhuɑ	*b-raŋ (LaPolla 1985)
165	chew	tsà tsá	tʂeì tʂá	$\chi tʂɑ^{33}$	χtʂɑ L χtʂɑ H	tʃɑq tʃɑq dzə	tʃuɑχ tʃuɑχ dzə	*C-tsat (GSTC 25)
166	chick	ỳ tsuá tsù	ì tsà tsú		'chicken' - ts uɑ/u - DIM	-	tɕuy ʂu	
167	chicken	ỳ	ì	yi^{31}	yi L	tɕi wə (b?)	tɕuy	cf. LX bird
168	child	tɕí bí	kɛ̀ bz̩ì tsɿ	$tʂi^{33}bz_{\downarrow}i^{33}$	tɕi - bri (L)	tɕi: mi	tʃuj mɪ	
169	chin		khɛ̀	$mə^{31}s\gamma^{33}$ kha^{33}	kh a/e L	dʒa':	dzo	J. Sun for MW, *(m/s-)ka (470). TP may reflect both PTB prefixes.
170	Chinese	ʁèi		$ʁə^{33}$	ʁə L	ʁə'	ʁəɹ	
171	chisel (n.)		zò				ʁzuə, dzuɑ ʁzu (v.)	All other SQ forms for 'chisel' are borrowings from Mandarin.
172	chopsticks	bə tɕá	dù	$duə^{33}$	duə L	was	wɛs	LX has transphonologized the *u to form a labialized initial. Cf. discussion under *bz (3.3.1.8.1)
173	city 1	qə ɕì	qɛ̀ tá		q ə/e L			

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
174	city 2			241	ʁue -	ʁuɑ:ˈ, ʁua:ˈ (city wall)		
175	claw					paˈxəˈ	pɑ χᵹˈ	
176	clean, clear, pure	ɕó	ɕó tè		ɕo H	ɕu tiu	kɛn tsɛ (b?)	*t(s)yaŋ (p53)
177	clear (water)					gəˈtɕu	qəˈ gᵹˈ	
178	clear up	tò, tì						*t(s)yaŋ (p53)
179	cliff		ʐà (ló)	ʐe[33]	ra L	ɹi		*r-ka[·]m (329). Jiuziying has ɹa.
180	close (book, door, umbrella)	quà	quà, ì khuí (close up!)		quɑ L			MC. shows effect of *s-.
181	close (eyes) 1	tɕà				tɕi		*ts(y)i·p (370)
182	close (eyes) 1		fià sé	sie[33]	sie -			
183	cloth	bù miá	bʐù miá	bzɿ[31]me[33]	bz u/i L mia (H)	bi:mi	bɛ:	ZT, RDZ bzɿ me.
184	clothes	phò	phù	phu[55]	ph u/o (L)	phu βɑ	phuɑ	cf. 'tree', 'boil'

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
185	clothes (CL)	là	lɛ̀	lɑ^{33}	lV L			Vowel may have been affected by VH.
186	cloud	dá mu̧	dá mò	χde^{33}	χd a/e (H)	zdʏm	zdɑm	
187	cold			χtu	χtu -			TP cited in SQD. WS ʂtu, JZY htu.
188	collapse	(à) dzà; ʁò ʁuá	fià dz̧uǎ	χgy^{33}	ʁdzɑ L	ʁdzɑ		JZY ʁua.
189	comb (n.)	qà-ɕý	qè suí	qə^{31}suə^{33}	s ye(?) (H)	qə si	qu su	*m-si(y) (466)
190	comb, brush (v.)	(ɕý)	(qà tó suí)	khʂuɑ^{55} (older speakers), tʂhuɑ^{55}	khruɑ H	kha' la	khuɛ' xe̯'	cf. PL *?b(r)iy^{2} (STEDT)
191	come	lò	n̥ù	ly^{33}	ly (L)	ly	liu	The PSQ *vowel is based on TP, MW, and on the palatalization in MC.
192	cook/boil	qò	qà	χqɑ^{33}	χq ɑ L	ʂqu	ʂqu	*glak ~ klak (124)
193	cooked/ ripe	(fià) mù	(fià) mù	mi^{33}	mu L	?ɤ? nə		*s-min (432). STC form is reconstructed with same semantics.
194	cool (of water)	tó	toú		to H			
195	copper, brass	χá		χa^{55}	χɑ H	χɑ ɸi	χɑ' xuɛ', bzɑŋ (Γ?)	

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
196	corpse	mó	mó		m o/u H	rmu	ʐu mu	*s-maŋ (STEDT)
197	cough	tshú tá	tshò χuá					STC 423 *su(w)
198	crack (v.)	zí zá		ʐɑ^{55}	ʐɑ H			
199	cradle, bassinet	qhò pí	tʂhà piá		p i/ia H			
200	crow (n.)		nà-ŋá	nə^{33}ŋɑ^{55}	nə L ŋɑ H	ɳɑ ʁu	nu ʁu	?*ka (STC pp 99-100)
201	crow (v.)	ɕí	tè sǐ	sʅ^{55}	si (H)	si	sɛ	
202	cry out, call (out) 1	ʁuǎ (tà)	ʁuǎ	ʁuə^{33} ʐɑ^{33}	ʁuɑ L	ʁu ʁua	?	*contour tone? does TP have ʁua? STC 79 *ŋuw
203	cry out, call out 2	qá ɹà		ʁuə^{33} ʐɑ^{33}	rɑ L			
204	cry, weep 1	ŋú		ŋə^{55}	ŋ u/ə H			*ŋəw (79)
205	cry, weep 2	zǎ	zà	zɑ^{33}	zɑ L	zɤ ɹɤ	zei	
206	cuckoo	qí pù	koú pù		q/k i/ou H pu L		qu ʂput, kuput ~ kupət (RH)	For discussion of *initial, cf. 3.3.1.5.
207	cup		tʂà tsí	tʂe^{33}	tʂ a/e L			

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
208	cut 1 (firewood, vegetable)	qhù qhuá		qhe^{33}	qhr ə/uɑ (L)	qhə' qhe' (fir-ewood), qhuɑ' (veget-able)	qhɛ' qhɛ' (fir-ewood), qhuɑ' (veget-able)	
209	cut 2a, chop	tshuá, tsù tsuá	tʂhù tʂhuá	tʂhu^{55} (cut vegetable)	χtʂuɑ H	xtʂi (tree)	xtʂɛ (chop/ hew, cut meat, sever)	*tsywar (240). Proof that the *cluster was preserved into PSQ is given by the fortis initial in JZY tʂ'o.
210	cut 2b	tshuá	tshuá (cut bone, tree),	tshuɑ^{55}	tshuɑ H	tshɑ ti		LX ambiguous btwn 2a, b. JZY [tshua].
211	cut 2c (unasp)	tsoù (cut/gouge out), tsú (cut w/ scissors)					tʃu tʃu (cut/rip open)	This set is less definite.
212	cut 3	khù khuá			khu(ɑ) -	khu	khə'	
213	cut 4	kó	sì kú	ku^{55}	ku H			LX, MC 'mow grass'
214	cut 4	sì tɕhà	tshoú tià	tshuɑ^{55}te^{55}	H tia (L)	tshɑ ti		JZY tie 'cut down'.
215	cut 6		ʐá qà					*ra (458)
216	cut/gouge out		liá					*lep (351)
217	cypress	zú má			zu - mɑ -		zu mɑ	

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
218	dark 1	mú	mò	mu^{33}	mu (L)	munˌi		*mu·k (357), *mu·ŋ (362)
219	dark 2					xtɕap	xtʃɑp	
220	date (time)		zɨ tsé				zɐt	
221	daughter	tɕà	tɕè	tɕi^{33}	tɕ a/e/i L	tsi	tsɪ	*krwiy (244)
222	daughter-inlaw	-tɕá zò	tɕè zó	tsy^{33}dzy^{33}	tɕ/ts V (L) dz o/y (L)	tsi gziu	tsu gzu	JZY ci dzu. PSQ *initial may have been *gz .
223	day	ɕì	sè	sie^{33}	sie L	si	ɕu xlu	*s-nəy (GSTC)
224	daytime 1		nɔ́ nà	nə^{31}χuɑ^{55}	nə -			
225	daytime 2			nə^{31}χuɑ^{55}		stiɑ χlu	ɕu xlu	It is not clear whether there was a cluster initial in PSQ.
226	deaf	ɳˌì-bò	bù	ɳˌì-bò	'ear' - b o/u L	nə ku-bu	ɳˌə kʉ-bu	*(b/p)a:ŋ (STEDT)
227	deep	tshɨ́			tʂhV -	tʂhɑ	tʂhɑ	
228	deep fry	qó						*kaŋ (331)
229	deer		dá	χdɑ^{33}	χdɑ -	zdu	zdu	cf. 'cloud'
230	delicious, tasty	zə̀ nà	zé		zɛ -	zʏ	zɛ	LX does not have /z/.
231	dew	zɨ́ qə́	dzé qè	χdzˌə^{33}qə^{55}	χdzˌə (H)	(ʂqɑ rəq)	dzəχ	*Vowel based on TP, YD.
232	die	à ɕà	{tɛ́ sɨ̌}	ʃe^{55}	ɕ a/e (L)	ɕi	ʂe, məs me◦ɕi, dɛ ʂɛ	2d YD form = 'breathe one's last' STC 232 *siy
233	difficult	mə qeí; qò	(pù) qà	χqɑ^{33}	χqɑ (L)	ʂqu	ʂqu	*kak (TIL 70)

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
234	difficult, tired	bà	bà	χbɑ^{241}	χbɑ L	rbɑ		STC 29 *bal
235	dig	bù liá		qhə^{31}la^{55}	lia H	ʔɤʔ phi phi		STC 288 *la·y
236	diminutive suffix (example is 'calf')	mà lià tsú	ŋò bò tsú	tu^{55}tsuə^{31}	ts u/uə (pitch varies with compound)	dzi ʂputʂ, dʒəhputʂ		TP 'brother (younger)', 2 MW sources
237	dip pen	sú	sú		su H			
238	dirt	bú zɿ	bè zɿ		b u/e - zɨ L			
239	dirty	à ɳì						*s-n(y)ek (235)
240	disappear	mo^{35}					mɛʐ	*ma-t (425)
241	dissolve, melt	dà zù	dʐú	dzyi^{31}	dʐyi (L)	dʐi	ɑ dʐə	
242	ditch		tsuè χoù	tsuə^{33}χu^{33}	'water'- χu L		χuʂ (valley)	*Vowel based on TP, YD.
243	divide	ʁò ʁó	ʐɿ ʐoú	ʐu^{33}ʐu^{55}	Craŋ	ɹy ɹy	ju ju	? *bra (132)
244	do	pù	pù	pu^{33}	pu L	tʃə; bəl	bəl	
245	dog	khù	khuè	khuə^{55}	khuə (L)	khuə	khuə	STC 159 *kwiy
246	don't 1		tɕì		tɕi -	tɕi		
247	don't 1	tsì		tsʅ^{55}	tsɨ -			
248	donkey			dʐa^{31}ba^{55}	dʐa - ba -	dʐa βa	dʐɛ wɛ'	

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
249	door	dzù ~ dzú	diò	dio^{241}	dio L	diu	dzuə	
250	dote on (child)	qà tɕí	quà		q a/uɑ L			
251	dove	ỳ gù	guè guè		gue L	gu' gu'	gu' gu'	MW 'pigeon', *kuw (495), *m-krəw (118)
252	downward (pfx)	fià -	fià -	(ə'^{31})	fia L		fia (RH)	cf. comments at 'upward'.
253	dragon	bú	bú	χbə^{241}	χbə (H)	bə'k	ʐbə (year of the dragon)	cf. 'bug'. animal pfx? YD 'dragon' is b.
254	dream	mò zè	mò	χmu^{55}	χm o/u (L)	rmu ʁe	ku mu, ku ʐmu (v)	*r-maŋ (82)
255	drink 1	tɕhí	thié ~ thiè, thyé (smoke cig.)	thie^{33}	thie -	thi	tɕhə, tʂhɛ (smoke cig.)	*they (STEDT). JZY t'ie.
256	drink 2	qú	qó		q u/o H			
257	drip	zí		dzie^{241}	dzI -			
258	drop (of oil)	tsɿ			tʂi -		(ɑ) tʂ	
259	drop (of water) 1	kà tɕí	kè kè		k a/e -			LX m2 may be palatalized cognate.

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
260	drop (of water) 2	zí	{tè}	dzie^{33}	dzie -			
261	drop (of water) 3					tʂhə	(ɑ) tʂ	
262	drum	bò	bù	χbu^{241}	χbu L	rbu	ʐbu	
263	drunk	(ɕì) tà χeì	ʂè χè	sʅ^{31}χe^{55}	χe (L)	xiɑq səqe	ɕɛχ tə qɑ	
264	dry	fiǽ, (zé)	ʐí	ʐi^{55}kua^{55}	ri H	ɹə tɕi	ʔɐʔji tɕyɛ	STC 268 *raw
265	dry in the sun 1		ʂè dʐí	dʐi^{33}	(C)dʐi -			JZY dʐi. Fortis initial suggests *cluster initial.
266	dry in the sun 2		phù dʐí		phV -	phɑ	phɑ (RH)	
267	dry measure		pú	pu^{55}	pu H	pu	pu (RH 'pint')	MC 'decaliter', TP 'liter'.
268	dry, warm by fire	qhuà, khuà	khuè, múkhuè ('fireroast')	--khye^{33}	khye L	ʂkua	ʂkuɛ	MC y/k _?, ?STC 331 *kaŋ
269	dust	phú tù tù (covered with dust)	χueí phù phù (dusty, covered with dust)		phu -		ʂpɛ ʂpɛ	MC is labeled 'b'
270	dwell, live 1	qǽ zí; zì gó	fiǎ zì	ʒʅ^{33}	zɨ L	dzu		

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
271	dwell, live 2			dzo^{33}	dzo -	dzu		
272	dye	ɕì		sɿ^{33}	si -	sɤ		
273	each (one), respective	iò mó (sò)	à qó mò qà		mo -			
274	eagle	χò	lá (bʐà)	χuɑ^{55}	χlaŋ (H)	χlu	qhlu, χlu	*k/g-laŋ (333, p72 n.). *Rhyme is based on Longxi, NQ, PTB.
275	ear	ɳì ká	nà ké	ɳi^{31} kie^{33}	ɳ/n i/ə L kie (H)	nə ku	ɳə kɥ	*g-na (453), *kyap (STEDT)
276	ear of grain	cà qà	lè tì	χti^{55}qə^{33}	snam (L) qə L	stiɑq	ctɕəχ	*s-nam
277	early	zì		dʐɿ^{241}	dʐɪ L	dʐɑ	dʐɑ dʐə	
278	earring	ɳì mà	nà mà	nə^{31}mɑ^{33}	ɳ/n i/ə L mɑ L	nəku pa la	ɳə kɥ pɑl	m1 = 'ear'
279	earth, ground 1	zù	zuè (pè)	zuə^{31}pə^{33}	zuə L	zəp	zəp	LX is ambig. btw both roots, also 'place'
280	earth, ground 2 (includes 'field')	(zù)		dzu^{55}	dzu -	dzu		
281	earthworm	zuà-bù ló	(bè diá)	dzu^{241}bə^{31} dʑa^{31}	'earth'-'bug'			LX 'earth-bug', TP just 'earth'-'bug'?
282	easy		(pù) zè	zie^{31}	zie L	za	zɛ	MC m1='do'

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
283	eat	zɨ	dzè	dʒʅ^{33}	dzɨ L	dzə	dzə	LX also has the forms tiè 'eat!' and tɕhí, which may have been influenced by the *s- causative. STC *dza
284	egg	ì tə	ì té	χtə^{55}	χtə (H)	tɕi wə◦st	wə◦s	*n/s-tow (STEDT)
285	eight	tshá	tʂhè qó	tʂhe^{33}	khr e/a (L)	kha'	khɛ'	SQ initial cluster suggested by Jiuziying tʂha. *b-r-gyat (163). For NQ velar corresponding to SQ retroflex, cf. 'hundred'. Rhotacization of NQ forms indicates PQ *kr a/e.
286	eleven	fià tɕí	fià tí	χɑ^{31}tʃʅ^{33}	fiɑ L tɕɨ (H)	he tɕi	hɛ tʃɛ	*t(y)ik=g-)tyik (p84). TP and MW have m2 as free morphemes meaning 'one'.
287	emperor		mɛ́ tsɨ		χm ə/e -		ʐmɛ tʃɛ	JZY ʁmʏ tsʅ.
288	empty		qhò		qh o/u -		ɹɑ χɣ	n.b. NQ stress rules, vl. vowel
289	enclose (sheep)	tɕhý		ŋu^{55}tɕi^{55}	tɕ/tɕh y/i H			MW, TP 'enclosure'
290	encounter/ meet	tsó pà	(tí tà)	a^{55}tsu^{33} pɑ^{33}	ts o/u - pɑ L	e tɕi ti pi ʔʁʔ		
291	enough, be	zí	dzí				ɣdʐə	
292	escape, flee	dà phó	dè phû	phu^{55}	phu H	phu	phu	*ploŋ (140)
293	estimate, measure	zò zò	zɛ́	dzie^{241}	χdzie (L)	ʁdzə ʁdzi	ʁzɛ ʁzɛ	

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
294	every day	á ɕí má qè	à sè mó qà		'one'-'day'mV H-q a/e L	-		
295	evil spirit, witch	dù mià	dòu miá		d o/u L mia -			ghost-female
296	exchange	lə́ lá	lə̀ là	tə^{55}lɑ^{31}	lə (H) lɑ (L)	lə lɑ	lə lɑ	*lay (283), reduplicated, no doubt to indicate reciprocity.
297	exist/be present		ʑì	ʒl^{33}	ʑ i/ɨ L			
298	existen-tial/LOC (animate referent)	ì	ʑì	ʒl^{33}	ji L	ʑi	ʐ̩i (RH)	
299	existen-tial/LOC (contained referent)	lià	lɛ̀	lie^{33}	lie L		le (RH)	
300	existen-tial/LOC (immo-vable referent)	ʁuà	uɛ̀	ye^{33}			we (RH)	
301	existen-tial/LOC (transitory, portable referent)	ŋó	ŋá	ŋɑ^{33}	ŋɑ (H)			JZY ŋa.

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
302	expensive	phú lú	phé liù	phə^{31}ly^{55}	ph u/e/ə L ly H	phə la	phu liu	cf. 'price'.
303	experience	bú ɹà	phú bz̧à		b/ph u L bz̧a L			
304	extinguish, die out (fire)	mià	mè		mV L		dɛj miɛ	STC 374 *mit
305	eye	ŋ̍ má toù, mì-sè	mè tié, mù tié	mi^{55}	mia (H)	(qən)	mi:	*vowel is problematic, MW s1 = head? *myak (402).
306	face	qá qhuá	qà χà	qhɑ^{31} qhɑ^{31}	qa (L) qhuɑ (L)	quŋ	quɑ^{ˈ} χɑ^{ˈ}	*kwa (STEDT). Taoping does not have the sequence *qhua.
307	fall 1, drop	fià tshò,	fià tshoŭ	tshyi^{55}	tsh o/y (L)	tshy		STC 353 *tsyuk
308	fall 2	fià gù	ʂɛ́ guĭ		gui L		ɹɛ ku (trap, n.) ?ɛ?	
309	family of people (CL)	qò	qà		q o/a L			
310	far		z̧ í χuà	χuɑ^{33}	χuɑ L	guəˈ χe		
311	fart		pè	χpe^{55}	χpe -			JZY χpe.
312	fast	dù lì		duə^{33} duɑ^{241}	duə L	də ɬyn	ɬu ɬu	
313	fat 1		loù	lu^{55}	l o/u -			*l(w)aŋ (STEDT)

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
314	fat 2	tshɨ̀			tshɨ -	tshʏ, tsha'wa	tshɑ:' wɛ	
315	fat, oil 1	sò í, sé		sɑ^{33} ie^{33}	s o/ɑ L ie -		mɛr piɛ sɛ	STC 272 sa·w
316	fat, oil 2			χdɑ^{33}, (χŋo^{55})	χdɑ -	zdɑ	zdueə'	
317	father (direct)	á ì (grandf-ather)	-á ià	i^{31}ie^{55} (grandf-ather)	-	e ji		*pa=pwa (24)
318	father 1	á pà	à pà (grandf-ather)	pɑ^{55}pɑ^{33}	a - pɑ L	a pa (fatheri n-law, grandfa-ther)	-bɑ:, ɑ pɑ (grandf-ather)	MW 'father-in-law' STC *pwa
319	father 2	pì qú (stepf-ather)	-ʁuè pú (father-inlaw, f's y brother)	-pi^{55}	pi ~ pu -		o pu (stepf-ather)	
320	father's brother			pe^{33}pe^{33}	pV -	ə pu		JZY pa^{31} pa^{55}
321	father's older brother's wife	à nə́	ʁuè nə́		nə H	e ni	ɛ miɛ, ɛ tɕɛ	MW paternal aunt

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
322	father's older brother's wife	à nə́	ʁuè nə́		nə H			*ni(y) (316)
323	father's sister (-inlaw)	-á ɳà (f's sister)	ɳá ɳà (f's sister or older brother's wife)		ɳ a/ɑ L			STC 271 *na·w
324	father-inlaw	-pó kù	á pù (father's brother)		p o/u -	a pa		MW also in 'father'
325	fathom, arm spread			zi^{241}		zɤ	(ɛ) zɛ	
326	favor, kindness	qú là	qóu què		q o/u L			
327	fear	qò	kòu, qoù ʐà ('afraid')	qu^{33}	q o/u L	qu	qu, do qus wɛ	LX 'fear difficulty', ? STC *(g/k)rak STC 473 *grok ~ *krok
328	feces, dung	tshə̀	tché	tʃhɿ^{33}	qʂə (L)	qhʂə	qhʂə	JZY tʂ'ɿ
329	feed (v.)			dʐo^{241}	dʐo -	dʐu		
330	felt	ió sʮ	sù thié		su L			
331	female (animal)	mià	mià		mia L		ɹu miɛ ('mare')	

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
332	female (human)	tɕà	tɕè (tsù tsú)		tɕ a/e L	tsʌm		cf. 'wife'
333	ferment	tí					stə	
334	fertilizer	mì	mù	χmi^{55}	χmi (L)	rmi	ji miɛ	
335	fetus	tsù zú qò	ì dzoù		dʐ u/o			
336	few 1	tɕhá	pé tɕhę̀		tɕh a/e -			
337	few 2	tɕá	à tɕí qò		tɕi H	ke tɕi	kɛ tɕɪ	
338	few 3			pə^{31}tʂhe^{55}	tʂh e/i -			JZY pɤ tʂ'i.
339	fight 1	té té		də^{33}də^{241}	χd e/ə -			
340	fight 2, go to war	qù quá	dʐuè quá		quɑ H	quə quɑ	quə quɑ	
341	fill 1 (barrel)	tsɨ tsɨ	ì tʂɨ		tʂɨ L			?STC *(d/t)yam
342	fill 2	tɕhí tɕhì (eyes with tears)			tɕhV -		tsə tɕhu	
343	find out	à tɕì	tiě		tie L			
344	fine, small 1	tsá		pə^{31}tʂhe^{55}	χtʂɑ H	χtʂɑ	χtʂɑ	PSQ *χ- became aspiration in TP.
345	fine, small 2	dzà	dì		dia L			
346	finger 1		í nə̀ qè	nɑ^{31} ne^{33}	n ə/e L			

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
347	finger 2	lià cú, lià só			su -	dʒɑ su	ju su χɣ	
348	finger ring	lỳ suè ~ lỳ cỳ	ì sé		sye -	dzi sɑ	ji-sɑ (RH)	
349	fingernail	liè sí qə̀	ì sè	sie^{55} qə^{55}	sie (H) qə -	ɣdʒə si	ɣrəs	*m-(t)sin = m-tsyen (74)
350	fir	lə̀ (phù)		lu^{55}	l ə/u -	lɤ	luə	
351	fire	mú	mú	mi^{33}	m u/i (H)	mə	mə	*mey (290)
352	fire tongs	cà-tè	cì-tè ~ cí-tè		χte -			JZY hte. LX, MC ml = 'iron'.
353	fireplace	(mù guá kì)		mi^{55}ʁo^{31}	'fire' - gua -	mu ɣuə	mu gɣ (RH)	
354	firm, secure, solid	gù	guè		gue -		ʐguə	
355	first	qeĭ	dé dè qèi	qə^{31}ə^{55}	qe L	tiɑq		
356	fish	ʁà	tsuè-dzè	dzʅ^{33}	ʁdzə -	ʁdzə	(ʁzə) χtʂɛ	JZY ʁɤ.
357	fishy smelling		bù tʂá		χtʂ a/e -		bə χtʂɛ	b. ?STC 405 *suŋ. many other forms in MC
358	fist	qù ɳú	qù ɳá	χkue^{31}ɳi^{33}	χku L ɳV (H)	ʐən thu, dʒərpaʁ u	juʂpul	2d MW form is from JS
359	five	ʁuè	ʁuà qó	ʁuɑ^{33}	ʁuɑ L	ʁuɑ	ʁuɑ	STC 78 *l/b-ŋa

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
360	flail			tu^{33}	t u/ɑ -	tɑ tsɑ		
361	flat	pià qó	piá pià		pia -	(ɣliɑ quɑ)	piæn piɑχ	YD is b? STC 138 *pleŋ ?STC 212 *lyap ?STC 340 *pe·r
362	flea	tsó ɳ̩ì	tsoú nà	tsu^{55}lu^{55}	ts o/u H nV (L)	tsun	tsun	n.b. s1 deaspirated from "dance, jump"
363	flint, steel (for flint)	tshà mià	tsuè mià		tsh a/ue L mia L		χtʂɛ ji miɛ	m2 = 'mother'. MC does not have 'flint' meaning
364	float 1	qà tà					tə χtɑ	
365	float 2		ì lâ		lɑ -	dɑ lɑ		
366	flour	bà lò	lè-bè-liù	ba^{31}ly^{33}	ba L ly L		ʁlə bu liu	MC bè shows evidence of vowel harmony
367	flow	sú						*sywar (241)
368	flower	pá tsù	pè (bloom)	pɑ^{31}tʂuə^{55}	pɑ (L) tʂue -	pa (bloom)	lɑn pɑ	STC 260 *bu ~ *pu
369	flute					ʂpu ɣli	ʂpu-l	m1='bamboo'
370	fly (n.)			bə^{31}χu^{33}	'bug'- χ u/ɑ -		bɪj χɑ	
371	fly (v.)	dzuà ɻà ('wing')	zé	dze^{241}	gze (L)	gzi	gzɪj pɑ ('wing')	cf. 'hot (spicy)'.
372	fool	ʁuè mù	mè ʁuà		ʁue L		ʁuɛ'	SQ mV = 'person'
373	foot (measure)					tʃhəs	tʃhəs ('ruler')	
374	foot 1	gò	goù		go L			?STC *g-la, ?*k-raŋ

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
375	foot 2			dzi^{55}	dʐV -	dʒɑ qu	dʐu qu	
376	force, compel		kù tɕú		k u/e -		kɛ xiɛ	
377	forehead	deú kù	dà pú	da^{31} χku^{33}	da (L) χku L	zdu ʂku	zdu xkui	LX, NQ m1 show vowel harmony.
378	forest	phù-quá	phò-quà		'tree'-quɑ -			
379	forget	dà mù	dè mŭ	χmi^{55}	χmu (L)	rmə	dɑ:'m	cf. fertilizer
380	four	zì	zì qó	dʒʅ^{33}	grə L	gʐə	gʐə	?STC 410 *b-liy
381	fox 1	qhà guà	qhá guə̀	qhɑ^{33} χguə^{33}	qhɑ (L)			cf. Akha k'aˬ 'animal prefix'. *kwa (STEDT)
382	fox 2	qhà guà	qhá guə̀	qhɑ^{33} χguə^{33}	χg ua/ue L	rgua	ʐguɛ	*gwa (p34). Rhotacization in MC may indicate that PSQ cluster was *rg-.
383	fragrant	χó	χoù	χu^{55}	χ o/u (H)	(bə χtʂi nɑ)	xu	
384	freeze	tó	toú		to H		təg	
385	friend	ì zù ~ ỳ zù	ì dzòu		i L dʐu L	(tɑ χu)		Rounding harmony in LX. JZY i^{31} dʐu^{31}.
386	frog	zò piá	dzò-piá	dzuɑ^{31} pu^{55} mɑ^{33}	dzo L pia H	dzu pi	dzu piɛ	VH in TP m-crawl (or STC *s-bal?) (or STC p41 *u p(h)rok 'toad'?)
387	frost 1	pià thò	peì thoù	χpɑ^{31}thu^{33}	χpia L tho L			*s-pwa(l) (Matisoff 1998b)
388	frost 2					mə xəˈ	mə xᵠˈ	

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
389	fruit	ɕì mì	sè mù	sie^{55}mə^{55}	sie (L) m i/u (L)	sə˧ mi	sɪj miɛ	*sey (57) + *m-lum(?) (STEDT, STC 143). Cf. 'heart'
390	full 1	suà	suè	sye^{55}	sye L			
391	full 2					khɑ˧p	khɛ˧p	
392	full of food	tə̀ χeì	χè ~ tə̀ χé	χə^{55}	χe -	χə		*kru (STEDT)
393	gall	tsɨ́	tɕɨ́	χtʂə^{55}	*χtʂə H	xtʂə	xtʂə	YD 'gall bladder' *(m-)kri-t (412).
394	garden	tsà-kù	tsɨ́ qǒ	tshie^{55}kie^{33}	tse (H) kV L	kuz	tsɛ kʉ	/ku/ = vegetable
395	garlic	kə̀	kè tù	χkə^{55}	χkə (L)	tɕiʂk	tɕiɕ	
396	gather	zú zú	tɛ̀ dzuê		dzue H			
397	general classifier for countable objects	ɦò, ʁò	qó					
398	get	à tsé; à tsɨ̀	dɛ̀ tɕè	tsɑ^{33}	tse ~ tsɑ (L)	tsɤ	dɑ tsɑ	
399	ghost, demon 1	dù	dù	du^{33}	du L		du-gû-mi (RH)	
400	ghost, demon 2					χluʂ		STC 475 *(m-)hla,
401	give 1	ɦà dá (give orders)	dá	χdɑ^{31}	χdɑ (H)			TP 'give out, distibute'

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
402	give 2	zí	zí		grə H	gʐə	gʐə	
403	give birth 1	ì	zì		i L			MC initial is deemed to be secondary.
404	give birth 2					χu	χu	
405	give birth 3 (of animal)		ʂè bŭ					*braŋ (135)
406	give/ receive injection	(χé) tè	χè tuá		'needle'- tV -			
407	glue (v.)	piá	piá	pa^{33}	pia (H)			
408	glue 1	mà tsà	pà mà		ma L		ma ha	
409	glue 2		pà mà	pa^{33}	pa L			
410	glue 3					tsi tsi	xtsə	
411	gnaw	ʁà ɕà	ʁè ʁá	χGɑ^{241}ɕe^{33}	χGɑ (L)	ʁɑ' ɬa	ʁæ ɬi (Moyu)	*ŋrat ≠ *ŋyat(STEDT)
412	go	kà	ʂè kè, kiè ɕì, kè ɕì	kə^{33}	kə (L)	kə		
413	go against, violate	dà tshà	tè tshĕ		tshe L		dɛ tshɛn	
414	go and return	suè ('return to a place')	sù		su(e) L			

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
415	go upstairs	tə qé			q e/ɑ -		tə qɑ	
416	goat	tɕhà	tshè	tshie^{55}	tsh a/ie (L)	tsa	tshɛ	STC 339 *kye·l, or PLB *V-cit (TSR 27)
417	god	à bú tɕhi̱	à pà-sé	tshie^{33}	khsie (L)	khsi		SQ grandfather-god. STC *(m)hla?
418	gold	qú	qà	χqɑ^{33}	χq ɑ/u (L)	ʂqu	ʂqu	LBZ ʂko^{31}
419	gong		lò ló	lo^{31}	lo -			
420	good 1	nà	nà	nɑ^{33}	nɑ L	nɑ	nɑ ('right')	YD sense also occurs in MW
421	good 2		ʂé	ʂe^{33}	ʂe -			
422	goose	ʁò	uò	ʁu^{31}; ŋan^{13}ʁo^{31} 'wild goose'	ʁo L	ʁu:	ʁuy	b?
423	grain, foodstuff	ʁà qə̀			rɑ - qə -		ʁɑχ	
424	grain, kernel	gù	tʂhɨ́ góu ~ tʂhɨ́ mɛ́ gòu		g u/o -			
425	granary		pɛ̀ qɛ̀	χpə^{33}	χpə L	ʂpə	ʂpə (RH)	*V based on TP, MW.
426	grandchild	zɨ́ tsù	zé tsù	zɿ^{31}tsuə^{33}	zɨ (H) tsuə L	zətʃ	zə ʂɥ	grandchild-small. TP 'grandson'
427	grass 1			dʐo^{241}	dʐ o/u -	dʐu		

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
428	grass 2					khʂəp	khʂɑp	
429	gray	phú (tù tù)			phu -		phiɑ:' qu	
430	green, blue	peí χə̀ χə̀ ('green and glossy')	χué	χue^{33}χue^{31}	χue -	ʐɑn ku		*kruŋ (382)
431	grind 1			tʂhi^{55}				*krit (119)
432	grind 2					dʒa	dzuɛ	
433	grip/hold		ù tsǐ; biétsì	-kuə^{55}tsi^{31}	tsi L	dzə tʂhi		MC 'grab/seize'; hold a urinating child
434	grow	çì	té χuě		χsu L		tə χsu	
435	guest	mə̀ dzí			dʐi -	ɣdʐi	dʐu	
436	gun	çà-dzù		çi^{55}χdio^{241}	χd iu/io L		(soqhu (RH))	cf. 'rod, stick 2'
437	gunnysack	sò qò	tshà qà		s/tsh V L qV L			Vowel harmony.
438	hail					zu	zu	cf. seed?
439	hair of head	qə̀ tó	qè toú		q ə/e L to H	qə tɕu	qəu	
440	half	tɕhá		tɕha^{55}	tɕha H	khɕɑ qhuɑ		
441	hammer (n.)	tuà liú	tuà liò		tuɑ L			STC 317 *tow. m1= 'beat'; e.g., MC tuá. m2=shape

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
442	hammer (v.)					ɹə	kɪ ɹɛ	
443	hand	lì pá	ì pá	i^{55}	l/Ø i (L) pɑ H	dʒə pɑ	jɑ pɑ	cf. 'arm', *p/ba (STEDT)
444	hand span 1	khà	khá ~ khà		kh a/ɑ (L)			measured from tip of thumb to tip of middle finger.
445	hand span 2			tu^{33} (?)	tu -	tʏ	(ɑ) tɥ	*twa (165)
446	hang (on wall)	ʁué	tæ ʁuá	$ʁue^{33}$	ʁue (H)	ʁue'	ɛ ʁuɛ'	
447	hang down	tɕhí là	tɕhé là		tɕh e/i H la L		ɑ lɑ (from *coda?)	STC 242 *dzywal
448	hard	qò cà	koù tɕà	$χku^{55}tɕa^{31}$	χk o/u (L) tɕa L	ʂku ʂtɕi	ʂku ctɕu	? *χk > LX q. MW has peseveratory assim. ?pref preempt
449	harvest, reap		kú ~ kù		ku -		ku	
450	hat	tà bá (χà)	tà bá	$tɑ^{33}$	tɑ L bɑ H	tɑ βɑ	tɑ wɑ	vowel in s2 based on NQ.
451	hatch		né	$χne^{55}$	χne (H)	ʔʁʔ zdi		
452	hate	qhú	qhoú		qh u/o H			
453	he/she		ɦà lí	$tha^{55}lə^{55}$	l i/ə H			cf. 'that'

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
454	head	qà bá tsɨ	qà bʐ́á tsɨ	qə^{33} po^{55} tʂʅ^{33}	qə L b/p a H tʂɨ L	qə patʂ, qə◦pa◦tʂ◦ə	qə pɑ◦tʂ	*s-koŋ ≠ s-kok (STEDT). Tones/pitches correspond better than vowels. cf. 'hair of head'
455	hear	à nò	nò ɕá		no L			
456	heart	ɕì mì	tié mù	χtie^{55} mə^{55}	snie (H) m i/u (L)	sti: mi, si◦ˈmi	ʨɕi◦mi	*s-niŋ ('heart' 367) + *mlu(m/ŋ)(?) ('round', STEDT, STC 143). Note that the *s- prefix of 'heart' (367) became an initial, while the *s- of 'round' (143) was lost at the time of PQ, if not earlier. The second morpheme is apparently 'round object', cf. 'fruit'. The second MW form is from J. Sun.
457	heavy	zɨ	dzɨ	dzʅ^{33}	dzɨ L	dzi	dzə	WT ldźi-ba. (95)
458	heel	gò qə́	goù mù sà		go L			*gwa-ŋ (STEDT). For an alternate analysis, cf. 'sole of foot'.
459	height	bó bè	bʐ́ú bè		'high-low'			
460	help	ʁuà	tè ʁuà	ʁuɑ^{31}	ʁuɑ L	ʁuɑˈ	ʁuɑˈ	
461	hemp	sò	sà phié		s o/u L		su	
462	herd animals (vt)	khù-pià-ɕùmù	-khuè-piàtiù-mú ~ khuè-piàtiú-mù	--	'dog-pigherd-AGT'	-		

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
463	here	tɕà-tshá ('this-place')	tɕă lè, tɕì qà	tsʅ^{31}χe^{55}	tɕh L ~ tsV L	tɕu	tsu, tsɑ	2 roots(?)
464	hiccup, belch	qà pù tshè	qè pú ~ qè pù		q a/e L pu (L)		qhuɛˈp tə lɑ	
465	hide (object)	ɕù		ɕye^{33}	ɕ y/ye L	(pə tʃə)	stuə	
466	hide (self)	(à) pià			pia -		piɛ	STC 46 *pwak
467	hide (v.)	ɕù	kò (?)	ɕye^{33}	k o/ye L	ʔʁʔ pə tʃə		*kway (303)
468	hill, mountain	ʁó	ʁuò ɤ́		ʁo -		ʁuəˈ pu	
469	hire, employ	ʁuà ɕà	mè ʁuà		ʁuɑ L		ʁuɑˈ	
470	hit target	dà uà	dè uĕ	da^{31}ye^{33}	ye, wa L	də wa	dɛ wɛ	
471	hoe	tɕyà	kuà	kua^{33}	kya L	steːˈtɕi	tɕyɛ	Although this appears to be two roots, MC, TP *ya > ua/ [velar] _ .
472	hold in arms	tə tò	toù	χtu^{33}	χt o/u L	ɹə χuɑ		MC 'tù', conceal, hold back
473	hold in mouth 1	zé	zé		ze H	ɣdʐi		
474	hold in mouth 1	qá	qoú	qu^{33}	q o/u -			*ku(w) (184)

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
475	hold meeting		mè tsò		ts o/u -	rmu tsu		
476	hole 1	zà pù	ʐ̩è pù	$ʐ̩ɑ^{33}pu^{33}$	ʐ̩ɑ L pu L	ɹətʃ 'cave'	ju ʐ̩u, ɹu pu 'cave'	MC has undergone vowel harmony. *puŋ (STEDT)
477	hole 2			$dʐo^{33}$	dʐo -	dʐu		*dwa(:)ŋ (169)
478	honestly	ì tsó mì tsó	teí tì tsì		tsV -			
479	honeybee	bù iù	bù ʐoú	$bə^{31}dʐy^{33}$	'bug'- dʐy -	bə	bə	
480	hoof 1	tsú kə̀	thì khə̀		k/kh ə/ə L		tʃuəχ, tʂuəχ (Moyu)	
481	hoof 2			$ʐ̩u^{55}dʐi^{55}$		ʁdʐ̩i ku		
482	hook (v) 1	kú			ku -		ɛ quɛ	
483	hook (v) 2	ʁué	ʁuá		ʁ uɑ/ue H			
484	hoop, band			de^{33}	de -	zə di	zuə dɛ	
485	hope	bà ló	bè dʐóu		b a/e L			
486	horn	ɹà ká	ʐ̩è ké	$ʐ̩ɑ^{33}$ $qə^{55}$!	rɑ L k/q ə H	ɹəq	ɹəχ	
487	horse	ʁò	ʐ̩òu	$ʐ̩u^{55}$	Cr o/u (L)	ɹəq, ɹəqᵹ	ɹu	*CC-? cf. 'bone'? PSQ *cluster is based on the correspondence of LX /ʁ/ with /ʐ̩/ in the other two key dialects. This correspondence is also found in 'divide', 'near'. *s/mraŋ (145)

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
488	host	tɕè lə pú	tɕì lɛ̀ pú	t ɕi^{55}lə^{55}pə^{33}	tɕi (L) lə (L) pu (H)	tɕil pə	tɕɪp	'home-m-do'. LX tɕè affected by VH.
489	hot (spicy)		zɛ̀	dzɿ^{241}, gzɿ^{241} (older speakers)	gz e/i L	tsə sti	gzə	
490	hot 1	dǒ	duɛ̀		due -	dzɻʏ: dzɻe		
491	hot 2	khú khuá	khué khuè	khye^{55}le^{33}	khye H			
492	house, home	tɕé kù, qò, ké	tɕí ~ tɕì qó	tɕi^{55}ko^{33}	tɕ e/i H k/q o	tɕi, qu:'	tɕɪ	*k-y(i/u)m (53). cf. 'building'.
493	how	nə gà	ɳà kí (lɛ̀)		ɳ a/ə H		ɳɛ gɛ lɑχ	
494	how many/ much	nà ó; nà ná	ɳà qó (lɛ̀); ɳà ɳó (lɛ̀)	na^{33}tɕi^{55} na^{33}	n/ɳ a L	ɳɑ bɑl		
495	hundred	à tshəì	à tʂhì	tʂhi^{55}	tʂhi (L)	khi'	(ɛ) khɛ'	*r-gya (164). PSQ *vowel supported by Jiuziying tʂhi. PQ *kr i/e. cf. 'eight'.
496	hungry	(dà) sù pá	sù	su^{55} pɑ^{55}	su (L) pɑ H	ɕipi	fie ʂue	*s-pa(ŋ/k) ('thirsty', STEDT)
497	hunt	qhò	ɕỳ χó	χo^{55}kə^{33}	qh/χ o (H)	qhu' kə	phu khʂu qhu'	*χ is probably secondary, due to stress patterns.
498	I, me 1	qà		qɑ^{55}	qɑ -	qɑ	qɑ	*ka (p93)
499	I, me 2		ŋà	ŋɑ^{55}	ŋɑ -			*ŋa (406)

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
500	ice	tsù pá	tsuè pá	tsuə^{31}pe^{55}	'water'-pɑ H	tsə pi	tsə pɑ	s1 = 'water'
501	ill, sick, pain		dzí	ze^{241}	dzi -	rdzi	zdzi	
502	in (the sky)	(mù tó) χeì	lià χà		χ a/e L		mə-χ	LX mù = 'sky'.
503	in back		mè tshɨ	mɑ^{31}tʃhɿ^{33}	mɑ L tɕh/tshɨ -			TP 'from now on'
504	in front	qè í	dè qè		qe L	tiɑq	qəə' tɑ ('front')	
505	incense	χò tì	χoù té		'fragrant'- t e/i -			
506	incorrect	(dà) tshà	kè tshoù		tsh a/o L			
507	inlay (v)	piá	ɕæN piè		p ia/ie -			
508	insane	dà ʁó			ʁ o/u -	ʁu ʁun (insane person)	ʁu ʁu	
509	inside (of room)	kù kú	qò qó	ko^{55}ko^{33}	k u/o (L) k u/o (H)	ku ku	tɕu xu̯	MC 'inside'. *Initial determined by comparison with NQ.
510	interest, usury			qə^{31}dzɿ^{33}	qə -	pə-q	piɛχ	make sure meanings align
511	intestines			pzɿ^{33}	pzɨ L		piə, pə (RH)	ZT, RDZ pzɿ, JZY ptsɿ.*s-pa-y (STEDT), via meta-thesis? LX from PTB *pu (STEDT)
512	into (pfx)	ì -	ì -		i L			

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
513	iron	çà (mó)	çì	$çi^{55}$	çam (L)	su' mu	ʃɑm, su:' mu	STC 228 *syam
514	irrigate 1, pour water on	sù		$ʂue^{55}$	ʂue -	sʏi	tsə-ʂuə ('water" ir-rigate')	-
515	irrigate 2	lù	tsuɛ̀ lɛ̀		l e/u L			
516	itch	zè zè	dzɨ dzà	$dzɿ^{31}zɑ^{241}$, $dzɑ^{31}$	dzɨ L dzɑ L	dzʏi	ɛ dzɛ	reduplication, ?STC 465 *m-sak
517	jab, poke, stab 1		tshoú, tshó tià		tsho -	tshʏ (insert)	tshuə (insert)	
518	jab, poke, stab 2	tsɨ́, tçí					tʃə	
519	January		pɛ̀ lə	$χpe^{55}ʂɿ^{33}$	χpe - 'month'			
520	Jew's harp	dzyà pú	dzòu		dz ya/ou L	ʁdzu		
521	join, link	á dí dí	ì deĭ		d i/e -			?STC 421 *du-t ~ *tu-t
522	joint	kù sà, sà ká, sá (joint of bamboo)	zæ̀ ʁoú-zæ̀ sà ~ zæ̀ ʁoù-zæ̀ sá, sà (joint of bamboo)		sa (L)	saq	sɑχ	
523	jump, dance	tshó tà (also 'pulse')	soú tà (also 'pulse')	$tshu^{55}tɑ^{55}$	qhs u/o H tɑ L	qhsu	qhsu qhsu	MC, TP 'dance (n)'. MC, LX also 'stomp feet'. JZY ts'u gives evidence for PSQ 'cluster'.

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
524	key	dzù uà		dio^{241} ʁue^{241}	'door'-ʁuɑ L	diu ʁuɑ'		m1 = door
525	kick	tshù ~ tshú tá	tʂhù	tɕhye^{33}	tʂhu (L)	pɑχtʂu ʁɑ	pu χsu tʂhuə	TP reflex is palatalized.
526	kidney	pú lù	pú lò	χpə^{33} lo^{55}	χpu (H) l o/u (L)	ʂpu lu	ʂpul	*pil/r ⋈ rpul (STEDT)
527	kill	tsò tsó	tsɨ tɕá	tʃ^{33}	tsV L tsV H	tʃə	tʃə	*g-sat (58)
528	kindle	tsú	tsú		tsu H		mə tsə	
529	kinship pfx	à	á ~ à		a -	e, a		
530	kiss		tsù tsú (pù)				RH zde tʂue-pə ('lips-mdo')	-*dzo·p (p69)
531	knee	ʁò qə́	ŋò kɛ́	χŋu^{55}	χŋ o/u (L)	ʁuə' χqe'	ʐquəq, (əɹ pɑχ)	
532	kneel	(ʁò) tshú	ŋó tshò	χŋu^{55} tshu^{55}	'knee'- tshu (H)	ʁu'ŋ bə'k tshu		m1 = 'knee'
533	knife	tɕà piá	(tsɛ̀ kǐ 'knife edge')	tɕa^{31}dzo^{33}	tɕa L -	dʒatʃ	dzɛ tʃuɛ	
534	knife edge	tɕà qó	tsɛ̀ kǐ		'knife'- kV -	zi ka		

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
535	knock down, topple	dà dzù zí	ʂǽ dʐuà zî		dʐu(ɑ) L			
536	knot	kè tá	kè tà tà		ke L ta -			
537	know, be able to 1	ŋuè	ŋuè	ŋue^{33}	ŋue L			
538	know, be able to 2					gʐə	gʐə	
539	know, recognize	sɨ̀ (à), sí sí	sɨ̀ ʐá, χà sì	sʅ^{55}	sɨ -	sə	sə (' recog-nize')	
540	kowtow	ʁò tsú			ʁV -		ʁuə' tshuə	
541	ladder	dì ká	dè tɕí	χdə^{33}gie^{241}	χd i/e/ə L	zdɑ	zə də	
542	ladle	ʁá			ʁV -		χɑs ʁu	
543	lamb	ió mù tsù			'sheep'-mV- -'small'	-	pɛj miɛ	
544	lame 1	qhuá	qhuá		qhuɑ H	(khə lɑ)	(tɕhəχ piɛ)	
545	lame 2			tɕhe^{33}lɑ^{33}	tɕh e/ə -		(tɕhəχ piɛ)	
546	lame 3			tɕhe^{33}lɑ^{33}	lɑ -	khə lɑ		
547	lamp	mú gú	mè-cà	mə^{33}gu^{33}	mu (L) gu -			fire-lamp

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
548	language, speech	zə́ mú	zuè mé	$z\eta^{31}mə^{55}$	zue L muə H	ʐɑ'mɑ (song), dʒə βɑ	ʐə wɑ, zəm ('song')	The *rhymes are not perfect correspondences.
549	late, tardy	ʁà	là	$ʁue^{33}$	χlɑ L	ʁlɑ	dɑ ʁlɑ	LX tend to take first element of CC (knee)
550	laugh	(dá) zá ló	dʐà	$dʐɑ^{33}$	dʐɑ (L)	dʐa, dʐɑ	dʐɑ ɕɛs ('joke')	*rya-t (202)
551	lay (egg)	fià tshɨ́	tʂhɨ́	$tʂhi^{55}$	tʂhɨ H	khə'	hɑx	
552	lazy	qeí	ké		χqe H	ʂqe	ʂqə	*Cluster inferred by NQ, different initials in SQ.
553	lead (cow)	tá	tá	$tɑ^{33}$	tɑ (H)	ʂa ʂkua		
554	lead the way	só			s o/u -		su	
555	leaf	qə̀ mà	(phò) cà qè	$tɕhɑ^{55}qə^{33}$	kɕɑ - qə L	khɕaq	tʂhu khʂu	MC m1 = 'tree'
556	leak	zɨ̀	zuè	$bzia^{33}$	bzV L	zʏ	zə	
557	lean (meat) 1	tshɨ̀ bú	tshaì tshaì		tsh ɨ/ai L			
558	lean (meat) 2			$dʐo^{241}$	dʐo -	ʁe		*n-džaŋ (STEDT)
559	learn, study, teach	só	soú	$tə^{31}sy^{55}$	s o/y H	sy	su	

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
560	left (hand) 1	dó gó ('upside down, inverted')	guì	χgy^{33}	χgy L			MC also 'inverted, upside down'
561	left (hand) 2	lí zí ʁuá			ʁuɑ -	dʒə pa ʁua^{1}χi	ʁuɑ	
562	lend 1	dà ɳì	dè ŋě	da^{241}ɳi^{33}	ŋie L	ŋuə sa	ŋuɛ sɛ	STC 190 *r-ŋya -STC 312 *kroy
563	lend 2, borrow	nì ɕá	ŋè ɕí		ɕ a/i H	ŋuə sa	ŋuɛ sɛ	
564	leopard, panther	ɕì	sì	si^{55}	si (L)	sə	sə	
565	letter, mail	phù	pʂè		phre	zət phi	phɹe (mes-sage)	-

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
566	lick	ɳá tá	ɳè tá	na^{33}	ɳ a/e (L) ta H	ɳi ta, ni tæ	ɳe te	In this form, it is odd to see /n/ correspond to /ɳ/ before non-high front vowels. This may point to a nasal *CC- in PSQ, likely coming from PTB *m-lyak (STC 211). Although there is no direct evidence within Qiang itself, other Qiangic languages show an initial CC, with a nasal for Ci, and Pumi has an affricate which appears cognate: rGyalrong ka nə ntsok, Muya, $thi^{53}ndzɣɛ^{55}lɛ^{33}$, Ergong ɳɣia la, Pumi $dzɻɛ^{35}$.
567	lid, cover	tà-qó	tshà qù	$qu^{31}qu^{33}$	qu (L)	qe kuə, qhuɤ	quətɕ	STC 479 *klup, *gop ⋈ kop (STEDT)
568	lie (n.)	ì zɨ	zè ʐə̀		ʐ ɨ/ə (L)			sl makes these look like verb forms, however, verb form is followed by pù 'do'.
569	lie down		né		n e/ə -		ɑ nə	
570	lifespan	só	soú dzè		so H			RH suə 'life'.
571	lifetime (CL)	ɕí	ɕí		ɕi H			
572	light (candle)					ʐa	ʐuɛ	
573	light (fire)	phú	mú phù		phu -			STC 220 *pwar~*bwar

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
574	lightning			χde^{33}lɑ^{33}	χde -	ʂa zdɑ		*e is reconstructed, because of the resistance of the TP form to vowel harmony.
575	lightning	qà tiè	ɕỳ qé		ɥ e/ə -			
576	lightweight	dʑó	ʑóu	dʑy^{33}, gʑy^{33} (older speakers)	gʑ o/u (H)		gu' tsɛ	?*r-ya:ŋ (328). TP vowel is aberrant
577	limestone			χo^{33}phʐi^{55}	phri H	?æ? kɑ rpu		
578	limit, end	dʑí tò	dʐì ló		dʐi -			
579	line up	dà ʁə̀ ʁə́	ʂæ̀ ʁá					?STC 346 *ren
580	lip	dʑyà-kú	duɛ́-ʐà	χduə^{33}	χd ya/uə (L)	ɣdzɑ:', ɣdzæ (a?)'	zde◦kɥ	
581	liquor, alcoholic beverage 1		tɕhà	tɕha^{55}	tɕha -			
582	liquor, alcoholic beverage 2	ɕì			ɕi -	ɕi	ɕɪ	
583	listen	tshó ɕì	soú nə̀	tɕhy^{55}ɳy^{55}	khɕy H	khɕust	khʂu ctɕu	
584	liver	ɕí ɻá	sè	sie^{55}	sin (H)	si	sɑ◦xɑ	*m-sin (234). cf. 'leopard'

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
585	long objects (CL)	zì	dʐ́	dʐi^{241}	dʐi (L)	ʴə		
586	look at	tsà	(kè tʂè)	tsia^{33}	tsia L	tsi	tse, tsɛ (watch)	For MC /tʂ/ corresponding to /ts/, cf. 'pick up'.
587	loom			tia^{33}tia^{55} tsʅ^{31}	tia -	titis	tɕɛs-pɑ nɑ	
588	louse	tsí	tʂì	χtʂi^{33}	χtʂi (L)	xtʂə	xtʂə	STC 439 śrik
589	love 1		má	mɑ^{33}	mɑ -			
590	love 2	ɕì ɤ̀			χtɕi -	χtɕi		?PLB *m-dza-k (167)
591	lower (head)	ʁú	ɦà ʁó		ʁ u/o H		qəp ɛ ʁuɛ' ('nod')	
592	lower seat (not honored)	ʁà lì	ʐ́ lè		l i/e L			
593	lung	tshù	tshoù	tshu^{55}	tsh o/u (L)	tshuŋ pɑ	tshuə	PQic *C-tsos (STEDT), PTB *tsywap (239)
594	magpie	ɕà ɕá	tɕà tɕá	χtɕa^{33} χtɕa^{33}	χtɕa -	(qɑ'qɑ')	ɕtɕɑ ɕtɕɑχ	*ɕtɕà ɕtɕá
595	mail (a letter)	(phà) ɳì tà	(pʂè) tà		(χ)tɑ L		stɑ	
596	man (male adult) 1	biè phà	bè liú	ba^{33}phe^{55}	bE L ph a/e -	bə' ɸu		TP 'young man'. Ergong bzɯ.

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
597	man (male adult) 2	tɕì	tsɨ̀	tʃʅ^{33}	tɕi L	tɕim	tʃɪ	*s-kyu (STEDT)
598	manger, trough	ʁò tshòu	piá tshə̧u		tsho L			mà tshaò is b. is this?
599	many 1	dʑú	dió	dio^{241}	dio H			cf. 'door'
600	many 2					quə ɣli	qu liu	
601	marry (of a woman)			də^{33}	də -	dək	(stsɛm) də	
602	matter, affair	zì	dʐɨ̀	dʐʅ^{33}	dʐi L	dʐə	ʐə	
603	meal (CL)	tuá	tuá ~ tá pà		tuɑ H			
604	means, way		pʂú thè	phʐʅ^{33}	phr u/i -	phə'		
605	measure for grain 1 (decaliter)	ʁú tù	pù tòu	que^{55}te^{55}	te ~ t o/u (L)	quɑt		JZY te. final morpheme may be from more than one root, cf. MC zè tè 'ruler (measure)'
606	measure for grain 2 (decaliter)	ʁú tù			ʁu -		(o) ʁu	
607	meat	pià tshɨ̀	pià-tshè	tʃhʅ^{55}	tshi (L)	pi-s	piɛ-s	pig-flesh *sya (181) or *tsil (p16)
608	medicine	sɨ́ ká		sʅ^{33}	si -	səpɑ	sɛ pɛ	
609	meet, welcome	(à) dí	dí		di H		də	

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
610	mildew, mould (v)	tɕý qá	à tsuè qâ		q a/ɑ H			LX has alternation tə̀ sù ~ tə̀ ɕỳ.
611	milk (v)	ɕì ɕí					suɛ	Probable cognate set.
612	mill	zuà ò (millstone)	dzò lò-qá	tsuə^{31}dze^{55}	dz/dz o/uə (L)	dʒa ʁlu	dzuɑ-ʁl	VH? ʁlu = 'stone'
613	mistake	dà tshà	kè tshòu		tsh a/ou L			
614	mistaken, wrong	dà tsà	tɛ́ tshě; kè tshù	tə^{31}tshie^{33}	tshie L	da tsha	dɛ tshɛ	
615	mix up (mortar)	tsì qá	tsà		ts ɨ/a L			
616	money	dzí gù	kó	χgy^{33}	χg u/y (H)	dzi ku	dzə kɥ	
617	monkey	ʁuà sà	ʁuà sà		ʁuɑ L sa L	ʁuɑ si	ʁuɑ sɑ	
618	month; moon	là; sì ɕyà ~ là ɕyà	là; ɬà ~ là	ʂl^{33}, ɕy^{33}ɕya^{55} ('moon')	slə L	ʂə, tʃhə ʂa ('moon')	ɕu sɑχ	LX 'moon' is calque? Yadu 'moon'. STC 144 *s-gla
619	mortar		khueí khueí	khə^{55}	kh ue H		tshə kɥ tuəʂ	
620	mosquito	bù bù		bə^{241}bə^{31}	'bug-bug'	bəp qə zi	bəm qɑ zɑ	just 'bug'morpheme?
621	mother	á mà	á mà	mɑ^{33}; mɑ^{55}mɑ^{55}	ma L ~ mɑ -	a ma	mɑ:	*ma (487). Taoping indicates variation for PSQ. LX, MC are ambiguous, reflecting either *a, *ɑ.

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
622	mother's brother	á kù	à kù		a - ku L	ə ku		*kuw (255)
623	mountain		sù	tshuə^{55}, qhsuə^{55} (older speakers)	qhs u/uə -	qhsəp		note reflex of *cluster in SQ
624	mountain valley	qhuà ɕì, ʁó qhuà	qhuá bʐà ~ qhuà qó ~ qhuè, qhò ɤ (ditch)		qhuɑ -			?*klu·ŋ
625	mouth 1	qà	qè, qá (mouthful)	χqɑ^{55}	χqɑ -	ʂqu	ʂqu	MC 'mouthful', *m-ka (468)
626	mouth 2					dzə kuə	zdɛ kɥ	Note metathesis.
627	move	qá tà	(pàn té) qà		qa -		(mɛ xliɛ)	
628	mud					buʐ	bu ɹɥ	
629	mule		kè tì	ke^{31}tɕe^{33}	ke L ti L	tʂə	kɛ tʃɛ	
630	muscle	dzɨ	dzè	dʐ̩^{241}	dʐ/dz ɨ L	ɳæm, gə' (also 'tendon, sinew')	gə	NQ forms indicate PQ *grə. Perhaps from *graw (STEDT)
631	mushroom	mə ɤ	mò tsú ~ mè ʐ̩ú	mɑ^{31}ʐ̩u^{33}	mV L ʐ̩u -	tɕin tsə	muy	*g-məw (455) variation in m1 vowel are from VH.

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
632	musk deer	tshɨ̀ lə̀	sɛ̀ lə̀	tɕhi^{31}lə^{33}	khʂi L lə L	khʂəʐ	khʂu	MW , TP 'roebuck', YD 'river deer', MC 'female musk deer' lè mià (VH). JZY ts'ɿ ʐɻ.
633	mute					ʁue'	ʁuɛ'	
634	name	(zə̀ mú)	mɛ̀ mɛ́; mɛ̀	χmə^{55}	χm ə/e (H)	rmə	ʐmə	MC 'given name'; 'surname'. *r-miŋ (83). LX s1 may be a syllabification of the PQ pre-initial *r (although /ɹ/ would be the expected reflex). This would be evidence for preservation into PSQ of *r- separate from *χ-. However, LX 'name' is identical to 'language, speech', suggesting that 'name' may come from the sense 'called', and thus would not be cognate with the other forms. Cf. French (s')appeler.
635	narrow	tɕhá		tɕhe^{33}	tɕh a/e -		tshɛ	?*tɬi:p ('shut, close', #370)
636	navel, umbilical cord	pú tsɨ̀ qà	pɛ̀ tʂɨ̀ tʂɨ́		pu - tʂɨ L	pʌ$^{\circ}$tʃə̯, pu$^{\circ}$ʂ	pu$^{\circ}$tʂʉ̯ Moyu, pu ʂʉ̯	VH. cf. 'belly'; Mawo forms from ZYC, J. Sun.
637	near 1	zɨ̀ zà	qɛ̀ zí, ì dzà	kie^{31}ʐi^{55}	q/k e L χz i/a H		kə dzɑ	JZY ʁza ~ za.
638	near 2					guə'n	guɛ' nɛ	
639	neck	mù kà	qɛ̀ mò	ʂʅ^{31}kie^{33}	mu L kie L	tʃə ka, tʃə kæ	mu ku	cf. 'chin', zyc/mwQ

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
640	needle	χé ~ χèi	χè	$χe^{55}$	χe -	χe	χɛ	*k-rap (JAM 1997a)
641	NEG	mí	mì	mi^{55}	mi (H)	ma		Tone varies with verb, PTB *ma (p96)
642	NEG IMP	tsì-	tɕì-	$tsɿ^{55}$-	tsɨ (L)			
643	nest	ỳ (tshá)-bù	ì tshè-bú	$i^{31}tshie^{55}$-χbu^{241}	'bird' χbu (L)	wuk nə:' bu, wurb		SQ 'bird-nest'
644	net	zà	dʐà		dʐa L			
645	new	tɕhí	sí	$tshi^{55}$, $khsi^{55}$ (older speakers)	khsi H	khsə	khsə	
646	New Year	dʑá tɕhí	dià sí	dia^{241} (celebrate New Year)	dia (L)	di (cel-ebrate New Year)	dzɛ khsə	
647	niece/ nephew	dʑì qhuá	dʑì	$dʑi^{31}$	dʑi L	dʑi (tsi)	dʒɪ	TP 'nephew', MW (niece)
648	night (CL)	ɹà	ʐà		ra L			STC 203 *ryak
649	night, evening	dʑì tsí	giè tsí		gie L		gəs (RH)	
650	nine	gú	gú qò	$χguə^{33}$	χguə	rguə	ʐguə	
651	nit	(tsì gú)	dʐú	$χdʐə^{31}$	χdʐu -	xtʂiu-ɣdʐ	xtʂu ʐɣ	?*s-row (278). *Vowel based on MC, YD.

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
652	NOM	kì	kì		ki L			
653	noodles 1	qhà mì		qhɑ^{31}thu^{55}	qhɑ L	pɑtɑq		
654	noodles 2	qhà mì	(tʂhɨ mè)		m i/e L			
655	nose	tì bá-qə̀	nə̀ qɛ́ pì	χɳi^{31} qo^{55} pə^{33}	sni L qV (H) p i/ə L	stʏq, stə◦qᵷ	ɕtɕy◦ts	*s-na(·r) (101)
656	now	pè ì	pè tì	pə^{31}ti^{55}	pe L ti (L)	pə ti		
657	numb 1	bò bò	zɛ̀ bù		b o/u L	gzə	gzə	
658	numb 2					gzə	gzə	
659	numbing pepper (seed of Chinese prickly ash)	tshə̀ í	tshɛ̀-nə́		tsh ə/e L		tshɪj	
660	obtain, reap	qó pú	tɑ̀ qà pû		pu H			may be 'do'.
661	ocean/lake	ɕó ~ ɕý	bú zì sì	ɕye^{33}	ɕ o/ye -	ɕi	ʂu	MC 'ocean'
662	official		zɛ́ qà	dzɿ^{33}	gzɨ -	gzə	gzə	
663	oil, oily		ɳ́í ɳà	χɳo^{55}	χɳ ɑ/o	zdɑ		Mawo has denasalized *ɳ
664	old (of people)	(fià) peì	(à) peì	pə^{33}	p e/ə L	pʏ	dɑ-p	cf. 'age'.
665	old (of things)	bá	bá	bɑ^{33}	bɑ (H)	bɑ	bɑ	

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
666	old man	mù pèi	mù péi		'person'-'old'			Note the difference in MC tones from 'old (of person)'. cf. AGT sfx
667	older brother's wife	ʁuá tɕí	ʁuè tɕì		ʁua - tɕi -			The *rhyme is based on MC having undergone vowel harmony.
668	older female relative 1	à nə́ (mother's b's wife)	ʁuè nə́ (m's sister, m-in-law)	-	nə H			?*na·w (271)
669	older female relative 2	á ɳà (m's sister)	ɳá ɳà (m's sister, m-in-law)	-	ɳa L			?*na·w (271)
670	on (the table)	qə̀ teì	qé tè		q ə/e - te L		qu tɑ	
671	one	à	à qó	a[31]	a L	a		tones for the numbers vary with the CL used. Cf. 'eleven'
672	onion (green)					du tshɑ	zdu tshɑ	
673	open (door) 1	gà		χgie[241]	χgie L	rga	ʐge, sɛ qɛ' gɛ	LBZ ʐge. PTB *ka (469).
674	open (door) 2		dzí		χdzi -			WS ʐdžji, JZY ɦdʐi.
675	open (eye)	tə̀ phé	phə́	phʐa[55]	phr e/a H	tə tʂɑ	dɑtʂɑ	
676	open (mouth)	tə̀ qà	qá		qa -		ɑ qɑ	STC 469 *ka

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
677	orphan	ké pù	kè pù tsú		ke - pu L		kɑp	MC m3 = 'small'
678	otter					ɣdzʐi	ɣdzʐəə'	
679	outside 1	ʁuà là (of room)	ʁuà ʐà		ʁua L lɑ L		ʁuɑ lɑ	PSQ m2 is based on LX, YD.
680	outside 2	ɹà lì (of thing)		ʐɑ^{55}lə^{55}	rɑ - l i/ə -		ʁuɑ lɑ	MC 'outside (of room)'
681	outward (pfx)	sɨ -	ʂè -	sʅ^{31} -	ʂɨ L			PSQ *ʂ > TP s/_ʅ
682	overflow, spill					χlɑ	dɛ χlɛ	
683	overtake	dè	dzoú dè		de L			
684	owe	tɕhá	dè khí	tɕhi^{33}	khi (H)	tɕi	tɕhɛ	MC initial is more conservative than NQ.
685	owl	ỳ khù	kuì tòŋ khò		k/kh u/o L			The initials do not correspond well in this set. *gu~ku (494)
686	ox (CL)	zà ~ zɨ	zà		za L			zɨ is weakened form
687	pad (v.t.)	tshà	tʂhà		tʂha L			
688	pain, suffering	iá tsà						
689	paint (painting)	ɕì			tsa -			*tsiy (p55)
690	paint (v)	mú má	mà		ma -			

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
691	pair, team	gù, guà	gú	gə^{241}	gu ~ guɑ (L)	guə	(o) ɹgu	JZY guʏ.
692	pants	tò qó			qo -	diu qu	du qu	
693	past, in the	dà qeí	qé ì sì sì, qǎi qá	qə^{31}ə$'^{55}$	qe (H)	nə pɑ thɑ	qəə$'$ tɑ	
694	patch, mend, repair	pà qó, pà ɕì	pè	χpe^{33}	χp a/e L	ʂpa	ʂpɛ tɛ	*p^{w}a (Matisoff, STC 122). *s-verb pfx?
695	patient		dʑí mù		dʑi - 'person'		ʑdʑɪm	
696	peck at	tshuá (tà)	tshuà tiá		tshuɑ -		tshuɛ tɛ	
697	penis	lià qə	lià qè		lia L q ə/e L	liq	læq, liəχ	JS. other forms also. YDQ, YDTBL
698	person	mù	mè, bʐà mù	mə^{33}	m u/e L	(nə)	miə	*r-mi(y) (p127). Vowels are different in 'wife', perhaps due to the phonetic processes that often affect suffixes.
699	person (CL)	dzè		tʃ]^{33}	dʑ/tɕ e/i L	ri; ʂə	(ɑ) tʂ	The *initial is unclear. No doubt this classifier has undergone phonetic changes common to functors.
700	pestle	tshí pù ʁò lù, ʁò liú	sá dè ʁù lò, pià tɕhè ló	ʁo^{241}lə^{33}	ʁo L IV (H)			cf. 'stone'
701	pheasant					wə ri	wu ru	

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
702	phlegm	tshù	tsù ʐ́é	t sho^{55}qhɑ^{33} χne^{33}	ts/tsh u (L)	tsʰə ɸə ta', tɑ'		MC 'phlegm/saliva'
703	pianniu 1 (cross of bull-yak)			khɕi^{55} (older speakers), tɕhi^{55} (younger)	khɕi -		khʂɛ (male), khsɛ miɛ (female)	JZY c'i [tɕhi].
704	pianniu 2 (cross of bull-yak)		bó (zì) ~ bò zí (male), mià bó (female)				ʐbə (yak (male))	STC 136 *broŋ.
705	pick up	tsé	(tè) tʂè	tsi^{33}	ts e/i (L)	tə tsi	(stɛ)	*rhyme variation based on both NQ, SQ forms. MC, YD 'pick up with chopsticks'. elsewhere MC has tʂ corresponding to /ts/.
706	pickle, cure	ʁá	ʐuá					More cognates needed to further refine this set.
707	piece of land	thò	thò		tho L			
708	pig	pià	pià	pa^{33}	pia L	pi	piɛ	*pwak (STC 43)
709	pig slop	piè-tì	pià-té	pa^{33}χte^{33}	'pig' χt i/e (L)	pi sti	piɛ stə	cf. 'supper, dinner'.
710	pig trough	pié tshoù	piá tshò̱u̱		tsho L			

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
711	pile up 1	bù	bò	bo^{241}	b u/o L	bu		
712	pile up 2, stack up	thú thuá	thuà		thuɑ L		thuə thuɑ	
713	pillow	ɳ̡ì kù	nè kò	ko^{33}	'ear' - ku L	nə ku	nə kɥ	*kum (482)
714	pinch	zɨ tsuà	(tè) tʂuà		tʂuɑ L		tʂhɛ tʂhɛ	STC 188 *tsyur
715	pine tree	piá ɕí phù	mù-cà-phó, mià-sé	χmɑ^{55}	smia	ʁdzu si		
716	pitiful	mə tshueì	mè tshuè pú zɨ		m e/ə L tshue L			
717	plain (n)	bà tò	dá tʂhɨ-bà	bɑ^{33}	bɑ L	bɑ		b? MC 'dam, embankment'
718	plant (sign into ground)	tshuè	(fià) tʂhuè		tʂhue L			
719	plant (v.)	phià	phià	phia^{33}	phia L	(tʃha)	phiɛ, piɛ	TP reflex should be */pha/
720	plate		tshì bá	χu^{33}bɑ^{33}	bɑ -	be		
721	plead, make excuse	mì í	mì ʁoú		mi L			
722	plow (n)	tò	tò kè	to^{33}	to L	tu	tuəχ	
723	plowshare	dzù	dz̡ù	dz̡ue^{33}, gz̡ue^{33} (older speakers)	grue L		gu: (RH)	LBZ grwu, JZY bdz̡l.

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
724	pluck (flower)	tshó	tshoú		tsho H		tshu tshu	
725	pointed	qə dý		qə^{55}tsie^{33}	qe -	tsa	tseχ, qu dʒu ('point')	cf. 'head'
726	pole			tsu^{55}kie^{33}		tsəŋ ka		
727	poor (of soil)	χuá	χuá		χuɑ H			
728	poor 1		tɕè	χtʂe^{33}	χtʂe			
729	poor 2	χá				bɤ	bə χɑ	
730	porcupine	tɕà qù	tì kù		'bear' - k/q u L			
731	pot, wok	tshà piá	tshà	tshie^{55}pa^{55}	tsh a/ie (L) pia H		qɑp (pot, jar)	cf. 'pig'
732	pouch	kà	ká		ka -	(χeɣʐ)		
733	press, push down	fià tshá	tɕhá		tshia H		tʂhə tʂhə	STC 353 *tsyuk
734	pretty	(tsà) sé	pà ʂé	χpɑ^{33}ʂe^{33}	χpɑ L ʂe (H)			
735	price	phù	phè	phə^{33}	ph u/e/ə L	phə		PTB *pəw (STC 41)
736	priest (Qiang)	sì pí	pí		χpi H			WS, LBZ ʂpji. Cf. Akha phí mɑ.

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
737	prison		khuè-tɕí		'dog-house/room'	-	khuɛ-tɕɪ	
738	privileged seat	tɕhì gó	ì qó		g/q o H			
739	protect, safeguard	quà	quà		quɑ L			
740	pull up (weeds)	té	tuè; tú tyà	χtue^{33}	χtue L	stɑ	stu stuɛ	*tyak=tək (p52)
741	pull, lead	qù qú			χku -		ʂkuə ʂkʉ, ɑ ʂə́ kʉ, ʂə́ xʉ	YD forms are all same morpheme
742	puppy	khù bù lá	khuà là tsú		la -			MC VH, cf. 'dog'
743	purse lips	pí pià	(duè)-piá pià		pia -			
744	pus	pù	pù	χpu^{55}	χpu (L)	ʂpə◦sa, rpə◦sɑ, spə sɑ	ʂpə sɑ	
745	put, place			kuə^{31}χty^{55}	kuə -	kuəxʂ		
746	puttee, legging	zù deí	diòŋ dí	dzo^{33}de^{241}	dio L d i/e (H)	gu'di		cf. TP dzi^{33}sɑ^{33} 'leg'
747	Qiang (people)	mà	mà	χmɑ^{33}	χmɑ L	rma	ʐme (RH)	
748	quarrel	qò quá	kuà pú		k/q uɑ -			?STC *g-ral

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
749	quilt	sù thiá ~ sù tɕhá	qhué thiò		th ia/io -			
750	rabbit			ʑi^{241}	ʑi L	ʁdʒə	ʑə ʂqɑ piɛ	Other SQ forms are borrowings.
751	rain 1	meì	mzi̱ì	ma^{31}ʐi̱i^{55}	'sky' - ʐi̱ -	mə ʁeˈ	məəˈ	*r-wa (433).
752	rain 2			χdʑa^{33}	χdʑV -			JZY ʁjie.
753	rainbow	mù ʁuè			'sky' - 'bend'		tʂəqtʂə ʁue/ tʂəqtʂə we (RH)	
754	raise	tɕhú	tɕhó		tɕh u/o H			
755	raise (livestock, child)	pɘ̀ ə̀	ì pɛ́ ə̀		pe H ɘ L		pəəˈ	
756	raise head	ʁà	(tæ̀) ʁà		ʁa L			
757	ramie			sɑ^{31}lɑ^{55}	s u/ɑ -	su		
758	rat, mouse	zɨ́ kú	dzɛ́ kuè	zɿ^{31}kuə^{33}	z/dz ɨ/e (L) kuə (L)	zə ʂkuə		
759	raw					χu tʂɑq	χə	
760	reach out (hand)			sɿ^{31}tʂhi^{55}	tʂh i/u -	tʂhu		
761	read			χdy^{33} (also 'recite')	χdy -	zdɤ	zdə	May be a borrowing from Tibetan ndon (Amdo dialect, ZYC).

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
762	real, genuine	ŋù	ŋuè		ŋue L			MC 'correct, right'
763	red	ɕí	nə́	χɳi^{31}ɳi^{33}	χɳi (H)	ɕi zi	ɕy pu	*r-ni (pp 46, 91)
764	reduce, decrease	tɕhì tɕhá	(fià) pé tɕhẹ̀		tɕhV -		fiɑ-χtʂɑ (RH)	
765	relatives	qà zè	kè dʑè	kie^{31}dʐi^{33}	ke L dʐe L	ka mi	kəɳ	MW mi = 'person'
766	remember			tɕi^{55}to^{33}	tɕi -	de tɕi quɑ	tʃɛ quɑ	
767	report on so.	lá	lé		l a/e H			
768	resin	piá zù, pié zù			zu -		luə-z, lu-z (RH)	RH ml= China fir tree
769	rest 1	bà ì	(bà) diè	χbɑ^{241}ɳi^{31}	χbɑ L			
770	rest 2					zdi	ʑdʑə, ʔə ʑdʐi (MY)	
771	retreat		gè gú pù	χgə^{31}kə^{33}	χg ə/u -	rgə ʂaʐ	hɛ quɛ	Precise reconstruction of the *vowel may be impossible, due to subsequent vowel harmony.
772	return (vt)		tù bà	da^{31}bɑ^{241}	bɑ L	hə wa		
773	return to a place	(zì) gó	gú		g o/u H			
774	rib	χá ɹà			χɑ - ɹa L		χɑ:'	

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
775	rice (cooked) 1	mà má	mà má	me^{33}	ma L ma H			reduplication at PSQ level. *may (p65)
776	rice (cooked) 2					stə	stuɑ χɑ	
777	rice (paddy) 1	tshì	tʂhɨ		tʂhI L			cf. Akha tjhɛ́.
778	rice (paddy) 2			ko^{33}tsʅ^{31}		ku tsə		
779	rice (u-ncooked)	tsheì	tɕhɨ	qhə^{33}	qhrə -	qhəˈ	qhəˈ ('paddy rice')	LBZ, JZY khri; ZT, RDZ qhə
780	rich			ʐi^{55}	ri -	ɹi		JZY ɹe pʏ.
781	ride, straddle	tsà	tsà	tsɑ^{33}	tsɑ L	tsɑ	qɛ tʃɛ	?*dzyon (72)
782	right (hand)	(phà tó qò)	dá	χdɑ^{241}	χdɑ -	(dʒə pa næχi)	(næ xʂe)	
783	rise	tə là			UP + lɑ -		tə lɑ	
784	river	tsò qhà			qhɑ -	qhuɑ:; tsə		
785	road 1		(ʐɨ)	ʁo^{33}dʐe^{33}	dʐe -			JZY i dʐe.
786	road 2					guˈβɑ	guːˈ	
787	roast, toast, burn	tə χú			qu -			*kaːŋ (330). *q > χ after stressed syllable.

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
788	rob	bú bá			bu - bɑ -	bə βa		
789	rod, stick 1	ʁuà lí			ʁuɑ - li -		wɛ lį	For YD w ~ ʁ, cf. 'rainbow'.
790	rod, stick 2			uɑ^{31}dio^{241}	uɑ - dio -	wɑ di		
791	roll (v) 1	qò liú, qò lý, lỳ lý	quà lió		qV L lV H	ʁlut		
792	roll (v) 2	lè cà		lə^{55}cɑ^{55}	l ə/e - cɑ -		səl lə ('roll up')	
793	rooster	ỳ qú	ì qóu	yi^{31}qu^{55}	q o/u H	tɕi wə tɕi		
794	root	kà pú	(phò) kè kè	kie^{33}	kie L	kɑpɑ	kɛ, ku pu	STC 238 *kywiy
795	rope	beì	bʐè	bʐe^{33}	bre L	biɣa, biɣ		WS, LBZ bre; LBZ bri; ZT, RDZ bʐe.
796	rot, spoil	tɕý qá	tsuè qá	tsuə^{55}qɑ^{55}	tsuə (H) qɑ H	tsə qɑ	ɑ squɑ	This is the lone form that indicates two *High syllables in a single PSQ word.
797	round	pà-kù	pè kuì	χgy^{33} χgy^{33}	χgy -			LX, MC 'bracelet' ('hand-round'). ZT gwə, JZY ɦgu, RDZ ɦgy.
798	row of grain (CL)	lú ~ lǔ	lú		lu (H)			
799	ruin	ʁlà	qhà là		ʁla L			
800	run	tshì tshì		tʂhi^{55}tʂhi^{55}	tʂhi - tʂhi -		tʂhə	
801	rust (n.)	cà-gù	guì	χguə^{33}	χgui L	(ɽtsa)		MC vowel is aberrant.
802	rust (v.)	zì zú	dè dzô		dz u/o H			

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
803	saliva, spittle		tsù ʐ́é	(phe^{33})	phe - r e/ɑ -	tsə sɑ', ɹɑ	tsə-s, ɹu	MC water-m. JZY pcie ɹa. Cf. 'vomit'.
804	salt	tshí	tshì	tshŋ^{33}	tshɨ (L)	tshə	tshə	*tsa (214)
805	salty		dzú		dzu -		dzə	
806	saw		kè ʐ́í	kie^{33}ʐ́i^{55}	kie L ɹi H	səqɑ', təkha't	khɛ', sə qɑ:'	s- init. forms from T? Initial on m2 is based on Jiuziying ka ɹə. Qiangic cognates include Ergong kɛ ʐ́ɛ, Yadu khɛ'.
807	say, speak; tell	qà tɕí	diú; diù	dʑi^{241}; dy^{33}	diu (L)	ɹu	dʑɛ	
808	scald, burn	thò	ʂè thè thoŭ		tho L			
809	scatter	dà phó	dè phù phû		ph o/u (H)			?STC 140 *ploŋ
810	scold	zɨ tà		zi^{33}	z i/ɨ L	wu wa		
811	scratch	phà dá, phà sè (dig out, scratch)	phiá, phù ʂà (dig out, scratch)	phʐ̩ŋ^{31} phʐ̩ɑ^{55}	phrɑ -	phɑ'stɑ		?STC 391 *pruk, ?STC 230 *hyak
812	seal, stamp		dzà					WS džja, JZY ɲdžje, RDZ žja.
813	season of year	- qeí	-qè	(-ko^{33})	-qe -			cf. 'autumn,' 'spring'
814	section (of road, journey)	zuè			(d)zue -		(ɛ) dzuɛ	cf. MC 'road'
815	see	à tɕó	tiú (cà)	tɕy^{33}	tiu (H)	kuə tiu	ku tɕu	

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
816	seed	dzueì	zueí-zà (seed-food)	zuə^{31}zɑ^{241}	zuə (L) zɑ L	tʃhaz	zuə	
817	seed, stone, pit		zuì		zui -		zuə	PTB *dzəy (also 'testicle'), cf. 'bullet' fix seed words. JZY bʐl may be cognate.
818	seek	mú lià	mú lià		mu H lia L			
819	select	ɕí qá	sè qá	(sɿ^{55}la^{55})	se (H) qɑ (H)		sɛ qɑ	
820	self		uí nə̀ ('yourself')			ɳu ɳu	ɳy tɕu	
821	sell					χuɑ	χuɑ	
822	send	piá	piá		pia H	ʂpu		
823	sentence (CL)	qú	qú					
824	separate	tə́ qá tshé	(kiè ká)		qɑ -		qɑ rə	
825	set (of sun) 1	dà	fià dà		da L			
826	set (of sun) 2					a qe	ɑ qɑ	
827	seven	ɕí	nə́ qò	ɕiŋ^{33}	sni (H)	stə	ɕtɕə	*s-nis (5). cf. MC 'two'. TP initial is problematic

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
828	sew	ɹà í	ʐ̩ì		ra - ri -		jəj (RH)	JZY (tɤ) ɹa ɹi. ?*krwi (pp41, 56). ?STC 456 *d-rup, STC p41 *k(h)rwi. aspiration is for Kuki-Naga. ?STC 456 *d-rup.
829	shallow	tɕhá			tɕha -	mɑ tʂhɑ	(bɪ tsɛ)	
830	sharp	tɕà	tsɛ̀	tsie^{33}	tsie ~ tsa L	tsa	tsɛ	
831	sharpen	tɕà-iù-sù suà	sù	suə^{55}	su -	sə	su (RH)	?STC 180 *s(y)wiy
832	shave 1	khuá			khuɑ -	khua^{1}	khuɛ^{1}	Muya ɣui^{53}, Pumi (Jinghua)ʐ̩i^{55} suggest PQic kr-.
833	shave 2	tɕhì	((mù) tʂhuá)	tɕhe^{33}	tɕh i/e L			JZY t'i (b?).
834	sheath	ɕà tshueì	táo ɕà tsɨ		ɕa L			cf. 'stick knife into'
835	sheep 1	ió	ióu	(χgy^{33})	io H			JZY u.
836	sheep 2					ɳu	ɳu	
837	sheepskin vest	phà ɹà	phà dʐ̩à		pha L dʐ̩a L			?clothes-skin.
838	shine; light	mú χuà χuà (shiny black)						*hwa-t (221)
839	shoe					tʃə βɑ	tʃu wɑ	how many sets?
840	shoot	qhò	tʂhà	qhɑ^{33}	qhr o/ɑ L	qhu^{1}	qhu^{1}	

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
841	short 1, low	bè, bà	bɛ̀	be^{33}	ba ~ be L	ba	bɪ tsɛ (shal-low)	-The presence of two forms in Longxi, coupled with the -a form in Mawo show that variation in the proto-vowel goes back to PSQ and PQ.
842	short 2				ŋua -	ŋuə tsi	ŋuɛ tsɛ	JZY ŋua.
843	shoulder	liá χá	ì χɛ́	lɑ^{31}χɑ^{55} pi^{33}	lia (L) χɑ H	dʒɑ χu (ZYC), dʒæ χu (MWQ), dʒa◦bla (J. Sun n.d.)	lu χu pɑtʂ	cf 'arm'. KMR *k(r)oŋ/k (STEDT).
844	shout	ɕí ɕí					(ɑ) ʂ (CL)	
845	shovel	ɕà piá	ɕì-piá		'iron' - pia H			
846	shy	zá qhú	dzá khỳ		dz̩a H qhu -	dz̩u χu		?*kyeŋ (162)
847	sickle	ɕà teí	ɕì dɛ́	ɕi^{33}də^{241}	'iron'- de (H)	sad	set	'iron-knife'. old compound. JZY ɕi de.
848	side 1	piá pú		pa^{33}pu^{33}	pia - pu -	(zi ka)	pie nɑ	*(s)pa(ŋ/k) (STEDT)
849	sieve			sia^{31}χgy^{33}	sia - χgu -	sa rgu	qə' gɣ	
850	sift (v)	sé lá	tɕhì ʂé là ~ tɕhì ʂè lá	sie^{33}lɑ^{33}	s/ʂ ie (H) lɑ (L)		sɛ (sifter)	
851	silk, satin	ʁuè	ʁuè	ʁue^{33}χto^{33}	ʁue L		ʁuɛ' su lɣ̀	

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
852	silver	ŋú	ŋó	χŋu^{55}	χŋu H	ŋuə zi	ŋuə	*(d-)ŋul (pp 15, 173)). For the PSQ vowel, cf. Table 3.3
853	sing 1	tshuá			tshuɑ -		tshuɑ	
854	sing 2			zo^{241}	χzo L	ʐɑ^{l} mɑ tʃə		Additional support from RDZ ɦžjo, JZY žjo, ZT žjo. L tone is indicated by contour and *cluster
855	sister (elder) 1	sá bà		sɑ^{55}bʐɑ^{31}	sɑ H -'big'	sɑba^{l}		sister-big. LX is 3d person
856	sister (elder) 2	á tseì			tse -		tsɪj	
857	sister (elder) 3		á tɕè		tɕe -		ɛ tɕɛ (wife of elder brother)	semantics of Yadu suggests that this is not a borrowing from Mandarin jiě 'elder sister'.
858	sisters	sà ɳì	sà nə̀		'sister-two'			STC 271 *na·w, or sister-two?
859	sit	fià zú	dzó	dzo^{33}	dz u/o H	dzu	dzuə	
860	six	tsú	tʂóu qò	χtʂu^{33}	χtʂu (H)	χtʂə	χtʂuə	STC 411 *d-ruk
861	sixteen	fiá tsú	fià tʂhòu	χɑ^{31}tʂhu^{33}	tʂhu (L)	hɑtʂ	hɑ tʂhuə	*χ- pre-initial in PQ 'six' becomes aspiration in 'sixteen'.
862	size	bà-tsá	bʐà-bʐí		'big'-'small'			semantic cognates
863	skin (human) 1	ɹà piá	ʐà piá	ʐa^{55} pa^{55}	ra (L) pia H	nə ɹə pi	ɹuɛ piɛ,	*p(w)ak (Matisoff). TP, MC, YD 'skin, hide,' cf. 'hole' 1. For *rhyme correspondences, cf. 'pig'

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
864	skin (human) 2		tshé pià	tʃhŋ^{31}pa^{33}	*χtʂi			'flesh-skin'?
865	skin, flay, peel	ʁà qá	ʐá qà	qe^{33}	qe - qa -	qə qa	dɛ' qɛ, ʁɛ qɛ	STC 342 *r-kwak. LX also has qhuá, which may reflect *s-prefix.
866	sky	mù tó	mú pià	χmə^{33} da^{241}pə^{33}	χmu (L)	mu tup	mu tup	*r-muw (488)
867	slander	phià	mè phí		phia -			
868	sleep 1	(fià) mà zè	ú zè		z/ʐ e L		ɛm dzɛ	
869	sleep 2			ne^{55}	nə -	nʏ	nə	JZY nə.
870	sleeve 1	phà lì	phè ì		pha L			JZY pha ji. VH in MC.
871	sleeve 2	(phà lì)	phè ì	i^{55}χdio^{33}	i -			JZY pha ji.
872	sleeve 3					lɑ qu	ju qu	
873	slice	liá						?STC 351 *lep
874	slowly 1	à tɕhá tɕhà		tɕha^{55} tɕha^{55}	tɕha H			
875	slowly 2		à khà tsí		kha -	a kha kha		JZY k'o k'o.
876	smallpox			bo^{241}	bro -	bu'		JZY bɯo.
877	smear, rub	phà sè	phù ʂà		ph a/u L ʂ e/a L			
878	smell, sniff	cí tà, cí dà	mí	χmi^{55}	χmam H	xɕust	ɕete	*m/s-nam (464)

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
879	smoke, tobacco	mù khú, mú-qhú	mù qhué, mù khué, qhoù ('smoke meat')	mə^{31}khuə^{55}	mu L kh/qh uə H	mu xu	mu xu	fire-smoke STC 256 *kuw. For uvular initial, cf. Shixing ɳɛ^{33} qhuɐ^{55}.
880	smooth					ɬa ɬa	ɬɑ: ɬɑ	
881	snake	bù tshɨ	bʐě	bə^{31}guə^{241}	br u/e L	bəs	bɯɛ gɛ, bəs	YD 'year of the snake', STC 27? ?STC 447*b-ru·l
882	sneeze (v.)	á tshù-pù	á thiaò-pù	χa^{55}tshye^{33} pu^{33}	a H thiV L pu L	sætɕʰi (sæ tü lü)		iregular vowels due to onomatopoeia. s3 'do'
883	snore	mà zè-qhuà	mè ʑè-qhuá-pù	-	'sleep'- qhuɑ - ('do') -			sleep-snore(-do)
884	snot	tí	nè	χɳi^{55}tsuə^{33}	χɳi (H)	stɤ xu'	stɤ∘xu'	STC 101 *s-na. TP 'snot-water'
885	snow	peì	mù pà	mə^{31}pɑ^{55}	p e/ɑ (L)	tɕi qə' βu	piɛ	*p-wal (JAM-LITB 8.0)
886	soak/ immerse	tə̀	tè	χtə^{33}	χtə L	stɤ	stə	
887	soft 1	mà mà		mɑ^{31}lɑ^{33}	mɑ L	mə tʂɑ	mɑ tʂɑ	
888	soft 2		ʑà là	mɑ^{31}lɑ^{33}	lɑ L			
889	soldier 1		dʑyè	dʐue^{241}	dʐye L			TP 'soldier, army'.
890	soldier 2	guà-(χá)			guɑ L	gua'	guɛ'	
891	sole of foot	gɻò ɕì, guà ɕì	goù pà		gro L			For an alternate reconstruction, cf. 'heel'.

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
892	son	tɕì	(tsɨ)	tʃʅ^{33}	tɕi L	tɕi	tʃɪ	cf. "male", STC 59 *za
893	son-in-law	tɕì mià	tsɨ mià	tʃʅ^{55}ma^{31}	'son' - mia L		tʃɪ miɛ	*ma·k (324)
894	song (CL)	sá	sà		sa -			
895	soul/spirit 1	só		su^{55}	s o/u H	zy zy		*tsu (Matisoff 1974, #36)
896	soul/spirit 2 (cf. 'god')	tsɨ́		tshie^{33}	khsie -	khsi	xsə (RH)	JZY ts'e.
897	sound, report (CL)	qú	qú		qu H			
898	soup	thó		thu^{55}	th o/u H	dʒɑ thu		Could be an old borrowing from Mandarin tāng.
899	sour	tsuà	tsuí		tsuV	tʃɑqe		
900	spider	tshɨ tshɨ	(tʂhà ʂì)	tʂhʅ^{55}tʂhʅ^{31}	tʂhɨ (L) tʂhɨ L	tʂhəʂ	tʂhəʂ	PQic *kr- (Ergong, gzɻɔ gzɻɔ, Ersu, kɑ^{33}rɑ^{55}, Muya, ji^{35}mɐ^{35}qa^{55}zɻɑ^{35}, Queyu bu^{35}ka^{55}ra^{33})
901	spin (yarn), twist (rope)	lì	lì	li^{33}	li L		liə	May be a borrowing from Mandarin niǎn.
902	splash, sprinkle 1	sé	phù sè		se -		tsə se (RH)	

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
903	splash, sprinkle 2	phà	(tsuè) phè, phù sè		phV L			
904	spleen	phà ɹà	pá		p(h)a -	(χaʂ)		
905	split 1	qə tshɨ́					khʂɪ khʂɛ	Before offering an etymon, data are needed from a dialect(s) tha preserve evidence of *clusters.
906	split 2	dà (zə̀) zà	ʂè dʐì dʐá		dʐɑ -		dɑ dʐɑ	
907	spoon, scoop	zà	ɕì-zà ('iron-spoon')	-	za L	zəzɑ	zɑ	*zɑ
908	spread (manure)	ʁà	mú ʁè		ʁ a/e L			
909	spread, unfold	tshà	tʂhà		tʂha L			
910	spring of water					ʁɳɻits	ʁɳɻɪs	
911	spring, summer	tɕà qeɪ́	tsè-qè	tsie^{55}qə^{33}	tsie (L) qe H	mə tsa	tsɛχ	
912	sprout (n)	ɕà qə̀, sà qə̀-tə̀ ɕì (v.)	-ɕà qè lè kɪ́	χgya^{33}qə^{33}	qə L	nəqəʂ	ʂəχ	cf. 'head'.
913	square (cf. 'four')	(zuè)	dʑè dʑè	dʒ]^{241} χdzo^{31}	gr e/ɨ L	gʐə ʏdʐu	gʐə ɣrɣ	TP m2 is cognate with MW.
914	squirrel	zɨ̀ kú tsù	tshù lié		tshu L		jɛ tɕyɛ	?*sre[ŋ] (p171)

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
915	stand	tə ì	(tè) ʐ̩ì, tè ə̀	ʐ̩i^{55}	ʐ̩i L			*g-ryap (246)
916	star	zì bà	dʐ̩è	χdʐ̩e^{33}pe^{55}	χdʐ̩e L	ʁdʐ̩ə	ʁdʐ̩ə, ʁrə	
917	start	à tsè	dé tsì		tse L		kɛ tsɛ	
918	steal	tə kù	kú pù ~ kù, qù ('thief')	χkə^{55}	χku -	ʂkuə	ʂquəχ	cf. 'bat'
919	steam (v.) 1	(sò) qó					ʂqu	
920	steam (v.) 2	(fià) tɕì	tɕè		tɕe L		tʃɛt (steamer for food)	JZY cie.
921	steel			qu^{55}	qu -			JZY qu,
922	stem/stalk			χqə^{33}	χqə -	ʂqə'		
923	step over/ across	(dà) ʁuá (tɕà)	(dé) tɕà	ʁuɑ^{33}tsɑ^{33}	ʁuɑ - tɕ/ts ɑ L	ʁuɑ tsa	(ɑ) ʁuɑ	disyllabic
924	stick out (one's head)	sì tshí	ʂè tʂhí		tʂhɨ H		tʂhu (RH)	
925	sticky	zà	pià dzà		dza L			
926	still, yet	tɕá (ŋó)	tɕí ŋà		tɕ a/i H - 'have'			

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
927	sting (wasp)	qhò			qho -		ku qhu'	
928	stinking	bə̀ tsá	bù tʂá	bz̩ʅ^{33}	brɨ L tʂa H	da bə χtʂi	bə χtʂɛ	ZT, RDZ bʐɯ, JZY brɯ. Based on NQ, m2 may be *χtʂa.
929	stir-fry 1	cì ɕá	dzì dzá ʔɐʔ	χɳa^{33}	χɳi L χɳa H			
930	stir-fry 2					tʂhu tʂhu	tʂhuɪ tʂhuɛ	
931	stirrup	gò tshú	gòu tɕhuà bá		'foot' - tsh/tɕh uɑ -			
932	stomach			pɑ^{31}χtə^{55}	χtə -	stə qhuɑ:	(qhʂəs qɑ)	?*kwa
933	stone 1	ʁò ló ~ʁò lû	lò, gò-bz̩à, lò-bz̩à	ʁo^{241}	χlo L	ʁlu pi	(ɹa ʁuɑ)	For more evidence for this cluster in PSQ, cf. 'pestle'.
934	stone 2	ʁò piá			pia -	ʁlu pi	ju pu	
935	story (of a bldg)	sà			sɑ -		(ɑ) sɑ	
936	stove	tsò zò	tsɨ̀ qò		tsV L		tsur	LX VH.
937	straight	tí	tí, tɛ̀ tì	χtə^{55}	χt i/ə H	stətʂ	*	b?
938	straight, upright		teì teí	χte^{55}te^{33}, χtə^{31}tə^{55}	χte -	e thiʂ, qəst		TP 'right, just'
939	strength 1	dzɨ ~ zɨ	dz̩à qà	dz̩ʅ^{241}qɑ^{33}	dz̩ɨ L qɑ L			VH in MC. m1 = sinew.

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
940	strength 2	qú			qu -	gə' qu'	qu	Cf. PLB *k-ra² (WB ʔâ, LH ɡâ ('strength', CL for person).
941	stretch out (hand, arm)	tshí	tʂhì ~ tʂhí		tʂh i/i H		tho tʂhu, tu tʂhu	
942	strike (iron)			ɕi⁵⁵dio³³	dio -	dy		
943	stroll (v.)	suè lá	suè lù		sue L IV L			
944	stuck by thorn (?ʁ?)	tshá, tshuè, tshà	tɛ̀ tsí					?STC 276 *tsow
945	stutterer	qù dzý			(χ)qu -		ʂqu tshu	
946	suck (milk)	kú	qoù ~ qoú		k/q o/u (H)			
947	sun 1	mù ɕí	mè sí	ma³³sʅ⁵⁵	'sky' + si H		mu juχ	m1 'fire'. (LX) mù ɳ̩ì-ʁuè 'rainbow' sun-bent.shape.
948	sun 2		mè nə̀		'sky' + nə -	mun		m1 'fire'. (LX) mù ɳ̩ì-ʁuè 'rainbow' sun-bent.shape
949	sunbathe	qhuà	khuè		qh/kh ua/ue L		mə tshɑχ ʂkuɛ	LX mə̀ ɕí-qhuà 'shine upon (of sun)'.
950	sunrise	ɕyá qàn bè, sì		bzia³¹	bz e/ia L			TP 'rise (of sun)'

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
951	supper, dinner	ɻà tí	ʐ̩à té	ʐ̩ɑ^{55}χte^{55}	rɑ (L) χt i/e H	pi sti (pig feed), stə (graze)	piɛ stə (pig feed)	cf. 'pig slop'
952	support 1, prop up	tə̀ tì	ì tì		ti L		tɛ ɕtɕɛ	
953	support 2, raise	tə̀ kù					tɛ qɛ	
954	swallow (v.i.)	(qò tɕỳ)	ʂè zuì	sʅ^{31} dzuə^{33}	dz/z ui L	sə ʁzə	sə ɣzɣ	
955	sweat	tsù	tʂhù	χtʂuə^{55}	*χtʂu(ə) (L)	xtʂə, xtʂwə	xtʂuə	MW zyc, js. *s-krwal ≠ s-(ŋ)krul (STEDT)
956	sweep 1	ɕyè té	suɛ́ mè	sya^{33}ma^{33}	s ya/ye (L)			
957	sweep 2					dʐʏ dʐɑ	dʐu dʐu	
958	sweet	tshú	tshú	tɕhy^{33}	tsh u/y (H)		tshəχ	PLB *khyəw (p60)
959	swell up	phú, phú phá (swelling)	tè phó	tə^{55} pʰo^{33}	ph u/o (H)	pʰʏpʰɑ	təph phɑ	*s-bwam (172) n.b. redup. 1st syll is primary?
960	swing (tail)	ʁuà ɻà			r a/e -		ɻɪ ɻɛ	
961	tael, liang	zò	dʐoù	dʐu^{31}	dʐu L	riu	(o) ru	Vowel based on TP and NQ.
962	tail	suà kà	suà kè	suɑ^{55}kie^{33}	suɑ (L) kie L	su ka, su kuæ	si kue	m1 *swa-p (STEDT, attested in Dafang Yi, Qiang). m2 from PTB *k-lyak (STEDT)? 2d MW form from J. Sun.

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
963	take off (clothing)	χú		$χu^{33}$	χu -			
964	take out (from above or from in between)	tɕé			tɕ/tʂ e -		χtʂɛ	
965	tall, high	bó	bz̩ú	bu^{33}	br o/u (H)	bu'	bɯ, tɪ wɯ (shows infl. of stress)	JZY bru. *m-raŋ (146).
966	tear (v.), rip	phú phá	ʂè phù phə̀	$phz̩i^{33}$	phri (L)	phi' phi'	phɯ phɹɛ	Ergong pʂi, Namuyi $mphʂ ɿ^{35}$, rGyalrong, kɐ prə, Shixing $pɑ^{55}rɛ^{33}$
967	tear down	zà zí	dz̩ì dz̩í		dz̩V dz̩i H			cf. 'ask'. Reduplicated root.
968	tears	mə lí qə̀	mù lɛ́ qɛ̀	(mi^{55} ʁo^{33})	'eye' + *χlV H q ə/e L	ʁləq	ʁləχ	Vowel in MC s2 (PST *k/m-ləy) may be from vowel harmony.
969	ten	fià dzó	fià diú (qò)	$χɑ^{31}dy^{33}$	fiɑ L diu (H)	hə diu	ho dzu	PSQ *iu > TP /y/.
970	ten thousand	ʁuá (b?)	à uá	χgya^{33}	χgya -	ʁuɑn (b?)		Cannot reconstruct PSQ tone, because LX may be a borrowing.
971	testicle	bə̀			bə -		bəə'	
972	that	thà		tha^{33}	tha L	tha:	thɛ:	

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
973	there	thè gá	fià í qà	thə^{31}χe^{55}	thə L q a/e (H)	thə χe	thɑ	
974	they			thɑ^{55}χuɑ^{55}	thɑ - χuɑ -	tha χlɑ	thəm liɛ	JZY tsʅ ŋa.
975	they two			tha-n^{55}tʃʅ^{55}	'they'-'two'-m	tha ndʐi		JZY tsʅ ŋa ɳ tɤ 'they'-'two'-m
976	thick (of paper)	lià	lià (liù), tshù là	la^{33}	lia L	li	liɛ	
977	thick, wide	pà	bʐà	pʐe^{55}	pray (L)	pu		?STC 172 *bwam (cf. round)
978	thigh	duà qà-pà	duà-bʐà		duɑ L	də, də kæ	duɑ kɛ	leg-m
979	thin (of humans)	χuá	χuá		χuɑ H	tsha'ʁe	ts^{h}æ me we, qhɑ'	
980	thin (of paper)	bù	bù		bu L	?		STC 138? *pleŋ 'flat', etc.
981	thin, slender	bé	bʐí	bʐi^{33}, bzʅ^{33}	bzɨ - ~ bri -	bəɹ tsi, bʐə tsi	bɪ tsɛ, bə ʁɛj	*pe:r (340), WS, JZY bri; LBZ bre; ZT, RDZ bʐi.
982	thing	pà nà	pà nà	pɑ^{31}ne^{33}	pɑ L nɑ L	pɑ ɳi	pɑ nɑ	
983	think	bà ló	bè dʑoú ⩙ bè dʐoú	χbɑ^{33} χdʐu^{33}	χb a/e L χdʐ o/u -	χtʃɑ	ʐbɛ tɕu	m1 *e may be due to vowel harmony.
984	thirsty	tsù tə pià	pià	χpa^{55}	χpia (L)	ʂpi	ɕpiɛ	
985	this 1	tɕà	tɕà qó	tsa^{33}	tɕ/ts a L	tsa:	tsɑχ ('these')	MC 'this one (DEM + CL)'
986	thorn	tɕhí	tshí	tshʅ^{31}	tshɨ (H)	tshəp	tshə mɑ	*tsow (276)

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
987	thou 1		nò	no^{55}	no -			*naŋ (407)
988	thou 2	ù	ù ò (DO)		u L		ʔũ (RH)	
989	thou 3			$kuə^{55}$	kuə -	kuə	kə	
990	thousand	tú	((à) tshè)	$χto^{55}$	χt u/o H	stuŋ tsu	(ɑ) stu̱	This could be a borrowing from Tibetan stoŋ, especially given the MW form. It may also be the case that the SQ form is retained from PTB, and that the NQ form is borrowed.
991	thread	sà ɳ̩í	sè lì	$siɑ^{33}li^{55}$	sia L li (H)	suʐ	bu suəl	LX, MC also 'snare'
992	three	tshè	sí qò	$tshi^{55}$	khsi -	khsi		*g-sum (409)
993	threshold	dʑù khù			khu(e) -		khuɛˈ ʂuɛ	
994	throat 1	qù mù			qu -	ʂqu ma, tshu ʂqu ma ti		
995	throat 2	qù mù		$lu^{55}mə^{55}$ $dɑ^{241}$	mu -		mu wu (RH)	
996	throw, toss	ʁuà ɹà			ʁuɑ -	ʁueˈ	thɑ ʁu̱ʂˈ	
997	throw/ discard	sɨ́ dʑyá		$χdʒi^{31}$	χdʑya -	ʁueˈ	zdzu	*Rhyme is based in part on NQ vowels. YD 'pour/throw out water'
998	thrush	tshà ʁuæN	thò ʁò		ʁ uɑ/o L			LX m1 = 'bird'.

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
999	thunder	mú gú	mù gó	mə^{55}go^{33}	mu H g u/o H	mə rgu	mə ʐguə	
1000	Tibetan barley	zí	dzí		dzɨ H	(sə βa)		
1001	tie (belt)	dzì	dì		di L			LX, YD apparently have palatalized.
1002	tie (firewood) into a bundle		tsò dʐá	dʐɑ^{33}	dʐɑ -	dʐu dʐu	zdʐy (RH)	
1003	tie up (cattle)	tsù	tsò		ts u/o L			?STC 421 *du-t ~ *tu-t
1004	tiger	piá	pì dá	pzɿ^{31}dɑ^{33}	pzɨ (L) dɑ -	(b)	(b)	ZT, RDZ pzɿ da.
1005	tight 1	ɕí	sé		sie H			n.b. LX ɕì 'loose', STC 370 *ts(y)i·p
1006	tight 2	tɕí ~ tɕì tɕí	tɕí		tɕ i/ɨ H			
1007	tile	(ʁuà) (b?)	ià, ià guí mù (tile maker)	χgya^{33}	χgya -	wɑ (b)		b?
1008	time (hit one) (CL)	tshù	tʂhù		tʂhu L		(ɑ) tʂʉ	MC 'time (kick one) (CL)', YD no asp. w/ vl. V.?
1009	tin	tsɨ	tɕí	χtʃɿ^{33}	χtɕɨ (H)	ʐa ɳi	xtʂə	
1010	tinder	pú			pu -		puə'	

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
1011	tired	dà qò			χqo	ʂqu		JZY q'uʏ. Aspiration in JZY is evidence for *cluster in PSQ.
1012	today	pú ʐ̩	pé-sʐ̩	pə^{31}sie^{33}	p u/ə (H) sin L	pə si	pəs	evidence for *vl vowels
1013	toilet, cesspit	tshè kù	tɕhè-qù		k/q u L			feces-pit
1014	tomb	mú pú	mé pù	mə^{31}pə^{55}	m u/e - p u/ə H		məɸ	
1015	tomorrow (day after)	sò dʐí ʐ̩	sòu dì	sy^{55}dy^{31}	s o/y (L) d i/y (L)	syt	su dʐu	
1016	tomorrow 1	tà bəí ʐ̩	tè péi	tə^{31}pə^{33}	tə L pə (H)			
1017	tomorrow 2					ɑsqu	o squɑ	
1018	tongue	zà qà	zì qé	zʅ^{31}qə^{55}	zə L qə (H)	zəq, zəᵒqʂ	zəχ, zəᵒq	Mawo forms from ZYC, J. Sun. JZY ʁzəqe.
1019	tonight	pei^{35} dʐì tsí	pè gié tsí		pe - gie - tsi H		pɛj miæ χɑ:'	LX has palatalized the initial of m2.
1020	tooth	sù	sú-nà ('gums' (tooth-red))	suə^{55}	suə (H)	ʂə	ʂuə	*s-wa (437) MC has monophthongized.
1021	top 1	qà teì	qé tè	qɑ^{31}te^{33}	qV (L) te L	ti:q; qutu		

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
1022	tread/step on	tɕhyà (ɳ,í)	tɕhyà	tɕhya^{31}	tɕhya L	tɕha ɳ,i	tʃhuɛɳ,	
1023	tree	phù	phò	pho^{55}	pho	phəq	səɸ	JZY p'o.
1024	tree (CL)		ʁòu	ʁo^{241}	ʁo L			
1025	tremble	tshà té			khsa -	khsa' ma		JZY ts'a,
1026	turban	dé		tɑ^{31}dʐe^{241}	dʐe -	qə di:βɑ	qɛ dɛ	
1027	turn 1 (turn body)	suè	suɛ̀	ɕye^{33}lɑ^{55}	sye L		ɕyɛ	LX rhyme is aberrant.
1028	turn 2 (turn around, over)		ɦà liâ	ɕye^{33}lɑ^{55}	lia H		thɑ ɣlɻ	
1029	twig fence	tsà pià	tsà kí, à tsà ~ á tsă		tsa L		tsɛ ɕpiɛ	
1030	twist together, spin		dʐù dʐuà		dʐuɑ -	dʒar tʃə, dʒa-rdʒə	dʒədʒ	?*tsyur (188)
1031	two	nə̀	nə̀ qó	ɳ,i^{55}, (χ)nə^{31}sɑ^{33} ('twenty')	(χ)nə (L)	ɣnə	ji, hɑ ɳə (twelve)	*g-ni-s (4). JZY nʏ.
1032	two years ago	dzí pù ~ zí pù	dzɛ́ pù		dz i/e H pu L			

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
1033	ugly	khú, tsà qhú			χku -		mo ʂku	
1034	under	qà tò	qà tà	qhɑ^{31}lə^{33}	χqɑ L	ʂqul; qə li	qəl	
1035	understand	sɨ̀	sɨ̀ uà	sɿ^{55}	sɨ (L)	(qhsɑ)		MC s2 is sfx. *syey (182)
1036	unit of weight equal to 5 kilos	tɕhí	tɕhé		tɕh i/e H			*ki·n (369)
1037	untie	dà phà ʁà		ʐɑ^{31}	phɑ - rɑ L	phɑ ʁɑ	ɛ phɛ	
1038	upside down	dó gó	guì ~ guí		g o/ui (H)			
1039	upward (pfx)	tə̀ - ~ tə̀	tɛ̀ -	tə^{31}	tə L		tə (RH)	RH has variant forms, according to the rhyme of the following stem; tə appears to be the basic form.
1040	urge, hasten	ʁuǎ			ʁuɑ -		ɳu ʁuɑ'	JZY ʁu ɣua.
1041	urinary bladder	ɳò phó	biè phò dá, biè tà pó	pa^{55} χpo^{55}	χpho H	?ɤ? tʂʰəʂ		*po(ŋ/k) ɤ boŋ
1042	urine	bí	biě	bie^{241}	bie (L)	bi	bi, bɪ	PQic *nbi (cf. Chapter IV).
1043	use (n)	pò sɨ̀ ~ pò ì	iò sɨ̀ ŋá		sɨ L			It is not clear whether the first syllables are cognate.
1044	useful	ué		ye^{13}	ye -			

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
1045	vapor	lə̀	(tɕhì) lè		lə L		lɛ	
1046	vegetable	kù tsù	pià-tì kú (wild vegetable)	χu^{33}bɑ^{241}	ku (L)	ku-z (vegetable garden)	ku ʂɥ	cf. 'garden'
1047	village 1	tshuá-kù	tshuá, tshuà qó		tshuɑ H k/q u/o -		mɪ tshuɑ	
1048	village 2			mə^{31}zo^{33}	zo -	gzu		JZY zo.
1049	vomit	ɹà qú	ʐe^{33}		rɑ L	ɹɑ		JZY (u) ɹa.
1050	vulva					phaʂ	pʰoʂ (RH)	
1051	waist	tà qà		χtɑ^{33}sɑ^{33}	χtɑ L	tha su, tʰɑ ɕu / tʰa su, dzəᵒzdiᵒ gɹu	ʂəq	zyc, mwq, js
1052	wait	zò	zoù	zy^{33}	ziu L	ziu	thu su	PSQ *iu yields LX /o/, TP /y/.
1053	wall 1	qhà tsù		qhuə^{55}	qh a/uə	qhəː'	qhɑ's	
1054	wall 2		lò zù	ʁo^{33}zuə^{33}	z u/uə L			mɪ = 'stone'
1055	want	tɕhá	(khí)	tɕhi^{55}	tɕhi H	tɕhi	tɕhɛ, ʇtɕə xɥ liu,	
1056	warm 1	lé			le -	ʂtɕɑ lə, məli	dɛ slɛ	?STC 381 *lum
1057	warm 2			sʅ^{33}sʅ^{31}	s i/ɨ -	ʂtɕɑ lə		JZY si.

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
1058	warm 2 (of water)	də́	duè		duə -			
1059	warm self by fire	(mù) lé			'fire-warm'	məli	mu liu	
1060	wash, bathe	χò là, ʁə́ là (swim)	χuà là	χuə^{55}lɑ^{55}	χuə (L) lɑ (L)	χlɑ	xluɑ, ʁluə (bathe)	SQ has syllabified the PQ *initial. JZY xuʏ la.
1061	water	tsù	tsuè, tsuè	tsuə^{33}	tsuə L	tsə	tsə	cf. 'well' *twəy (168), *tšu (STEDT).
1062	watery, dilute	zò	ʐá	ʐe^{33}ʐe^{33}	ʐV (L)			
1063	we (dual)			qɑŋ^{13}tʃʅ^{33}	qɑ - 'two' - ti -			JZY qa ɳ tʏ.
1064	we (inclusive)				tsuə^{31} thyɑ^{55}	tsV -		
1065	we 1	qà lià (excl), ú lià (incl)	qá lè, á lè, tɕó lè (dual)		'I' - lia L		tɕɪ liɛ	
1066	we 2			qɑ^{31}thyɑ^{55}, qɑŋ^{13}tʃʅ^{33} (dual)	'I' - thyɑ	tɕyn (dual)	tɕɪj, tɕɪɻʂ (dual), ɛ tɕɛ (we all), tɕɪ liɛ	

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
1067	wear (bracelet, turban)	dé			de -		dɛ	
1068	wear (shoes)	tsù	tè tsù		tsu L			
1069	wear clothes	gù	(tè) gù	guə^{33}	guə L	guə	guə (RH)	*gwa-n ~ kwa-n (160)
1070	weasel	tɕà qó, tɕhỳ lí qə̀					tʃu qu, khuə tʂoqu (ses) (RH)	Sichuanese diao ling zi. cf. squirrel. More SQ cognates are needed for reconstruction.
1071	wedge	ɕý	(sé) cò	(sie^{33} tɕhy^{33})	ɕ u/o -	sa sə'	qɛ sɛ	MC, TP s1 = wood
1072	week	bà ì	bà-diè		ba			
1073	weigh	tɕhì tɕhí	tɕhé	tɕhe^{55}	tɕhe H	tʃhə tʃhə	tʃhə tʃhə	LX vowel is aberrant
1074	well (n.)	tsù kù	tsuè-kù		tsuə L ku L	tsə kuə	tsə kɣ	water-pit
1075	wet, moist 1	phà		phʐe^{31} phʐe^{55}	phray L	phiɑ'q		
1076	wet, moist 2	fià tì (zí) ('moisten')	tè tè		t i/e L			*ti(y) (55)
1077	what	ná ì	ní lè	na^{55}	n ə/i H	ŋi ka	ŋɛ ɣɛ	The vowel correspondences are unusual. TP may have been influenced by the vowel of tha^{33} 'that'.

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
1078	wheat, barley	ʁə̀	lɛ̀	ʁuə^{241}	χlə L	ʁlə	ʁlə	cf. 'stone', ?STC 150 *mruw
1079	wheel					khu-rlu	lu tʂʮ	
1080	where 1		à tá (lɛ̀)		tɑ -	tɑ nu	tɕɑ:	
1081	where 2			ɑ^{55}ɳi^{31}	ɑ - nə -	tɑ nu		JZY a nɤ ko.
1082	which 1		ní lɛ̀ (which one)		ni -	ɳi ka		
1083	which 2			na^{55}ti^{33}	ti -			JZY sa ti.
1084	while (CL)	tuá	tuá ~ tá pà		tuɑ H			
1085	whip	ʁuà-bə̀i ('whip-rope')	-ʁuà tsɿ		ʁuɑ L			
1086	white	phé	pʂí	phʐi^{55}	phram H	phi	phɹɪʂ	
1087	who	sɨ́	ʂí lɛ̀	sʅ^{55}	ʂɨ H	sə	sə	cf. 'outward (pfx)'
1088	wide, broad	lá	lá	la^{33}	la (H)		lɑ	
1089	wife	tɕɛ̀ mì	tɕé (tsɿ) mèi	tɕi^{55}me^{31}	tɕ a/e L m i/e		ʂɛ tsɛm, ʂtsɛm	'female-person', with VH on first syllable. Second syllable from *r-mi(y) (p127).
1090	wild goose	ŋa^{35} ʁò	ŋæ^{35} uò	ŋan^{13}ʁo^{31}	ŋa - ʁo L	khu' khu'		m1 from Tibetan WT ŋaŋ pa, m2 may be from PTB *ŋa-n (STC p.99).

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
1091	wild pig	pià χó	pià χá	$pa^{33}χa^{55}$	'pig' - χa H	piɑ χu	piɛ χu	
1092	willing	ʁò ~ ʁó	ʁoù ʐà ~ ʁoù ʐǎ	ʁu	ʁ u/o -			TP based on Chang's citation ɦu.
1093	win	tè qò	qà	$tə^{31}qɑ^{55}$; $da^{31}qe^{33}$	q ɑ/o (L)	da qe; təqu		
1094	wind (n.) 1	mù ʁó	(mé mè)	$mɑ^{33}ʁu^{55}$	'sky' - ʁu H	mu ʁu		LX, TP VH.
1095	wing 1	dʑuà ɹà	ʑà kè	$dze^{241}qe^{33}$	dʑya L k/q e L	gzi guaˈ	gzɪj pɑ	PQ *gzi. JZY ʑi ɹu. *g-(t)s(y)əw-k (STEDT)
1096	wither	fià χà		$tə^{31}χa^{55}$	χa -	de ɹə tɕi	tsɪ	
1097	woman	tɕá tù	tɕè liú mù	$tɕi^{33}$, $tshə^{31}$ ma^{55} (young woman)	tɕi (L)	tsəm, tsə βɑˈ (young woman)		JZY ci mie.
1098	wood, timber 1	ɕì tò	sè	sie^{33} (' firewood')	sie L	si	sə	JZY se. *siŋ (233)
1099	wood, timber 2	ɕì tò		te^{33}	t o/e L			
1100	work (v.)	dzì pù	dʐɨ pú		dʐ i/ɨ L - 'do'		dʐə bəl	
1101	worship	ʁuà ɕà			ʁuɑ -		ʁuəˈ tshuə	
1102	wrap	qú tá		$quɑ^{55}te^{55}$	q u/uɑ H t a/e H			This is the only form with two High syllables in more than one dialect.

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
1103	wrinkle	ɹà gù, tɕì tú	*guì, tsì qò		gui L	phu	zduˈ xɥ, tuə tuə	which are cog?
1104	write 1	ɹà			ra -	ɹa	ɹɛ	STC 429 *riy
1105	write 2		ɕà	sia^{55}	sia -			May be a borrowing from Mandarin xiě.
1106	yawn	hà há pù	χà pú		χa - 'do'			
1107	year	pù	(à) pù	pə^{33}	pu L	pə		JZY pɤ.
1108	year after next 1		χoù pú			hɑp		
1109	year after next 2	dzà dzá tɕi			dʐ a/e -		dzɛp	
1110	year before last	dzí pù ~ zí pù	dzé pù	dzɻ^{241} pa^{33} pə^{33}	dzɻ/dʐ i (H) pu L	dzɻəp	dzɻəp	
1111	year, last	nə́ pù	né pù	ɳi^{31}pə^{33}	nə (H) pu L	nəp	nəp	
1112	year, next	dzá tɕi	diá tɕhi	dɑ^{241}tʃhɿ^{33}	dia H tɕhi L	e ɹe	ɛ ji	*vl vowel?
1113	year, this	tsé pù	tsé pɥ	tsɿ^{31}pə^{33}	tse H pu L	(pəʂk)	(tsə xɐˀ)	
1114	yellow	χá, χá tshì tshì (bright yellow)	χá, χá χà tsì (bright yellow)	χa^{55}χa^{33}	χa H χa L	χɑ	ʂtʃə χɑ	cf 'brass'
1115	yesterday	ní ɕi	nə́ sɐ̀	ɳi^{31}sie^{33}	ni (H) sin L	ɳi si	nəs	m2 = 'day'. cf. 'year, last', ?STC 368 *niŋ

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Set	Gloss	Longxi	Mianchi	Taoping	PSQ	Mawo	Yadu	Notes
1116	yesterday (day before)	zí ɕi̯	dzé sè	dzʮ^{31}si^{33} sie^{33}	dzʮ i̯ (H) - 'day'	dzʮə si	dzʮəs	
1117	yoke, cow collar		nè tsù	χɳa^{31} tsuə^{33}	χɳ e/a L tsuə L	ɕitʃ	ɕtɕu ʂu̯	
1118	you (pl.)	ù lià	ú lè		'you' - lia L	(kuə ɳi χɑ)	kɛ liɛ	
1119	young	pù sù tsá	ʂù-tsà tsá		'age' - tsa H	ʂə si ma la	ʂuəs mɛ lɛ	LX ml = 'year'.
1120	yuán (Chinese dollar)	piá			pia -		(ɛ) piɛ	

Appendix B: Longxi and Mianchi Lexicon

1st earthly branch (rat) (LX) *zɨ kú* calque 1104.
1st earthly branch (rat) (MC) *dzé kuè ~ dzè kuè* calque 1104.
2d earthly branch (cow) (LX) *mà í* calque 1105.
2d earthly branch (cow) (LX) *sɨ* calque 1105.
2d earthly branch (cow) (MC) *ŋò* calque 1105.
3d earthly branch (tiger) (LX) *piá* calque 1106.
3d earthly branch (tiger) (LX) *tɕá* 'bear' 1106.
3d earthly branch (tiger) (MC) *pì dá* calque 1106.
4th earthly branch (rabbit) (LX) *zú* [zù] once 1107.
4th earthly branch (rabbit) (MC) *dɨ* 1107.
5th earthly branch (dragon) (LX) *cò* 1108.
5th earthly branch (dragon) (MC) *bú* calque 1108.
6th earthly branch (snake) (LX) *bù (tsè)* calque 1109.
6th earthly branch (snake) (MC) *bʐě* calque 1109.
7th earthly branch (horse) (LX) *ʁò* calque 1110.
7th earthly branch (horse) (MC) *ʐòu* calque 1110.
8th earthly branch (sheep) (LX) *tɕhà* calque 1111.
8th earthly branch (sheep) (MC) *tshè* calque 1111.
9th earthly branch (monkey) (LX) *ʁuà sà* calque 1112.
9th earthly branch (monkey) (MC) *ʁuà sà* calque 1112.
10th earthly branch (chicken) (LX) *ỳ* calque 1113.
10th earthly branch (chicken) (MC) *ì* calque 1113.
11th earthly branch (dog) (LX) *khù* calque 1114.
11th earthly branch (dog) (MC) *khuè* calque 1114.
12 earthly branches (LX) *dzỳ* b 1116.
12 earthly branches (MC) *ŋá ì dzù* b 1116.
12th earthly branch (pig) (LX) *pià* calque 1115.
12th earthly branch (pig) (MC) *pià* calque 1115.
a few (CL) (LX) *à χeí* 1353.
a few (CL) (MC) *cá* 1353.
a few years ago (LX) *qài à tɕì pú* 1144.
a little (CL) (LX) *ŋá* 1352.
a little (CL) (MC) *diè* b? cf. part 1352.
a time (CL) (MC) *doú* 1345.
abacus (MC) *suàN phàN* b 794.
abandon (LX) *dà ɕì* 1883.
abdomen (LX) *cí bá* 122.
abdomen (MC) *pè toù* 122.
able (LX) *qà* 2195.
able (MC) *kè ʐá* 2195.
abundant (LX) *dzú* 1540.
abundant (MC) *dió* 1540.
abundant (methods) (LX) *queí ~ qué* 1540.
accord with (LX) *tuè* 1889.
accumulate (LX) *dà tshú* 2016.
accumulate (MC) *fià tshèn thá* b? 2016.
accurate (measure) (LX) *zɨ* 1442.
accustomed (LX) *à tsò* 2458.
accustomed (MC) *ù tsù qĕ* 2458.
ache (head) (LX) *suè* 2391.
ache (head) (LX) *iá* 2391.
ache (head) (MC) *dzí* tone change after DO 2391.
across the way, opposite (LX) *dà ú sɨ* 1058.
across the way, opposite (LX) *dà dzí sɨ* 1058.
across the way, opposite (MC) *dè tí* 1058.
add (LX) *fià lú* 2556.
add (LX) *tə pì* 2556.
add (MC) *tæ ʂă* 2556.
add (salt) (LX) *(tshí) ʁá* STC 214 *tsa 1881.
add (salt) (MC) *(tshì) ʁé* STC 214 *tsa 1881.
add up to (amt of money) (LX) *tsɨ* 1965.
add up to (amt of money) (MC) *ŋà ŋó-ŋù* how.much-add.up.to 1965.
adjacent (MC) *qè zí* "next to" 1417.
admire, envy (LX) *iæn^{35} tchʐ* b? 2484.
admire, envy (MC) *ià tchí* 2484.
admit (LX) *tə lí* 1720.
admit (LX) *tə liá* 1720.
admit (MC) *tè taì pŭ* 1720.
adult (LX) *mù bà* 209.
adult (MC) *bʐà mù* 209.
advance, move forward (MC) *ì ŋù* should this be glossed 'enter'? 1661.
afraid (LX) *qò* ? STC *(g/k)rak 1958.
afraid (MC) *qoù ʐà* 1958.
after (LX) *suà χá* 1153.
after (MC) *mè tshí qà* 1153.
after, henceforth (MC) *mè tshí sòu dì* 1153.
afternoon (LX) *má ŋì χuá* 1100.
afternoon (MC) *mʐe^{35} tsà* 1100.

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again, once more (LX) *tɕá* 2634.
again, once more (LX) *thó dà ɕí* 2634.
again, once more (MC) *tsaǐ* b 2634.
age (LX) *pù sù* 1000.
age (MC) *ʂù* 1000.
aged, elderly (LX) *(fià) peì* 1510.
aged, elderly (MC) *à peǐ* 1510.
aged, elderly (MC) *ʂù lè qɛ̌* 1510.
agent/subject suffix (LX) *lè* follows subject, if DO is fronted 2645.
agitated, confused (LX) *χó tá* 1565.
agitated, confused (MC) *χuàn-tɕà* m1=b m2?=b 1565.
ago, before (LX) *qè í* 1152.
ago, before (LX) *dà qeí* 1152.
ago, before (MC) *dɛ̀ qɛ̀* 1152.
ago, before (MC) *fià-doú* 1152.
agree on, arrange (LX) *tsú* 2547.
agree on, arrange (LX) *ió dà* b? 2547.
agree on, arrange (LX) *tsò* 2547.
agree on, arrange (MC) *fià tĭŋ thà sè* p,b,s,s (agr?) 2547.
agree, consent (LX) *ʁò* 2114.
agree, consent (MC) *ʁoù* 2114.
agree, permit (LX) *dà ì* b? 2551.
agree, permit (MC) *tɛ̀ ʁoŭ* 2551.
air out (clothes) (LX) *phà* 2147.
air out (clothes) (MC) *dzí* 2147.
alarm, frighten (LX) *mə cà* 2078.
alarm, frighten (MC) *sɨ uâ* 2078.
alarm, frighten (MC) *sɨ zɨ́* 2078.
alert (LX) *tsù í* b 1574.
alive (LX) *sè* 1501.
alive (LX) *χó dà* b? 1546.
alive (MC) *ʂà* 1501.
alive (MC) *χò-thá-kì-lɛ̂* b-m-BOR-NOM-m 1546.
alkali (LX) *tɕêN* b. 72.
alkali (MC) *tɕiè* b 72.
all (LX) *à ɳá meì* 2630.
all (MC) *qɛ̀ nə̀* STC #397 *(m-)kul 2630.
almond (LX) *χən tsɨ́ ɕì mì* 498.
almond (MC) *ʁà mú* 498.
almond tree (LX) *χən tsɨ̀-phù* b? 481.
almond tree (MC) *ʁà mù-phó* 481.
alone (LX) *iò mó sò* b? 1594.
alone (MC) *à-qó-tsɨ̀* 1-CL-m 1594.
also (LX) *nà* 2633.
also (MC) *lɛ̀* 2633.
alter, change (v.t.) (LX) *thú ɳù* 1670.
alter, change (v.t.) (MC) *dɛ̀ goù* 1670.
amble out and back (MC) *sù* 2274.
among, between (LX) *tɕì gó* 1042.
among, between (MC) *gó tì* 1042.
amount to, add up to (LX) *à só* 1956.
amount to, add up to (LX) *à ɳá mì* 1956.
amount to, add up to (MC) *kè nə̀ à iú* 1956.
analogize (MC) *tá pí fáŋ* b 1780.
analogize (MC) *tà pí* b 1780.
ancestor (LX) *mə̀-kà* person-root 272.
ancestor (MC) *tsú cén ʐèn* b 272.
ancestor (MC) *tɕí qù sè* 272.
ancient times (LX) *dà qeí dà qeí* 1148.
ancient times (MC) *qé ì sì sì ~ qaǐ sì sì* 1148.
and (LX) *nà* 2643.
and (MC) *ɳà* 2643.
anger (someone) (LX) *qù tɕhì* 2244.
anger (someone) (MC) *mè-kuò tɕhí-zɨ* person-b?-CAUS 2244.
anger (someone) (MC) *kuò tɕhì* b? 2244.
angry (LX) *tɕhì tɕhá* 2245.
angry (LX) *tə̀ qù tɕhì* fià... "make him angry" 2245.
angry (MC) *tɛ̀ kuò tɕhì* 2245.
animal herder (LX) *khù pià cù mù* s2 can be [pjə] 235.
animal herder (MC) *khuè-pià-tiù-mú ~ khuè-pià-tiú-mù* dog-pig-v-AGT 235.
animal pack (LX) *zà qó* 831.
animal pack (MC) *tuó tsɨ̀* b 831.
animal pack's worth (LX) *kuà* 1293.
animal pack's worth (MC) *kuí* 1293.
animal pack's worth (MC) *tò* b 1293.
animal shed (MC) *ʁuà lé* 696.
ankle (LX) *pà qə̀* 130.
ankle (MC) *lò sɨ́ kuè* 130.
anklet (LX) *duà-kù* leg-round 666.
answer (LX) *dà ì* b 1761.
answer (MC) *taì pù* tone var. w/ tense 1761.
answer, reply (MC) *taì pù* 1993.
answer, reply (v) (LX) *guà* 1993.
ant (LX) *mà ɳì* b 451.
ant (MC) *mà ì tsɨ̀* b 451.
antimony (MC) *thí thiè* b 67.
antimony (MC) *thí thì* b 67.
anus (LX) *tshó qó-(zà pù)* buttocks-hole 143.
anus (LX) *qhə̀-iú* feces-m 143.
anus (MC) *tɕhè zò-ʐè pú* buttocks-hole. tone change in m1 143.
appear (LX) *fià tɕỳ* 1738.
appear (LX) *(sì) zí lò* 1738.
appear (LX) *fià là* 1738.
appear (LX) *sɨ̀ tɕỳ* 1738.
appear (MC) *ʂè tɕǐ* 1738.
appearance, shape (LX) *qə̀ bú* 1027.

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appearance, shape (MC) *bú* 1027.
apple (LX) *ʁá mì* 501.
apple (MC) *phìŋ gò* b 501.
apply a coat (LX) *mú má* 1898.
apply a coat (MC) *mà* 1898.
apply suction cup (Ch medicine) (LX) *tshú* 1632.
apply suction cup (Ch medicine) (MC) *tsá tòŋ tsɨ-tù tyá* DO (b) -V 1632.
appoint (LX) *nə̀ gà* 2280.
appreciate (LX) *kú phé* 1911.
appreciate, be thankful (MC) *là uí soù* m1.2=b? exact gloss? 1911.
April (LX) *zə̀ lə̀* calque 1126.
April (MC) *zɨ̀ lə̀* calque 1126.
apron (MC) *kaì-phá tsɨ* front-b 646.
area (LX) *ʁuà quá* 1034.
area (MC) *zuè pè-nə̀-nó-bʐà* place-have-how-big 1034.
argue, debate (LX) *ɕì ɕí* 1671.
argue, debate (LX) *phú phá* 1671.
argue, debate (MC) *quà pú* 1671.
arise (of sun) (LX) *uà* 1735.
arise (of sun) (LX) *sì* ?STC 295 *m-sow 1735.
arise (of sun) (MC) *ʂé tiŏ* [tɕŏ] 1735.
arise (of sun) (MC) *ʂé tɕǐ* 1735.
arm (LX) *liè mì* ?STC 86 *lak. ?STC 394 *mu·k 131.
arm (MC) *í dzè* 131.
arm spread (MC) *phài* 1320.
armpit (LX) *zá ká mù* also [kâm]. ?STC 265 *g-li ~ *k(a)li. ?STC 394 *mu·k 119.
armpit (MC) *í dzè* 119.
armpit (MC) *dzà ké* ?STC 265 *g-li ~ *k(a)li 119.
around, about (LX) *thàn tsuán* b? 1054.
around, about (MC) *qè zí* 1054.
arrange (LX) *sɨ̀* 1636.
arrange (MC) *ì paì thá* b 1636.
arrange (MC) *ì tɨ̀* 1636.
arrive, get to (LX) *pà gə́* 1806.
arrive, get to (MC) *(dè) phĕ* 1806.
arrogant (LX) *qə̀ ə́* [qə˧˥] head-dry 1577.
arrogant (MC) *khuà ɕó* 1577.
arrow (MC) *lə̀* STC 449 *bla 903.
ask (LX) *(tə̀) zà zí* 2451.
ask (MC) *dʐɨ̀ dʐɨ́* 2451.
ask for, demand (LX) *à tsɨ̀* 2371.
ask for, demand (MC) *mè kì khiû* 2371.
ask for, demand (MC) *loú thą̀* 2371.
askew, awry (LX) *dà qhuá* 2449.
askew, awry (MC) *tè phiăn thà* b 2449.
asparagus lettuce (LX) *ʁó sən* b 543.
asparagus lettuce (MC) *uó sìN* b 543.
assemble (a team) (LX) *zú zú* 2008.
assemble (a team) (MC) *ʂè-ʁá-ɕì uà* p-team-arrange 2008.
assemble, rally (MC) *mè-bʐà-tsó* person-big-m 2017.
assemble, rally (MC) *mè-tsò* person-m 2017.
astringent, puckery (LX) *sí* b 1532.
astringent, puckery (LX) *ɳá* 1532.
astringent, puckery (LX) *ɳí* 1532.
astringent, puckery (MC) *qè cà* 1532.
at ease, assured (LX) *ɕì tó* 1887.
at ease, assured (LX) *ɕì mì-à sɨ* heart-m 1887.
at ease, assured (MC) *tiè dè lê* m1=heart 1887.
at that time (LX) *thà dá qè* 1148.
August (LX) *tshá lə̀* calque 1130.
August (MC) *tchè lə̀* calque 1130.
autumn, winter (LX) *sò qeí* cold-m 1168.
autumn, winter (MC) *só qè* cold-m 1168.
avoid as taboo (LX) *tɕí dà* b 2023.
avoid certain food (LX) *qà tché* 2024.
awl (LX) *ɳò* 814.
awl (MC) *tʂhuè tʂhuè* b? 814.
awn of wheat (LX) *ʁà χó* 525.
awn of wheat (LX) *ʁà χé* 525.
awn of wheat (MC) *lè mià* 525.
ax (LX) *tà í* < WT *sta ri* from STC 22 *s-ta 'knife' 850.
ax (MC) *tè ʐ̩ì* < WT *sta ri* from STC 22 *s-ta 'knife' 850.
baby (LX) *mà ə́ tsú* 211.
baby (LX) *má ə́ kú tsù* 211.
baby (MC) *cè qù ʑí kì (kè bʐ̩ í)* 211.
bachelor (LX) *ɕì só (mù)* 312.
bachelor *(MC) bè liù-bʐà young.man-big* 312.
bachelor (MC) *à qó tsɨ* 312.
back (of body) (LX) *tsò bò* 118.
back (of body) (MC) *dé* 118.
back basket (LX) *gú* 875.
back basket (MC) *dʐ̩ó* 875.
back of knife blade (LX) *tɕà piá tsò* 763.
backbasket-full (LX) *quà* 1286.
backbasket-full (LX) *gú* 1286.
backbasket-full (MC) *dʐ̩ó* 1286.
backstrap (LX) *bià dʑí* 793.
backstrap (MC) *bà dì* 793.
bacon (MC) *pià-khuè* pig-smoke(?) 584.2.
bad (LX) *ʁeì* ruined 1505.
bad (MC) *dè (bá)* 1505.

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bad (of character) (LX) *mì iá* note semantics of s2 (1521, et al) 1505.
bald, bare (LX) *qə̀ pù* tones vary 1436.
bald, bare (MC) *qè dzà* 1436.
ball (LX) *phì tɕhòu* b 944.
ball (MC) *maŏ tàn* b 944.
bamboo (LX) *pò (tí)* bamboo-straight. STC 44 *g-p(w)a. 491.
bamboo (MC) *pù* STC 44 *g-p(w)a. 491.
bamboo hat (LX) *tsò sà* 681.
bamboo hat (LX) *tà bó* 681.
bamboo hat (MC) *toù phòŋ* b? 681.
bamboo shoot (LX) *pò tí tsí* 492.
bamboo shoot (MC) *pù lè* 492.
bamboo sieve (LX) *zuà phà sɨ́ sà* ?steamer 886.
bamboo sieve (MC) *lò tí* 886.
bamboo steamer (LX) *lòN-dzuéN* b-m 760.
bamboo steamer (MC) *lòŋ tʂuăŋ* b 760.
bamboo steamer (MC) *tsè* 760.
bark (LX) *cì (phù) ʁà piá* 469.
bark (v) (LX) *té tá* 2048.
bark (v) (LX) *cí* 2048.
bark (v) (MC) *tè tá* tone changes with 'dog': khwɛ̀ té tà 2048.
bark of firewood (MC) *sè ʐà piá* 469.
bark of tree (MC) *phò-ʐà piá* tree-skin 469.
barnyard grass (LX) *tsəí* ts 563.
barnyard grass (LX) *pú* 563.
barnyard grass (MC) *păi tsɨ* b? also refers to sth useless, like naughty kid 563.
barrel (bamboo) (MC) *pù-thòŋ thóŋ* bamboo-b 789.
barrel (of water) (LX) *zɨ* 1258.
barrel (of water) (MC) *thiò* 1258.
basic, fundamental (LX) *kà pú* 1014.
basis, grounds (LX) *tɕà χé* 1015.
basket (MC) *toù tù* 790.
basket (flat) (LX) *tɕhì toú tsɨ* 790.
basket (large) (LX) *tò qó* 790.
basket (of vegetables) (LX) *toú* b? 1285.
basket (of vegetables) (LX) *khuáN* b 1285.
basket (of vegetables) (MC) *lò khuáŋ* b 1285.
basket (of vegetables) (MC) *dʐó* =one backbasket-full 1285.
bat (animal) (LX) *tshɨ́-qù-mù* salt-steal?-AGT 416.
bat (animal) (MC) *iæ̀n laò sueì* b ("salt mouse") 416.
batch (of matters) (MC) *tɕhì* 1270.
batch (of matters) (MC) *mè* STC 280 *mow 1270.
batch (of things) (LX) *χeí χé*? 1274.
batch (of things) (MC) *bò* 1274.
bathe (LX) *χò là* 2461.
bathe (MC) *cì pé-ʁuà là* body-bathe 2461.
be (LX) *ŋ̍jù* 2329.
be (MC) *ŋuè* 2329.
be at a place (LX) *ì* 2554.
be at a place (MC) *zì* 2554.
beam (LX) *qhò tá* 715.
beam (MC) *tà* 715.
bean, soybean (LX) *də̀ piá* STC 253 *be 552.
bean, soybean (MC) *deì* 552.
bear (LX) *tɕá* 384.
bear (MC) *tí* 384.
beard (MC) *khè-mù* chin-hair 112.
beat (drum) (LX) *fiə́-tá* 1938.
beat (drum) (LX) *tè* ?STC 387 *tuk 1938.
beat (drum) (LX) *fiə̀-* tone varies 1938.
beat (drum) (MC) *bù* 1938.
beat, pound (LX) *sú tá* caus? b? 1750.
beat, pound (LX) *zà tá* simp 1750.
beat, pound (MC) *tuà tɕá* [pt]. cf. 'hammer', STC 317 *tow 1750.
beat, thump (MC) *tè giê* ?STC 387 *tuk 1623.
become bigger (LX) *tə̀ iú* 1672.
become smaller (LX) *fià tsá* 1673.
become smaller (MC) *dè bʐ̍ù bʐ̍ ĭ* 1673.
become someone's turn (LX) *χò à tsɨ* 2159.
become someone's turn (LX) *à tsɨ* 2159.
become someone's turn (MC) *fià phè qê* 2159.
become someone's turn (MC) *ù kì pà qè* 2159.
become visible (LX) *sɨ zí lò* fià- 2485.
become visible, rise (sun) (MC) *qá ʐà-ʂè-tɕŏ* also ì tɕò 2485.
become, turn into (MC) *tè pă* e > æ 1716.
bed (LX) *n̍ì sɨ qà* 725.
bed (MC) *tʂhuà* 725.
bed (MC) *nè bà* 725.
bedbug (LX) *bə̀ tɕhá-bə̀ lò* m-bug 438.
bedbug (MC) *bù tʂá* 438.
bedbug (MC) *tɕhóu tɕhòŋ* b 438.
bee barrel/hive (LX) *bù iù-tɕhú quà* bee-barrel.shape 455.
beef (LX) *sɨ pià tshɨ* 585.
beef (LX) *mà í pià tshɨ* 585.
beef (MC) *ŋò tshè* 585.
beeswax (LX) *lé tshɨ* 455.
beg for food (LX) *cà* 2388.
beg for food (MC) *tɕhò cí mù* 2388.
beg for food (MC) *tɕhò χuà mù* 2388.
beg, request (LX) *ʁuà cà* 2258.
beg, request (MC) *mè khí uà* 2258.
beggar (LX) *khà cà mu̍* 249.

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beggar (MC) *tʂhò χuà mù* 249.
beginning of month (LX) *lə qé* 1136.
beginning of month (LX) *lə tɕó* 1136.
behind (LX) *(tsò) tà tò* 1060.
behind (MC) *dè læN tà* 1060.
behind (MC) *(dé) mè tsɨ* 1060.
believe (LX) *dzà* 2496.
believe (MC) *dzá (ʐà)* 2496.
bell (MC) *khè-nìN nì* neck?-b 955.
bell (MC) *tʂòu* 948.
bell (any kind) (LX) *khə́ líN* neck-b 955.
belly (LX) *tshə́-tə́ qhuá* feces-stomach *kwa 185.
belly (MC) *tchè-pè toú* feces-stomach 185.
belly bend (LX) *ʁò dzí* horse-belt 828.
below (LX) *qà tò χeì* 1075.
belt (LX) *dzí* ?STC 421 *du-t ~ *tu-t 649.
belt (MC) *dì* ?STC 421 *du-t ~ *tu-t 649.
bend over (LX) *kù* STC 307 *koy or STC *ku[·]m 1901.
bend over (LX) *ì ʁú* takes fià- 2438.
bend over (MC) *ì mò ʁò* 2438.
bend over (MC) *fià ʁô* 2438.
bend over (in place) (MC) *phà thá* b? 1901.
bend over (while walking) (MC) *ù tsì* 1901.
bend, curve (v) (MC) *tè uán thà zɨ́* p,b,s,s 2439.
bend, curve (v) (MC) *tè khuè lià zɨ́* ?STC *ku[·]m 2439.
bend, curve (vt) (LX) *ʁú ʁuá zɨ́* 2439.
benefit, advantage (LX) *nà sɨ́* 1030.
benefit, advantage (LX) *nà ì* ?s2=b 1030.
benefit, advantage (MC) *ʂé kì* 1030.
bet (LX) *qhó* 1776.
bet (MC) *tà tù pù* s1,2=b 1776.
big (LX) *bà* 1404.
big (LX) *bɹà* 1404.
big (MC) *bʐà* 1404.
big enough (LX) *(fià ʁá) gó* 2607.
big enough (MC) *fià kuì kè* 2607.
big enough to hold (LX) *gó* 1719.
big enough to hold (MC) *fià kuì qè* 1719.
billy goat (LX) *tɕhá ɕý* 345.
billy goat (LX) *tɕhà dò* "b?" 345.
billy goat (MC) *tshè dzè* 345.
bind, hoop (v) (LX) *ɕì ɕí* 1937.
bind, hoop (v) (MC) *χué* 1937.
bind, hoop, make barrel (MC) *fià khú thà* b 1937.
bind, hoop, make barrel (MC) *thiò-khù* shape-b 1937.
bird (LX) *ì tshá* 404.
bird (MC) *ì tshé* 404.
bird (CL) (LX) *zà* 1239.
bird (CL) (LX) *fiò* 1239.
bird (CL) (LX) *zɨ́* 1239.
bird (CL) (MC) *qó* 1239.
birthday (LX) *ì mɥ̀* 996.
birthday (LX) *dà-tsé-mɥ̀* m-birth-day 996.
birthday (LX) *dà-ì-mɥ̀* m-birth-day 996.
birthday (MC) *ʂè zì* 996.
bit (horse) (LX) *ʁò qú* 830.
bit (horse) (MC) *ʐoù-dué* horse-mouth? 830.
bite (MC) *ʁà* ?STC 424 *wa 2521.
bite into (MC) *fià ʁà* ?STC 424 *wa (but cf. 'chew cud' in LX) 2522.
bite, bite into (LX) *zé* bite into takes fià, dà 2521.
bitten (LX) *fià zé (zɨ́)* 2520.
bitten (MC) *ʂè ʁà* 2520.
bitter (MC) *qhà* STC *ka 1527.
bitter, salty (LX) *qhà* STC *ka 1527.
black (LX) *ȵí* STC *nak 1452.
black (MC) *nə̀* STC *nak 1452.
black pepper (MC) *fù tɕaó* b 599.
black soybean (LX) *də́ pié ȵí* STC 253 *be. V. harmony 554.
black soybean (MC) *deì-nə̀-kí* bean-black-NOM 554.
blacksmith (LX) *cà-dzù-mù* iron-beat-AGT 237.
blacksmith (MC) *thè dzà* 237.
blacksmith (MC) *cì diò mú* 237.
blade of grass (CL) (LX) *ə̀* 1243.
blade of grass (CL) (LX) *zɨ́* 1243.
blade of grass (CL) (LX) *zuè* 1243.
blade of grass (CL) (MC) *dʐí* 1243.
blame someone (LX) *phià* 1944.
blame someone (LX) *kuai[35]-dà* b-s 1944.
blame someone (MC) *(mè) phí* 1944.
bland (LX) *tchá* 1531.
bland (MC) *tshì-mí-dzù* salt-NEG-enough(?) 1531.
blanket (LX) *tshà ì* 672.
blanket (MC) *tʂhà kí* s1=spread 672.
bleat (LX) *zǎ* 2050.
bleat (MC) *zě* 2050.
blend (CAUS) (MC) *tæ̀ χŏ thà zí ~ tæ̀ χŏ thà zɨ́* b 2000.
blend with water (LX) *lú* 1698.
blend with water (LX) *tsù lú* 1698.
blend with water (MC) *(fià) ló* 1698.
blind (LX) *fià tɕuà* 2465.
blind (MC) *mí tiù* can't see 2465.
blind (MC) *tuà* 2465.
blind person (LX) *mì tɕuà mù* 259.

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blind person (MC) *mù tié-mí-tiù-mù* eyes-not-see-AGT 259.
blind person (MC) *mè tié-mí-tiù-mù* eyes-not-see-AGT 259.
blink (LX) *(fià) tcà ~ tcá tá* can redup., but tones? 2563.
blink (MC) *tshù tshuá* 2563.
block (wind) (LX) *què* 1801.
block (wind) (LX) *qə cù ~ qə cỳ* 1801.
block (wind) (MC) *liù* 1801.
block up (v.i.) (LX) *khà dà* b 2090.
block up (v.i.) (MC) *tæ̀ tʂuă* 2090.
block up (v.t.) (LX) *sɨ̀ khà dá (zɨ)* b? 2091.
block up (v.t.) (MC) *tè tʂuà ké* 2091.
blood (LX) *sà* STC 222 *s-hwiy 160.
blood (MC) *sà* STC 222 *s-hwiy 160.
blow (dust) (LX) *dà phú* 1749.
blow (dust) (LX) *phá tè* 1749.
blow (dust) (MC) *phú* 1749.
blow (instrument) (LX) *phú* 1748.
blow (instrument) (MC) *phú* 1748.
blow (of wind) (LX) *dà uà* 1941.
blow (of wind) (LX) *phú tà* 1941.
blow (of wind) (MC) *mè mè phú* 1941.
blow (of wind) (MC) *mè mè-tæ̀-bzɻ̆* m-p-V 1941.
blow (of wind) (MC) *mè mè-tè-ə̆* m-p-V 1941.
blow nose (LX) *tí tshó* snot-m 2497.
blow nose (MC) *tʂâ* 2497.
blow up (LX) *qə tshɨ́* 2564.
blow up (LX) *qə tiè* 2564.
blow up, explode (vt) (MC) *tʂă* b 2564.
blow up, explode (vt) (MC) *phó lè* 2564.
blue (LX) *phú* 1457.
blue (MC) *χué* 1457.
boar (LX) *pià cỳ* 355.
boar (LX) *pià dò* 355.
boar (MC) *pià ké* 355.
body (LX) *cì pí* cf. 'female'? 97.
body (MC) *cì peí* 97.
body dirt (LX) *tshà qhuá* 196.
body dirt (MC) *tò ʐ́ í* STC 459 *ri(y) (?460 *kriy) 196.
body hair (LX) *ɻà-χù* skin-hair 152.
body hair (MC) *mù* 152.
body hair (MC) *khù-maò tsɨ̀* sweat-b('body hair'). calque 152.
boil (LX) *qò* 2596.
boil (MC) *qà* 2596.
boil (porridge) (LX) *qò* 1630.
boil (porridge) (MC) *ŋaò-thà* b-s 1630.
boil (porridge) (MC) *qà* 1630.
boil (v.i.) (LX) *tshó* STC 275 *tsyow 2093.
boil (v.i.) (MC) *qà* 2093.
boil, decoct (medicine) (LX) *tshú* STC 275 *tsyow 1629.
boil, decoct (medicine) (MC) *yè-ŋaò-thá* medicine-b-s 1629.
boil, decoct (medicine) (MC) *gà zɨ́ ~ gà zɨ̀* 1629.
boil, decoct (small amounts) (MC) *zó* ?STC 275 *tsyow 1629.
boiled water (LX) *tə-tshó-tsù* DIR-boil-water 609.
boiled water (MC) *tchá* 609.
bold, dare to (LX) *ʁò* 1916.
bold, dare to (LX) *tchò* 1916.
bold, dare to (MC) *cò (ʐ́á)* WT sdo-ba (STC 267) 1916.
bone (LX) *ɻà ká* 165.
bone (LX) *ɻà ká pà tsɨ̀* cf. horn 165.
bone (MC) *ʐ́æ̀ ʁoù* 165.
book (LX) *sú pən* b 921.
book (LX) *dzì tsà ì* 921.
book (MC) *dzɨ̀ tshà* older form 921.
book (MC) *ʂù* b 921.
book (CL) (LX) *poú* 1249.
book (CL) (MC) *pè* b? 1249.
boot (LX) *cué tsɨ̀* b 654.
boot (MC) *bɛ̀ tsɨ̀* 654.
bore (hole) (LX) *tɕí* 2618.
bore (hole) (LX) *tsɨ́* 2618.
bore (hole) (MC) *dʐ́uá* 2618.
bore with drill (LX) *tsɨ́* 2619.
bore with drill (LX) *tɕí* 2619.
bore with drill (MC) *thè* 2619.
bore with needle (LX) *tsɨ́* 1744.
bore with needle (MC) *dè tsɨ́* 1744.
bore with pile driver (LX) *tshà* 2618.
borrow (LX) *zɨ̀ ɳì cá* STC 190 *r-ŋya - STC 312 *kroy 2071.
borrow (MC) *(tè) ŋè cí* STC 190 *r-ŋya - STC 312 *kroy 2071.
borrow, lend (money) (LX) *nì cá* STC 190 *r-ŋya -STC 312 *kroy 2068.
borrow, lend (money) (MC) *ŋè cí* STC 190 *r-ŋya -STC 312 *kroy 2068.
borrow, lend (tool) (LX) *nì cá* STC 190 *r-ŋya -STC 312 *kroy 2069.
borrow, lend (tool) (MC) *ŋè cí* STC 190 *r-ŋya -STC 312 *kroy 2069.
bottle (LX) *phìŋ tsɨ̀* b 775.
bottle (MC) *phìŋ tsɨ̀* b 775.
bottle of (CL) (LX) *phìN* b 1306.
bottle of (CL) (MC) *phìŋ* b 1306.

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bottom (LX) *qà tò* 1062.
bottom (MC) *ʐ́ í lè* 1062.
bottom (MC) *qà tà* 1062.
bouquet (of flowers) (LX) *tsɨ́* 1265.
bouquet (of flowers) (MC) *tù* 1265.
bouquet (of flowers) (MC) *tʂuà* 1265.
bow (n) (MC) *lə̀* STC 462 *d-liy. or = 'arrow' 902.
bowl (LX) *ʁú* 771.
bowl (MC) *ʁóu* also "teacup" 771.
bowl (CL) (LX) *fiò* 1231.
bowl (CL) (MC) *qó* 1231.
bowl (of noodles) (LX) *ʁú* 1262.
bowl (of noodles) (MC) *ʁóu* =bowl 1262.
bowl (of rice) (LX) *ʁú* cf. 'bowl' 1259.
bowl (of rice) (MC) *ʁóu* 1259.
box (LX) *cà cá* b 729.
box (MC) *χò χò* b 729.
box (MC) *cà cà* b 729.
box (of medicine) (LX) *χó* 1307.
box (of medicine) (MC) *χò* b 1307.
bracelet (LX) *pà-kù* hand-round 665.
bracelet (MC) *pè kuì* 665.
brag about, show off (MC) *tà χuá* 2121.
braid (LX) *qə́-ŋú* hair-silver (refers to decorations in braid) 101.
braid (MC) *qè toú (ʂè qè piâ)* 101.
braid (MC) *ʂè qè piâ* 101.
braid (hair) (LX) *kà* 1667.
braid (hair) (MC) *kè piá* 1667.
brain (LX) *qə̀ ɳà* 164.
brain (MC) *qè ɳà* 164.
bran (wheat) (LX) *zuà-ɻà* wheat-skin 615.
bran (wheat) (MC) *(lè)-fù-ʐ́á* wheat-bran (b)-skin 615.
branch (LX) *cì kə̀ mà* STC 327 *ka·k 467.
branch (MC) *phò khə̀* STC 327 *ka·k 467.
brand, iron (LX) *piá* 2133.
brand, iron (LX) *ʁá* 2133.
brand, iron (LX) *qó* 2133.
brand, iron (MC) *pià* cook, as pancake 2133.
brandish, wave (LX) *lì lá* cf. 1985 1994.
brandish, wave (MC) *taì iaò thá* m2=b n.b VH 1994.
brandish, wave (MC) *ʐ́aŏ thà* b? 1994.
brandish, wave (MC) *tà dú dà* 1994.
brass (LX) *χá* 61.
brass (MC) *doú* 61.
brave (MC) *tàn tsɨ̀-bʐ́à* b(gall bladder)-'big' (calque) 1579.
brave (a little) (LX) *tɕhò* 1579.
brave (extreme, as in battle) (LX) *tɕì tɕá* 1579.
bray (donkey) (LX) *ŋú* STC 261 *u 2045.
bray (donkey) (MC) *zě* 2045.
break (bowl) (CAUS) (MC) *ʂè tʂhè (tʂhâ)* ?STC 185 *tśat 2233.
break (bowl) (CAUS.) (LX) *dà ʁè* 2233.
break (bowl) (CAUS.) (LX) *qà tshɨ́* STC 185 *tśat 2233.
break (bowl) (SIMP) (MC) *ʁoú ʂè tʂhè* STC 185 *tśat 2232.
break (bowl) (SIMP) (MC) *qhà là* 2232.
break (bowl) (SIMP.) (LX) *dà ʁè* 2232.
break (branch) (v.i.) (LX) *ʁə̀ là* takes dà pfx 1849.
break (branch) (v.i.) (MC) *tè lù liă* 1849.
break (branch) (v.i.) (MC) *té lŭ* 1849.
break (branch) (v.t.) (LX) *(tə̀) χə̀ là* 1850.
break (branch) (v.t.) (MC) *tè lù lià zî* 1850.
break (thread) (v.i.) (LX) *(dà) bà* STC 254 *be ~ *pe 1847.
break (thread) (v.i.) (MC) *ʂə̀ phə̆* STC 254 *be ~ *pe 1847.
break (thread) (v.t.) (LX) *phú phá* STC 254 *be ~ *pe 1848.
break (thread) (v.t.) (MC) *ʂə̀ phə̆ zî* STC 254 *be ~ *pe 1848.
break by poking (LX) *dà tɕí* p-v 1754.
break by poking (LX) *dà bià* p-v. STC 254 *be ~ *pe 1754.
break by poking (MC) *cè liá phì* 1754.
break by poking (MC) *tshoú-ɳà-ʂè-qhà-lă* m-m-p-break-ASP 1754.
break law (LX) *dà tsà* ?STC 185 *tśat 1876.
break law (MC) *dʐ́ ɨ́ tè tshê* ?STC 185 *tśat 1876.
break open (LX) *qà* 1635.
break open (LX) *qə́ tɕhá* 1635.
break open (MC) *ʂà pán thà* b 1635.
break open (MC) *tè tʂhĕ* STC 185 *tśat 1635.
break open (MC) *ʂè ʁè* 1635.
break out (with pox) (LX) *(tè) cì* diff from "treat illness" only in pfx 1733.
break out (with pox) (MC) *deì tsoù* ?< Ch. doù 1733.
break out (with pox) (MC) *deì tsŏu ʂè* 1733.
break out (with pox) (MC) *ʂé tiŏ* 1733.
break to bits (LX) *dà ʁè* 2367.
break to bits (LX) *qə̀ tshɨ́* STC 185 *tśat 2367.
break to bits (LX) *à bà dzý* STC 254 *be ~ *pe 2367.
break to bits (MC) *fià tɕhá-ɳà-tè bé bè* break-and-broken to bits 2367.
break to bits (MC) *fià tɕhá-ɳà-ʂà qà là* break-and-damage 2367.

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break up (meeting) (LX) *dà săn dà* b 2292.
break up (meeting) (MC) *dè phù phû* simplex 2292.
break up (meeting) (MC) *dè lè qè* 2292.
breakfast (LX) *tshá* 576.
breakfast (MC) *tsuà tɕhó* 576.
breast (LX) *ɳà ɳá* STC 419 *nuw 121.
breast (MC) *ɳà ɳá* STC 419 *nuw 121.
breath (LX) *mú sú* STC 485 *sak 189.
breath (MC) *tɕhì-thè* b-breathe 199.
breed, reproduce (LX) *dà iá* 1875.
breed, reproduce (LX) *dà ì fià lú* notes 1875.
breed, reproduce (MC) *tè ʂă* 1875.
breeding yak, stud (LX) *tɕhà tɕhà mí dò* 321.
breeding yak, stud (MC) *zì-ʂà* bull-breed 321.
brick (LX) *tsuáN* b 701.
brick (MC) *tʂuán* b 701.
bridge (LX) *tshá (tò)* 94.
bridge (MC) *(lò) tshá* s1=stone 94.
bridge (CL) (LX) *cá* 1253.
bridge (CL) (MC) *tó* 1253.
bright (LX) *cuá* 1551.
bright (LX) *cuá* 1460.
bright (MC) *cyá* 1460.
bright (MC) *(kè kè) cyá* m1,2=emphatic 1551.
bright (sky) (LX) *mú cuá* 2398.
bright (sky) (MC) *fià cyà (qĕ)* 2398.
bright red, glowing (LX) *cí tsɻ́ tsɻ́* vd/vl 1603.
bright red, glowing (MC) *ná nà tsɨ́* 1603.
bright yellow, golden (LX) *χá tshɨ́ tshɨ́* 1604.
bright yellow, golden (LX) *χá bò bò* 1604.
bright yellow, golden (MC) *χá χà tsɨ́* 1604.
brightness (LX) *cuá* 3.
broad bean (LX) *fù toú ~ fù toŭ* b 555.
broken (MC) *ʂè qà là (zí)* 2161.
broken (bamboo) (LX) *dà ʁè* 2231.
broken (bamboo) (LX) *dà qà tshí* 2231.
broken (bamboo) (LX) *dà bà* STC 254 *be ~ *pe 2231.
broken (bamboo) (LX) *dà tɕhà* 2231.
broken (bamboo) (MC) *sè pĕ* STC 254 *be ~ *pe 2231.
broken (bamboo) (MC) *qhà là* 2231.
broken (bamboo) (MC) *(pù) ʂè dʐ ì* 2231.
broken to bits (LX) *dzỳ dzý* 2366.
broken to bits (LX) *fià dzà* 2366.
broken to bits (LX) *fià dzuè dzý* 2366.
broken to bits (MC) *tè bé bè* STC 254 *be ~ *pe 2366.
bronze (LX) *χá-cí* brass-red 62.
bronze (MC) *doú* 62.
broom (LX) *tcué-là* m-wash(?) 735.
broom (MC) *dʐuà* 735.
broom (CL) (LX) *cá* 1245.
broom (CL) (MC) *dʐà* 1245.
broom (CL) (MC) *pà* b 1245.
broom (CL) (MC) *qó* 1245.
brothers (LX) *tù ɳì* preferred form. STC 271 *na·w 292.
brothers (LX) *tú tsù* =yo. bro 292.
brothers (MC) *pí mù* said by sis 292.
brothers (MC) *tòu tsú* said by bro 292.
brush (LX) *suà tsɨ́* b 734.
brush (MC) *ʂuà tsɨ́* b 734.
brush teeth (LX) *qá-χò là* face-wash 2348.
brush teeth (MC) *qè χuà là* 2348.
brush, comb (v) (LX) *cý* STC 466 *m-si(y) (could be borr) 2339.
brush, comb (v) (MC) *qà tó suí* STC 466 *m-si(y) 2339.
bucket, barrel (LX) *tsù tì* 782.
bucket, barrel (MC) *thiò* 782.
buckwheat (LX) *zuà ʁá* ?STC 150 *mruw 523.
buckwheat (MC) *dzuà ʁá* gloss? ?STC 150 *mruw 523.
bud (LX) *pá tsù (qò) tɕý ~* pá tsɨ́ 477.
bud (MC) *tià tiá* 477.
buff leather (LX) *bà lò zuà* 2188.
buff leather (MC) *bè liù tʂhì* 2188.
bug (LX) *bù ló* 437.
bug (MC) *bò lò* 437.
build (frame) (LX) *liá* 1760.
build (frame) (MC) *tʂhú* 1760.
build (house) (LX) *qeì* 1906.
build (house) (LX) *qhù* 1906.
build (house) (LX) *tshù* 1906.
build (house) (MC) *qhué* 1906.
building (LX) *lò kè* 692.
building (LX) *kè* multi-story 692.
building (MC) *loù fâŋ* b 692.
building (multi-story) (MC) *lòu-kɛ́* b-pillar(?) 692.
bulb of fritillary (LX) *qò pú* 572.
bulb of fritillary (MC) *peĭ mù* b 572.
bull (LX) *mà í dò* 326.
bull (LX) *mà í zì* 326.
bull (MC) *zɨ́* 326.
bullet (LX) *tsí* b? 899.
bullet (MC) *zuì* PTB *dzəy. cf. pit/stone, testicles 899.
bully (v.t.) (LX) *qà tɕí* 2237.
bully (v.t.) (MC) *tɕhí thà* b? 2237.
bundle (of rags) (LX) *zò* 1287.

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bundle (of rags) (LX) *tɕhòu* 1287.
bundle (of rags) (MC) *khuè* 1287.
bundle (of things) (LX) *què* 1305.
bundle (of things) (MC) *tà pó* 1305.
bundle (of things) (MC) *quà* 1305.
bundle wrapped in cloth (LX) *ɕì zɨ* 845.
bundle wrapped in cloth (MC) *qhuà* STC 479 *klup 845.
bundle, bunch (of vegetables (LX) *tsuà* 1254.
bundle, bunch (of vegetables) (MC) *tʂuà* b?, ?ʁ? handspan 1254.
burn (LX) *à tsú* STC 275 *tsyow 2575.
burn (LX) *pù ɕá* bù for older speakers 2575.
burn (LX) *dà uà* 2575.
burn (LX) *tə χú* 2575.
burn (MC) *tɛ̀ tǐ* 2575.
burn (MC) *(mú) dɛ̀ uɛ̌* 2575.
burn (n.) (MC) *ʂè thè thoŭ* 154.
burn grass in field (LX) *zù mù ɕù* 2310.
burn grass in field (MC) *sè lí pù tià* 2310.
burn grass in field (MC) *sè lí lè* 2310.
bury (LX) *bé* STC 376 *bip ~ *pip 2172.
bury (MC) *(fià) bí* STC 376 *bip ~ *pip 2172.
businessman (LX) *tə ɕí-pù-mù* m-do-AGT 224.
businessman (MC) *pà nà-pò-mú* thing-sell-AGT 224.
busy (LX) *tɕhá* 1537.
busy (MC) *bà* 1537.
busy (MC) *dʐ́ koù* 1537.
butter (MC) *sú ioù* b 594.
butter lamp (MC) *táŋ-tʂà* b-m 738.
butterfly (MC) *tshè bì bì* 459.
buttocks (LX) *tshí-qá* feces-m 125.
buttocks (MC) *tʂhè-zó* feces-m 125.
button (LX) *ɳù tsɨ* b 634.
button (MC) *liù tsɨ* b 634.
button (v) (LX) *khoù-dà* b-s 2117.
button (v) (MC) *khoŭ-thà* b-s 2117.
buttonhole (LX) *ɳù phàn tsɨ* b? 635.
buttonhole (LX) *ɳù mià* b-mother? 635.
buttonhole (MC) *liù tsɨ* b 635.
Buwa village (on hill above Wenchuan) (LX) *bù ʁá* .
buy (LX) *pú* ?STC 293 *b-rey 2173.
buy (MC) *dɛ̀ pó* ?STC 293 *b-rey 2173.
cadre (MC) *qé qè* 225.
calf (LX) *mà lià tsú* 325.
calf (MC) *ŋò bò tsú* 325.
calf of leg (LX) *duà qà-tsá* leg-small 128.
calf of leg (LX) *duà qà bé* 128.
calf of leg (MC) *duà bʐù bʐ́ í* 128.
call (person) (LX) *ʁuă* 1960.
call (person) (MC) *ʁuă* 1960.
call (person) (MC) *(mè) ʁuâ* 1960.
call dog (LX) *ʁuă* 1986.
call dog (MC) *ʁuă ɚ* [ʁwǎɹ] 1986.
call to mind, recollect (LX) *bà ló* 1992.
call to mind, recollect (MC) *bè dʐoú* 1992.
called (name) (LX) *ʁuă* 1960, 1986 2054.
called (name) (MC) *ʁuă* 2054.
candle (LX) *là tsò* b 743.
candle (MC) *lé tʂuè* 743.
cane, vine (LX) *zə bə lí* 493.
cane, vine (MC) *lè bʐè* 493.
cannon (MC) *phó* b? 901.
canter, trot (LX) *tsà* 2215.
canter, trot (LX) *tshì tshì* 2215.
canter, trot (MC) *ʂè dʐ́* 2215.
cape, cloak (LX) *lià kù* 648.
cape, cloak (MC) *tshaò mú tsɨ* m1=b? 648.
care for orphan (MC) *lé χuè* 2123.
careful (LX) *ɕì mì-tɕí* heart-small (semantic b) 2493.
careful (LX) *ɕì mì-tsá* heart-small (semantic b) 2493.
careful (MC) *à qhà tsɨ* "slowly" 2493.
careful (MC) *tæN ɕì* b "dan xin" 2493.
careful, attentive (LX) *pà ɕí* 1574.
careless, slipshod (LX) *χù lì χú tá* 1613.
careless, slipshod (MC) *tié-qɛ̀-mì-tə* heart-m-not-put 1613.
carpenter (LX) *ɕì zɨ-pù-mù* wood-do-AGT 236.
carpenter (MC) *mɛ̀ dzà* 236.
carry (MC) *tʂhò* 1658.
carry (books) on back (LX) *só* 1658.
carry (books) on back (MC) *bià* STC 26 *ba 1658.
carry (child) on back (LX) *bià* STC 26 *ba 1656.
carry (child) on back (MC) *bià* STC 26 *ba 1656.
carry (money) (LX) *lé* 1793.
carry (money) (LX) *tɕý* 1793.
carry (money) (LX) *dá* 1793.
carry (money) (LX) *tshoù* 1793.
carry (money) (MC) *zyá* 1793.
carry in lap (LX) *què* 1840.
carry in lap (MC) *tà quà* 1840.
carry off (LX) *tə thè qà* 2377.
carry off (MC) *tɛ̀ tuì qè* 2377.
carry on back (of animal) (LX) *qá* 2435.
carry on back (of animal) (MC) *ké* 2435.
carry on shoulder (LX) *thè* 2376.

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carry on shoulder (MC) *tuì* 2376.
carry with pole (LX) *tuì* 2403.
carry with pole (MC) *tuì* 2403.
carve (LX) *khé dà* b 2113.
carve (MC) *thiò* 2113.
cast aside, skim off (LX) *sá* takes *zɨ*, dà 2224.
cast aside, skim off (MC) *dɛ̀ tʂhù* 2224.
cast aside, skim off (MC) *dɛ̀ níŋ tò* b 2224.
castrate (LX) *kaì dà* b 2509.
castrate (MC) *ì ʂán thà* b? 2509.
castrate (MC) *khuí* 2509.
cat (LX) *mà ɳù* 363.
cat (MC) *mè ɳòu* 363.
catch cold (LX) *tə liàŋ dá* b 2577.
catch cold (LX) *thò ɕì* 2577.
catch cold (LX) *thò ɕì* 1910.
catch cold (MC) *tè toû* 2577.
catch cold (MC) *tè toú* 1910.
catch hold of (LX) *tsé* 2600.
catch hold of (MC) *zɨ tà* also steal? 2600.
catch on fire (LX) *uà* 1816.
catch on fire (LX) *χú* tə 1816.
catch on fire (MC) *dɛ̀ uɛ̌* 1816.
caterpillar (LX) *də* 460.
caterpillar (MC) *bò lò* "bug" 460.
catty (500 grams) (MC) *ké* 1309.
catty (of meat) (LX) *tɕí* 1294.
catty (of meat) (MC) *ké* 1294.
catty and a half (LX) *à tɕí ʁuè zò* 1312.
catty and a half (MC) *à ké ɳà ʁuà dʐòu* 1312.
catty, half-kilo (LX) *tɕí* b? 1309.
CAUS (LX) *zí* 2330.
CAUS (MC) *-zɨ* tone varies 2330.
cause landslide (LX) *kù lý* 1660.
cause landslide (LX) *ʁò ʁuá* 1660.
cause landslide (MC) *fià dʐuà zî* 1660.
celebrate (new year) (LX) *dzá* 1953.
celebrate (new year) (MC) *diá dià* 1953.
center, hub (LX) *tɕì gó* ?STC 299 *s-tay. 1043.
center, hub (MC) *tié tì* STC 299 *s-tay (m1 = 'heart') 1043.
center, hub (MC) *tiè qá* STC 299 *s-tay 1043.
centipede (LX) *də* or /də əɹ/ 446.
centipede (MC) *lueì-kóŋ tʂhòŋ* b ("lightning-bug") 446.
chaff, bran (LX) *zuà pú* STC#170 *pwa·y 614.
chaff, bran (MC) *lɛ̀ pú pù* wheat-bran-bran STC #170 *pwa·y 614.
chaff, bran (MC) *í mè-pù pù ~ í mè-pú pù* b (maize)-m 614.
chaff, bran (MC) *dzuè pú* STC#170 *pwa·y 614.
chain (LX) *cà tsù* 821.
chain (MC) *ɳɛ̀n tsɨ* b 821.
chair (LX) *bè dé* 723.
chair (LX) *bà dé* 723.
chair (MC) *ì tsé* 723.
change into (LX) *tə zù* 1979.
chapter (CL) (LX) *zuè* 1237.
chapter (CL) (MC) *tshí* 1237.
charcoal (LX) *mú dzí* 69.
charcoal (MC) *mè dzí* 69.
chase after (LX) *χù χù* STC 354 *s-nuŋ 2608.
chase after (LX) *χú ɳú* STC 354 *s-nuŋ 2608.
chase after (MC) *tʂhí tʂhè* 2608.
chat (LX) *(mù) tó zə mù* 2148.
chat (MC) *dá tʂɨ* 2148.
check account (LX) *tshá dá* tones? b? 1692.
check account (LX) *tsà* 1692.
cheek (LX) *tɕì piá* 109.
cheek (LX) *qá tché* 109.
cheek (MC) *duɛ́ pià* 109.
cheek (MC) *tɕí pià* preferred form 109.
chess (LX) *tɕhì tɕhí* b 945.
chess (LX) *tɕhì tsɨ* b 945.
chest (LX) *ʁó qhuà* 120.
chest (MC) *tié mù zè* 120.
chest (MC) *sé qɛ̀ bàN bà* 120.
chew cud (LX) *tshɨ tə qhuá-ɹà qú* stomach-return 1874.
chew cud (LX) *ì ɹà qú* 1874.
chew, munch (LX) *tsà tsá* 2041.
chew, munch (MC) *tʂeì tʂá* 2041.
chi (1/3 meter) (LX) *tshí* 1321.
chi (1/3 meter) (MC) *tshé* 1321.
chick (LX) *ỳ mià qhuá zỳ* = iy 368.
chick (LX) *ỳ-tsuá tsù* chicken-m-small 368.
chick (MC) *ì tsà tsú* 368.
chicken (LX) *ỳ* 365.
chicken (MC) *ì* 365.
chicken shed (LX) *ỳ kù* 700.
chicken shed (LX) *ỳ iuà kù* 700.
chicken shed (LX) *ỳ tɕí* 700.
chicken shed (MC) *ì bú* s2=nest 700.
child (LX) *tɕí bí* 210.
child (MC) *kɛ̀ bʐ ì tsɨ* sometimes qæ 210.
chili pepper (LX) *χò tshó* b? 539.
chili pepper (MC) *χài tɕhò* b ("sea(=foreign) pepper") 539.
chin (LX) *tɕì piá* 114.
chin (MC) *khɛ̀* STC 470 *(m/s-)ka 114.
china fir (LX) *lə (phù)* 484.

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china fir (MC) *pè sé phò* fir? 484.
Chinese angelica (MC) *tán kueí* b 570.
Chinese caterpillar fungus (LX) *χà qá bò lò* 571.
Chinese caterpillar fungus (MC) *tɕhóŋ tshaò* b tone varies on 1. 571.
Chinese chestnut (MC) *páN ŋɐ̀* b variation. 504.
Chinese chives (LX) *kə̀ tɕí* 534.
Chinese New Year (MC) *diá* 1141.
Chinese toon, tree of heaven (LX) *tɕhuán ià tsɨ̀ (phù)* 489.
Chinese toon, tree of heaven (MC) *bù sè phó* 489.
Chinese toon, tree of heaven (MC) *bù sé phò* 489.
chisel (LX) *tshŏ tsɨ̀* b 852.
chisel (MC) *zò* b? 852.
chisel (v) (LX) *tsɨ́* 2558.
chisel (v) (LX) *tshà* 2558.
chisel (v) (MC) *zò* 2558.
chop meat (LX) *tshuá dà* STC 240 *tsywar 1856.
chop meat (MC) *liá* 1856.
chopsticks (LX) *bə̀ tɕá* 774.
chopsticks (MC) *dù* 774.
cicada (MC) *tshè ʨỳ ʨỳ* 450.
circle, linger (LX) *suì qò* ?STC *349 *kor 2212.
circle, linger (MC) *zɨ̀ zé* 2212.
cistern (LX) *tsù tshoú* water-b? 880.
cistern (LX) *tsú-tí* water-m 880.
cistern (MC) *tsuè tshóu* 880.
city (LX) *qə̀ ʨì* 77.
city (MC) *qè tá* 77.
claw (LX) *ʨà qú* s2=pointy 380.
claw (MC) *ì-gòu-gú* bird-foot-m 380.
clay idol (LX) *bú zᶎ̀-à bú tɕhį* mud-god 970.
clay idol (LX) *χə̀ bù* 970.
clay idol (MC) *à pà sé* "god" 970.
clay wine warmer (MC) *tʂhú-kuà* liquor-mud/clay 761.
clean (LX) *ʨó* cf 1544. STC p53 *t(s)yaŋ 1541.
clean (MC) *ʨó tè* STC p53 *t(s)yaŋ 1541.
clear (LX) *ʨó* STC p53 *t(s)yaŋ 1470.
clear (MC) *tshì* 1470.
clear (sky) (LX) *mú qá* 2397.
clear (sky) (MC) *mú ʂè* sky-good? 2397.
clear up (LX) *tì* 1721.
clear up (LX) *tò* 1721.
clear up (MC) *fià tshĭ* 1721.
clear, distinct (LX) *pà tɕì* cf. speech 1552.
clear, distinct (MC) *uá* look at again 1552.
clear, obvious (LX) *sɨ̀* 2184.
clear, obvious (LX) *tshà tshà* 2184.
clear, obvious (LX) *qə́ dú* 2184.
clear, obvious (MC) *sɨ̀ uâ* he knows (perf?) 2184.
clear, obvious (MC) *sɨ̀ ʐ́á* 2184.
clear, obvious (MC) *χuè* 2184.
clever (LX) *tshà tshà* 1571.
clever (MC) *tsé χà* 1571.
cliff (MC) *ʐ́à (ló)* ?STC 329 *r-ka[·]m 28.
climb (hill) (LX) *pá cà* 2207.
climb (hill) (MC) *tsɨ̀ qá* 2207.
climb (tree) (LX) *pá cà* 2208.
climb (tree) (MC) *tsɨ̀ qá* 2208.
close (book) (LX) *queì* 1968.
close (book) (LX) *zɨ̀ quà* 1968.
close (book) (MC) *quà* 1968.
close (door) (LX) *quà* 1945.
close (door) (MC) *ʂè quà* 1945.
close (eyes) (MC) *fià sé* 1665.
close (mouth) (LX) *tɕuà* 1665.
close (mouth) (LX) *qú* 1665.
close (mouth) (MC) *fià piá* 1665.
close eye (LX) *tɕà* 2179.
close eyes (MC) *sé* cf. cover 2179.
close to (LX) *zɨ̀ zà* 1622.
close to (LX) *à zɨ́ zá* 1622.
close to (MC) *ì dzà* 1622.
close up (v) (LX) *tɕhý* takes à, ì 1947.
close up (v) (LX) *qù cù* 1947.
close up (v) (LX) *quà* (?related to qù) 1947.
close up! (MC) *ì khuí* 1947.
close, near (LX) *pié pù* 1417.
close, near (LX) *sè* 1417.
close, near (MC) *ʐ́ í-zè* road-close 1417.
cloth (LX) *bù miá* 620.
cloth (MC) *bʐ́ù miá* 620.
clothing (LX) *phò* 625.
clothing (LX) *guí sɨ̀* [guis] STC 160 *gwa ~ *kwa 625.
clothing (MC) *phù* 625.
clothing (CL) (LX) *pè* 1268.
clothing (CL) (LX) *lə̀* 1268.
clothing (CL) (MC) *lè* 1268.
cloud (LX) *dá mỳ* sometimes [dam[51]] 7.
cloud (MC) *dá mò* 7.
cluck (chicken) (LX) *ʁuă* 2043.
cluck (chicken) (MC) *zĕ* 2043.
clump of trees (CL) (MC) *tsuàN tsuáN* 1250.
clutch, grasp (LX) *tsé* = 2600 2609.
clutch, grasp (MC) *zó pà* 2609.
coal (LX) *χə̀-ŋí* earth-black. ?STC *r-ka

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'earth' 68.
coal (MC) *meì thăN* b 68.
cockscomb (LX) *ỳ zò* 369.
cockscomb (MC) *tɕí kuán tsɨ* b 369.
coffin (LX) *suò bó* 682.
cogongrass (for bedding) (LX) *χò* 564.
cogongrass (for bedding) (LX) *χà qá* 564.
cogongrass (for bedding) (MC) *mào tshào* b 564.
coil up (snake) (LX) *ʁù lì* 2213.
coil up (snake) (MC) *fià tchuán thà* b 2213.
coil up (snake) (MC) *sù* 2213.
collapse, landslide (LX) *ʁò ʁuá* 1659.
collapse, landslide (LX) *(à) dzà* 1659.
collapse, landslide (MC) *fià dʐuă* 1659.
collar (LX) *mò qà* 626.
collar (MC) *nìŋ* b 626.
collect capital (LX) *tshú* 2015.
collect capital (MC) *tshèn thá* b 2015.
collect capital (MC) *fià tsuă* 2015.
collide (LX) *tshɨ́ tshá* tə- 2220.
collide (MC) *ì χò* 2220.
collide (MC) *tè phòŋ thà* b 2220.
color (LX) *ɹí quí* really /q/? 1032.1.
color (MC) *iæN sè* b 1032.1.
colorful (LX) *pá tsù* =flower 1567.
colorful (MC) *tià tiá* 1567.
colorful cloth worn on head (LX) *phà tsɨ* b. 642.
colt, foal (LX) *ʁò mù tsú* 336.
colt, foal (MC) *ʐòu bò tsú* 336.
comb (n) (LX) *qə-cý* hair-comb(v). STC 466 *m-si(y) 655.
comb (n) (MC) *qè suí* e ~ ɛ. STC 466 *m-si(y) 655.
come (LX) *lò* 2130.
come (LX) *tcỳ* 2130.
come (MC) *ɳù* used for rain 2130.
come out (LX) *sɨ lò* 1736.
come out (MC) *ʂé ɳù* 1736.
come to, wake up (MC) *sì* ?STC 275 *m-sow 2498.
come to, wake up (v.i.) (LX) *tə mà zè* add *-zɨ́* for CAUS 2498.
come to, wake up (v.t.) (LX) *tə mà zè zɨ́* 2498.
comfort (LX) *ió* 1972.
comfort, console (LX) *ióN* 1627.
comfort, console (LX) *tɕhà* 1627.
comfort, console (MC) *sù dzá* 1627.
comfort, console (MC) *tchuán thà* b 1627.
comfortable (LX) *nà* 1591.
comfortable (MC) *zì-nà* life-good 1591.
commit crime (LX) *zueí-dà-tsà* b-s-m 1877.
commit crime (MC) *dzuì uè* 1877.
commoner (LX) *tshuá qù mù* 221.
commoner (MC) *pè seí* b? 221.
companion (LX) *ỳ zù* 271.
companion (MC) *ì dʐòu* 271.
compensate (LX) *phé (zɨ)* b? 2217.
compensate (MC) *bà* 2217.
compete (LX) *pì dá* b 1663.
complete (LX) *tə pè ə* 1716.
complete (LX) *tchì dá* b? 2269.
complete (LX) *fiă tù* 2269.
complete (MC) *qə́ nə* m2=sfx? 2269.
complete (MC) *dzɨ́ qĕ* 2269.
complete, all (LX) *à só* 1403.
complete, all (MC) *qè nə* 1403.
complete, finish (LX) *dà ì* 1717.
complete, finish (LX) *sà qò* b. 1717.
complete, finish (MC) *tè ʂà qŏ* b? 1717.
complete, finish (MC) *tè ɕó ~ tè ɕô* 1717.
conceal, hold back (LX) *à lià* 2529.
conceal, hold back (MC) *tù* 2529.
conceal, hold back (MC) *mèn thá* b 2529.
conceal, hold back, keep secret (LX) *mà cá* 2529.
conditions (LX) *thiaò tɕèn* b 1008.
confused (LX) *qə̀ là qə̀ tchuà* tones vary? 1615.
confused (MC) *tè qé tè ʁuà* 1615.
connect, join (MC) *ì khoù* 2060.
conquer (LX) *dà ià* 2613.
conquer (LX) *dà ì* 2613.
conquer (MC) *fià ʐuâ* 2613.
construct (dam) (LX) *iú* 2598.
construct (dam) (MC) *tʂhú* cf. repair. calque? 2598.
construct a wall (LX) *dzí* 1778.
construct a wall (LX) *zà tá* 1778.
construct a wall (MC) *lò zù-tchú* stone.wall-m 1778.
construct a wall (MC) *bè zɨ-tʂò thá* dirt-b?-s 1778.
contend for (LX) *bú bá* 2586.
contend for (MC) *zì tà* 2586.
contented, satisfied (LX) *à pà* 2169.
contented, satisfied (LX) *zí bè* 2169.
contented, satisfied (LX) *tə suà* 2169.
contented, satisfied (MC) *dʐ í qè* 2169.
contented, satisfied (MC) *dʐ í zì* CAUS? 2169.
continue (MC) *ioú ɳù ɕì* 2026.
contract illness (LX) *(à) tò* 1747.
contract illness (LX) *tsá* 1747.

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contract illness (MC) *tɛ́ tiě* 1747.
convene (LX) *(dà) ʁuá tà* 2578.
convene (MC) *ʁuè* 2578.
convince (LX) *ió* 2531.
convince (LX) *dà só* also à 2531.
convince (LX) *dà só sà* 2531.
convince (MC) *sù dzá* 2531.
convince (MC) *mè-toú-thà* person-b-s 2531.
convince, deceive (MC) *gɛ́ gɛ̀* 2531.
cook (n.) (LX) *mà má-pù-mù* food-do-AGT 241.
cook (n.) (LX) *tə qhuá-pù-mù* food-do-AGT 241.
cook (n.) (MC) *tɕhò tì-pú-mù ~ tɕhòu tì-pú-mù* vegetable-do-AGT. According to consultant, monophthong is archaic. 241.
cooked (LX) *(fià) mù* STC 432 *s-min 2344.
cooked (MC) *(fià) mù* STC 432 *s-min 2344.
cooking spatula (LX) *cè pí* 767.
cooking spatula (MC) *tʂhuàn tsɨ̀* b 767.
cool (LX) *(fià) tó* 1519.
cool (MC) *liàŋ khué* b 1519.
cool (of water) (LX) *tó* 1516.
cool (of water) (MC) *toú* 1516.
cool (of weather) (LX) *mù pá* 1515.
cool (of weather) (MC) *toú* 1515.
cool (v.) (LX) *tó* various pfxs 2145.
cool (v.) (MC) *fià toú zɨ̀* 2145.
cooled off (rice) (LX) *tó* 2144.
cooled off (rice) (MC) *(tchò) fià toú* verb=s3 2144.
copulate (LX) *qhé* 1624.
coral (MC) *suáN fù* b? 661.
coriander, cilantro (LX) *χò-qò tsù* fragrant-m. calque? 535.
corn, maize (LX) *í mà* b 526.
corn, maize (MC) *í mè* b 526.
corner (LX) *kú kó* 1051.
corner (MC) *dzò̧ dzó̧* 1051.
corpse (LX) *mó* 202.
corpse (MC) *mó* 202.
correct, right (LX) *nà* 'good' 1497.
correct, right (LX) *χeì* also ?=good 1497.
correct, right (LX) *ĭà* 1497.
correct, right (MC) *tæ̀ pă* m1=pfx 1497.
correct, right (MC) *ŋuè* 1497.
corridor (LX) *hàN háN* 689.
cotton (MC) *miæN χuà* b 528.
cotton overcoat (LX) *ŋò tsɨ̀* 630.
cotton overcoat (LX) *miàN-ŋò* b-? 630.
cotton overcoat (MC) *ŋaò tsɨ̀* b? 630.
cotton wadding (LX) *qè ì* 673.
cotton wadding (LX) *miæN χuá* b 673.
cotton wadding (MC) *miæN χuà-(phù ké)* b(cotton)-fabric(?) 673.
cotton-padded mattress (LX) *tshà ì* 674.
cotton-padded mattress (MC) *zò̧ tsɨ̀* b 674.
cough (LX) *tshú tá* ? STC 423 *su(w) 2111.
cough (MC) *tshò χuá* ? STC 423 *su(w) 2111.
count (v) (LX) *sú* b 2347.
count (v) (LX) *sù-dá* takes dà. b-s 2347.
count (v) (MC) *sú suà* b? 2347.
country, nation (MC) *zé qà* 76.
courtyard (LX) *iuæN bá* b 688.
courtyard (MC) *qhó* 688.
courtyard (MC) *yăn tsɨ̀-qà* b-m 688.
courtyard (MC) *yæN pá* b 688.
cover (LX) *tà qhó* u ≠ o. STC 479 *klup 916.
cover (LX) *qhù tá* STC 479 *klup 916.
cover (n.) (MC) *tshà qù* for pot. STC 479 *klup 916.
cover (n.) (MC) *qà qù* for cup. STC 479 *klup 916.
cover (v.t.) (LX) *qhú* STC 479 *klup 2178.
cover (v.t.) (LX) *queì* STC 479 *klup 2178.
cover (v.t.) (MC) *fià tshué* 2178.
cover (v.t.) (MC) *fià qhué* STC 479 *klup 2178.
cover (v.t.) (MC) *fià lòŋ thâ* p,b,s 2178.
cover (with blanket) (LX) *qeì* STC 479 *klup 1905.
cover (with blanket) (LX) *qhù* STC 479 *klup 1905.
cover (with blanket) (MC) *qhué* STC 479 *klup 1905.
cover (with earth) (LX) *bé* 1904.
cover (with earth) (LX) *qhú* STC 479 *klup 1904.
cover (with earth) (MC) *qhué* cf. quilt. STC 479 *klup 1904.
cover up, shade (LX) *qhú* STC 479 *klup 2584.
cover up, shade (LX) *qù cù* STC 479 *klup 2584.
cover up, shade (LX) *qú tá* 2584.
cover up, shade (MC) *quà* STC 479 *klup 2584.
cover, muffle (MC) *duè tʂɨ̀* 2454.
cover, muffle (MC) *duè mòŋ thá* b 2454.
cover, muffle (with hand) (LX) *qú* STC 479 *klup 2454.
cover, muffle (with sth.) (LX) *qhú* STC 479 *klup 2454.
covered (with dust) (LX) *dà lià* 2168.

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covered (with dust) (MC) *fià suè zɨ* 2168.
covet, desire (food) (LX) *dè dé* 1701.
covet, desire (food) (MC) *kè mià* 1701.
cow (female) (LX) *mà í mià* 327.
cow (female) (LX) *ŋò mià* STC 215 *ŋwa, STC *ma (female sfx) 327.
cow (female) (MC) *ŋò mià* STC 215 *ŋwa, STC *ma (female sfx) 327.
cow milk (LX) *mà í ɳà ɳá* 328.
cow milk (MC) *ŋò ɳà ɳá* STC 215 *ŋwa 328.
cow shed (LX) *sɨ-iuà kù* m-b(tone changes in compounds with "shed") 696.
cow shed (MC) *ŋò ʐé* 696.
cow, bovine (LX) *sɨ* 316.
cow, bovine (LX) *mà ì* 316.
cow, bovine (MC) *ŋò* STC 215 *ŋwa 316.
cowherd (MC) *ŋò tiù mú-kæ bʐ ì* cowherd-child 235.
cowhide rope (LX) *zà bì* 841.
cowhide rope (MC) *(ŋò) ʐà piá bʐè* 841.
cradle, bassinet (LX) *qhò pí* 791.
cradle, bassinet (MC) *tʂhà piá* 791.
crafty (LX) *qə tshɨ́* 1573.
crafty (MC) *ʐè uè* 1573.
crafty (MC) *tɕaò χuà* b 1573.
crawl (human) (LX) *pá cà* 2204.
crawl (human) (MC) *ì pà thâ* b 2204.
crawl (human) (MC) *tsɨ qá* 2204.
crawl (insect) (LX) *pá cà* 2205.
crawl (insect) (MC) *té phà thá* b. tones odd 2205.
crawl (insect) (MC) *tsɨ qá* 2205.
crazy (LX) *dà ʁó* 1897.
crazy (MC) *fù thà* b 1897.
create (LX) *tshaŏ-dà* b-s 2590.
create (MC) *pù* also 'do'? 2590.
crevice, crack (LX) *(dà) tɕhà* verb? 1022.
crevice, crack (LX) *zí zá* verb? 1022.
crevice, crack (MC) *fiă dʐ ĭ* verb? rise in s2 from missing syll? 1022.
crevice, crack (MC) *fiă dʐ ì dʐá* verb? 1022.
cricket (LX) *tɕhà tshó* 450.
crime, sin (LX) *zuè* b 978.
crime, sin (MC) *dzuì* b 978.
criticize, accuse (LX) *qə cí* 2559.
criticize, accuse (MC) *tè dî* 2559.
crops (LX) *ɻà qə* 510.
crops (MC) *tʂuàn tɕà* b 510.
cross (bridge) (LX) *kə* 1954.
cross (bridge) (LX) *ʁuá* 1954.
cross (bridge) (LX) *kè* 1954.
cross (bridge) (MC) *(tshá) tʂhuè* 1954.
cross (bridge) (MC) *tshá-kè-gú* bridge-go-return(?) 1954.
cross (river) (LX) *dà cí* 1844.
cross (river) (LX) *dà fiú* 1844.
cross (river) (MC) *tsuè tʂhuè* 1844.
cross feet (LX) *ʁù lì* 1917.
cross feet (MC) *gòu tsɨ tɕà* 1917.
cross legs (MC) *gòu tuì* 1917.
cross, surmount (LX) *dà ʁuá* 2548.
cross, surmount (LX) *dà qhuà* 2548.
cross, surmount (MC) *dè lə* 2548.
crotch of pants (LX) *tɕà qó* 639.
crotch of pants (MC) *ʐè tì-qhuà tá* pants-crotch 639.
crow (LX) *là ʁó* 418.
crow (MC) *nə-ŋá* black-m 418.
crow (rooster) (LX) *cí* 2042.
crow (rooster) (MC) *ì sí* at midnight 2042.
crow (rooster) (MC) *tè sĭ* 2042.
crowd in (LX) *cì cí* 2012.
crowd in (MC) *ì tɕì thá* b 2012.
crowd in (MC) *ì tsì thâ* 2012.
crowded (LX) *tɕì tɕí* 2011.
crowded (MC) *qè qè tɕì thá* b 2011.
crowded (MC) *tí* 2011.
cry (bird) (LX) *zăˀ* 2180.
cry (bird) (LX) *cí* 2180.
cry (bird) (MC) *zè* 2180.
cry out (LX) *ʁuă tà* 1961.
cry out (LX) *qá ɻà* 1961.
cry out (MC) *ʁuă* 1961.
cry, weep (LX) *ŋú* STC 79 *ŋuw 2118.
cry, weep (LX) *zăˀ* 2118.
cry, weep (MC) *zà* 2118.
cubit (LX) *lí kù* 1327.
cuckoo (LX) *qí pù* 424.
cuckoo (MC) *koú pù* b? 424.
cucumber (LX) *χuàŋ kuá* b 550.
cucumber (MC) *χuàŋ kuà* b 550.
cup (LX) *peí tsɨ* b 779.
cup (LX) *peí peí* b 779.
cup (MC) *tʂà tsɨ́* 779.
cupboard (LX) *tshá* 728.
cupboard (LX) *χó kè* 728.
cupboard (MC) *guì* b 728.
curious (LX) *sé-tá pò* good-like. calque? 2463.1.
curious (MC) *cĭ-tɕhì* b 2463.1.
curved, crooked (LX) *ʁuè* 1451.
curved, crooked (LX) *ʁuà* 2437.
curved, crooked (MC) *khuè lià* STC 307 *koy or STC *ku[·]m 2437.
curved, crooked (MC) *khuè lià* STC 307

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*koy or STC *ku[·]m 1451.
custom, habit (LX) *tsò* 999.
custom, habit (MC) *cì kuàn* b 999.
custom, habit (MC) *má ʐà* 999.
cut (bone) (LX) *zuè* 2100.
cut (bone) (LX) *tshuá* STC 240 *tsywar 2100.
cut (bone) (MC) *tshuà tiá* STC 240 *tsywar 2100.
cut (rope) (LX) *ɕá* 1922.
cut (rope) (MC) *liá* ?STC 351 *lep 1922.
cut (with scissors) (LX) *tsú* gloss as 'clip'? 2033.
cut (with scissors) (MC) *(fià) peí* 2033.
cut down (tree) (LX) *tshuá* STC 240 *tsywar 2099.
cut down (tree) (MC) *tshuá* STC 240 *tsywar 2099.
cut into parts (LX) *phià* 1685.
cut into parts (MC) *(ʂè) tshé* 1685.
cut off (meat) (LX) *khù khuá* redup 1921.
cut off (meat) (LX) *fià ɕá* 1921.
cut open (LX) *sɨ tchà* 2234.
cut open (MC) *ʐá qà* STC 458 *ra 2234.
cut, slice (vegetable) (LX) *tsù tsuá* redup (asp?) STC 240 *tsywar 2255.
cut, slice (vegetable) (LX) *qhù qhuá* redup 2255.
cut, slice (vegetable) (MC) *tʂhù tʂhuá* redupSTC 240 *tsywar 2255.
cut/gouge out (LX) *tsoù* 2442.
cut/gouge out (MC) *liá* ?STC 351 *lep 2442.
cymbals (LX) *máN láN láN* nasal'n spreads over /l/ 950.
cymbals (MC) *cæN tchì* 950.
cypress (LX) *zú má* 486.
cypress (MC) *χoù phó* 486.
cùn (3.3 cm) (MC) *tshuí* 1330.
dam, embankment (LX) *bá* b? 40.
dam, embankment (MC) *dá tʂhì-sɨ* 40.
dam, embankment (MC) *dá tʂhì-bà* m-b 40.
damage (v) (LX) *dà ʁè* 2370.
damage (v) (MC) *ʂà qà là zî* 2370.
dance (LX) *tshó tà* 2405.
dance (MC) *soú tà* 2405.
dance (n) (MC) *soú tà* 941.
danger (LX) *mò qò* cf. 'fear'. STC 473 *grok ~ *krok 1009.
danger (MC) *cyæN thá* b,s 1009.
danger (MC) *cyn thá* b,s 1009.
dark (LX) *mú* STC 357 *mu·k 1461.
dark (MC) *mò* STC 357 *mu·k 1461.
dark (sky) (LX) *mú moù* 2399.
dark (sky) (LX) *fià mú mú* 2399.
dark (sky) (LX) *fià mù* 2399.
dark (sky) (MC) *fià mò* 2399.
dark sugar (LX) *χuaŋ tháN* b. "yellow sugar" 603.
dark sugar (MC) *χuàŋ thàN* b N ~ ŋ 603.
darken (LX) *fià ɳì* 1674.
darken (LX) *fià mà só* 1674.
darken (MC) *fiá nə̌* p,black 1674.
date (LX) *mə ɳì* cf. sun 1117.
date (MC) *zɨ tsé* 1117.
daughter (LX) *tcà* ?STC 244 *krwiy 279.
daughter (MC) *tcè* 279.
daughter-in-law (LX) *tcá zò* 278.
daughter-in-law (MC) *tcè zó* 278.
day (CL) (LX) *ɕì* 1337.
day (CL) (MC) *sè* 1337.
day (of traveling) (LX) *ɕì* 1277.
day (of traveling) (MC) *sè* cf. 'clear' 1277.
day after tomorrow (LX) *sò dzí ɕì* 1090.
day after tomorrow (MC) *sòu dì* 1090.
day and night (CL) (LX) *ʑà* STC 203 *ryak 1339.
day and night (CL) (MC) *à sè ɳá à ʐà* 1339.
day before yesterday (LX) *zí ɕì* 1087.
day before yesterday (MC) *dzé sè* 1087.
daytime (LX) *cuá-χè* bright-m 1095.
daytime (MC) *nó nà* 1095.
dead (LX) *cà* 1547.
dead (MC) *tè sɨ kì lè* 1547.
deaf (LX) *ɳì bò* 2160.
deaf (MC) *bù* 2160.
deaf person (LX) *ɳì-bò* ear-deaf 261.
deaf person (MC) *mí nò-mù* 261.
deaf person (MC) *nə̀ kiè bú* ear-deaf 261.
death (LX) *cà* 202.1.
debt (LX) *sən dzé* 809.
debt (MC) *tù* 809.
decaliter (dry measure) (LX) *ʁò* 1316.
decaliter (dry measure) (MC) *pú* 1316.
deceive (LX) *(mò) ió* 2238.
deceive (MC) *gɛ́ gè* 1972.
December (LX) *fià nó lə* calque 1134.
December (MC) *fià nó lə* calque 1134.
decide (LX) *tcuè tíN* b 2089.
decide (MC) *suà khí* 2089.
deep (LX) *tshɨ́* ?STC 356 *tu·k 1424.
deep (MC) *ɳà* 1424.
deep fry (LX) *qó* takes all pfx? STC 331 *kaŋ 2560.
deep fry (LX) *tsa^{35} dà* b 2560.
deep fry (MC) *tʂhà thá* b 2560.
deer (LX) *lò tsɨ́* 386.

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deer (MC) *dá* 386.
defeated (LX) *fià dzí* 2326.
defeated (LX) *tə tsá* 2326.
defeated (MC) *ʂè tǐ* 2326.
defecate (LX) *qhə̀ cà pà* 2127.
defecate (MC) *duá* 2127.
degree of fatness (LX) *χuá tshɨ́* 1618.
degree of fatness (LX) *tshɨ́ χuá* 1618.
delay (v) (LX) *fià cì* 1799.
delay (v) (LX) *(fià) tán gò* b 2431.
delay (v) (LX) *fià sì* 1799.
delay (v) (MC) *qà toú* 1799.
delay (v) (MC) *qà toú* 2431.
den (LX) *bù* 403.
den (MC) *ʐè pù* 403.
dense (of fabric) (LX) *tɕí* 1482.
dense (of fabric) (MC) *lià* 1482.
deposit, check (LX) *à sɨ́* 2020.
deposit, check (MC) *ì tɕí thà* b 2020.
deposit, check (MC) *sù sué* 2020.
descend (LX) *fià lò* m2?=come 2466.
descend (MC) *fià tɕoŭ* 2466.
destiny, fate, fortune, luck (MC) *mì sú* 976.
destroyed (of a house) (LX) *ʁù ʁuá* 1696.
destroyed (of a house) (LX) *(à) tshò* 1696.
destroyed (of a house) (MC) *fià dʐuă* 1696.
detailed (LX) *à gà tchì tchì* 1549.
detailed (LX) *à gà tchà tchà* 1549.
develop (a sore) (LX) *(tə) cì* natural developmt 2319.
develop (a sore) (LX) *à tò* from injury, other person 2319.
develop (a sore) (MC) *ʂé χuĕ ~ ʂè χué* 2319.
develop (v.i.) (LX) *tə dzú* 1861.
develop (v.t.) (LX) *fià lú* 1862.
dew (LX) *meì qə̀* 17.
dew (LX) *tsù-qə̀* water-dew 17.
dew (LX) *zɨ́ qə́* 17.
dew (MC) *(mià) dzè qè ~ dzé qè* 17.
dew (v) (LX) *uà* 17.
dice (LX) *cò* 946.
dice (MC) *sé tsɨ́* 946.
die (LX) *(dà) bà* 1846.
die (LX) *(à) ì* 1846.
die (LX) *à cà* no other pfx. STC 232 *siy 2363.
die (MC) *tchì-mì-ɳú-uà* b(breath)-NEG-m-m 1846.
die (MC) *té sɨ̌* STC 232 *siy 2363.
difference (LX) *mì ʁuá* 1011.
difference (LX) *qá tshé* 1011.
difference (MC) *kiè ká* 1011.
difficult (LX) *mə qeí* 1520.
difficult (LX) *bà* 1563.
difficult (LX) *qò* 1563.
difficult (MC) *bà* =tired. gloss? 1563.
difficult (MC) *(pù)-qà* do-hard 1520.
dig out, scratch (LX) *phà sè* ?STC 391 *pruk 2116.
dig out, scratch (MC) *phù ʂà* ?STC 391 *pruk 2116.
dig well (LX) *bù liá* STC 288 *la·y 2088.
dig well (MC) *dʐì dʐá* 2088.
digest (LX) *sɨ́ ɳú* ?STC p54 *zya·w. Kuki-Naga *su 2486.
digest (MC) *caó χuà* b 2486.
dike, embankment (LX) *qhà tsù* 39.
dike, embankment (across a ditch) (MC) *lò zù tè tchú* stone.wall-constructed 39.
dike, embankment (along fields) (MC) *dʐì ló* 39.
diligent (LX) *tə tsì tɕá* 1585.
dip into water (LX) *cì* 2356.
dip into water (MC) *tʂuà-thá* b-s 2356.
dip into water (MC) *tchuá* 2356.
dip pen (LX) *sú* 2570.
dip pen (MC) *tsăn-thà* b-s 2570.
dip pen (MC) *sú* 2570.
dipper (LX) *quà lí* 785.
dipper (MC) *quà lə́* 785.
direction (LX) *biá qhuà* 1035.
direction (LX) *ʁù* 1035.
direction (MC) *tshuè sù* 1035.
dirt (MC) *bè zɨ́* 51.
dirty (LX) *à ɳì* STC #235 *s-n(y)ek 1542.
dirty (LX) *mà só* cf. poison 1542.
dirty (MC) *tsáŋ* b 1542.
dirty (MC) *loù sú* 1542.
disappear (LX) *dà* 2487.
disappear (LX) *(fià) sì* 2487.
disappear (LX) *mo*^{35} ?STC 425 *ma-t 2487.
disappear (MC) *tæ χuà* 2487.
discuss (LX) *zɨ́ zú* 2305.
discuss (LX) *paì dà* b 2035.
discuss (LX) *dè dà* 2305.
discuss (MC) *cà lyà* 2305.
discuss, tell (story) (MC) *diù* 2035.
discuss, tell (story) (MC) *baì thá* b? 2035.
dislocate (joint) (LX) *kù* 2434.
dislocate (joint) (LX) *tsoú* b? 2434.
dislocate (joint) (MC) *ʂè dʐuè* 2434.
dislocate (joint) (MC) *ʂà qhá* 2434.
disordered, confused (LX) *mì á* 1496.
disordered, confused (LX) *phà lá* 1496.
disordered, confused (MC) *lə tà* 1496.
dispatch someone (LX) *mà cì* m1=person

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2211.
dispatch someone. (MC) *mè phé* mè ʂè phé = CMD 2211.
disposition, temperament (LX) *phì tchí* b 992.
disposition, temperament (MC) *dè bá* 992.
dissolve (v.i.) (LX) *zú zú* 2282.
dissolve (v.i.) (LX) *dà zù* 2282.
dissolve (v.i.) (MC) *dʐú* 2282.
dissolve (v.t.) (LX) *tá zú zú (zì)* also takes dá. tone on pfx?? 2283.
dissolve (v.t.) (MC) *ʂè dʐú zɨ* 2283.
disturb, trouble (LX) *ʁuà lí* 1781.
disturb, trouble (MC) *sí ʐò* 1781.
disturb, trouble (MC) *tà tcoû* 1781.
ditch (LX) *qhuà* 36.
ditch (MC) *qhò* [qho$^{\cdot 13}$] 36.
ditch (MC) *tsuè χoù* 36.
ditch (large) (MC) *qhuà tsué* 36.
divide (grain) (LX) *ʁò ʁó* 1892.
divide (grain) (MC) *ʐɨ ʐoú* ml? ɨ? 1892.
divide family (LX) *(kè) ʁò ʁó* 1893.
divide family (MC) *ʐɨ ʐoú* 1893.
dizzy (LX) *qà (pá tsɨ)-suè (qò)* head-dizzy 2550.
dizzy (MC) *qè gù* 2550.
do (LX) *pù* 2622.
do (MC) *pù* 2622.
do business (LX) *tà cí pù* 2623.
do business (MC) *tè sé pù* 2623.
do not (+V) (LX) *tsɨ* 2640.
do not (+V) (MC) *tcì (dzè)* 2640.
do one's best (LX) *qú tà tchá* 1838.
doctor (LX) *iá tsà mù* 228.
doctor (MC) *dzí sɨ mù* 228.
dog (MC) *khuè* STC 159 *kwiy 358.
dog (female) (LX) *khù mià* STC 159 *kwiy 360.
dog (female) (MC) *khuè mià* 360.
dog (male) (LX) *khù cỳ* also HH 359.
dog (male) (LX) *khù dò* 359.
dog (male) (MC) *khuè dʐú* 359.
dog, hound (LX) *khù* 358.
donkey (LX) *lỳ lý* b 352.
door (MC) *diò* 709.
door bolt (LX) *dzù-tshuà* door-catch (b?) 711.
door bolt (MC) *diò phiè tsɨ* 711.
door bolt (MC) *diò phiè phié* 711.
door, doorframe (LX) *dzù ~ dzú* 709.
doorframe (MC) *diò bú* 710.
dose (of medicine) (LX) *fú* b 1280.
dose (of medicine) (MC) *fú* b 1280.
dote on (child) (LX) *cì mì-iá* heart-ache (calque?) 2392.
dote on (child) (LX) *qà tcí* 2392.
dote on (child) (MC) *quà* 2392.
dote on (child) (MC) *gè* 2392.
double-edged fine-tooth comb (LX) *pí tsɨ* b 656.
double-edged fine-toothed comb (MC) *dʐù suì* STC 466 *m-si(y) 656.
doubt (LX) *ŋàn dà* b? 1982.
doubt (MC) *ŋàn-thá-ʐà* b-s-m 1982.
dove, pigeon (LX) *ỳ gù* bird-b/STC 495 *kuw 374.
dove, pigeon (MC) *kò tsɨ* b 374.
downward (pfx) (LX) *fià* - 1081.
downward (pfx) (MC) *fià* - 1081.
dragon (LX) *bú* 379.
dragon (MC) *bú* 379.
Dragon King (LX) *cù dò* 964.
Dragon King (LX) *cù pì* 964.
Dragon King (MC) *bú-zè* dragon-king. claque 964.
dragonfly (LX) *bù lá* 458.
dragonfly (MC) *tíŋ tíŋ má* b (but de-aspirated) 458.
draw out (LX) *phì phiá* cf. redup with /u/wa 2386.
draw out (LX) *tchì tchá* 2386.
draw out (MC) *thé thè* 2386.
drawer (LX) *tshoú tshoú* b 727.
drawer (MC) *tchoú tchoú* b 727.
dream (n) (LX) *mò zè* STC 82 (s/r)-ma((ŋ/k)) (revised) 1029.
dream (n) (MC) *mò* STC 82 (s/r)-ma((ŋ/k)) (revised) 1029.
dream (v) (LX) *mò (zè)* STC 82 (s/r)-ma((ŋ/k)) (revised) 2171.
dream (v) (MC) *mò* STC 82 (s/r)-ma((ŋ/k)) (revised) 2171.
dredge up (LX) *sá* 2131.
dredge up (MC) *laó thà* b 2131.
dredge up (MC) *zá* 2131.
dregs, sediment (LX) *tsá tsɨ* b 1025.
dregs, sediment (MC) *bà bà* 1025.
dregs, sediment, trash (MC) *tʂà tʂà* b 1025.
dress up (LX) *ʁá* 2606.
dress up (MC) *kuì* 2606.
dress up, beautify (LX) *tshó tchí* 1779.
dress up, beautify (MC) *tá pàn* b 1779.
dried sticky rice "ba ba" (LX) *qhà liú* 581.
dried sticky rice "ba ba" (MC) *tsɨ bà* 581.
drill, auger (LX) *ɳò* 854.
drill, auger (MC) *tsuǣN tsɨ* b 854.
drink (LX) *tchí* 1964.

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drink (LX) *qú* U 1964.
drink (LX) *qó* 1964.
drink, suck, smoke (tobacco) (MC) *thié ~ thiè* 1964.
drip (LX) *tsù-pú pú* water-do(?) 1811.
drip (LX) *pú* 1811.
drip (LX) *zɨ́* 1811.
drip (MC) *tsuè tè* 1811.
drip, drench (LX) *fià qò thò* or strain, filter (difft tone) 2150.
drive (animal) (LX) *ʁù ʁuá* 2264.
drive (animal) (MC) *(ʂè) tʂhɨ́ tʂhè* 2264.
drive (screw) (LX) *tɕoù dá* b 2190.
drive (screw) (MC) *dʐù dʐuá* 2190.
drive a nail (MC) *tù* 2619.
drive animal (LX) *(ʁù) ʁuá* 1913.
drive animal (MC) *tʂhè* 1913.
drop (CAUS) (MC) *fià tshoù zɨ́* 2037.
drop (of oil) (LX) *zɨ́* 1300.
drop (of oil) (LX) *tsɨ̀* 1300.
drop (of oil) (LX) *tiàN* b 1300.
drop (of oil) (MC) *tè* 1300.
drop (of water) (LX) *kà tɕí* 1056.
drop (of water) (MC) *kè kè* 1056.
drop down (LX) *tshò* STC 353 *tsyuk 1822.
drop down (MC) *fià tshoŭ* STC 353 *tsyuk 1822.
drop, descend, land (LX) *fià sì* 2036.
drop, descend, land (MC) *fià tshoù* 2036.
drum (LX) *bò* 947.
drum (MC) *bù* 947.
drunk (LX) *(cì) tə̀ χeì* 2620.
drunk (MC) *ʂè χè* 2620.
dry (LX) *fiə́* STC 268 *raw 1476.
dry (MC) *ʐ í* STC 268 *raw 1476.
dry (of weather) (LX) *ə́ tə̀-* 1963.
dry (of weather) (LX) *qá tə̀-*. ?STC 331 *kaŋ 1963.
dry (of weather) (MC) *ʐ í* 1963.
dry (of weather) (MC) *mú ʐ ì* 1963.
dry (v.i.) (LX) *tə̀ ə́* 1907.
dry (v.i.) (MC) *ʐ í* 1907.
dry (v.t.) (grain) (MC) *ʂè dʐ í* 1657.
dry (v.t.) (grain) (MC) *khăn thą̀* b 1657.
dry field (LX) *zù ə́* field-dry 46.
dry field (MC) *sù-zuè* mountain-field 46.
dry field (MC) *zuè ʐ í* 'field' + 'dry' 46.
dry in sun (LX) *zé* 1908.
dry in sun (LX) *zé* 2300.
dry in sun (LX) *tə̀ ə́ zɨ̀* 1908.
dry in sun (MC) *tè ʐ ĭ* 1908.
dry in sun (MC) *phù dʐ í* 2300.
dry in sun (MC) *ʂè dʐ í* 1908.
dry, vt (grain) (LX) *tshò* 1657.
dry, warm by fire (LX) *qhuà* ?STC 331 *kaŋ 1971.
dry, warm by fire (MC) *khuè* ?STC 331 *kaŋ 1971.
dry,bake over fire (LX) *cì cá* 1657.
duck (LX) *ià tsɨ̀* b 372.
duck (MC) *iá tsɨ̀ ~ ià tsɨ̀* b 372.
dull (LX) *gú* 1469.
dull (MC) *mì tsé* 1469.
dusk (LX) *mú χá ʁà* 1101.
dusk (MC) *dè-mò-uâ ~ fià mò uâ* p-darken-ASP 1101.
dust (LX) *pà pá* 49.
dust (MC) *mè có* 49.
dustcloth (LX) *tà qó* 736.
dustcloth (MC) *tʂhuè-tsɨ̀* table-m 736.
dustcloth (MC) *tshà dʐà nə̀* pot(?)-m 736.
dustcloth (MC) *tshì thá-kì-phà tsɨ̀* cover-ptcl-b(towel) 736.
dusty, covered with dust (LX) *phú tù tù* 1601.
dusty, covered with dust (MC) *χueí phù phù* b 1601.
dusty, covered with dust (MC) *bè zɨ̀ qé lìu* 1601.
dye (v) (LX) *cì* 2271.
dye (v) (MC) *dè mà* 2271.
each one (LX) *à dzì mí* 1356.
each one (MC) *à qó mò qà* 1356.
each, respective (LX) *iò mó (sò)* 1401.
each, respective (MC) *ké zì* 1401.
eagle, vulture (LX) *χò* cf. TP 408.
eagle, vulture (MC) *là bʐà kí* STC 333 *laŋ 408.
eagle, vulture (MC) *lá (bʐà)* STC 333 *laŋ 408.
ear (LX) *ɳì ká* STC 453 *g-na 107.
ear (MC) *nə̀ ké* STC 453 *g-na 107.
ear lobe (LX) *ɳì mà* 107 107.1.
ear of grain, spike (LX) *cà qə̀* 516.
ear of grain, spike (MC) *lè tì* 516.
ear wax (LX) *ɳí-qhú* 193.1.
earlier generation (LX) *qé cì* 314 314.
early (MC) *tɕì tó* 1466.
early (MC) *tsué* 1466.
early (MC) *tsué* 1466.
early (in the day) (LX) *tsuà* 1466.
early morning (LX) *tə̀ tsuà* some VH. 1096.
early, on time (LX) *zì* 1466.
earring (LX) *ɳì mà* m1=ear 662.
earring (MC) *nə̀ mà* 662.
earth, ground (LX) *zù* 24.
earth, ground, place (MC) *zuè (pè)* 24.

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earthen jar (LX) *qhà* 778.
earthen jar (MC) *íŋ phị́* íŋ ~ iŋ[35] 778.
earthen wall (LX) *bú zɨ-qhà tsù* mud-wall. 703.
earthen wall (LX) *χə̀ bù-qhà tsù* mud-wall 703.
earthen wall (MC) *bè zɨ-lò zù* powder/dirt-wall 703.
earthen wall (MC) *thù tcháŋ* b. tone varies 703.
earthquake (v) (LX) *dà ʁá* 1810.
earthquake (v) (MC) *mù dzé* 1810.
earthquake (v) (MC) *dɛ̀ mŏ* cf 'fire'? 1810.
earthworm (LX) *zuà-bù ló* earth-bug 448.
earthworm (MC) *bè diá* 448.
east (LX) *mù ɳí-thà-ʁù* sun-that-direction 1036.
east (LX) *mù ɕí-thà ʁù* sun-that-direction 1036.
east (MC) *mɛ̀ sí-ɳù-sɨ* sun-emerge-LOC 1036.
easy (LX) *(à) təù* cf. 'good' 1521.
easy (LX) *ià* cf. 'good' 1521.
easy (MC) *(pù) zɛ̀* 1521.
eat (LX) *tchí* suppletive form 1722.
eat (LX) *zɨ́* I eat... STC *dza 1722.
eat (MC) *dzɛ̀* STC *dza 1722.
eat! (LX) *tiè* 1722.
eaves (LX) *tsù-ɕỳ* water-? 686.
eaves (MC) *fàŋ iæ̀n* b 686.
echo (LX) *tchì sá qhuà tchì* 1019.
eclipse of moon (MC) *à-lə̀-mó* m-moon-dark 2549.
eclipse of moon (MC) *khuɛ̀-lə̀-dzè* dog-moon-eat 2549.
eclipse of sun (LX) *mə̀ ɳì ʁuè* 2275.
eclipse of sun (MC) *khuɛ̀-mɛ̀ nə̀-dzɛ̀* dog-sun-eat 2275.
eclipse of sun (MC) *khuɛ̀-mɛ̀ sí-dzɛ̀* dog-sun-eat 2275.
edge, side (LX) *guà (qì)* m1=edge 1053.
edge, side (MC) *tshuè tshuè* 1053.
eel (MC) *χuàn sæ̀n* b 434.
egg (LX) *ì tə̀* Ø- init? 604.
egg (MC) *ì té* 604.
egg (CL) (LX) *fiò* 1238.
egg (CL) (MC) *qó* 1238.
eggplant (LX) *tchè tsɨ́* b 538.
eggplant (MC) *tchè tsɨ̀* b 538.
eight (LX) *tshá* STC 163 *b-r-gyat 1181.
eight (MC) *tʂhè qó* STC 163 *b-r-gyat 1181.
eighteen (LX) *fiá tshá* 1191.
eighteen (MC) *fià tʂhè* 1191.
eighth (LX) *tshá ó- χeì* 1226.
eighty (LX) *tshá sá* 1205.
eighty (MC) *tchè sá* 1205.
eighty-one (LX) *tshá sá à* 1206.
eighty-one (MC) *tchè sá ɳà à qó* 1206.
elbow (MC) *í dzè* 132.
elbow (inside) (LX) *lì qù* m-pull 132.
elbow (outside) (LX) *lì tsò* 132.
elder brother (LX) *tú bà* 3d person 283.
elder brother (MC) *qó qò* STC 255 *kuw 283.
elder brother (MC) *ʁuè pó* ?STC 205 *ryaŋ 283.
elder brother (direct) (LX) *à kò* STC 255 *kuw 283.1.
elder sister (LX) *sá bà* 3d person 284.
elder sister (MC) *ʁuè-tɕé* m2 looks like borrowing, but cf. Yadu *ɛ tɕɛ* 'wife of elder brother'. 284.
elder sister (direct) (LX) *á tseì* 284.1.
elder sister (direct) (MC) *á tɕè* b? 284.1.
eleven (LX) *fià tɕí* 1184.
eleven (MC) *fià tɨ́* 1184.
eleventh (LX) *fià tɕí χeì* 1229.
eliminate, wipe out (LX) *sɨ̀ qə̀ tiè* also die out, etc. 2489.
eliminate, wipe out, die out (MC) *tè sɨ̀ zɨ̂* 2489.
eliminate, wipe out, die out (MC) *tè χô* 2489.
elongate (LX) *sɨ̀ dzɨ̀* ?STC 433 *sriŋ 2315.
elongate (MC) *ʂè dʐê* ?STC 433 *sriŋ 2315.
embark (LX) *à tsè* tone pair 1839.
embark (LX) *fià fiù* 1839.
embark (MC) *dʐà kà thé* thɛ́ ~ thɛ̌ 1839.
embrace (LX) *tə̀ pò qà* 2535.
embrace (MC) *mì ŋà uâ* 2535.
embrace (MC) *tà ɕó zɨ̀* 2535.
embroider (LX) *phiá* 2502.
embroider (MC) *(tià tiá) thiò* 2502.
emit (smoke) (MC) *tè tɕò* 2175.
emit, appear (smoke) (LX) *tshà* 2175.
emperor, king (MC) *mé tsɨ̀* 254.
emperor, king (MC) *zé-bʐà* king-big 254.
empty (LX) *só* 1427.
empty (MC) *qhò* 1427.
enclose (sheep) (LX) *tchý* 1946.
enclose (sheep) (MC) *khuí* 1946.
end of month (LX) *lə̀-suà* month-end 1138.
end of month (LX) *lə̀ tshò* 1138.
enlarge (LX) *tà-bà* 1672.
enlarge (MC) *dà bʐă* 1672.
enough (LX) *zí (bè)* 2615.
enough (MC) *dzɨ́ (qè)* 2615.

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enough (age) (LX) *lià* 1929.
enough (age) (LX) *zɨ́ bè* m,s? 1929.
enough (age) (LX) *zɨ́* 1929.
enough (age) (MC) *dzɨ́* 1929.
enough (in number) (LX) *zɨ́* 1928.
enough (in number) (MC) *dzɨ́* 1928.
enough (length) (LX) *zɨ́* 1927.
enough (length) (LX) *pà* 1927.
enough (length) (MC) *dzɨ́* 1927.
enter (LX) *ì lò* p-come 1661.
enter room (LX) *kè-ì-lò* room-p-come 2072.
enter room (MC) *ì tɕŏ* 2072.
enter room (MC) *tɕì kó-ì-ɳù* home/room-p-come 2072.
entrust (LX) *dà zɨ* 2445.
entrust (MC) *ʁuè ɕí* 2445.
envy (v) (LX) *iæN tchì* b? 2022.
envy, despise (MC) *ù sù-mí-qè ʐà* sù ~ sɨ, qè ʐà ~ qə. look-NEG-a.little 2022.
envy, despise (MC) *mê-qhoú-zə ɳà* person-despise- 2022.
envy, despise (MC) *qɛ̀ qè qhoú ʐà* 2022.
eraser, rubber (LX) *tshà tshà* b. Sichuanese: tsha^{35} tsɨ 928.
eraser, rubber (MC) *tɕaó phị* b 928.
eraser, rubber (MC) *tshà tsɨ* b 928.
estimate (LX) *gù-dá* b-s 1935.
estimate (LX) *ŋàn-dá* b?-s 1935.
estimate (MC) *ŋàn thá* b 1935.
estimate, measure (LX) *zò zò* 2146.
estimate, measure (MC) *zé* 2146.
euphonious (LX) *tshuə́ ɕị-nà* listen-good 1558.
euphonious (MC) *pà-ʂé* m-clear? 1558.
evening, night (LX) *dzì tsɨ́* 1102.
evening, night (MC) *giè tsɨ́* 1102.
every day (LX) *á ɕí má qè* 1355.
every day (LX) *à ɕì mí* 1355.
every day (MC) *à sè mó qà* phrasal 1355.
every(thing), all (LX) *à ɳá (meì)* 1402.
every(thing), all (MC) *qɛ̀ nə* 1402.
everyone (LX) *à dzè meí* 1371.
everyone (MC) *kè nə* 1371.
evil spirit, demon (LX) *bù* 963.
evil spirit, demon (LX) *dù mià* ghost-female 963.
evil spirit, demon (LX) *ʁuà sà* 963.
evil spirit, demon (MC) *dòu-miá* ghost-female 963.
evil spirit, demon (MC) *iaó tɕín* b? 963.
ewe (LX) *iò mià* 343.
ewe (MC) *ioù-miá* sheep-female 343.
excavate, scoop (LX) *bù liá* 2436.
excavate, scoop (MC) *dʐ̩ɨ̀ dʐ̩á* 2436.
exchange (LX) *lə́ lá* ə ~ ɨ. STC 283 *lay 1985.
exchange (MC) *lə̀ là* STC 283 *lay 1985.
exercise patience (LX) *qú tchà* tchà ~ tchá 2277.
exercise patience (MC) *laĭ fɛ̂n* b 2277.
exercise patience (MC) *ʐən thá* b 2277.
expand, inflate (LX) *tə ʁò* 2221.
expand, inflate (LX) *tə dzý* 2221.
expand, inflate (LX) *tə pì* 2221.
expand, inflate (MC) *dɛ̀ bʐ̩à* 2221.
expand, swell (LX) *tsaŋ^{35}-dà* b-s 2574.
expand, swell (MC) *(tè) sué suɛ̀* 2574.
expensive (LX) *phú lú* 1506.
expensive (MC) *phé liù* 1506.
experience (LX) *bú ɹà* 989.
experience (MC) *phú bʐ̩à* 989.
explain, interpret (LX) *də dá* redup? 2065.
explain, interpret (LX) ə̌ 2065.
explain, interpret (MC) *phò khé* 2065.
explain, interpret (MC) *nà ŋá-diú-uà* well-say-s 2065.
extend (leg) (LX) *tshú tá* 2014.
extend (leg) (LX) *tshù tshù* LL tone pattern in redup 2014.
extend (leg) (MC) *tʂuà* 2014.
extinguish (LX) *mià* STC 374 *mit 2182.
extinguish (LX) *à mià* STC 374 *mit 2457.
extinguish (LX) *à pà* 2457.
extinguish (MC) *mè* STC 374 *mit 2182.
extinguish (MC) *fià mè* STC 374 *mit 2457.
extinguish (MC) *mú mè* STC 374 *mit 2457.
extinguish (CAUS) (MC) *tè kè bʐ̩è zɨ́* 1998.
extinguish, exterminate (LX) *mià* STC 374 *mit 1997.
extinguish, exterminate (LX) *ʁè* 1997.
extinguish, exterminate (LX) *tshɨ́* 1997.
extinguish, exterminate (MC) *tè kè bʐ̩è* bʐ̩è ~ bèɹ 1997.
eye (LX) *ɳí má toù* ?STC 402 *myak 104.
eye (MC) *mù tié* STC 402 *myak 104.
eye (MC) *mè tié* STC 402 *myak. VH 104.
eye sand (LX) *mí-qhú* STC 402 *myak 193.2.
eye sand (MC) *mù-tché* eye-feces 193.2.
eyebrow, eyelash (LX) *mí-χú* eye-fur 103.
eyebrow, eyelash (MC) *mù-mú* eye-fur 103.
face (LX) *qá* 108.
face (LX) *qá qhuá* 108.
face (MC) *qà χà* 108.
face-washing basin (LX) *qá-χò là-phàn tsɨ* face-wash-b("basin") 730.

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face-washing basin (MC) *qà χà-χuá là-kì-phàn tsɨ* face-wash-NOM-(b)basin 730.
fade (LX) *fià thueí* b 2428.
fade (LX) *dà zà* 2428.
fade (LX) *fià sè* 2428.
fade (LX) *(fià) guè* 2428.
fade (MC) *paí sè (pù)* b 2428.
fade (MC) *fià tsoŭ* 2428.
fade, shrivel (LX) *sù liè* 2196.
fade, shrivel (MC) *(fià) lià sɨ* 2196.
fake, counterfeit (LX) *mì-iá* NEG-good 1500.
fake, counterfeit (MC) *mì ŋué* 1500.
fall (of hair) (LX) *tshò tshò* 2433.
fall (of hair) (LX) *χù χù* 2433.
fall (of hair) (MC) *thù thuì* 2433.
fall (of hair) (MC) *ʂè tshoŭ* 2433.
fall into trap (LX) *fià sè* 2476.
fall into trap (LX) *fià gù* 2476.
fall into trap (MC) *fià tshoŭ* 2476.
fall over (especially person) (LX) *dà dzù* 2351.
fall over (especially person) (LX) *(sɻ̀) pà tɕhá* 2351.
fall over (especially person) (MC) *ʂé guĭ* 2351.
fall over (especially person) (MC) *ʂè qè dzô* 2351.
fall, drop (LX) *fià tshò* 2129.
fall, drop (MC) *tshoŭ* 2129.
fall, tumble (LX) *qà tɕá* 1826.
fall, tumble (LX) *pà tɕhá* 1826.
fall, tumble (MC) *ʂè qà dzô* 1826.
falsely incriminate (MC) *mè phí* 2455.
falsely incriminate (self) (LX) *phià* 2455.
falsely incriminate (so. else) (LX) *phiá* 2455.
family of people (LX) *qò* 1279.
family of people (MC) *qà* 1279.
fan (LX) *sán tsɨ* b 792.
fan (MC) *ʂăn tsɨ* b 792.
fan (v) (LX) *sè* 2302.
fan (v) (MC) *ʂán thà* b 2302.
far, distant (LX) *ɻá* 1416.
far, distant (MC) *ʐ í-χuà* road-m 1416.
fart (LX) *tshə̀* 189.
fart (MC) *pè* 189.
fast (LX) *dù lì* 1464.
fast (MC) *khué thà* b 1464.
fat (of animals) (LX) *tshɨ̀* 1473.
fat (of animals) (MC) *loù* 1473.
fat (of humans) (LX) *tshɨ̀* 1472.
fat (of humans) (MC) *loù* 1472.
father (LX) *á pà* STC *pwa 275.
father (MC) *ʁuè iá* 275.
father (direct) (MC) *á ià* 275.1.
father's older brother (LX) *à pá (sà)* 287.
father's older brother (MC) *ʁuè pú* indirect form 287.
father's older brother (direct) (MC) *á tɨ* 287.1.
father's older brother (direct) (MC) *á pù* 287.1.
father's older brother's wife (LX) *à má (sà)* 288.
father's older brother's wife (LX) *à nə́* STC 316 *ni(y) 288.
father's older brother's wife (MC) *ȵá ȵà* indirect form 288.
father's older brother's wife (MC) *ʁuè nə́* indirect form, STC 316 *ni(y) 288.
father's older brother's wife (direct) (MC) *á tɨ* 288.1.
father's sister (LX) *á ȵà* STC 271 *na·w 302.
father's sister (MC) *ʁuè nə́* 3d person STC 316 *ni(y) 302.
father's sister (MC) *ȵá ȵà* 3d person STC 271 *na·w 302.
father's sister (MC) *ȵá bʐà* 3d person STC 271 *na·w 302.
father's sister's husband (LX) *kú ié* b 301.
father's sister's husband (MC) *kú í* b 301.
father's younger brother (LX) *pió sú* b 289.
father's younger brother (MC) *ʁuè pú* generally indicated by numbering 'first,' etc. 289.
father's younger brother (direct) (MC) *á pù* 289.1.
father's younger brother (direct) (MC) *á tɨ* ?STC 309 *d/toy 289.1.
father's younger brother's wife (LX) *á ȵà* STC 271 *na·w 290.
father's younger brother's wife (LX) *à nə́* STC 316 *ni(y) 290.
father's younger brother's wife (MC) *céN cèN* indirect form 290.
father's younger brother's wife (MC) *ȵá-bʐà* STC 271 *na·w. mother/aunt-big 290.
father's younger brother's wife (direct) (MC) *á tɨ* ?STC 309 *d/toy 290.1.
father-in-law (LX) *pó kù* 304.
father-in-law (MC) *ʁuè pú* 3d person 304.
father-in-law (direct) (MC) *á tɨ* 304.1.
father-in-law (direct) (MC) *á pù* 304.1.
fathom (of) (LX) *pé* 1320.
fathom (of) (LX) *khà* 1320.
fatty meat (LX) *khuà pià tshɨ̀* 588.
fatty meat (LX) *pià tshɨ̀ khuà* 588.
fatty meat (MC) *loù kí* 588.

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favor, kindness (LX) *qú lià* 983.
favor, kindness (MC) *qóu què* 983.
fear (MC) *kòu* STC 473 *grok ~ *krok 2447.
fear difficulty (LX) *qò tchá tchà* STC 473 *grok ~ *krok 2447.
fear difficulty (LX) *qò* STC 473 *grok ~ *krok 2447.
feather (LX) *ỳ χù* 371.
feather (MC) *(ì) mù* 371.
February (LX) *nə̀ lə̀* calque 1124.
February (MC) *nə̀ lə̀* calque 1124.
feces (LX) *qhà ɻà* 187.
feces (LX) *tshə̀* 187.
feces (MC) *tchế* 187.
feel (MC) *mó thà* b 2185.
felt (LX) *ió sù* 675.
felt (MC) *sù thié* 675.
female (LX) *tɕà* 220.
female (adj) (MC) *tɕè (tsù tsú)* 220.
female pubic hair (LX) *phì χù* ?STC #171 *pwi(y) 146.1.
fennel, anise (LX) *χò cǽN* b 596.
fennel, anise (MC) *χò cáN* b 596.
ferment (LX) *tí* 1865.
ferment (MC) *ʂè né* 1865.
ferment (MC) *tè ə̌* 1865.
fertilizer (LX) *mì* 877.
fertilizer (MC) *mù* 877.
festival (LX) *tɕé mù* 1172.
festival (LX) *nà mù* 1172.
festival (LX) *tɕè tchí* b 1172.
festival (MC) *tɕè tchǐ* b 1172.
fetus (LX) *tsù zú qò* 147.
fetus (MC) *ì dzoù* 147.
fever (LX) *qhú qhuá* p. 8. 1678.
few (LX) *tchá* 1430.
few (LX) *tɕá* 1430.
few (MC) *pé tchɦ̩* 1430.
field (LX) *zù* 44.
field (MC) *zuè* 44.
fifteen (LX) *fià ʁuè* 1188.
fifteen (MC) *fià ŋà* 1188.
fifth (LX) *ʁuè ə̀ χeí* 1223.
fifty (LX) *ʁuè sá* 1199.
fifty (MC) *ʁuà sá* 1199.
fifty-one (LX) *ʁuè sá à* 1200.
fifty-one (MC) *ʁuà sá ŋà à qó* 1200.
fight (LX) *té té* 1769.
fight (MC) *tʂhɨ̀ tʂhì* 1769.
figure (v) (LX) *sù suà* redup. b? 2369.
figure (v) (MC) *sú suà* = 2347 2369.
file (n) (LX) *tsho^{35} (tsɨ̀)* b 855.
file (n) (MC) *tshŏ* b 855.
file down (LX) *tsŏ dà* b 1758.
file down (MC) *tshŏ* b 1758.
fill (eyes with tears) (LX) *pó pò* 2382.
fill (eyes with tears) (LX) *tchí tchì* 2382.
fill (eyes with tears) (MC) *ɳ̩ù* 2382.
fill in (barrel) (LX) *tsɨ̀ tsɨ̀* ?STC *(d/t)yam 2289.
fill in (barrel) (MC) *ì tʂɨ̀* ?STC *(d/t)yam 2289.
fill in (bottle) (LX) *ì tsɨ̀ tsɨ̀* 2290.
fill in (bottle) (MC) *fià tsoŭ thà* m2?=b 2290.
fill in (bottle) (MC) *ì sè* 2290.
fill in (pit) (LX) *tsɨ́ tsɨ́* 2400.
fill in (pit) (LX) *thièn dà* b 2400.
fill in (pit) (MC) *ì thiæn thá* b? 2400.
fill ladle/bowl (MC) *tæ zá* 1718.
fill ladle/bowl (from empty) (LX) *ʁá* put rice in (was empty to start w/) 1718.
fill to bursting (LX) *phà* 1713.
fill to bursting (LX) *qà* 1713.
fill to bursting (MC) *ʂè tɕá* 1713.
fill, top off ladle/bowl (LX) *lú* add rice 1718.
filter (v) (LX) *tsá* 2155.
filter (v) (MC) *tʂà* 2155.
final, last (LX) *dà suà χá* 1156.
final, last (MC) *dé mè tsɨ̀* 1156.
find out (LX) *à tɕì* 2580.
find out (MC) *tiĕ* 2580.
fine (v.t.) (LX) *phé* 1870.
fine (v.t.) (MC) *dzuì fià zɨ̀* 1870.
fine, small (of rice grains) (LX) *dzà* ??? 1489.
fine, small (of rice grains) (MC) *dì* 1489.
finger (LX) *lià só* 135.
finger (LX) *lià cú* tones on LX 'finger' words not stable 135.
finger (MC) *ì nə́ qè* 135.
finger (MC) *í nə̀ qè* 135.
finger ring (LX) *lỳ cỳ* VH 664.
finger ring (LX) *lỳ suè* 664.
finger ring (MC) *ì sé* 664.
finger-length (LX) *lì* 1325.
finger-width (MC) *dz̩ í* 1325.
finish, complete (LX) *dà ì* 2440.
finish, complete (LX) *dà ì* 2441.
finish, complete (MC) *mì ŋà uâ* = use up? 2440.
finish, complete (MC) *tè có (qè)* 2441.
finish, complete (MC) *có* 2440.
finish, complete (MC) *tè ʂà qò* 2441.
finish, complete (MC) *tè cò zɨ̀* 2441.
fire (LX) *mú* STC 290 *mey 20.
fire (MC) *mú* STC 290 *mey 20.

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fire gun (LX) *qhò* 1766.
fire gun (MC) *tʂhoú lɛ̀* 1766.
fire shovel (small) (MC) *ɕì-piá* iron-m 858.
fire tongs (LX) *cà-tè* iron-pinch. also 'tweezers' 787.
fire tongs (MC) *ɕì-tè ~ ɕí-tè* iron-pinch 787.
firecrackers (LX) *χò paò tsɨ* b 957.
firecrackers (MC) *phò tɕhá* 957.
firefly, glowworm (MC) *tɕæ̀n khə̀* 453.
fireplace (LX) *mù guá kì* 693.
fireplace, firepit (MC) *mù bó* 693.
firewood (LX) *cì* 744.
firewood (MC) *ɳò sé* 744.
firewood knife (LX) *(cì) cà té* 893.
firewood knife (MC) *dò ʁò* 893.
firm, secure (LX) *gù* 1494.
firm, secure (MC) *guɛ̀* 1494.
first (LX) *à ə̀ χé* one-CL-NOM 1219.
first (LX) *qeǐ* tone? < 2syll? 2625.
first (LX) *tà qeí* 1219.
first (MC) *dɛ́ dɛ̀ qèi* 1219.
first (adv) (MC) *dɛ̀* 2625.
first of month (LX) *tɕì tɕó* 1118.
first of month (MC) *tí tiù* 1118.
first-rate (LX) *dà χeì* 1555.
fish (LX) *ʁà* 432.
fish (MC) *tsuè-dzè* water-fish 432.
fish (CL) (LX) *zà* 1234.
fish (CL) (LX) *ə̀* 1234.
fish (CL) (MC) *dʐ́ í* 1234.
fish (v.t.) (LX) *ʁué* 1825.
fish (v.t.) (MC) *lɛ̀* 1825.
fishnet (LX) *ʁà zá* 913.
fishy smelling (LX) *sù* b? ?STC 405 *suŋ 1533.
fishy smelling (LX) *ɕỳ* b. ?STC 405 *suŋ 1533.
fishy smelling (MC) *qè tsò* 1533.
fishy smelling (MC) *(dè) sì* 1533.
fishy smelling (MC) *qè ʂè* 1533.
fishy smelling (MC) *bù tʂá* 1533.
fist (LX) *qù ɳú* 142.
fist (MC) *qù ɳá* 142.
fist + thumb (a square measure) (LX) *à tshən* 1326.
fist + thumb (a square measure) (LX) *à tshù ~ à tshòu* 1326.
fitting (LX) *χò sɨ́* b 1578.
fitting (MC) *χò ʂɨ̀* b 1578.
five (LX) *ʁuè* STC 78 *l/b-ŋa 1178.
five (MC) *ʁuà qó* STC 78 *l/b-ŋa 1178.
flag (LX) *tɕhì tɕhí* b 958.
flag (MC) *tɕhì tsɨ̀* b 958.
flag (CL) (LX) *tshè* 1301.
flat (LX) *khuè (tà bà)* 1437.
flat (LX) *pià qó* ?STC 340 *pe·r 1434.
flat (LX) *bò lí* STC 138 *pleŋ ?STC 212 *lyap 1437.
flat (MC) *piá pià* ?STC 340 *pe·r 1434.
flat (MC) *yɛ́* 1437.
flat (MC) *phìŋ thá (sɨ̀)* b 1437.
flat field (MC) *pià tá* field + m. calque from píng ba tsi? 46.
flatlands (MC) *dá tʂhɨ́ sɨ̀* 42.
flatten (v.i.) (LX) *fià pià qó* 1676.
flatten (v.i.) (MC) *fià piá pià* 1676.
flatten (v.t.) (LX) *fià pià qó zɨ̀* 1677.
flatten (v.t.) (MC) *tè pié pià zɨ̀* 1677.
flea (LX) *tsó ɳì* b? ≈JUMP? 439.
flea (MC) *tsoú nə̀* b? 439.
flee (LX) *dà phó* STC 140 *ploŋ 2385.
flee (MC) *dɛ̀ phû* STC 140 *ploŋ 2385.
flesh (MC) *mɛ́ tshè* 159.
flint, stone for fire (LX) *tshà mú tsɨ̀* 746.
flint, stone for fire (MC) *ló-pʂì* stone-white 746.
flint, stone/steel for fire (LX) *tshà mià* 746.
float (LX) *qə̀ tà* 2225.
float (MC) *ì lâ* 2225.
flock (of goats) (LX) *qhuà* 1273.
flock (of goats) (LX) *bó* 1273.
flock (of goats) (MC) *phɛ̀* 1273.
flood (LX) *pà cá* 2573.
flood (LX) *sə̀ bà ə ~ ɨ* 2573.
flood (MC) *ʂè bʐ̌ă* 2573.
flour (LX) *bà lò* 582.
flour (MC) *lè-bè-liù* wheat-pwdr-m 582.
flour mill (LX) *zuà ù-tɕí* v-house 694.
flour mill (*mo fang*) (MC) *dzò lò-tɕí* millstone-house 694.
flow (LX) *sú* STC 241 *sywar 2151.
flow (MC) *ʂè tɕò* 2151.
flow (MC) *tsuè-ɳù* water-flow ?STC 210 *lwi(y) 2151.
flower (LX) *pá tsù* STC 260 *bu ~ *pu 472.
flower (MC) *tià tiá* 472.
flower (CL) (LX) *tɕhà* 1264.
flower (CL) (MC) *tʂuà* 1264.
flower (CL) (MC) *tù* 1264.
fluff, tease (cotton) (LX) *thàn dà* b 2380.
fluff, tease (cotton) (MC) *tʂhà* 2380.
flush, rinse (LX) *qò tò* 1726.
flush, rinse (MC) *guí* 1726.
flush, rinse (MC) *tʂhuá* 1726.
flustered, confused (LX) *χù lì χú tá* b. asp on 4? 1612.

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flustered, confused (MC) *qè qè χuàn tcă* 1612.
flustered, confused (MC) *qé zɨ-mì-ŋà* reason-not-have 1612.
flute (MC) *tí tsɨ* b 951.
flute, vertical flute, Qiang flute (LX) *pó lè* 951.
flute, vertical flute, Qiang flute (LX) *tí tsɨ* b 951.
flutter (LX) *là dà* b? 2226.
flutter (MC) *(mə tá) zɨ zé* 2226.
fly (n) (LX) *bù ɳì* s2?=black 442.
fly (n) (MC) *tshán íŋ tsɨ* b 442.
fly (v) (LX) *dà lá* 1891.
fly (v) (MC) *zé* 1891.
flying stone (LX) *ʁò ló* STC 88 *r-luŋ 47.
foam (LX) *pà mò* b 54.
foam (MC) *tsuè-phaó tsɨ* water-b 54.
fog (LX) *dá mu̱* sometimes [dam[51]] 18.
fog (MC) *dá mò* 18.
fold umbrella (LX) *zɨ tsó* 2336.
fold umbrella (LX) *fià quà* 2336.
fold umbrella (MC) *quà* cf. close 2336.
folkdance (MC) *tàN pə̀-soú* m-jump 942.
folkdance (MC) *tàN pə̀-zó* m-jump 942.
folkdance (?) (LX) *là sà-(tshó tà)* song-dance 942.
folkdance (?) (LX) *tshó tà-zə mù* dance-speech 942.
follow (LX) *dè* 1931.
follow (MC) *mè tshɨ́-ɳù* behind-exist 1931.
follow (MC) *mè tshɨ́-zì* behind-exist 1931.
follow! (MC) *ǐ dè* 1931.
fond of good food (LX) *dzuè ɕy* 1700.
fond of good food (LX) *kà tsɨ* 1700.
fond of good food (MC) *kè mià* 1700.
fontanel (LX) *qə̀ (ɳà)-tshó* brain-jump 102.1.
fontanel (MC) *qè ɳà-tié* brain-heart 102.1.
food steamer (LX) *tsən tsɨ* b 761.
food steamer (MC) *kuàN kuáN* 761.
foodstuff (LX) *ɻà qə̀* 511.
foodstuff (LX) *gù* 511.
foodstuff (MC) *zá* STC 66 *dza 511.
fool (LX) *ʁuè mù* 264.
fool (MC) *mè ʁuà* 264.
foot (LX) *gò* ?STC *g-la, ?*k-raŋ 129.
foot (MC) *goù* ?STC *g-la, ?*k-raŋ 129.
foothills (LX) *ʁó tsò* 26.
foothills (MC) *ʁuò ə́* 26.
footprint (LX) *pà tchuà* foot-step.on(?) 1032.
footprint (MC) *gò mì mí* 1032.
for how long (LX) *nó gá-tuá* which-time 1394.
for how long (MC) *ɳà tiè* 1394.
forbid (LX) *tchà* 2077.
forbid (LX) *qò ɕy* 2077.
forbid (MC) *mì-pú-zɨ* NEG-do-CAUS 2077.
force, compel (LX) *tchá* 1662.
force, compel (MC) *kù tcú* 1662.
forehead (LX) *deú kù* 102.
forehead (MC) *dà pú* 102.
forenoon (LX) *zà mià qeí* 1098.
forest (LX) *phù-quá* tree-forest 57.
forest (MC) *phò-quà* tree-forest 57.
forget (LX) *dà mù* 2444.
forget (MC) *dè mŭ* 2444.
forgive (MC) *(dè) ʐăn thà* p,b,s 2123.
fork, pitchfork (MC) *iàŋ tʂhá* b 871.
fortunate (LX) *ì-nà* life-good 1589.
fortune, luck (LX) *ýn tchi̱* b 977.
fortune, luck (MC) *ýN tchì* b 977.
forty (LX) *zɨ sá* 1197.
forty (MC) *zɨ sá* 1197.
forty-one (LX) *zɨ sá à* 1198.
forty-one (MC) *zɨ sá ɳà à qó* 1198.
foul-tasting (LX) *mí ià* 'not good' 1554.
foul-tasting (MC) *mí zè* 1554.
foul-tasting (MC) *dzè qà* 1554.
foundation (LX) *lə́ ká ~ lə̀ kà* 687.
foundation (LX) *lə̀ kù* 687.
foundation (MC) *tǐ tɕì* b 687.
foundation (MC) *tɕí (tʂhù) bà* 687.
four (LX) *zɨ* ?STC 410 *b-liy 1177.
four (MC) *zɨ qó* ?STC 410 *b-liy 1177.
fourteen (LX) *fià zɨ* 1187.
fourteen (MC) *fià zɨ* 1187.
fourth (LX) *zɨ ə̀ χeí* 1222.
fox (LX) *qhà guà* 402.
fox (MC) *qhá guə̀* 402.
fragile, crisp (LX) *ʁò tshú* 1493.
fragile, crisp (MC) *tshuèi* b 1493.
fragrant (LX) *χó* 1522.
fragrant (MC) *χoù* 1522.
frame (LX) *ʁù (mì)* 873.
frame (MC) *tcă tsɨ* b 873.
free animals (LX) *dà ɕì* 1879.
free animals (MC) *dè lĕ* 1879.
freeze (ground) (LX) *thò* 1835.
freeze (ground) (MC) *tʂhŭ* 1835.
freeze (hands) (LX) *thò* 1834.
freeze (hands) (LX) *tó* 1834.
freeze (hands) (MC) *toú* also for boiled water, etc 1834.
freeze (meat) (LX) *thò* 1833.
freeze, ice up (LX) *tò* 2063.
freeze, ice up (LX) *thò* 2063.

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freeze, ice up (MC) *tsuè pà-dê-tʂhŭ* ice-p-verb 2063.
fresh (LX) *tɕhí* STC #71 *dz(y)im 1545.
fresh (MC) *ɕìN ɕìN* b? 1545.
fresh and juicy (LX) *phà tí tì* 1607.
fresh and juicy (MC) *tsuè pù qé liù* 1607.
fresh and juicy (MC) *tsuè pù qè lí* 1607.
freshwater clam (MC) *pæŋ[35]-khà-* b-m STC 311 *kroy 462.
friend (LX) *ì zù ~ ỳ zù* rounding harmony? 258.
friend (MC) *ì dzòu* 258.
frighten (LX) *qò quà* ?redup 2475.
frighten (MC) *qoù* low-rising tone w/ pfx 2475.
frog (LX) *zò-piá* m-crawl (or STC *s-bal?) 430.
frog (MC) *dzò-piá* m-crawl (or STC p41 *u-p(h)rok 'toad'? STC *s-bal?) 430.
from A to B (LX) *A leí B à pà ló* ?is last syll a verb? 2641.
from A to B (MC) *A ì B dê phê kí* A.from.B.to 2641.
from ego, clockwise (pfx) (LX) *dà* - 1076.
front of Chinese jacket (LX) *phù-suà* clothes-tail. u~o 627.
front of Chinese jacket (LX) *phù què* u ~ o 627.
front of Chinese jacket (MC) *ɕaó tɕín* b 627.
front side (LX) *kù lá qhə̀* 1059.
front side (LX) *ì dzí sɻ́* 1059.
front side, in front, ahead (MC) *dê qè* 1059.
frost (LX) *pià thò* 16.
frost (MC) *peì-thoù* m-cold 16.
frost (v) (LX) *qà teì* 2470.
frost (v) (LX) *sɻ̀ cà* 2470.
frost (v) (LX) *dà sɻ̀* 2470.
frost (v) (MC) *lê* 2470.
fruit (LX) *cì ɲì* STC 57 *sey 474.
fruit (MC) *sè mù* STC 57 *sey 474.
fry (pancake) (MC) *piá* 2560.
full (LX) *suà* 1426.
full (LX) *tə̀ suà* 2167.
full (MC) *suè* 2167.
full (MC) *suè* 1426.
full of food (LX) *tə̀ χeì* cf. "good" 1652.
full of food (MC) *χè ~ tə̀ χé* 1652.
full of, brimming with (LX) *tə̀ suà* 1723.
full of, brimming with (LX) *fià phù* 1723.
funeral (LX) *lè í (pù)* 682.
funny (LX) *sé zà lò* 1561.
funny (LX) *zá ló sé* 1561.
funny (MC) *mè-dʐà-zɻ́* person-laugh-CAUS 1561.
funny, amusing (LX) *χuá dà ~ χuà dá* b? 1978.
funny, amusing (LX) *qə́ tshɻ́* 1978.
funny, amusing (MC) *tɕhý thà* b? 1978.
fur, hair (LX) *χù* 332.
fur, hair (MC) *mù* 332.
future (LX) *tə̀ beí* 1151.
future (MC) *tê pé qà* 1151.
gall (LX) *tsɻ́* STC 412 *(m-)kri-t 183.
gall (MC) *tɕɻ́* STC 412 *(m-)kri-t 183.
gamble (MC) *tɕìn tsé-qà* money-v 1843.
gap, interval (LX) *só* 1021.
gap, interval (MC) *fóŋ fòŋ* b 1021.
gap, interval (MC) *ʐà pù* hole, hollow 1021.
garden (LX) *tsà-kù* m-field 720.
garden (MC) *tsɻ́ qŏ* 720.
garlic (LX) *kə̀* 541.
garlic (MC) *kè tù* 541.
gasp (LX) *(dzỳ) dzý* 1752.
gasp (MC) *tɕhì χà* b,m. ?STC *haŋ 1752.
gasp (MC) *tɕhì thê* b,m 1752.
gate, front door (LX) *dzù-bà* door-big (calque?) 713.
gate, front door (MC) *diò-bʐà* door-big (calque?) 713.
gather together (LX) *à tù* 2085.
gather together (LX) *fiù fiù* 2085.
gather together (LX) *zú zú* 2085.
gather together (MC) *tê dzuê* 2085.
gather, coil (MC) *ʂè tsí dʐà zɻ̀* 2162.
gathered, assembled (LX) *zú zú* n.b. tone pattern. also no vowel change in redup 2007.
gathered, assembled (MC) *dè ʁuĕ* 2007.
gathered, coiled (MC) *tsí dʐà* 2162.
general directed motion (pfx) (MC) *dê* - 1076.
generation (CL) (LX) *peí* b 1344.
generation (CL) (LX) *ɕí* 1344.
generation (CL) (MC) *peí* b? 1344.
gentle, kind (LX) *tuè* 1575.
gentle, kind (MC) *χò tɕhì* b 1575.
get firewood (LX) *cì-fiù* wood-get 1775.
get firewood (LX) *tù tuà* 1775.
get firewood (MC) *sè tshuá* s2=cut wood 1775.
get scared (LX) *tè tshó* 2079.
get scared (LX) *à qò tè tshó* 2079.
get scared (LX) *dà qò* 2079.
get scared (MC) *à tshuè tê soû* 2079.
get scared (MC) *tè goŭ* 2079.
get water (LX) *tsù-tshí* water-pick.up 1773.
get water (MC) *tsuè zɻ̀ ké* 1773.

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get, acquire (LX) *à tsé* 2193.
get, acquire (MC) *dè tɕè* 2193.
get, obtain (LX) *à tsɨ* 1808.
get, obtain (MC) *té tiă* 1808.
ghost (LX) *dù* 962.
ghost (MC) *dù* 962.
gift (LX) *qə cý* 997.
gift (LX) *cì zè* 997.
ginger (MC) *kòŋ χuà* 542.
give (LX) *zɨ́* 1926.
give (LX) *(dà) zɨ́* 2056.
give (MC) *dá* 1926.
give (MC) *zɨ́* 1926.
give (MC) *tɕò té* 2056.
give as present (LX) *(dà) zɨ́* 2557.
give as present (MC) *dè zɨ̂* 2557.
give birth (LX) *tsé* 2320.
give birth (LX) *ì* cf. 996, 1875 2320.
give birth (MC) *zì* 2320.
give birth (animal) (LX) *fià zù* best one 2467.
give birth (animal) (LX) *dà tsé* 2467.
give birth (animal) (LX) *dà ì* 2467.
give birth (animal) (MC) *ʂè bŭ* STC *braŋ 2467.
give change (LX) *pù dà* b? 2579.
give change (LX) *sɨ̀ pú* ? = 'do' 2579.
give change (MC) *mú mià* 2579.
give change (MC) *lə là* STC 283 *lay 2579.
give change (MC) *mú lià* ?STC 283 *lay 2579.
give change (MC) *tʂaò thă* b,s 2579.
give change (MC) *qà pú* 2579.
give orders (LX) *fià dá* 2473.
give/receive injection (LX) *χé qhò* 1774.
give/receive injection (LX) *(χé) tè* 1774.
give/receive injection (LX) *χé tsɨ́* 1774.
give/receive injection (MC) *χè tuá* 1774.
given name (MC) *mè mé* STC 83 *r-miŋ 1002.
glass (LX) *pó lì* b 733.
glass (MC) *pó lì ~ pó nì* b 733.
glittering (LX) *cuá-zɨ̀ zɨ̀* bright-m 1598.
glittering (LX) *cuá-quà quà* bright-m 1598.
glittering (MC) *cyá-cyá-tsɨ̀* bright-bright-m 1598.
glue (LX) *mà tsà* 930.
glue (MC) *tcàN tsɨ̀* b how diff from 859? 930.
glue (MC) *pà mà* 930.
glue (MC) *tcáo* b 859.
gnaw (LX) *ʁà cà* 2115.
gnaw (MC) *ʁè ʁá* 2115.
go (LX) *kə* 2263.
go (MC) *dă* 2263.
go (MC) *kiè cì* 2263.
go against, violate (LX) *dà tshà* 2446.
go against, violate (MC) *tè tshĕ* 2446.
go against, violate (MC) *tòu tú (pù)* 2446.
go and return (MC) *sù* 2274.
go back, walk backwards (LX) *fià thuí* b 2263.
go out (LX) *sɨ̀ kə* outward-go 1734.
go out (MC) *ʂè kè* 1734.
go to market (LX) *kə* 1912.
go to market (MC) *χà sú kè (cì)* final ?= agr 1912.
go to war (LX) *qù quá* 1768.
go to war (MC) *dʐuè quá* 1768.
go to war (MC) *dʐué quà* 1768.
go upstairs (LX) *tə kə* 2307.
go upstairs (LX) *tə qé* 2307.
go upstairs (MC) *tè tà* 2307.
goat (LX) *tchà* STC 339 *kye·l, or PLB *V-cit (TSR 27) 344.
goat (MC) *tshè* STC 339 *kye·l 344.
god (LX) *à bú tchì* 961.
god (MC) *à pà-sé* grandfather-god. STC *(m-)hla 961.
gold (LX) *qú* 59.
gold (MC) *qà* 59.
gong (LX) *χá* 949.
gong (MC) *lò ló* 949.
good (LX) *ià* 1504.
good (LX) *χeì* 1504.
good (LX) *nà* 1504.
good (MC) *ʂé* 1504.
good (MC) *nà* 1504.
good luck (LX) *qú* 980.
good luck (MC) *fè tchí* b? 980.
goose (LX) *ʁò* b? 373.
goose (MC) *uò* b 373.
government official (LX) *qə́ bá* 255.
government official (MC) *tɕioù lòŋ khoù* b? 255.
gown (long) (LX) *phò thá* 631.
gown (long) (MC) *phù-dzé* clothes-long 631.
gown (short) (LX) *phò nɻà* 631.
grab, seize (MC) *ù tsĭ* 2599.
grab, seize (item) (LX) *zɨ̀ tsuà* grab 2599.
grab, seize (person) (LX) *à tsé* arrest 2599.
grace, favor (LX) *qhə bú* 984.
grade, rank (LX) *ʁuá* ʁwà = 'help (vt.)' 1012.
grain measure (1 dl) (LX) *ʁú tù* 796.
grain measure (1 dl) (MC) *pù tòu* s1?=bamboo 796.
grain mill (MC) *dzò lò-qá* millstone-place

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694.
grain, kernel (LX) *gù* b? 518.
grain, kernel (MC) *tʂhɨ mé gòu* 518.
grain, kernel (MC) *tʂhɨ góu* 518.
grain-spreading rake (MC) *phà* b? 862.
gram (LX) *ʁú* 1295.
granddaughter (LX) *zɨ́ tsù* 282.
granddaughter (MC) *zé tsù (tɕè)* 282.
grandfather (LX) *á ì* 273.
grandfather (MC) *ʁuè pà* 273.
grandfather (direct) (MC) *à pà* 273.1.
grandmother (LX) *á lè* 274.
grandmother (MC) *ʁuè dá* 274.
grandmother (direct) (MC) *á dà* 274.1.
grandson (LX) *zɨ́ tsù* 281.
grandson (MC) *zé tsù* 281.
grant reward (LX) *(tà) zɨ́* 2306.
grant reward (MC) *dɛ̀ zɨ̂* 2306.
grape (LX) *ʁà peì qə́ tà* 502.
grape (MC) *phù thə́ ~ phù thà* b 502.
grasp (pen) (LX) *tsé* 2452.
grasp (pen) (MC) *piè zó pà* m1=b 2452.
grass (LX) *χà qə́* 562.
grass (MC) *sɨ* 562.
grassland (MC) *χoù-bá* m-b 43.
grassland (MC) *sɨ-ué sɨ* grass-place.for.growing 43.
grassland (MC) *sɨ-phiŋ phíŋ* grass-b('flat') 43.
grassy plain (LX) *χà qə́ bà tò* 43.
gray (LX) *phú (tù tù)* 1459.
gray (LX) *χueí-phù phù* b-? 1459.
greedy (LX) *cì mì-zɨ* heart-? 2378.
greedy (MC) *tié-bʐà* heart-big 2378.
green (LX) *peí* 1456.
green (MC) *χué* 1456.
green and glossy (LX) *ɳí χə̀ χə̀* 1602.
green and glossy (LX) *peí χə̀ χə̀* shwa can be voiced 1602.
green and glossy (MC) *χué χuè tsɨ* 1602.
grind (Ch med.) (LX) *iæn dá* b 2512.
grind (Ch med.) (LX) *tuá* 2512.
grind (Chinese med.) (MC) *sù* 2512.
groan, humph (LX) *tsɨ zí* 1970.
groan, humph (MC) *tʂhə́n χuà* 1970.
grove (MC) *quà-sé* forest-firewood 57.
grow up (LX) *tə bà* 2572.
grow up (MC) *tæ bʐă* 2572.
grow up (LX) *tə iú* 2572.
grow, grow up (LX) *iú* 2317.
grow, grow up (LX) *cì* 2317.
grow, grow up (MC) *tɛ́ χuě* 2317.
grunt (pig) (LX) *zǎ* 2049.
grunt (pig) (MC) *zě* 2049.
guard, defend (LX) *zì* 2338.
guard, defend (LX) *zì* 1878.
guard, defend (LX) *tsà* 2338.
guard, defend (MC) *dʐù* 2338.
guard,defend (MC) *dʐù* 1878.
guess (LX) *tshaí-dà* b-s 1683.
guess (MC) *tshé* 1683.
guess accurately (LX) *tə pà* 1684.
guess accurately (MC) *ʂè tshê* 1684.
guest (LX) *mə dzí* 270.
guest (MC) *tè phì* 270.
gums (LX) *sù kà* 171.
gums (LX) *sù kù* 171.
gums (LX) *sù kè* STC 437 *s-wa 171.
gums (LX) *sù kà pú* 171.
gums (MC) *sú-nə* tooth(?)-red. STC 437 *s-wa 171.
gun (LX) *cà-dzù* iron-m 898.
gun (MC) *tʂhóu* 898.
gunnysack (LX) *sò qò* 869.
gunnysack (MC) *tshà qà* 869.
gunpowder (LX) *sə́ ká* ?= medicine 909.
gunpowder (LX) *mú dzí* 909.
gunpowder (MC) *χò iò* b 909.
hackey-sack (LX) *tɕen[35] tsɨ* b. 944.1.
hail (LX) *peì-gù* snow-kernel 15.
hail (n) (MC) *mʐ ì-ʐ í* rain-dry 15.
hail (n) (MC) *bú-pʂì* difft speaker. m-white(?) 15.
hail (v) (LX) *qə tiè* 2472.
hail (v) (MC) *ʂè tɕò* p,v 2472.
hair of head (LX) *qə tó* 100.
hair of head (MC) *qɛ toú* 100.
half (LX) *tchá* 1289.
half (MC) *dzuá* 1289.
half (MC) *à-lá-a-diè* one-whole-one-part 1289.
half catty (LX) *ʁuè-zò* 5-liang 1311.
half catty (MC) *ʁuà-dʐòu* 5-liang 1311.
half-new half-old (LX) *tchí tchá bá tchá* 1616.
halter (LX) *ʁò-tsoù-sà ɳì* horse-m-string 827.
halter (MC) *ʐòu tá bʐè* 827.
halter, bridle (LX) *ʁò-lòŋ thoù* horse-b 826.
halter, bridle (MC) *ʐoù-dué-lòŋ tsɨ* horse-mouth-b 826.
hammer (LX) *tuà liú* STC 317 *tow. 2d syll refers to shape. 851.
hammer (LX) *tshueì tshueí* b 851.
hammer (MC) *tuà liò* STC 317 *tow. cf. 'hit with object' 851.
hammer (MC) *tʂhuèi tʂhuèi* b 851.

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Han Chinese (LX) *ʁèi* 204.
Han Chinese (MC) *dzɨ* 204.
hand (MC) *ì pá* ?STC 355 *(m-)yuŋ. but LX has l-. STC 418 *pwa 133.
hand span (LX) *khà* ?STC 165 *twa 1324.
hand span (MC) *khá ~ khà* ?STC 165 *twa 1324.
handful (of rice) (LX) *tsuà* b? Mandarin zhuā 'seize'. 1255.
handful (of rice) (MC) *tʂuà* b? 1255.
handkerchief (LX) *phà tsɨ* b 668.
handkerchief (MC) *(ʂoú) phà tsɨ* b 668.
handle (of knife) (LX) *ì* 765.
handle (of knife) (MC) *kuì* 765.
handle (of mug) (LX) *ì* 766.
handle (of mug) (MC) *ʁòu* 766.
handle (of mug) (MC) *kuì* 766.
hang (MC) *tæ̀ ʁuâ* 1824.
hang (on wall) (LX) *ʁué* 1942.
hang (on wall) (LX) *tchí là* ?STC 242 *dzywal 1942.
hang (on wall) (MC) *tæ̀ ʁuá* 1942.
hang down (LX) *ʁué* 1824.
hang down (LX) *tchí là* ?STC 242 *dzywal 1824.
hang down (MC) *tchɛ́ là* ?STC 242 *dzywal 1824.
hang down, fall (LX) *fià tchí là* ?STC 242 *dzywal, STC *g/k-la 2474.
hang down, fall (MC) *à tché là* ?STC 242 *dzywal, STC *g/k-la 2474.
happen, occur (LX) *dà sɨ* 1860.
happen, occur (LX) *fià lò* 1860.
happen, occur (MC) *ʂè thě* 1860.
happy (LX) *cì-nà* heart-good 1588.
happy (MC) *tiè nà* heart-good 1588.
hard (LX) *qò cà* 1484.
hard (MC) *koù tcà* 1484.
hard snot (LX) *tí-qhú* 193.4.
hardworking (LX) *tchí tchà* 1582.
hardworking (MC) *tchiŋ khué* 1582.
harmonious (LX) *tuè* 1576.
harmonious (MC) *χò mò* b 1576.
harmonious (MC) *nə̀ nà* 1576.
harness (v) (LX) *à tsù* 2390.
harness (v) (MC) *ì thaŏ thà* b? 2390.
harvest (LX) *cý qá* b?,m 2333.
harvest (MC) *kú ~ kù* 2333.
harvest (v) (LX) *cù* b? 2333.
hasten (LX) *χú ɳú* 2259.
hasten (LX) *χù χù* 2259.
hasten (LX) *zà* 2259.
hasten (MC) *ʐ ì kàn thâ* m,b,s 2259.
hasten, urge (LX) *ʁuă* 1756.
hasten, urge (MC) *tè kàn dzì* 1756.
hat (LX) *tà bá (χà)* 644.
hat (MC) *tà bá* 644.
hatch, brood (LX) *iá* 1899.
hatch, brood (MC) *né* 1899.
hate (LX) *qhú* 1969.
hate (MC) *qhoú* 1969.
have (benefit) (LX) *ŋó* 2544.
have (benefit) (MC) *ŋá* 2544.
have (something in bowl) (LX) *lià* 2541.
have (something in bowl) (MC) *lɛ̀* 2541.
have (something in milk) (LX) *lià* 2542.
have (something in milk) (MC) *ŋá* 2542.
have (something in milk) (MC) *lɛ̀* 2542.
have (use) (LX) *ué* 2545.
have (use) (LX) *ŋó* 2545.
have (use) (MC) *ŋá* 2545.
have (wealth) (LX) *tsé* 2537.
have (wealth) (MC) *ŋá* 2537.
have a dry throat (LX) *qò tcù* ?STC 331 *kaŋ 1909.
have a dry throat (MC) *ʂè zuì ~ ʂè zuĭ* 1909.
have bitter taste in mouth (LX) *dà qhà* 1869.
have bitter taste in mouth (MC) *qhà* "bitter" 1869.
have caught (LX) *à tsé* 2610.
have caught (MC) *ù tsĭ* 2610.
have caught (MC) *ù tʂuà* 2610.
have diarrhea (LX) *cà pò* = "urinate" 2495.
have diarrhea (MC) *tʂhɛ̀ tì* 2495.
have dim eyesight (LX) *mì tshò* m1=eye 1975.
have dim eyesight (LX) *mì dà* b? 1975.
have dim eyesight (LX) *mì suè* 1975.
have dim eyesight (MC) *mù qɛ́-dà mò* eye-cloud 1975.
have dim eyesight (MC) *mù tí-ʂè-χuà-thà* eye-p-b-s 1975.
have fever (LX) *qhú qhuá* 1866.
have fever (MC) *thá thoù* = 'hot' 1866.
have frost (MC) *peì thoù-ŋá* frost-exist 2470.
have given (LX) *(dà) zɨ́ gè sà* 2057.
have given (MC) *dɛ̀ dá cà* 2057.
have given (MC) *ì tcò té (cà)* 2057.
have not (+V-ed) (LX) *mì* 2639.
have not (+V-ed) (LX) *mò fió* 2639.
have not (+V-ed) (MC) *mì dzɨ* 2639.
have not (+V-ed) (MC) *mì ŋà* ? drop? 2639.
have time off work (LX) *bà ì (dà) cì* 1886.
have time off work (MC) *dɛ́ lɛ̆* 1886.
head (LX) *qə̀* 99.
head (LX) *qə̀ bá tsɨ* ?is 'b' really voiced? 99.

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head (MC) *qà bẓá tsɨ* 99.
head of village (MC) *qé qè* 230.
headman (MC) *qé qè* 229.
hear (LX) *à nò* 2410.
hear (LX) *á nó tɕí* 2410.
hear (MC) *nò ɕá* 2410.
heart (LX) *cì mì* STC 367 *s-niŋ 179.
heart (MC) *tié mù* STC 367 *s-niŋ 179.
heat (rice) (LX) *də́ ~ də̀* 2276.
heat (rice) (MC) *duè zɨ̀* 2276.
heat (rice) (MC) *lì* ?STC 381 *lum 2276.
heaven (MC) *mə tá-ʁuè qò* heaven-yamen 971.
heavy (LX) *zɨ* WT ldźi-ba. STC 95 1462.
heavy (MC) *dzɨ* WT ldźi-ba. STC 95 1462.
heavy (of color) (LX) *ɳ̩́ ~ ɳ̩̀* = black 1478.
heavy (of color) (MC) *nɨ̌ŋ tò* 1478.
heavy (of color) (MC) *kè* 1478.
hedgehog (LX) *tɕhí-pià* thorn-pig 395.
hedgehog (MC) *tsɨ̀ tẓú tsɨ̀* b 395.
heel (LX) *gò qə́* 129.1.
heel (LX) *pà tɕhá* 129.1.
heel (LX) *pà qà tɕhá* 129.1.
heel (MC) *goù mù sà* 129.1.
height (LX) *bè bó* low-high 1620.
height (LX) *bó bè* high-low 1620.
height (MC) *bẓú bè* high-low 1620.
hell (MC) *ín tɕén qà* b? 972.
hell (MC) *sɨ́ pù bẓà* 972.
helmet (MC) *dẓuè tà bá* m-hat 905.
help by the arm (LX) *(tè) thè* 1697.
help by the arm (LX) *(à) tsé* 1697.
help by the arm (LX) *à kù* 1697.
help by the arm (MC) *ù tsì ~ ù tsɨ̌* 1697.
help, assist (LX) *ʁuà* 1642.
help, assist (MC) *tè ʁuà* 1642.
hemp (LX) *sò* 529.
hemp (MC) *sà phié* 529.
hen (LX) *ỳ mià* 367.
hen (MC) *ì mià* 367.
henceforth (LX) *tə̀ beí* 1154.
her-/himself (LX) *ió ì* 1375.
her-/himself (MC) *fià í ỳ í lè* 1375.
here (LX) *tɕà-tshá* this-place 1380.
here (MC) *tɕì qà* 1380.
here (MC) *tɕă lè* 1380.
hero (LX) *tɕhì tɕhá mù* 257.
hibernate (LX) *sù* 1836.
hiccup (MC) *qè pú ~ qè pù* 1786.
hiccup, belch (LX) *qà pù tshè* ? 1786.
hide self (LX) *(à) pià* STC 46 *pwak 1854.
hide self (MC) *kuò* 1854.
hide, conceal (v.t.) (LX) *à lià* 1688.
hide, conceal (v.t.) (LX) *cù* 1688.
hide, conceal (v.t.) (MC) *sù sué* 1688.
hide, conceal (v.t.) (MC) *kò* 1688.
him, her (D.O.) (MC) *fià ẓò* (no change for plurals) 1366.2.
hinder, obstruct (LX) *kú tsé* 2194.
hinder, obstruct (LX) *phà sè* 2194.
hinder, obstruct (MC) *dzɨ̀ dzà* 2194.
hire (LX) *ʁuà cà* 1939.
hire (MC) *mè ʁuà* 1939.
his, her (MC) *fià í kì* 1366.1.
hit (LX) *qə̀ tiè* ?STC *tśuk. ?STC 387 *tuk ?STC 399 *d/t u/i p 1762.
hit (MC) *tuá* ?STC p53 *tśuk. ?STC 387 *tuk 1762.
hit target (LX) *dà uà* 1767.
hit target (MC) *dè uɛ̌* p,v 1767.
hit with object (MC) *tuà tɕá* cf. 'hammer'. ?STC 387 *tuk 1623.
hoe (LX) *tɕuà* 866.
hoe (MC) *kuà* 866.
hoe (v) (LX) *haó dà* b? 1739.
hoe (v) (MC) *kuà* 1739.
hold (a urinating child) (LX) *cì* 1633.
hold (a urinating child) (MC) *bié-tsì* urine-hold/support 1633.
hold (in arms) (LX) *tə̀ tò* tə̀ tó = braid(vt.) 1653.
hold (in arms) (MC) *toù* 1653.
hold closely (LX) *tò* 2156.
hold closely (MC) *taɨ̌* 2156.
hold closely (MC) *fià tòu* 2156.
hold in mouth (LX) *tɕhý* 1959.
hold in mouth (LX) *zé* cf. 'chew' 1820.
hold in mouth (LX) *zí* 1820.
hold in mouth (LX) *qá* STC 491 *gam 1820.
hold in mouth (MC) *duè diò mì ué* mistranslated as blabber(not know word?) 1820.
hold in mouth (MC) *qoú* 1959.
hold in mouth (MC) *zé* 1820.
hold meeting (LX) *pù* 2098.
hold meeting (MC) *mè tsò* 2098.
hold with both hands (LX) *què* 2219.
hold with both hands (MC) *phòŋ thá* b 2219.
hole (LX) *zà pù* ?STC 169 *dwa:ŋ. ?STC 345 *pop 29.
hole (MC) *ẓè pù* ?STC 345 *pop 29.
holiday (LX) *mà dzá (mù)* 1173.
hollow (LX) *zà pù* 30.
hollow (MC) *ẓè pù* 30.
home (LX) *ké* 80.
home (LX) *qò* 80.

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home (MC) *tɕí* 80.
hometown (LX) *tɕè kú* 81.
hometown (MC) *á lè zì* s1,2 = 'we' 81.
honest (LX) *laò sɨ* b 1572.
honest (MC) *laò ʂɨ* b 1572.
honest (MC) *tí* 1572.
honestly, conscientiously (LX) *ì tsó mì tsó* 1610.
honestly, conscientiously (MC) *pén fèn* b 1610.
honestly, conscientiously (MC) *teí tì tsɨ* 1610.
honey (LX) *bù-tshɨ́* bug-sweet 464.
honey (LX) *bù tshɨ́* 605.
honey (MC) *bè ì* 605.
honeybee (LX) *bù-iù* bug-bee STC 492 *yaŋ = *(s-)breŋ 455.
honeybee (MC) *bù-zoú* bug-bee STC 492 *yaŋ = *(s-)breŋ 455.
honeycomb (completed) (LX) *χuàn lá* 606.
honeycomb (not yet completed) (LX) *lá qhuǎ* 606.
hoof (LX) *tsú kə̀* 330.
hoof (MC) *thì khə̀* b 330.
hook (MC) *koú koú* b 917.
hook (v.t.) (LX) *ʁué* 1930.
hook (v.t.) (LX) *kú* 1930.
hook (vt) (MC) *ʁuá* 1930.
hoop, band (LX) *kù* 784.
hoop, band (MC) *ì quá* 784.
hoop, band (MC) *khú khú* b? (strange tone) 784.
hope (LX) *bà ló* 1004.
hope (MC) *bɛ̀ dzóu* 1004.
hope (v) (LX) *ɕì ə́* 2464.
hope (v) (MC) *bè dzoú (ʐà)* m3?=s 2464.
horizontal (LX) *tí* 1447.
horizontal (MC) *χuàn tɕì* b? 1447.
horn (LX) *ɻà ká* ?STC 85 *ruŋ, ?bone *rus 329.
horn (MC) *ʐè ké* ?STC 85 *ruŋ, ?bone *rus 329.
horse (LX) *ʁò* STC 145 *m-raŋ 335.
horse (MC) *ʐòu* STC 145 *m-raŋ 335.
horse fodder (LX) *ʁò zù* 617.
horse fodder (LX) *ʁò tì* 617.
horse fodder (MC) *ʐòù sí* 617.
horse shed (LX) *ʁò-iuà kù ~ ʁó-iuá kù* horse-b 698.
horse shed (MC) *ʐòu ʐé* 698.
horse shed (MC) *ʐòu-khueí-bà* horse-v-m 698.
horse shoe (LX) *ʁò gò tɕhuà* 832.
horse shoe (MC) *tʂhàn tsɨ* b? 832.
horse's mane (LX) *ʁó ká χú* horse-POSS(?)-body.hair 339.
horse's mane (MC) *tsóŋ kæN mào* b 339.
host (LX) *tɕè lə́ pú* 269.
host (MC) *tɕì lè pú* 269.
hot (LX) *də́* of food 1514.
hot (LX) *khú khuá* u~ua in redup, as in Mianchi 1514.
hot (LX) *lé* ?STC 381 *lum 1514.
hot (MC) *khué khuè* 1514.
hot (MC) *thá thoù* cf. 'cold' 1514.
hot (MC) *duè* 1514.
hot (spicy) (LX) *là tɕì* 1529.
hot (spicy) (LX) *tɕì* 2128.
hot (spicy) (MC) *zè* 2128.
hot, of soup, e.g. (temp) (LX) *(mò) thò* fire-b 2128.
hound (MC) *χó-khuè* hunt-dog 362.
hour (CL) (LX) *tiæN* b 1335.
house (LX) *ké* 683.
house (LX) *tɕé kù* STC 53 *kim 683.
house (LX) *kè ké* 683.
house (MC) *tɕí ~ tɕì qó* 683.
how (LX) *nə gà* 1395.
how (MC) *ŋà kí (lè)* 1395.
how many? (< 10) (LX) *nà ó* 1397.
how many? (<10) (MC) *ŋà qó (lè)* 1397.
how much (> 10) (LX) *nà ná* 1396.
how much (> 10) (MC) *ŋà ŋó (lè)* 1396.
howl (wolf) (LX) *zǎ* 2053.
howl (wolf) (MC) *zě* 2053.
howl, roar (lion) (LX) *qá ɻà* also "speak" 2053.
huangniu bull (LX) *zɨ* 317.
huangniu bull (MC) *zɨ nó kì* 317.
huangniu bull (MC) *zì-(bʐá)* bull-big 317.
huangniu cow (LX) *sɨ mià* 318.
huangniu cow (MC) *ŋò-mià-nó-kì* cow-female-red-NOM 318.
Hui nationality (LX) *uè tsɨ* b? 207.
Hui nationality (MC) *χuì χuí* b 207.
hulu gourd (MC) *fù lù* b 551.
hum a tune (MC) *ŋé* [ŋge] 1704.
hunchback (LX) *tsò qhuà* 263.
hunchback (MC) *thò peí-tsɨ* b-s 263.
hundred (one) (LX) *à tshəì* STC 164 *r-gya 1209.
hundred (one) (MC) *à tʂhì* STC 164 *r-gya 1209.
hundred million (LX) *ʁuà ʁuá* 1218.
hundred thousand (LX) *fià dzó-ʁuá* ten-ten.thousand 1215.

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hundred thousand (MC) *fià diù-uá* ten-ten.thousand. tone changein m1. 1215.
hung (passive) (LX) *fià ʁué* 1943.
hung (passive) (MC) *ʂæ̀ ʁuâ* 1943.
hungry (LX) *(dà) sù pá* 1858.
hungry (MC) *sù* 1858.
hunt (LX) *qhò* 1765.
hunt (MC) *ɕỳ χó* 1765.
hunt down (MC) *(sù) soú thà* mountain-b-s 2365.
hunt down, track (LX) *mú lià* 2365.
hunter (LX) *khù-ɕí-mù* dog-fang-AGT 243.
hunter (MC) *ɕỳ χó-mù* hunt-AGT 243.
hunter (MC) *khuè-χó-mù* dog-hunt-AGT 243.
hurried (LX) *χò lì χó tá* b? 1566.
hurried (LX) *χó tá* b? 1566.
hurried (MC) *nə̀ ʁoú* 1566.
husband (LX) *zò tɕì* 306.
husband (MC) *bè liú* 306.
husk rice (LX) *tuá* 1727.
husk rice (MC) *(tʂhɨ́) χuà là* 1727.
I (nominative) (MC) *ŋà* STC 285 *ŋay 1359.
I, me (LX) *qà* STC *ka 1359.
ice (LX) *tsù pá* 19.
ice (MC) *tsuè pá* 19.
idea, opinion (LX) *bà ló* 985.
idea, opinion (MC) *bè dʐóu* 985.
idle (LX) *só* 1536.
idle (LX) *dà só* 2124.
idle (MC) *dè* 2124.
idle (MC) *dʐɨ̀ mìŋ á* 2124.
immediately (LX) *à ɕí lè* 2624.
immediately (MC) *má ʂàN* b 2624.
in (the sky) (LX) *(mù tó) χeì* 1069.
in (the sky) (MC) *lià χà* 1069.
in (the sky) (MC) *qé tè* 1069.
in (the sky) (MC) *mè tá* 1069.
in a great rush (LX) *χó tá* 1987.
in a great rush (MC) *χuàn tɕà* b 1987.
in a mess (LX) *phə́ sɨ́ phə́ là* m1: ə~ɨ 1609.
in a mess (MC) *luàn tɕhì pà tsaò* b 1609.
in back (LX) *suà qá* m1=tail end 1048.
in back (MC) *mè tshɨ́* cf. follow, after, etc 1048.
in disorder (LX) *phù lá* 2161.
in disorder (MC) *lə̀ tà* 2161.
in front (LX) *qè í* 1047.
in front (MC) *dè qè* 1047.
in the past, formerly (LX) *dà qeí* 1147.
in the past, formerly (MC) *qé ì sì sì* 1147.
in the past, formerly (MC) *qăi qá* strange tone pattern 1147.
incense (LX) *χò tì* 751.
incense (LX) *χò tì* 974.
incense (MC) *χoù té* s2~téi 974.
include (LX) *liâ* 1646.
include (MC) *fià ŋá lè ŋuè* 1646.
incorrect (LX) *(dà) tshà* 1498.
incorrect (MC) *kè tshoù* 1498.
index finger (LX) *lié cú* VH? 137.
inexpensive (LX) *(phù) tɕhá* s1=price 1507.
infect, be contagious (LX) *(à) tò* 1746.
infect, be contagious (MC) *(mè) ʐ ì thá* b? 1746.
inhale (LX) *kú* 2456.
inhale (MC) *thè* 2456.
inhale (MC) *thié* 2456.
injure (LX) *à qù* 2304.
injure (LX) *à tsù* 2304.
injure (MC) *ŋè* 2304.
injure (MC) *ʂè liâ* 2304.
ink (liquid) (LX) *mè sueí* b 926.
ink (liquid) (MC) *mè (tʂè)* 926.
ink box (LX) *χó tsɨ́* b 927.
ink box (LX) *χó χó ~ mé χò χò* b 927.
ink stick (LX) *tsù* 'water' 925.
ink stick (LX) *mé* b 925.
ink stick (MC) *mè* b 925.
inlay (v) (LX) *piá* 2248.
inlay (v) (LX) *ʁá* 2248.
inlay (v) (MC) *cæ̀N piè* 2248.
insane person (LX) *ʁó mù* 265.
insane person (MC) *fù thà* b 265.
inside (of room) (LX) *kù kú* 1050.
inside (of room) (MC) *qò qó* 1050.
inside (of thing) (LX) *kù lì* 1050.1.
inside (of thing) (MC) *tiè-qá* heart-m 1050.1.
inside, upstream (MC) *ì pià* 1050.
install, erect (LX) *liá* 1626.
install, erect (MC) *ì tsò* 1626.
install, erect (MC) *tè kuì* 1626.
instep (MC) *goù pà tié* foot-LOC?-heart 129.
instigate (LX) *thiaó pò-pù* b-'do' 2404.
instigate (MC) *quà tè ə̆- zɨ́* 2404.
intelligent (LX) *qə̀ tɕhí (tɕhà)* 1568.
intelligent (MC) *tsé χà* 1568.
intentioned (LX) *á tó ná* 1936.
intentioned (MC) *nì pá nə̀* 1936.
interest, usury (LX) *lú phù* cf. 'price' 806.
intestines (LX) *pù* 184.
intestines (MC) *qò lò* 184.
intimate, affectionate (LX) *iá* 1593.
intimate, affectionate (LX) *tueì* 1593.
intimate, affectionate (MC) *nə̀ nà* 1593.
into, in front of, upstream (pfx) (LX) *ì* -

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1078.
into, upstream (pfx) (MC) *ì* - 1078.
iron (LX) *cà (mó)* STC 228 *syam. second syllable from PTB final 63.
iron (MC) *cì* STC 228 *syam 63.
iron (MC) *cì* STC 228 *syam 63.
iron pot, wok (LX) *cà mó-tshà piá* iron-pot 756.
iron pot, wok (MC) *mə-tá* First syllable reputedly "heavens" (from shape of bottom) 756.
irrigate (LX) *sù* 1950.
irrigate (LX) *lù* 1950.
irrigate (LX) *ʁá* 1950.
irrigate (MC) *tsuè lè* 1950.
irritatingly slow (LX) *à tɕhá tɕhà* 1597.
irritatingly slow (MC) *à qhà qhà tsɨ́* 1597.
is closed (mouth) (LX) *tɕhý* 1664.
is closed (mouth) (LX) *qú* 1664.
is closed (mouth) (MC) *fià piá* 1664.
itch, tickle (LX) *zè zè* ?STC 465 *m-sak 2515.
itch, tickle (MC) *dzɨ̀ dzà* ?STC 465 *m-sak 2515.
itch, tickle (MC) *ʁà* 2515.
jab, poke (LX) *tsɨ́* 1753.
jab, poke (LX) *tɕí* 1753.
jab, poke (MC) *tshoú* 1753.
jackal (LX) *ʁà tsì* 400.
jackal (MC) *sè (khué)* 400.
jade (LX) *ý sɨ̀* b 659.
jade (MC) *ý ʂɨ̀* b 659.
January (LX) *dzə́ lə̨̀* 1123.
January (MC) *pè lə̀* 1123.
Jew's harp (LX) *dzuà pú* 954.
Jew's harp (MC) *dzòu* 954.
jiǎo (10 Chinese cents) (LX) *tɕó* b 1333.
jiǎo (10 Chinese cents) (MC) *tʂhù* 1333.
join (sections of bridge) (LX) *qhú* U 1967.
join (sections of bridge) (LX) *què* 1967.
join (sections of bridge) (LX) *quà* 1967.
join (sections of bridge) (MC) *à iú tè pù* m1,2=together, m3=p, m4='do' 1967.
join, link (LX) *á dí dí* ?STC 421 *du-t ~ *tu-t 2138.
join, link (MC) *ì deĭ* ?STC 421 *du-t ~ *tu-t 2138.
joint (LX) *kù sà* 169.
joint (LX) *ɻà sà* ?STC p55 *tsik 169.
joint (LX) *sà ká* 169.
joint (LX) *ɻà ká sá* 169.
joint (MC) *ʐ̩è ʁoú-ʐ̩è sà ~ ʐ̩è ʁoù-ʐ̩è sá* ɛ~æ. bone-joint. 169.
joke (LX) *zà-zə̀ mú* laugh-speech 935.
joke (LX) *dzà-zə̀ mú* smile/laugh-speech 935.
joke (LX) *zá-ló-zə̀ mú* laugh-come-speech 935.
joke (MC) *mɛ̀-dʐ̩à-zɨ́* person-laugh-CAUS 935.
joke (MC) *dʐ̩à thɛ́* laugh-m 935.
July (LX) *cí lə́* calque 1129.
July (MC) *nó lə̀* calque 1129.
jump (LX) *tshó (tà)* b? 2406.
jump (MC) *soú* 2406.
June (LX) *tsú lə́* calque 1128.
June (MC) *tʂòu lə́* calque 1128.
just opened eyes (LX) *mí mí-tà-phəì* eyes-pfx-v 104.1.
kala-azar patient (LX) *dù kù mí* 962.
keep secret (MC) *qà-nə̀ zeí-tɕhì diú* NEG-other.person-tell 1650.
kerchief, neck scarf (MC) *χàn tɕín* b 645.
kernel of grain (CL) (LX) *fiò* 1244.
kernel of grain (CL) (MC) *qó* 1244.
key (LX) *dzù uà* 820.
key (MC) *ʂuà-zɨ́* lock-child 820.
kick (LX) *tshù ~ tshú tá* 2393.
kick (MC) *tʂhù* 2393.
kid (LX) *tɕhà mù tsú* 349.
kid (MC) *tshè-pì-tsú* goat-m-small 349.
kidney (LX) *pú lù* 181.
kidney (MC) *pú lò* 181.
kidney bean (MC) *pìN tə́* b 557.
kill (chicken) (LX) *tsò tsó* STC 58? *g-sat 2298.
kill (chicken) (MC) *tsɨ̀ tɕá* tonal flip flop w/ DO 2298.
kill (person) (LX) *qə̀ tiè* only for humans 2297.
kill (person) (LX) *tsò tsó* 2297.
kill (person) (MC) *tsɨ̀ tɕá* 2297.
kindle (LX) *dzuà* 1815.
kindle (LX) *tsú* 1815.
kindle (MC) *mú-tsù* fire-ignite 1815.
kindle (MC) *ì tsú* 1815.
kiss (v) (LX) *tá pò* 2256.
kiss (v) (LX) *ŋà* 2256.
kiss (v) (LX) *ŋá tá* 2256.
kiss (v) (MC) *tsù tsú (pù)* STC p69 *dzo·p 2256.
kitchen (LX) *mà má ké* 691.
kitchen (LX) *tsò zò tɕí* 691.
kitchen (MC) *tɕhò pù sɨ́* 691.
kite, hawk (LX) *χò* STC 333 *laŋ? 406.
kite, hawk (MC) *là* STC 333 *laŋ? 406.
knead (LX) *iò qò tɕý* 2284.

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knead (LX) *zuà dá* b 2284.
knead (MC) *ʐuà (tiá)* b 2284.
knee (LX) *ʁò qə́* 127.
knee (MC) *ŋò ké* 127.
kneecap (MC) *ŋò ké pù tɕì* 127.
kneel (LX) *(ʁò) tshú* 1951.
kneel (MC) *ŋó tshò* 1951.
knife (LX) *tɕè ù* 762.
knife (LX) *tɕà piá* 762.
knife (MC) *cì dé* 762.
knife (CL) (LX) *cá* 1246.
knife (CL) (MC) *pà* b 1246.
knife edge (LX) *tɕà (piá) qó* 764.
knife edge (LX) *tɕà qó* 764.
knife edge (MC) *tsè sɨ́* 764.
knife edge (MC) *dè* 764.
knife edge (MC) *lə* = arrow? 764.
knife edge (MC) *tsè kǐ* sharp-edge 764.
knit, weave (LX) *tɕà* STC 17 *trak 2589.
knit, weave (MC) *tià* 2589.
knit, weave (MC) *kè piá* 2589.
knock (LX) *ɔ́ tá* 2251.
knock (LX) *sú tá* 2251.
knock (MC) *khaó thà* b,s 2251.
knock down (wall) (LX) *dà dzù zɨ́* 1803.
knock down (wall) (LX) *dà ʁù ʁuá* 1803.
knock down (wall) (MC) *ʂà dʐuà zɨ̂* VH 1803.
knock down (wall) (MC) *ʂè guì zɨ̂* 1803.
knock over (LX) *tó qó* 1804.
knock over (LX) *dà dzɣ̀* 1772.
knock over (MC) *ʂé guì zɨ́* 1772.
knock over (MC) *ʂè guǐ* 1772.
knock over (MC) *dè guǐ* 1804.
knot (LX) *kè tá* 1023.
knot (MC) *kè tà tà* 1023.
know (LX) *sɨ̀ (à)* STC 182 *syey. mng of sfx? AGR? 2588.
know (MC) *sɨ̀ ʐá* STC 182 *syey 2588.
know how to (LX) *bú ɻà* 1995.
know how to (MC) *ŋuè* 1995.
know well (LX) *sɨ̀ ~ sɨ́ sɨ́* STC 182 *syey 2343.
kowtow (LX) *ʁò tsú* 2110.
kowtow (MC) *zà pú* 2110.
laba instrument (LX) *sá lá tsɨ̀* 956.
laba instrument (LX) *tshueí tshueí* b ('blow') 956.
laba instrument (MC) *tɕì lé* 956.
lack, be short (one person) (LX) *tɕhá* b 2267.
lack, be short (one person) (LX) *bià* 2267.
lack, be short (one person) (MC) *tɕhuè tchuè-à-tió-uè* lack-one-CL-exist. b? 2267.
lack, be short (one person) (MC) *ʐè pù dè uĕ* 2267.
ladder (LX) *dì ká* 718.
ladder (LX) *bú tì* 718.
ladder (MC) *dè tɕí* 718.
lake (LX) *có* 33.
lake (LX) *cý* 33.
lake (MC) *tsuè qhò* 33.
lamb (LX) *ió mù tsù* 348.
lamb (MC) *ioù-lù-tsú* sheep-soft-small 348.
lame (LX) *qhuá* 2268.
lame (MC) *qhuá* 2268.
lame person (LX) *guà-qhuá-(mù)* foot-lame-AGT (VH) 260.
lame person (MC) *goù-khuá* foot-lame 260.
lamp (LX) *mú gú* 737.
lamp (MC) *mè-cà* fire-bright(?) 737.
lamp shade (LX) *tsaó tsɨ̀* b 741.
lan ding cao plant (MC) *sɨ́-χueì* m-color 565.
landslide (v) (LX) *fià tshò* 2374.
landslide (v) (LX) *ʁù ʁuá* 2374.
landslide (v) (MC) *fià dʐuà* 2374.
language, speech (LX) *zə̀ mú* 932.
language, speech (MC) *zuè mé* 932.
lantern (LX) *təN lòN* b 742.
lantern (MC) *teì lú* b 742.
large basket (LX) *lò toú* b? 870.
large basket (LX) *lò khuàN* b 870.
large basket (LX) *pá kù* ?STC 393 *kuk 870.
large basket (MC) *lò khuáN* b 870.
large clump of trees (CL) (LX) *quá* 1250.
large rooms (CL) (LX) *qò* 1304.
large shovel, scoop (MC) *tɕhuàn tsɨ̀* b 865.
larynx (LX) *qù mù tɕý* 177.
larynx (LX) *mù kà tɕý* cf. 173 177.
larynx (MC) *tshò χoù thoù* 177.
last night (LX) *neí^{35} dzì tsɨ́* weird tone 1094.
last night (MC) *nə̀ gié tsɨ́* (words with two high tone sylls are very rare in MC) 1094.
last year (LX) *ná pù* ?STC 368 *niŋ. cf. yesterday 1143.
last year (MC) *né pù* ?STC 368 *niŋ 1143.
late, tardy (LX) *ʁà* 1467.
late, tardy (MC) *là* 1467.
latter generation (LX) *mù-suà* person-m 314.
latter generation (LX) *mì-suà* person-m 314.
latter generation (MC) *mè tsɨ́ kì* 314.
laugh (LX) *(dá) zá ló* tone var. ?STC 202 *rya-t 2492.
laugh (MC) *dʐà* ?STC 202 *rya-t 2492.
lay bricks, stones (LX) *cà* 2239.
lay bricks, stones (LX) *iú* 2239.

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lay bricks, stones (MC) *lò zù-tʂhú* stone.wall-construct 2239.
lay egg (LX) *fià tshí* 2468.
lay egg (MC) *tʂhí* 2468.
layer (in a stack) (LX) *tshè* 1291.
layer (of clothing) (LX) *lə* 1291.
layer (of clothing) (LX) *pè* 1291.
layer, storey (MC) *tshən* b 1291.
layer, storey (multiple) (LX) *sá* 1291.
layer, storey (one) (LX) *tshɨ* 1291.
lazy (LX) *qeí* 1583.
lazy (MC) *ké* 1583.
lead (cow) (LX) *sɨ* 2246.
lead (cow) (LX) *tá* 2246.
lead (cow) (MC) *tá* 2246.
lead the way (LX) *tá* 1794.
lead the way (LX) *só* 1794.
lead the way (LX) *só* 2533.
lead the way (LX) *tá* 2533.
lead the way (MC) *ʐ̩ì tá* 2533.
lead the way (MC) *tá* 1794.
leaf (LX) *tshò lò* STC 321 *lap 471.
leaf (LX) *qə mà* 471.
leaf (MC) *(phò) cà qè* cf. TP 471.
leaf (CL) (LX) *phià* b 1263.
leaf (CL) (LX) *tshè* 1263.
leaf (CL) (LX) *mà* 1263.
leaf (CL) (MC) *phiè* b 1263.
leak (rain) (LX) *zɨ* 2157.
leak (rain) (MC) *zuè* 2157.
lean meat (LX) *tshɨ bú* 589.
lean meat (MC) *tshaì tshaì* 589.
lean on (LX) *có* 2109.
lean on (LX) *kù* 2109.
lean on (LX) *tì* 2595.
lean on (LX) *tshú ~ tshù dá* b? 2595.
lean on (MC) *tshù tié* 2595.
lean on (MC) *khó* 2109.
leaning (MC) *qè tshuɛ́* 1443.
leaning, crooked (LX) *qhuá* 1443.
leap month (LX) *tɕé lə* 1135.
leather clothing (MC) *ʐ̩à piá-phù* skin-clothes 632.
leather jacket (LX) *ʑà piá-phò* skin-clothes 632.
leather jacket (Qiang vest) (MC) *ʐ̩à piá-phà dʐ̩à* skin-vest 647.
left (hand) (LX) *lí zɨ ʁuá zɨ ~* zá (vh?) 1045.
left (hand) (MC) *guì* 1045.
leftward (MC) *guè fià cá qhuà ~ gué fià cà qhuà* guɛ~ gui 1045.
legging, puttee (LX) *zù deí* STC p110 *(r-)tul 650.
legging, puttee (MC) *diòŋ dí* STC p110 *(r-)tul 650.
lend (LX) *dà ɳ̩ì* STC 190 *r-ŋya 2070.
lend (MC) *dè ŋě* STC 190 *r-ŋya also takes ʂè 2070.
length (LX) *thá-ɳ̩à* long-short 1617.
length (LX) *ɳ̩à-thá* short-long 1617.
leopard, panther (LX) *ɕì* STC 61 *zik 383.
leopard, panther (MC) *sì* STC 61 *zik 383.
letter, mail, news (LX) *phù* 919.
letter, mail, news (MC) *pʂè* 919.
letters (CL) (LX) *fóN* b 1303.
letters (CL) (MC) *fú* b? 1303.
li (half kilometer) (MC) *lú* 1319.
lick (LX) *ɳ̩á tá* also ɳ̩é STC 211 *m/s-lyak 2401.
lick (MC) *ɳ̩è tá* STC 211 *m/s-lyak 2401.
lid, cover (LX) *tà-qó* m-verb. STC 479 *klup 759.
lid, cover (MC) *tshà qù* STC 479 *klup 759.
lid, cover (of cup) (MC) *qà qù* STC 479 *klup 759.
lie (n.) (LX) *ì zɨ* cf. 'speech'. 1018.
lie (n.) (MC) *zè ʐ̩ə* 1018.
lie down (LX) *(fià)-ɳ̩í* 2357.
lie down (MC) *né* 2357.
lie face down (LX) *(ià) qù* 2203.
lie face down (MC) *pià mià* 2203.
lie face down (MC) *ì pá thą* p,b,s 2203.
life (LX) *dzú mù* 995.
life (LX) *tsɨ* 200.
life (LX) *mà ɳ̩ì* 'thread' 995.
life (MC) *soú* b? 200.
life (MC) *cè gú* ?look up meaning of parts 995.
lifespan (LX) *só* 201.
lifespan (MC) *soú dzè* e ~ ɛ 201.
lifetime (CL) (LX) *cí* 1343.
lifetime (CL) (MC) *cí* 1343.
light (in color) (LX) *tɕhá* 1479.
light a fire (LX) *phú* STC 220 *pwar~*bwar (or is this just 'blow'?) 2309.
light a fire (LX) *cù* 2309.
light a fire (MC) *mú phù* STC 220 *pwar~*bwar 2309.
light, brightness (MC) *mè cà* mè ~ mɛ̀ 3.
light, brightness (MC) *cyá* 3.
light, brightness (MC) *mù cà* 3.
light, buoyant (LX) *dzó uà uà* STC 328 *r-ya·ŋ 1606.
light, buoyant (LX) *dzó χuà χuà* STC 328 *r-ya·ŋ 1606.
light, buoyant (MC) *tɕhíŋ phiaó phiaó* b

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1606.
light, buoyant (MC) *zú zù tsɨ* m1=light 1606.
lightning (n.) (LX) *qə tiè* 10.
lightning (n.) (MC) *cỳ qé* 10.
lightning (v) (LX) *tshí* 1790.
lightning (v) (MC) *cỳ qé cyà* 1790.
lightning (v.) (MC) *cỳ qé cyà* 10.
lightweight (LX) *dzó* STC 328 *r-ya·ŋ 1463.
lightweight (MC) *zóu* STC 328 *r-ya·ŋ 1463.
like (MC) *má (ʐà)* ?STC *67 *m-dza 2463.
like (to do something) (LX) *má* ?STC *67 *m-dza 1625.
like (to do something) (MC) *(dzè) má* m1=eat. ?STC *67 *m-dza 1625.
like that (LX) *thò zó* 1389.
like that (MC) *fià mé* 1389.
like this, so (LX) *tsò zó (bù)* 1382.
like this, so (MC) *tɕà mé* 1382.
limbs (LX) *zɨ-duà* four-limb/leg 98.
limbs (MC) *zɨ-zà* four-m 98.
limbs (MC) *goù-ɳá-ì pà* foot-and-hand 98.
limestone (LX) *χə-beì* mud-powder 74.
limestone (MC) *ʂè χuì* b 74.
limit, end (LX) *dzí tò* dzí~ dzì 1057.
limit, end (MC) *dʐ ì ló* 1057.
line up (LX) *dà ʁə ʁá* ?STC 346 *ren 2210.
line up (LX) *dà zɨ zí* redup or caus? 2210.
line up (MC) *ʂə ʁá* ?STC 346 *ren 2210.
lip (LX) *dzuà-kú* mouth-m 111.
lip (MC) *duế-ʐà* mouth-skin 111.
liquor, wine (LX) *cì* 607.
liquor, wine (MC) *tɕhà* 607.
listen (LX) *tshó cì* 2409.
listen (MC) *soú nə* 2409.
liter (liquid) (LX) *fiú* 1317.
liter (liquid) (MC) *ɕé* b? 1317.
liter measure (n.) (LX) *ʁú tù* 797.
liter measure (n.) (MC) *ɕé* 797.
little finger (LX) *liè-tsá* m-thin 140.
little finger (LX) *liè bé* 140.
little finger (MC) *í nə qè-bʐ ù bʐ í* finger-little 140.
little plate (LX) *tié tsɨ* b 773.
little plate (MC) *χaì tɕò-bá* b(hot.pepper)-dish 773.
live (LX) *zɨ gó* 2003.
live (LX) *qə́ gó* m1?=pfx. 2003.
live (LX) *sú* 2003.
live (LX) *qə́ zí* 2003.
live (MC) *χò thâ* b 2003.
live (a life) (LX) *ɳú* 1845.
live (a life) (MC) *à-cí-pă* one-life/generation-m 1845.
live coal (LX) *mò qhò* 745.
live coal (MC) *mù ké* 745.
liver (LX) *cí ʁá* STC 234 *m-sin 180.
liver (MC) *sè* STC 234 *m-sin (cf. tree, wood) 180.
livestock (LX) *khú-piá ~ khù-pià* dog-pig 315.
lizard (LX) *kòŋ dzí* b? 429.
lizard (MC) *koù goù-tsú* m-small 429.
loan (n) (LX) *tchá* 805.
lock (LX) *tshuá tshuà* 819.
lock (MC) *ʂuà* b? 819.
lock (door) (LX) *fià-suà* p-b. cf. 2354 2372.
lock (door) (MC) *ʂuà* b? 2372.
lock door (LX) *quà* 2354.
lock door (LX) *suà* 2354.
lock door (MC) *diò-quà* door-m 2354.
lock door (MC) *diò-phiè thá* door-m 2354.
lock door (MC) *diò-ʂè ʂuà* door-p-lock 2354.
locust (LX) *bù tɕà* 456.
locust, praying mantis (MC) *bò lò* "bug" 456.
long (LX) *thá* 1413.
long (MC) *dʐé* 1413.
long (of time) (LX) *thá* 1414.
long (of time) (MC) *dʐé* 1414.
long month (MC) *lə bʐá* calque 2636.
longwinded (LX) *phì dá* b? 1586.
longwinded (MC) *duè-diò-mì-ué-mù* mouth-door-NEG-have-m 1586.
longwinded (MC) *duè-diò-miá* mouth-door-NEG.have 1586.
look after (child) (LX) *zì* 1795.
look after (child) (MC) *sɨ* 1795.
look at (LX) *tsà* 2101.
look at (MC) *kè tʂè* 2101.
look at (CAUS) (MC) *kè tʂè zí* 2102.
look! (MC) *ù kè tʂè* 2102.
looks like (*hao xiang*) (MC) *bú tà* 2635.1.
loom (LX) *sò toù* 890.
loose (LX) *só* 1492.
loose (LX) *cì* open sth (?) 1492.
loose (MC) *(dè) sóŋ thậ* b m1=pfx 1492.
loose (MC) *(dè) thoú* 1492.
loose, loosen (clothes) (LX) *ʁò* 1492.
lose heart (LX) *cì tshò* STC 367 *s-niŋ 1988.
lose heart (MC) *χueì cìn* b 1988.
lose item (LX) *dzuá* 1830.
lose item (MC) *ʂè loŭ* 1830.
lose something. (LX) *dà fiò* 2325.
lose something. (LX) *dà tsò tsò* 2325.
lose something. (MC) *ʂè loŭ* 2325.
lose, be defeated (LX) *fià dzí* 1638.
lose, be defeated (LX) *tə tsá* VH 1638.

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lose, be defeated (MC) *ʂé tǐ* 1638.
louse (LX) *tsí* STC 439 śrik 440.
louse (MC) *tʂì* STC 439 śrik 440.
love (MC) *má* ?STC *67 *m-dza 1624.
love (for older generation) (LX) *cì* ɔ- 1624.
love, like (LX) *tá pò* 1624.
low (LX) *bà* 1409.
low (LX) *bè* 1409.
low (MC) *bɛ̀* 1409.
lower (head) (LX) *ʁú* takes ì, fià 1812.
lower (head) (MC) *fià ʁó* 1812.
lower half of body (LX) *duà* 1083.
lower half of body (LX) *qà tò* 1083.
lower half of body (MC) *cì peí qà tà* 1083.
lower seat (not honored) (LX) *ɹà lì* 1064.
lower seat (not honored) (MC) *ʐ́ lè* 1064.
lucky day (LX) *mə̀ ɳì-χeì* m-good 1173.
lucky day (LX) *mə̀ ɳì-nà* m-good 1173.
lucky day (MC) *zɨ́ tsé sɐ̀* 1173.
lunch (LX) *zà mià* 577.
lunch (MC) *ná tɕhò* 577.
lung (LX) *tshù* STC 239 *tsywap 178.
lung (MC) *tshoù* STC 239 *tsywap 178.
lure (LX) *tɕhé* 2532.
lure (MC) *kaì tà* b? 2532.
mǔ (measure of land) (LX) *moùN* b 1334.
mǔ (measure of land) (MC) *χueí* 1334.
maggot (LX) *bù ló* 443.
maggot (MC) *bò lò* "bug" 443.
magic (MC) *ŋà mú làN tcà* 977.1.
magpie (LX) *cà cá* 417.
magpie (MC) *tcà tcá* 417.
mail letter (LX) *(phə) ɳì tà* 2021.
mail letter (LX) *phù-tà* letter-V 2021.
mail letter (MC) *pʂè tà* DO + V 2021.
make analogy (LX) *pì dà* b 1780.
make blend (LX) *tə́ tcí qá zɨ* 2000.
make crooked (LX) *dà qhá (zɨ)* 2200.
make crooked (LX) *dà phiá (zɨ)* 2200.
make crooked (MC) *tè phián thà zɨ* p,b,s,CAUS 2200.
make crooked (MC) *(tè) qè tshué zɨ* 2200.
make drop (LX) *fià sì zí* 2037.
make extinguish (LX) *dà ʁè zí* 1998.
make extinguish (LX) *à mià zí* STC 374 *mit 1998.
make friends (LX) *cì* 2058.
make friends (LX) *pù* 2058.
make friends (MC) *pù* 2058.
make look at (LX) *tsá tá* 2102.
make look at (LX) *tsà zí* 2102.
make messy (LX) *tə̀ phù lá* vowels? 2162.
make noise (LX) *dà sá* 2477.
make noise (MC) *zà* 2477.
make noise (MC) *zù* 2477.
make ride (horse) (LX) *tə̀ tsà zí* 2241.
make stand up (LX) *tə̀ ì zí* 2243.
make stand up (LX) *toù zí* 2243.
make use of (LX) *pò* 2331.
make use of (MC) *iò* 2331.
make way for someone (LX) *phiá* 2273.
make way for someone (LX) *zá* 2273.
make way for someone (MC) *(mè) ʐ́áŋ thà* b 2273.
male (adj) (LX) *tɕì* 219.
male (adj) (MC) *tsɨ̀* 219.
male pubic hair (LX) *lià χù* STC 262 *li 144.1.
man (male person) (LX) *biè phà* STC *-pa (masc. sfx.) 215.
man (male person) (MC) *bè liú* 215.
manage (household) (LX) *quá tá* 1948.
manage (household) (MC) *qù thà* 1948.
manger (LX) *ʁò tshòu* 833.
manger (MC) *mà tshaò* b 833.
manure (LX) *mì* 333.
manure (MC) *tɕhé* 333.
many (LX) *dzú* 1429.
many (LX) *mí tsà* ?STC *mra 1399.
many (MC) *dió* 1429.
many (MC) *mí pè tchɛ̀* 1399.
March (LX) *tshə̀ lə̀* calque 1125.
March (MC) *séi lə̀* calque. ei ~ i 1125.
mare (LX) *ʁò mià* 338.
mare (MC) *ʐ́òu miá* 338.
mark, sign (MC) *pià tɕì* 994.
mark, sign, trace, spot, stain (LX) *mà tɕì* b 994.
mark, trace (MC) *pià tɕì* 1024.
mark, trace (MC) *mì mí* 1024.
mark, trace (MC) *ìN càŋ* b 1024.
market (LX) *qə̀ cì* 78.
market (MC) *pàn nà pò sɨ́ ~ pàn là pò sɨ́* influence from Chinese phon. 78.
marrow (LX) *cý* 166.
marry (LX) *cì pù* 2064.
marry (MC) *ʂí tɕhè (pù)* also tchę 2064.
marry (of a woman) (LX) *(fià) cì* 1732.
marry (of a woman) (MC) *ʂè ìɛ̀* may be used of a woman or of her parents 1732.
marry (of a woman) (MC) *ʂé zoŭ* 1732.
marry (of man) (LX) *kú* already married 2262.
marry (of man) (LX) *cì* not yet married 2262.
marry (of man) (MC) *ʁuè* 2262.
marry (of man) (MC) *dè dʐ̀ dʐ̂* 2262.

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marry off daughter (LX) *(tɕà) ɕì* b? 2030.
marry off daughter (MC) *ʂè zoù* 2030.
marry off daughter (MC) *tɕè lé* 2030.
masses, the people (MC) *tshuà pú* 208.1.
mat (LX) *cè tsɨ* b 678.
mat (MC) *cé tsɨ* b 678.
match (clothes) (LX) *thao^{35} dà* b 2389.
match (clothes) (LX) *sɨ́* 2389.
match (clothes) (MC) *phù thaǒ thà* b 2389.
matches (LX) *iàN χó* b ("foreign fire") 749.
matches (MC) *iàN χò* b 749.
matter, affair (LX) *zì* 986.
matter, affair (MC) *dʐ̩ ɨ* b? 986.
matter, affair (CL) (LX) *zì* 1269.
matter, affair (CL) (three or fewer) (MC) *mè* STC 280 *mow 1269.
May (LX) *ʁuè lə* calque 1127.
May (MC) *ʁuà lə* calque 1127.
me (D.O.) (MC) *à ò* 1359.2.
me (oblique) (MC) *à* also for 1359.
meal (CL) (LX) *tuá* 1347.
meal (CL) (MC) *tuá* 1347.
measles (LX) *ỳ ɕì* 156.
measles (MC) *fù tsɛ́-tsoù* m-v 156.
measles scar (MC) *ì sè* 156.
meat (LX) *pià-tshɨ̀* pig-flesh STC 181 *sya 'meat' 584.
meat (MC) *pià-tshè* pig-flesh STC 181 *sya 'meat' 584.
medicine (LX) *sɨ́ ká* 613.
medicine (MC) *yè* b? 613.
meet, run into (LX) *tsó pà* 2546.
meet, run into (MC) *tɨ́ tà ɨ́* 2546.
meet, welcome (LX) *(à) dí* 2530.
meet, welcome (MC) *dí* tone change -- ì dǐ 2530.
melon, squash (LX) *paí kuá* b 547.
melon, squash (MC) *pài kuà* b 547.
menstruate (LX) *mà só lò* m-blood-come 146.2.
menstruate (LX) *phì sà lò* vulva-blood-come 146.2.
merit, be worth (LX) *phù quà* 2591.
merit, be worth (LX) *phù lò* 2591.
merit, be worth (MC) *ɳù* 2591.
messy (CAUS) (MC) *tè lə tà zɨ̂* 2162.
Mianchi (village) (MC) *χà-sú* .
miao (cat) (LX) *ŋú* STC 261 *u (but some forms have velar component) 2044.
miao (cat) (MC) *zě* 2044.
middle finger (LX) *liè-sé* m-beautiful. tone on 1 varies 138.
middle finger (MC) *í nə̀ qè-gó tì-(kì)* finger-between-NOM 138.
middle of month (LX) *lə ʁá* 1137.
midnight (LX) *dʐ̩ì tsɨ́-à-ɹà* night-one-CL (gloss match?) 1103.
midnight (MC) *ì séi tà* Ch. (dà bàn yè) 1103.
midnight (MC) *giè tsì-bʐ̩á* night-big 1103.
mildew (v) (LX) *mə́ mə́ -tà - ɕì* mildew (n.)-p-v 2177.
mildew (v) (LX) *mə́ mə́ - zì-zú* mildew (n.)-p-v 2177.
mildew (v) (MC) *à tsuè qâ* 2177.
milk (LX) *ɳà ɳá* = breast, STC 419 *nuw 161.
milk (MC) *ɳà ɳá* = breast, STC 419 *nuw 161.
milk (v) (LX) *ɕì ɕí* 2013.
milk (v) (LX) *tɕí (dà)* b 2013.
milk (v) (MC) *ʈʂà* b? 2013.
millet (LX) *tshei̯ì* 527.
millet (MC) *má* 527.
million (LX) *á tsheí̯-ʁuá* hundred-ten.thousand. tonal variation. 1216.
million (MC) *á ʈʂhì-uà* tone change in m1. 1216.
millstone (LX) *zuà ò* 888.
millstone (MC) *dzò lò* 888.
millstone (MC) *ʈʂhì* 888.
mince, chop (MC) *tshoú tià* ?STC 240 *tsywar 1856.
mine (MC) *ɕò* 58.
mine (MC) *khuăŋ* b 58.
mirror (LX) *mə tsà ì* 732.
mirror (MC) *tɕìŋ tsɨ* b 732.
mischievous (LX) *qə tshó* 2387.
mischievous (LX) *(mù) qə́ tshɨ́* m1=person 2387.
mischievous (MC) *thaǒ tɕhì* b 2387.
missing,short (LX) *tɕhá* 1693.
missing,short (MC) *dɛ̀ khí ~ dɛ̀ khǐ* 1693.
mistake (LX) *dà tshà* 1007.
mistake (MC) *kè tshòu* 1007.
mix up (mortar) (LX) *tshè* 2006.
mix up (mortar) (LX) *tɕà qá* 2006.
mix up (mortar) (LX) *tsɨ qá* 2006.
mix up (mortar) (MC) *χò lié* b 2006.
mix with water (LX) *tɕhý* 2009.
mix with water (MC) *tsà* 2009.
mix, blend (LX) *tɕí qá* 1999.
mix, blend (LX) *tɕà qá* 1999.
mix, blend (MC) *tæ χǒ thà* p,b,s 1999.
mixed with water (LX) *tɕhý* 2010.
mixed with water (LX) *què* 2010.
mixed with water (MC) *dɛ̀ lɛ̌* 2010.

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moist (MC) *ʐuè* 1477.
moist (MC) *tè tè* 1477.
moist, humid (LX) *phà (sù)* 1477.
moisten (LX) *fià pà (zɨ́)* 2201.
moisten (LX) *fià tì (zɨ́)* STC 55 *ti(y) 2201.
moisten (MC) *fià tè tè zɨ̂* 2201.
moisten, soak (MC) *fià tè tɛ̌* 2420.
mole, wart (LX) *tsɨ̌* b 153.
mole, wart (MC) *tʂɨ̌* b (dictionary says mole, Ch. dialect says wart) 153.
money (LX) *dzí gù* older form 799.
money (LX) *sòn dzé* 799.
money (MC) *tɕìn-tseí* b-m 799.
money (MC) *tsèn tseí* b? 799.
Mongolian gazelle (LX) *ʁò-ió* horse-sheep 387.
Mongolian gazelle (MC) *sè* 387.
monk (LX) *χò càN* b. 244.
monk (MC) *χò càN* b 244.
monkey (LX) *ʁuà sà* ?STC 314 *woy 381.
monkey (MC) *ʁuà sà* ?STC 314 *woy 381.
month (LX) *lə̀* 1122.
month (MC) *lə̀* 1122.
month (CL) (LX) *à lə̀* 1340.
month (CL) (MC) *lə̀* 1340.
moo (v) (LX) *zǎ* =2046. 2047.
moo (v) (LX) *ŋú* 2047.
moo (v) (MC) *zɛ̌* 2047.
moon (LX) *sì cuà* STC 144 *s-gla calque? 4.
moon (LX) *lə̀ cuà* reported as an older form. calque? STC 144 *s-gla 4.
moon (MC) *lə̀* some speakers. STC 144 *s-gla 4.
moon (MC) *lə̀* STC 144 *s-gla 4.
morning (MC) *nə́ nà* 1098.
morning (after breakfast) (MC) *tsuà tɕhó-dɛ̀ là lá* breakfast-after 1098.
morning (early) (MC) *tɕhá lèi* 1096.
morning (early) (MC) *tɕhá lù* 1096.
mortar (LX) *tshɨ́ pù* 883.
mortar (MC) *khueí khueí* odd tones. 883.
mosquito (LX) *bù bù* 444.
mosquito (MC) *uèn tsɨ̀* b 444.
moss (LX) *cuə̀* sometimes cwə́ 569.
moss (MC) *tɕíŋ tèi* b 569.
moss (MC) *lò-guì* stone-rust 569.
moth (LX) *bə̀ lú tsù* 454.
moth (MC) *tshè bì bì* 454.
mother (LX) *á mà* STC 487 *ma 276.
mother (MC) *ʁuè miá* 276.
mother (direct) (MC) *á ɳà* STC *(m-)na 276.1.
mother (direct) (MC) *á mà* STC 487 *ma 276.1.
mother's brother (LX) *á kù* STC 255 *kuw 297.
mother's brother (MC) *ʁuè kù* STC 255 *kuw 297.
mother's brother (direct) (MC) *à kù* STC 255 *kuw 297.1.
mother's brother's wife (LX) *à nə́* 298.
mother's brother's wife (MC) *tɕŏu mə̀* b 298.
mother's sister (LX) *á ɳà* 300.
mother's sister (MC) *ɳá bʐà* 300.
mother's sister (MC) *ɳá ɳà* 300.
mother's sister (MC) *ʁuè nə́* STC 271 *na·w 300.
mother's sister's husband (LX) *kú ié* b. 299.
mother's sister's husband (MC) *kú í* b 299.
mother-in-law (LX) *pó mì* 305.
mother-in-law (MC) *ʁuè nə́* STC 316 *ni(y) 305.
mother-in-law (MC) *ɳá bʐà* 305.
mother-in-law (MC) *ɳá ɳà* STC 271 *na·w 305.
mother-in-law (MC) *ʁuè ɳá* STC 271 *na·w 305.
mother-in-law (direct) (MC) *á tɨ̀* less close term 305.1.
mould, mildew (v) (LX) *tɕý qá* 2177.
mould, mildew (v) (LX) *mà ʑà-zú* DO-V 2177.
mould, mildew (v) (LX) *tə̀ cỳ* 2177.
mould, mildew (v) (LX) *tə̀ sù* 2177.
mould, mildew (v) (MC) *à tsuè qâ* 2177.
mountain (LX) *ʁó* 25.
mountain (MC) *sù* 25.
mountain peak (MC) *sù tìN pò* 26.
mountain valley (LX) *ʁó qhuà* ?STC *klu·ŋ 27.
mountain valley (LX) *qhuà cì* ?STC *klu·ŋ 27.
mountain valley (MC) *qhuá bʐà* ?STC *klu·ŋ 27.
mountain valley (MC) *qhuè* ?STC *klu·ŋ 27.
mountain valley (MC) *qhuà qó* ?STC *klu·ŋ 27.
mournful, grieved (LX) *kù tɕhì* b? 1592.
mournful, grieved (MC) *kò tɕhì* b? 1592.
mournful, grieved (MC) *tiè tshòu* 1592.
mournful, grieved (MC) *ʂàn cì* b 1592.
mouth (LX) *qà* STC 468 *m-ka 110.
mouth (LX) *dzuà* ?*twaŋ 110.
mouth (MC) *duè* ?*twaŋ 110.
mouth (MC) *qè* STC 468 *m-ka 110.
mouthful (CL) (LX) *qà* STC 468 *m-ka 1351.

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mouthful (CL) (MC) *qá* STC 468 *m-ka 1351.
move (a chair) (LX) *qá tà* 1641.
move (a chair) (MC) *(pàn té) qà* 1641.
move (a chair) (MC) *tsé* 1641.
move (home) (MC) *tsé* tsɛ̀ with D.O. 1640.
move (home) (MC) *qá* 1640.
move (v.i.) (LX) *mə̀ cà* 1837.
move (v.i.) (MC) *doù dà* 1837.
move home (LX) *tsuè tsué* 1640.
move object (LX) *mə̀ cà* 2585.
move object (MC) *dè dà* 2585.
mow grass (LX) *kó* 1924.
mow grass (LX) *cá* 1924.
mow grass (MC) *sɨ́ kú* 1924.
mud (MC) *ʈʂhú* 50.
mud, dirt (LX) *χə̀ bù* 50.
mud, dirt (LX) *bú zɨ́* 50.
muddled, confused (LX) *qà-dzuá* m-lose 1974.
muddled, confused (MC) *fù thù* b 1974.
muddled, confused (MC) *qɛ́ ʁuà* head-stupid(?) 1974.
muddy, turbid (LX) *tchá* 1471.
muddy, turbid (MC) *χuì (là)* 1471.
mule (LX) *lò tsɨ́* b 351.
mule (MC) *kè tì* 351.
mule foal (MC) *kè tì-tsù* mule-small 351.
multiples (CL) (LX) *tchá* 1357.
muscle (MC) *dzɛ̀* may also be tendon, sinew 162.
muscle, pulse (LX) *dzɨ́* may also be tendon, sinew 162.
mushroom (LX) *ə̀ tsɨ́* 566.
mushroom (LX) *mə̀ ə̀* STC 455 *g-muw 566.
mushroom (MC) *mɛ̀ ʐú* STC 455 *g-muw 566.
mushroom (MC) *mò tsú* b? ?STC 455 *g-muw 566.
musk (LX) *lò tchò* 390.
musk (MC) *lè cò* 390.
musk deer (LX) *tshɨ́ lə̀* 389.
musk deer (MC) *sɛ̀ lə̀* 389.
musk deer (female) (LX) *(tshɨ́) lə̀ mià* 388.
musk deer (female) (MC) *lè mià* 388.
must, have to (MC) *ɳà kí-mì-ŋuè* what-not-be 1666.
mute (LX) *(fià) tshè* 2508.
mute (MC) *mì zé uà* 2508.
mute (MC) *mì-láN-pà* NEG-speak-s 2508.
mute person (LX) *tchì sè mù* 267.
mute person (MC) *mì láN bà mù* 267.
mutton (LX) *tchá piá tshɨ́* 586.
mutton (MC) *tshé tshè* 586.
my (MC) *à kì* 1359.1.
myself (LX) *qé ì* 1373.
myself (MC) *ŋà kí ʐà* meaning? 1373.
nail (LX) *tíŋ tsɨ́* b 815.
nail (MC) *tíŋ tsɨ́* b 815.
nail (finger, toe) (LX) *liè sɨ́ qə̀* STC 74? *m-tsin 141.
nail (finger, toe) (MC) *ì sè* 141.
nail (v) (LX) *tù* 1829.
nail (v) (LX) *tè* 1829.
nail (v) (MC) *tù* 1829.
name (LX) *zə̀ mú* STC 83 1001.
nanny goat (LX) *tchà mià* 346.
nanny goat (MC) *tshè mià* 346.
nap (LX) *có* 677.1.
nape of neck (MC) *χoú-dʐuà dʐuà* m-fold, dip 116.
narrow (LX) *tchá* 1419.
narrow (MC) *ʐò* 1419.
narrow, cramped (LX) *tchá tsé* 1421.
narrow, cramped (MC) *ʐò* 1421.
nauseous (LX) *ʁà qú* 1859.
nauseous (MC) *ʈʂhuà* 2495.
nauseous (MC) *tí mì-(tè)-ʐù lià* heart-p-uncomfortable 1859.
navel (LX) *pú tsɨ́ qà* 123.
navel (MC) *pɛ̀ ʈʂɨ́ ʈʂɨ́* 123.
nearby, neighboring (LX) *piá pù* 1055.
nearby, neighboring (MC) *qɛ̀ zí* noun? 1055.
neck (LX) *mù kà* STC 251 *ke 115.
neck (MC) *qɛ̀ mò* STC 251 *ke 115.
necklace (LX) *mò qà mà* STC 251 *ke 663.
necklace (LX) *kú lí* ?STC 251 *ke 663.
necklace (MC) *sɨ́ dzoù-sɛ̀ lì* spirit-thread. charm on child's neck 663.
necklace (MC) *qɛ̀ mò-sè lí* neck-thread 663.
necklace (MC) *χă ɳə̀ ~ χà ɳɔ́* b? 663.
needle (LX) *χé ~ χèi* STC 52 812.
needle (MC) *χè* 812.
NEG (LX) *mí* STC *ma 2637.
NEG (+ be) (MC) *mì (ŋué)* 2637.
NEG (+ eat) (MC) *mì (dzɛ́)* 2638.
NEG (+ V) (LX) *mí* STC *ma 2638.
neigh (v) (LX) *ŋú* STC 261 *u 2046.
neigh (v) (LX) *ză* 2046.
neigh (v) (LX) *qà ʁà* "speak" 2046.
neigh (v) (MC) *zɛ̌* 2046.
neighbor (MC) *tcí-tshè pù* home-neighbor(?) 82.
nest (LX) *ỳ (tshá) bù* 405.
nest (MC) *ì tshè bú* 405.

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net (LX) *zà* 912.
net (MC) *dzɻà* 912.
neuter, sterilize (LX) *tè* 2303.
neuter, sterilize (LX) *fià tè pè* 2303.
neuter, sterilize (MC) *bè qè* diff in meaning? 2303.
neuter, sterilize (MC) *phiən ɳù* b? 2303.
new (LX) *tchí* STC #71 *dz(y)im 1502.
new (MC) *sí* 1502.
New Year (LX) *dzá tchí* 1171.
New Year (LX) *dzá tò gà* 1171.
New Year (MC) *pù-sí* year-new 1171.
New Year (MC) *dià sí* 1171.
New Year's Eve (LX) *tshè sá* 1170.
New Year's Eve (MC) *dià bzɻá* celebrate.New.year-big (calque?) 1170.
niece/nephew (LX) *dzì qhuá* 291.
niece/nephew (MC) *dzì* 291.
night (CL) (LX) *ʁà* STC 203 *ryak 1338.
night (CL) (MC) *zɻà* STC 203 *ryak 1338.
nine (LX) *gú* STC 13 *d-kuw 1182.
nine (MC) *gú qò* STC 13 *d-kuw 1182.
nineteen (LX) *fiá gú* 1192.
nineteen (MC) *fià gù* 1192.
ninety (LX) *gú sá* 1207.
ninety (MC) *gú sà* 1207.
ninety-one (LX) *gú sá à* 1208.
ninety-one (MC) *gú sà ɳà à qó* 1208.
ninth (LX) *gú ɔ̀ χeì* 1227.
nit (LX) *tsì gú* ?STC 278 *row 441.
nit (MC) *dzɻú* ?STC 278 *row 441.
nod (LX) *tshuá* takes tə, fià 1814.
nod (LX) *(tə) zí* 1814.
nod (LX) *tshú* 1814.
nod (LX) *(tə) ú* 1814.
nod (MC) *(qà bzɻá tsɨ) ʁó* =1812 1814.
nod off (LX) *(mà zè) qè tá* 1783.
nod off (MC) *mè zè-qè tuá* sleep-m 1783.
noisy (LX) *sá* 1562.
noisy (MC) *zà* 1562.
noodles (LX) *qhà mì* 580.
noodles (MC) *tʂhɨ mè* 580.
noon (LX) *zà mià* 1099.
noon (MC) *nə̀ nà* 1099.
nose (LX) *tì bá-qə̀* m-point 106.
nose (MC) *nə̀ qɛ́ pì* STC *s-na(·r) 106.
not have (something in bowl) (LX) *mì liá* 2541.
not have (something in bowl) (MC) *mì lɛ́* 2541.
not have (something in milk) (LX) *mì liá* 2542.
not have (something in milk) (MC) *mì ŋà* 2542.
not have (something in milk) (MC) *mì lɛ́* 2542.
not have (use) (LX) *mè ué* 2545.
not have (use) (LX) *mò fió* 2545.
not have (use) (MC) *mì ŋà* 2545.
not have (wealth) (LX) *mí tsè* 2537.
not have (wealth) (MC) *mì ŋà* 2537.
not have benefit (MC) *mì ŋà* 2544.
notebook (LX) *pən tsɨ* b 922.
notebook (MC) *pən tsɨ* b 922.
notify (LX) *ʁuă* 2414.
notify (LX) *ɔ̆* 2414.
notify (MC) *pʂè pʂé* 2414.
November (LX) *fià tɕí lə* calque 1133.
November (MC) *fià tí lə* calque 1133.
now (LX) *pè ì* 1149.
now (MC) *pè tì* 1149.
now (adv.) (MC) *tsù tá* .
numb (LX) *bò bò* 2165.
numb (MC) *zè bù* cf. deaf 2165.
numb (MC) *tshù tshú* 2165.
number (LX) *sú tsɨ* b 1033.
number (MC) *phò* 1033.
numbing pepper (LX) *tshə́ í* 600.
numbing pepper (flower of prickly ash tree) (MC) *tshè-nə́* mutton(?)-red (one kind tastes like mutton) 600.
nurse (v) (LX) *ɕí* 2448.
nurse (v) (MC) *tié* 2448.
nurse (v) (MC) *qè tshué* 2448.
o brother's wife (LX) *pú kù* 296.
o brother's wife (LX) *ʁuá tɕí* ?STC 205 *ryaŋ 296.
oath, pledge (MC) *suà ɕì nə́* 979.
obtain, reap (LX) *qó pú* 2005.
obtain, reap (MC) *tæ̀ qà pû* 2005.
obtain, reap (MC) *tè ɕoŭ* 2005.
occupy, take up (MC) *qà toú* 2569.
ocean (LX) *ɕý* 34.
ocean (LX) *ɕó* 34.
ocean (MC) *bú zì sɨ* 34.
October (LX) *fià dzó lə* calque 1132.
October (MC) *fià diú lə* calque 1132.
often (LX) *tshàn bù ɕì* tones? 2626.
often (MC) *tɕá qà* 2626.
often (MC) *tsá qà* 2626.
oil (LX) *sò í* [swò] STC 272 sa·w 590.
oil (MC) *má* 590.
oil (from meat) (LX) *sé* STC 272 sa·w 591.
oil (from meat) (MC) *má* 591.
oil (vegetable) (LX) *sò í* 592.
oil (vegetable) (MC) *tshì iú* b? 592.

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oily (LX) *ɳ́ ɳà* b? 1535.
old (of people) (LX) *(fià) peì* 1508.
old (of people) (MC) *(à) peì* (perf. asp.) 1508.
old (of person) (LX) *peì* peí = bruise (n/v?) 2132.
old (of person) (MC) *peì* 2132.
old (of things) (LX) *bá* cf. 'big' 1503.
old (of things) (MC) *bá* 1503.
old man (LX) *mù pèi* 213.
old man (MC) *mù-peí* person-age(v.) 213.
old man 1 *mù pèi* .
old person (LX) *mù bó* 212.
old woman (LX) *mù̯ bó bə̀* 214.
old woman (MC) *mià-peí* female-age(v.) 214.
older brother's wife (MC) *ʁuè tɕì* 296.
older brother's wife (direct) (MC) *à tɕì* 296.1.
older siblings (LX) *sà ɳ̀ì* 294.
older siblings (MC) *mè tiè* 294.
on (the table) (LX) *qə̀ teì* 1065.
on (the table) (MC) *qé tè* 1065.
on (the table) (MC) *lià χà* 1065.
on (the top) (LX) *qə̀ teì* 1072.
on (the top) (MC) *(tìN pò) qɛ́ tè* 1072.
on (the wall) (LX) *χeí* 1071.
on (the wall) (MC) *(lò zù)-qà* wall-on 1071.
on top of (LX) *qə́ tə̀ χeì* 1074.
on top of (a building) (LX) *qə̀ teì* 1067.
on top of (a building) (MC) *ʐ́ í lè* 'under'? 1067.
on top of (a building) (MC) *(lòu) qɛ́* 1067.
one (LX) *à* 1174.
one (MC) *à qó* s2=CL 1174.
one hundred one (LX) *à tshəì nà à* nà = and 1211.
one hundred one (MC) *à ʈʂhì ɳá à qó* 1211.
one hundred+CL (MC) *á ʈʂhì qò* 1209.
one third (LX) *tsheí qú χeì à qù* 3-part-middle-1-part 1358.
one-eyed person (LX) *mì tɕuà mù* = blind person 268.
one-eyed person (MC) *mù tí-à-zà-mì-ué-mù* eye-one-CL-NEG-have-person 268.
onion (LX) *dò-(tshó)* m-b 540.
onion (MC) *tshóŋ (tsì)* b 540.
onion (wild) (MC) *kæ̀ bʐ́ í* 540.
only, alone (MC) *tɕì tó tsì tsì* 1596.
only, alone (MC) *tsaó tsaò* 1596.
only, alone (rep phrase) (LX) *zí zí tsù* 1596.
open (door) (LX) *gà* STC 469 *ka 2092.
open (door) (MC) *dzí* 2092.
open (eye) (LX) *tə̀ phé* 2583.
open (eye) (LX) *tə̀ tɕà* 2583.
open (eye) (MC) *phə́* 2583.
open (flower) (LX) *(tə̀) pá* STC 260 *bu ~ *pu 2094.
open (flower) (LX) *dà pà* STC 260 *bu ~ *pu 2094.
open (flower) (LX) *(tə̀) pá* STC 260 *bu ~ *pu 2094.
open (flower) (MC) *pɛ̀* STC 260 *bu ~ *pu 2094.
open (mouth) (LX) *tə̀ qà* STC 469 *ka 2571.
open (mouth) (MC) *qá* STC 469 *ka 2571.
open (of shoes) (LX) *bià* 2067.
open (of shoes) (LX) *bú bú* 2067.
open (of shoes) (MC) *ʂɛ̀ qhà lă* 2067.
open (umbrella) (LX) *dà qà* STC 469 *ka 1714.
open (umbrella) (MC) *ʂɛ̀ dzí* 1714.
open (v.t.) (LX) *dà qà* STC 469 *ka 1788.
open (v.t.) (LX) *dà phà* 1788.
open (v.t.) (LX) *dà gà* STC 469 *ka 1788.
open (v.t.) (MC) *ʂɛ̀ dzí* 1788.
open, unobstructed (LX) *thóŋ dà* b 2413.
open, unobstructed (MC) *dɛ̀ kiè qaì* 2413.
operate (vehicle) (LX) *gà* 2095.
operate (vehicle) (MC) *ɳ́ó* 2095.
opium (LX) *ià phièN iá* b 612.
opium (MC) *ià phiæN iáN* b 612.
oppose (LX) *miè ʁó* 1873.
opposite, inside out (LX) *fià lì* 1440.
opposite, inside out (MC) *toù tú* 1440.
ormosia, red bean (MC) *pá ʂán tsɨ* b ("mtn climber") 558.
orphan (LX) *ké pù* 313.
orphan (MC) *kè pù tsú* 313.
other (LX) *thú ɳ̀ù* 1400.
other (MC) *qà qá* 1400.
other person (LX) *mè ì* 87.
other person (LX) *mè ì* 1376.
other person (MC) *mæ̀ qá* 87.
other person (MC) *mĕ lɛ̀* 1376.
otter (LX) *tsù-piá* water-carnivore 392.
otter (MC) *tsuè-dzɛ̀-dzɛ̀-mú* water-fish-eat-AGT 392.
otter (MC) *ʂuèi maò tsɨ* b ("water cat") 392.
ought (LX) *zí tó* 2534.
ought (MC) *fià toù* ˇ2534.
ought to (go) (MC) *(kiè) kaì tà* 1903.
ought to go (LX) *kə̀ tɕhé* 1903.
our (MC) *á lè kì* 1361.1.
our (MC) *tɕó lè kì* 1361.1.
ourselves (LX) *qé lià* 1373.
outside (of room) (LX) *ʁuà là* 1049.
outside (of room) (MC) *ʁuà ʐ̀à* 1049.

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outside (of thing) (LX) *ɻà lì* 1049.1.
outside, downstream (MC) *ʂè pià* 1049.
outside, outer face (of thing) (MC) *qá ʐà* 1049.1.
outward, downstream (pfx) (LX) *sɨ̀* - 1079.
outward, downstream (pfx) (MC) *ʂè* - 1079.
overcast (LX) *mə́ zí ~ mú zí* VH 2396.
overcast (MC) *mú doù* 2396.
overly talkative (LX) *ló ló só só* b 1614.
overly talkative (MC) *duè-diò-mì-lé* mouth-door-not-have 1614.
overtake (LX) *dè* 1914.
overtake (MC) *dzoú dè* 1914.
overtake (MC) *tè kàn thá* p,b,s 1914.
owe (money) (LX) *tchá* 2247.
owe (money) (MC) *dè khí* 2247.
owl (LX) *ỳ khù* STC p164 *gu ~ *ku. also #494 410.
owl (MC) *kuì tòŋ khò* STC p164 *gu ~ *ku 410.
ox (CL) (LX) *zà* 1241.
ox (CL) (LX) *zɨ̀* 1241.
ox (CL) (MC) *zà* 1241.
pack rack (LX) *thuá ú* 838.
pad (v.t.) (LX) *tshà* 1817.
pad (v.t.) (MC) *tʂhà* 1817.
pad, cushion (LX) *dién tsɨ̀* b 679.
pad, cushion (MC) *tʂhà kí* 679.
paddy rice (LX) *tshì* 512.
paddy rice (MC) *tʂhɨ̀* 512.
page of book (CL) (LX) *tshè* 1236.
page of book (CL) (LX) *phiæN* b 1236.
page of book (CL) (MC) *phié* b 1236.
pain, suffering (LX) *iá tsà* STC *tsa 1005.
pain, suffering (MC) *tsăo nì* b? ?STC *tsa. Sichuanese tsao^{35} nə^{31} = 'misfortune' 1005.
paint (a painting) (MC) *bì-pù* picture-do 1980.
paint (a painting) (MC) *bì khuí* also = 'take photograph' 1980.
paint (painting) (LX) *zà* 1980.
paint (painting) (LX) *ɕì* STC p55 *tsiy 1980.
paint (painting) (LX) *ɻà* STC 429 *riy 1980.
paint (v) (LX) *mú má* 2422.
paint (v) (LX) *ɕì* STC p55 *tsiy (cf. 'urinate') 2422.
paint (v) (MC) *mà* 2422.
paint (vt.) (LX) *ɕì* STC p55 *tsiy 753.
paint, lacquer (LX) *tsù* ?STC p55 *tsiy 753.
paint, lacquer (MC) *tchì* b? 753.
paint, lacquer, dye (MC) *pà mà* 753.
pair (of rabbits) (LX) *tuè* or people 1272.
pair (of rabbits) (MC) *tuí* 1272.
pair (of shoes) (LX) *gù* 1271.
pair (of shoes) (MC) *tuí* 1271.
palate (LX) *qà qhù* once with HH tones 174.
palate (MC) *thián thàn* b 174.
pancake (LX) *tsà piá* 618.
pancake (buckwheat) (MC) *tsèn pí* b 618.
pancake (cooked in fire) (MC) *qhà liú* (can add grain name in front) 618.
panda (LX) *phà tá (tɕá)* 387.1.
panda (LX) *pià thá* 387.1.
panda (LX) *tɕà-dá* bear-m 387.1.
panda (LX) *pià tsú* 387.1.
panda (MC) *tì-pʂì* bear-white. 387.1.
pant leg (MC) *ʐè tì-gù gú* pants-leg 638.
pants, trousers (LX) *khù tsɨ̀* b 637.
pants, trousers (LX) *tò qó* 637.
pants, trousers (MC) *ʐè tí* 637.
paper (LX) *zɨ̀ də́* 923.
paper (MC) *zè dzɨ̀* 923.
parrot (LX) *ŋə́ ŋə́* [ŋgə́] 421.
parrot (MC) *ŋíŋ ká* b? 421.
part (LX) *χù* 1290.
part (MC) *(à) diè* b? 1290.
part, portion (LX) *χù* 1013.
part, portion (MC) *à-mé diò* one-same.amount 1013.
part, portion (MC) *à là diè* 1013.
pass along (LX) *(dà) zɨ́* fià is pfx if request 1745.
pass along (LX) *dá dà* 1745.
pass along (LX) *dà zɨ́ dà* 1745.
pass along (MC) *dè zɨ́ ~ zɨ̂* 1745.
pass along (MC) *fià tà* 1745.
pass gas (LX) *qhà ɻà-cì* feces-m 1885.
pass gas (LX) *tshɨ̀ ɕì* 1885.
pass gas (MC) *pè lé* tone of m2 changes w/ emphasis 1885.
pass through (LX) *dzá* 2075.
pass through (MC) *dè dă* 2075.
paste (v) (LX) *piá* 2408.
paste (v) (MC) *piá* 2408.
patch (n) (LX) *pà qó* STC *pa 636.
patch (n) (MC) *pè tʂhì* STC *pa 636.
patient (LX) *iá mù* also ɲ 252.
patient (MC) *dzí mù* 252.
pay attention to (LX) *qá zɨ́* 2136.
pay attention to (MC) *tɕán ʂɨ̀* b? 2136.
pay attention to (MC) *ù sɨ̀* 2136.
pea (MC) *uán tòu tsɨ̀* b 556.
peaceful (LX) *nà* good 1590.
peaceful (life) (MC) *nà ŋá (zì)* 1590.
peach (wild) (LX) *tshuá lə̀-cì mì* m-fruit 495.
peach (wild) (MC) *ló tsɨ̀* 495.

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peach tree (LX) *thaò tsɨ́-phù* b-tree 478.
peach tree (wild) (LX) *tshuá lə* 478.
peach tree (wild) (MC) *ló tsɨ̀-phò* 478.
peanut (MC) *là χuà sí* 560.
pear (LX) *lì tsɨ́* b 496.
pear (MC) *pià sè mú* 496.
pear tree (LX) *lì tsɨ́-phù* b-tree 480.
pear tree (MC) *pià sè mú-phò* 480.
pearl (MC) *tʂén tʂú-mà laŏ* b(pearl)-treasure 658.
peasant (LX) *dzeì-bù lú-mù* m-work-AGT 222.
peasant (MC) *(zuè)-dʐì pú-mù* field-do-AGT 222.
pebble (MC) *gò-bʐì tsú* stone-small 47.
peck at (LX) *tshuá (tà)* 2612.
peck at (MC) *tshuà tiá* 2612.
peel (peanut) (LX) *ʁà qá* 1647.
peel (peanut) (MC) *ʐá qà* 1647.
peel off, flake off (LX) *(dà) qà* 1649.
peel off, flake off (MC) *tchè liá* 1649.
peel with knife (LX) *cué dà* b 2491.
peel with knife (MC) *cyè thá* b 2491.
pen (LX) *pié* b? 924.
pen (MC) *piè* b? 924.
pen (CL) (LX) *zɨ̀* 1256.
pen (CL) (LX) *ə̀* 1256.
pen (CL) (MC) *dʐí* 1256.
penetrate (LX) *fiă tì ~ (fiá) tí tí* 2420.
penetrate (MC) *(fià) thoŭ thà* b? 2420.
penis (LX) *lià qə̀* STC 262 *li 144.
penis (MC) *lià qè* STC 262 *li 144.
performance, drama (LX) *là lá* cf. song 943.
performance, drama (MC) *tchæN cí* æ~ɛ 943.
perhaps, possibly (LX) *qò tché* 2635.
perhaps, possibly (MC) *táN cí* b tones vary 2635.
persimmon (LX) *sɨ́ tsɨ̀-cì mì* b-fruit 500.
persimmon (MC) *ʂɨ̌ tsɨ̀* b 500.
person (LX) *mù* 208.
person (MC) *mè* 208.
person (CL) (LX) *dzè* 1230.
person (CL) (LX) *ə̀* 1230.
person (CL) (MC) *qó* 1230.
person with pockmarked face (LX) *ʁà zò* 262.
person with pockmarked face (MC) *deì mià* 262.
personal enemy (LX) *mù tí mù* 253.
pestle (LX) *tshɨ́ pù ʁò lù* 884.
pestle (MC) *pià tchè ló* 884.
pestle (MC) *pià tchè ló* 884.
pestle (MC) *phù-χuà là-kí-pàN páN* clothes-wash-NOM-stick 884.
pestle (MC) *sá dè ʁù lò* stick for washing/beating hemp clothes 884.
pestle (stone) (LX) *ʁò liú* 884.
pheasant (LX) *ỳ-zó* 413.
pheasant (LX) *ʁó-ỳ* 413.
pheasant (MC) *ʁà-ì* wild-chicken 413.
pheasant (female) (LX) *ỳ mì* 419.
pheasant (female) (MC) *uà uà tɕí* 419.
pheasant (male) (LX) *ỳ cì* 420.
pheasant (male) (MC) *ì qóu* 420.
pheasant (male) (MC) *tɕín tɕí* b 420.
pheasant (small sp.) (MC) *ì pú-tcà tcà* chicken-ONOMAT.) "mountain chicken" 413.
phlegm (LX) *tshù* 191.
phlegm (MC) *tsù ʐé* 191.
pianniu (female) (LX) *zɨ̀ mià* ɨ is /ə/ 324.
pianniu (male) (LX) *zɨ̀ dò* [zdò] 323.
pianniu (male) (LX) *zɨ̀ cù* pianniu is a hybrid of a yak and a domesticated cow. 323.
pianniu (male) (MC) *phiæ* 323.
pick up with chopsticks (LX) *tè ʁué* 2028.
pick up with chopsticks (MC) *(tè) tʂè* 2028.
pick up, carry (basket) (LX) *tsé* 2394.
pick up, carry (basket) (MC) *zyá* 2394.
pick up, carry (basket) (MC) *tiá thą* 2394.
pick up, carry (with two people) (LX) *kù* carried by 2 people 2394.
pick up, collect (LX) *(tə̀) tú tuá* cf. 2026 2031.
pick up, collect (MC) *cì bà* 2031.
pickax (MC) *phaò tshù* b? 864.
pickle (LX) *iæN-tsheí pù tsù* b(salt)-m 530.1.
pickle (LX) *kù-tsuá* veg-acidic 530.1.
pickle (MC) *tchoù tì-à té-kì* vegetable-pickle(v)-NOM 530.1.
pickle vegetables (LX) *iæn tsheí* b 2216.
pickle vegetables (MC) *tè* 2216.
pickle, cure (LX) *ʁá* 2510.
pickle, cure (MC) *ʐuá* 2510.
pickle, cure (MC) *tchá* 2510.
picture (LX) *phiá* 920.
picture (LX) *zà* 920.
picture (MC) *bì* 920.
piece (of land) (LX) *zá* 1260.
piece (of land) (LX) *ʁò* 1260.
piece (of land) (LX) *zuè* 1260.
piece (of land) (LX) *thò* 1260.
piece (of land) (MC) *thò* 1260.
piece (of land) (MC) *lié* 1260.
pig (LX) *pià* STC 43 *pwak 354.
pig (MC) *pià* 354.
pig (CL) (LX) *zɨ̀* 1240.
pig (CL) (LX) *zà* 1240.

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pig (CL) (MC) *dʐ í* 1240.
pig shed (LX) *piá-iuá kù* pig-b 697.
pig shed (MC) *pià ʐé* 697.
pig slop, hogwash (LX) *piè-tì* pig-dinner 616.
pig slop, hogwash (MC) *pià-té* pig-dinner 616.
pig trough (LX) *pié tshoù* b? 843.
pig trough (MC) *piá tshǫ̀ɣ* b? 843.
piglet (LX) *piàN zú* (or final -n) 357.
piglet (MC) *pià là tsú* 357.
pigskin (LX) *piá ʁá* 331.
pile (of manure) (LX) *pià* 1257.
pile (of manure) (LX) *bù* ?STC *s-baŋ 'dung' 1257.
pile (of manure) (MC) *bò* ?STC *s-baŋ 'dung' 1257.
pile up (grass) (LX) *bù* 1851.
pile up (grass) (LX) *pià* 1851.
pile up (grass) (MC) *bò* 1851.
pile up, fold (LX) *què* 1827.
pile up, fold (MC) *tè ~ tɛ̀* STC 493 *tap 1827.
pillar (LX) *tsu*^{35} *thoù* b 708.
pillar (MC) *tsù kɛ́* s2=STC p20? 708.
pillow (LX) *ȵì kù* ear + STC 482*kum 677.
pillow (MC) *nè kò* ear + STC 482*kum 677.
pincers, tongs (LX) *cà tè* iron-m 857.
pincers, tongs (MC) *tɕhèn tsɨ* b 857.
pinch (LX) *zɨ tsuà* STC 188 *tsyur 2197.
pinch (MC) *(tɛ̀) tʂuà* STC 188 *tsyur 2197.
pinch and twist (MC) *dʐù dʐuà* STC 188 *tsyur 2080.
pinch, nip (LX) *qú tsé* 2249.
pinch, nip (MC) *sè sá* 2249.
pine (wood) (MC) *mià-sé* pine-firewood 485.
pine torch (LX) *piè-cuá-qà mà* m-bright-m 488.
pine torch (MC) *miá-mù-cà* pine-fire-bright 488.
pine torch (MC) *mɛ̀ cà* 488.
pine tree (LX) *piá cí phù* 485.
pine tree (MC) *mù-cà-phó* fire-resin-tree 485.
pine tree (MC) *mià-phó* 485.
pit (LX) *zà pù* 'hole' 38.
pit (MC) *ʐè pù* 'hole' 38.
pit, stone (LX) *mì* 475.
pit, stone (LX) *mì mì* 475.
pit, stone (LX) *tsɨ tsɨ* 475.
pit, stone (LX) *dzỳ* 475.
pit, stone (MC) *zuì* PTB *dzəy (also 'testicle') 475.
pitch dark (LX) *ní-tshɨ tshɨ* black-m 1600.
pitch dark (MC) *mú dzò qè lì* 1600.
pitiful (LX) *mə tshueì* 1587.
pitiful (MC) *tsaŏ ȵè* b 1587.
pitiful (MC) *mè-tshuè pú-zɨ* person-pity-CAUS 1587.
pity (MC) *tshuè-pú* stuck.by.thorn?-do 1587.
place (n) (LX) *zù qə̀* 75.
place (n) (LX) *zù qeí* 75.
place (n) (MC) *zuè pè* 75.
place (n) (MC) *tcà qó bà qà* 75.
place in between, clamp (LX) *zá qá mù* 2027.
place in between, clamp (MC) *dzà kɛ́* 2027.
plain (LX) *bà tò* 42.
plane (tool) (LX) *thueí pò* b? 856.
plane (tool) (MC) *thueì paó* b? 856.
plane down (LX) *thý* 1655.
plane down (MC) *thueì* 1655.
plank (LX) *bú* STC 138? *pleŋ 'flat', etc. 706.
plank (MC) *pàn tsɨ* b 706.
plank (thin) (MC) *bù (ʐà)* thin-skin(?) STC 138? *pleŋ 'flat', etc. 706.
plant (sign into ground) (LX) *tshuè* 1690.
plant (sign into ground) (MC) *(fià) tʂhuè* 1690.
plant (tree) (LX) *phià* 2553.
plant (tree) (MC) *liè* 2553.
plant (wheat) (LX) *phià* 2593.
plant (wheat) (LX) *sé* 2593.
plant (wheat) (MC) *phià* 2593.
plant ash (LX) *mù-bè* mud-powder 73.
plant ash (MC) *tɕiè-bè zɨ* b(alkali)-powder 73.
plant seedlings (LX) *phià* 1691.
plant seedlings (MC) *liè* 1691.
plate (LX) *phæ̀N tsɨ* b 772.
plate (MC) *phàn tsɨ* b 772.
plate (MC) *tshì bá* 772.
play (LX) *ʁə́ là* 2443.
play (MC) *dá tʂhɨ̀* ='chat'. ?STC 289 *(r-)tsya·y 2443.
play finger-guessing game (LX) *qù ȵú tí* 1977.
play finger-guessing game (MC) *χuá tʂhuǎn-pù* b-do 1977.
plead, offer excuse (LX) *dà mì ì* 2425.
plead, offer excuse (LX) *mì í* 2425.
plead, offer excuse (MC) *tshoú thà* b? 2425.
plead, offer excuse (MC) *mì ʁoú* 2425.
please, request marker (LX) *mà* 2258.
pleased, satisfied (LX) *cì (mì)-qə̀* heart-go 2170.
pleased, satisfied (LX) *cì-qə̀-qə̀* heart-go-go 2170.
pleased, satisfied (MC) *tiè nà* 2170.

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pledge, swear (MC) *suà uá* 979.
plow (n) (LX) *tò* 860.
plow (n) (MC) *tò kè* 860.
plow (v) (LX) *lí* b 1932.
plow (v) (MC) *zuè lié* field-plow (b) 1932.
plowshare (LX) *dzù* 861.
plowshare (LX) *χuà thoú* b 861.
plowshare (MC) *dʐù* 861.
pluck (flowers) (LX) *tshó* 2566.
pluck (flowers) (MC) *tshoú* 2566.
plum (LX) *lì tsɨ́* b 497.
plum (MC) *tʂù mù* 497.
plum blossom (LX) *χàn tsɨ̀-pá tsù* m-flower 479.1.
plum tree (LX) *lì tsɨ́-phù* b-tree 479.
plum tree (MC) *tʂhù mù phó* 479.
pocket (LX) *ɻà qó* 629.
pocket (MC) *phù tá pò ~ phù tà pó* 629.
pocket (MC) *phù tsà qá* 629.
pod (LX) *də̀ piá-ɻà piá* bean-skin 559.
pod (bean) (MC) *deì-tì* bean-squeeze.together (or 'straight') 559.
point (v) (LX) *tsɨ̀-dá* b-s 2592.
point (v) (LX) *pò* 2592.
point (v) (MC) *tɕé* 2592.
pointed (LX) *qə̀ dý* 1435.
pointed (MC) *tɕìn tɕè* b? 1435.
pointed (MC) *tɕìn tɕìn* b? 1435.
poison (LX) *dù* STC 473 *duk ~ *tuk, or borrowing 911.
poison cat (kind of witch) (LX) *dú má ɳù* 962.1.
poison cat (kind of witch) (LX) *dú pú mʉ̀* 962.1.
poison cat (kind of witch) (LX) *dù-pù-mí* ghost-do-female 962.1.
poison cat (kind of witch) (MC) *sú-dòu-pù-mú* hide?-ghost-do-agt. 962.1.
poison cat (kind of witch) (MC) *dòu miá* also "evil spirit". STC 473 *duk ~ *tuk 962.1.
poke (LX) *tsɨ́* 2415.
poke (MC) *tshó tià* 2415.
pole (boat) (LX) *iaò dá* b 1715.
polite, ceremonious (LX) *khè tɕí* b 1580.
polite, ceremonious (MC) *tè phì-pù* guest-do 1580.
pool (LX) *tsò qhà* was tsò qhwà 35.
pool (MC) *tsuè-tàn tán* -an ~ -N. water-b 35.
poor (LX) *χá* 1539.
poor (MC) *tɕè* 1539.
poor (of soil) (LX) *χuá* 1475.
poor (of soil) (LX) *sè* 1475.
poor (of soil) (MC) *χuá* 1475.
poor person (MC) *mé tɕè* 233.
poplar tree (LX) *là pà* 483.
poplar tree (MC) *gò phò* 483.
poplar tree (wild) (LX) *ʁó là pà* ?cf. SHK 483.
porcupine (LX) *tɕà qù* "earth pig" (do they have porcupines?) 393.
porcupine (MC) *tì kù* 393.
pork (LX) *piá piá tshɨ̀* 587.
pork (MC) *pià tshè* 587.
portion, fraction (CL) (LX) *fə́* b 1331.
portion, fraction (CL) (MC) *feì* b? 1331.
POSS (LX) *-i* 2644.
POSS (MC) *kì* also nominalizer 2644.
pot, jar (LX) *kuàN kuáN* b? 777.
pot, jar (MC) *kuàN kuáN* b 777.
potato (LX) *iæN ý* b 544.
potato (MC) *iæN ỳ* b 544.
pouch (of tobacco) (LX) *kà* 1296.
pouch (of tobacco) (MC) *ká* 1296.
pour (some) out (LX) *(sə̀) qò tó* 1805.
pour liquid on, irrigate (LX) *sú* STC 241 *sywar 2038.
pour liquid on, irrigate (MC) *tsuè ʁé* water-m 2038.
pour liquid on, irrigate (MC) *tsuè lè* cf. moisten 2038.
pour liquid on, irrigate (MC) *tsuè phè* 2038.
pour out (MC) *ʂè guí* 1805.
pour/throw out (LX) *(sə̀) ý* 1805.
practice, drill (LX) *lièn dà* b,s 2139.
practice, drill (MC) *soú* 2139.
praise (MC) *tshóu χò* b 2120.
praise (MC) *χà tɛ̂ pû* 2120.
praise (v) (LX) *ià ə̀* 1711.
praise (v) (LX) *nà ə̀* 1711.
praise (v) (LX) *χè ə̀* 1711.
precipitous (LX) *χuè* 1595.
precipitous (MC) *tòu thá* b 1595.
precipitous (MC) *cyæ̀n thá* b? cyæn ~ cỳn 1595.
precipitous (MC) *tshuè tshuè* 1595.
pregnant (LX) *dà lià* 1981.
pregnant (MC) *cè tà ŋá* 1981.
pregnant (MC) *cè pé ŋà* 1981.
prepare (LX) *bú dzì* 2611.
prepare (MC) *tʂùn pì* b 2611.
present (v) (LX) *dà zɨ́* 2483.
present (v) (MC) *dè zɨ̂* 2483.
press (LX) *fià tshá* 2507.
press (MC) *tɕhá* tone can change to HF if pfx. 2507.

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press (oil) (LX) *lì* 2565.
press (oil) (LX) *tshá* b? 2565.
press (oil) (MC) *tʂà* b 2565.
pretend, feign (LX) *á tó ná* 2029.
pretend, feign (MC) *pá pù* 2029.
pretty (LX) *sé* 1512.
pretty (LX) *(tsà) sé* look+pretty 1559.
pretty (MC) *pà ʂé* 1559.
pretty (MC) *pà lió* 1512.
previous generation (MC) *(dè) qè kí* 314.
price (LX) *phù* 803.
price (MC) *phè* 803.
prick, stab (LX) *tsɨ́* 1687.
prick, stab (LX) *tɕhí* 1687.
prick, stab (LX) *tɕí* 1687.
prick, stab (MC) *tsɨ́* tshɨ́= thorn 1687.
principle, reason (LX) *qà ɕý* 987.
principle, reason (MC) *ʐ ì-ué* road-exist (calque) 987.
prison (MC) *khuè-tɕí* dog-home/room 88.
privileged seat (LX) *tɕhì gó* 1063.
privileged seat (MC) *ì qó* 1063.
probably (LX) *qò tɕhé* 2636.
probably (MC) *tăN ɕì* 2636.
probably (MC) *tă khʐ̀* b (?) 2636.
produce (v) (LX) *tshó dà* b? 1731.
produce (v) (MC) *tʂhò thá* b? 1731.
produce fruit (LX) *á zó* 2062.
produce fruit (MC) *ʂè dʐă* 2062.
prop up, support (LX) *tà tì* 1712.
prop up, support (MC) *ì tì* 1712.
prop up, support (MC) *ì tshàn dà* b 1712.
protect, safeguard (LX) *quà* 1651.
protect, safeguard (LX) *zì* 1651.
protect, safeguard (MC) *quà* 1651.
protruding sharply, convex (LX) *tɕhù* tone? 1410.
protruding, convex (LX) *què* 1410.
protruding, convex (MC) *kòŋ thá* b 1410.
protruding, convex (MC) *bòN bó* e.g., mountain on plain, or belly of pregnant woman 1410.
protruding, convex (lumpy) (LX) *tshù* tone? 1410.
pry (LX) *gà* 2253.
pry (LX) *gaŏ dà* b. vcg? cf. găo 'do' (in chin.) 2253.
pry (LX) *qà* 2253.
pry (MC) *ŋăo thà* b? 2253.
puberty (LX) *mì bà* person-big 2317.
pubic hair (MC) *mù* 144.1.
puddle or pool of something (LX) *pià* 1308.
puddle or pool of something (LX) *ʁuá* 1308.
puddle or pool of something (MC) *bò* 1308.
pull (LX) *kù kú* typo!? 2126.
pull (MC) *sɨ́ là* 2126.
pull out (LX) *tɕá* 1728.
pull up (weeds) (LX) *té* 1631.
pull up (weeds) (MC) *tú tyà* 1631.
pull up (weeds) (MC) *tuè* takes sɨ̀ 1631.
pull, drag (LX) *qù qú* 2430.
pull, drag (LX) *sɨ́* 2430.
pull, drag (MC) *sɨ́ là* 2430.
pulse (MC) *mè* b? 163.
pulse (v) (LX) *tshó tà* 2407.
pulse, beat (of heart) (MC) *soú tà* 2407.
pumpkin (LX) *làN kuá* b 549.
pumpkin (MC) *læN kuà* b 549.
pupil of eye (LX) *mì-sè* 104.2.
pupil of eye (LX) *mì-cuà* eye-bright. some speakers 104.2.
pupil of eye (LX) *mə̀ tshà ì* 104.2.
pupil of eye (MC) *mù tié màN pé* 104.2.
puppy (LX) *khù bù lá* 361.
puppy (MC) *khuà là tsú* vowel harmony 361.
purple (LX) *ɳ̊í (χʂ̀ χʂ̀)* 1458.
purse lips (LX) *pí pià* 2183.
purse lips (MC) *duè-(ʂè)-zó* mouth-p-v 2183.
purse lips (MC) *(duè)-piá pià* mouth-v 2183.
pus (LX) *pù* 195.
pus (MC) *pù* 195.
push (LX) *ɕá* 2423.
push (MC) *tshoú thà* b? 2423.
push (MC) *tí* 2423.
push (car, not door) (LX) *ɳ̊ú* 2423.
push down (LX) *tshá* STC 353 *tsyuk 1628.
push down (MC) *fià tɕhà* STC 353 *tsyuk 1628.
push down (MC) *iâ* b? 1628.
push down (MC) *tɕhá* STC 353 *tsyuk 1628.
push forward, promote (LX) *tə̀ mə̀ ɕá* 2424.
push forward, promote (LX) *dà ɕá* 2424.
push forward, promote (MC) *fià tsoŭ* 2424.
push forward, promote (MC) *sè doù dà zɨ̂* 2424.
push forward, promote (MC) *tshoú thà* b? 2424.
put into agreement (LX) *tuè zɨ́* 1890.
put on clothes (LX) *phù-(dì)-tə̀-gù* clothes-POST-p-V 1740.
put on clothes (LX) *zə̀ χé* 1740.
put to bed (LX) *fià-ɳ̊í-zɨ̀* DOWN-bed-CAUS 2358.
put to bed (MC) *fià-né-zɨ̀* DOWN-bed-CAUS 2358.
put to pasture (LX) *cù* 1882.

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put to pasture (MC) *khuè-pià-tiú* dog-pig-m 1882.
Qiang nationality (LX) *mà* 203.
Qiang nationality (MC) *mà* 203.
Qiang priest, shaman (LX) *sɨ́ pí* ~ [spí] 247.
Qiang priest, shaman (MC) *pí* 247.
Qiang watch tower (LX) *ké ʁù* 96.
Qiang watch tower (LX) *tɕé ʁù* 96.
quarrel (LX) *qò quá* ?STC *g-ral 1706.
quarrel (LX) *dé dé* 1706.
quarrel (LX) *ɕí ɕí* 1706.
quarrel (MC) *kuà pú* 1706.
quiet (LX) *ɕó* cf. 'clean' 1544.
quiet (MC) *ì-mí-sì-ɳà-qhuè-mì-té* chicken-not-cluck-and-dog-not-bark 1544.
quilt (LX) *sù thiá* ~ *sù tɕhá* 671.
quilt (MC) *qhué thiò* cover-m 671.
rabbit (MC) *thà ɔ́* [thɔ̌] b? 364.
rack over fire (MC) *qhò* 786.
radish (LX) *lò pú* b 536.
radish (MC) *lò pú* b 536.
raft (LX) *phà tsɨ́* b? 848.
raft (MC) *phà tsɨ́* b? 848.
rafter (LX) *tɕhà* 716.
rafter (MC) *tán phi̯* b? 716.
rain (n) (LX) *meì* STC 443 *r-wa 12.
rain (n) (MC) *mz̩ ì* < mu (weather) + z̩ì. STC 443 *r-wa. Jiuziying mʏ ri. 12.
rain (v) (LX) *dà zì* 2469.
rain (v) (LX) *phá sè* 2469.
rain (v) (LX) *uà* 2469.
rain (v) (MC) *mz̩ ì-ʂè-tɕò* rain-p-come 2469.
rainbow (LX) *mù ɳì-ʁuè* sun-bent.shape 13.
rainbow (LX) *mù ʁuè* 13.
rainbow (MC) *mè χoú* 13.
raise (LX) *tɕhú* 2252.
raise (LX) *tɕaŏ dà* b 2252.
raise (MC) *zó* 2252.
raise (MC) *tɕhó* 2252.
raise (child) (LX) *pɔ́ ɔ̀* 2517.
raise (child) (MC) *mù* 2517.
raise (hand) (LX) *tɕheí* 2084.
raise (hand) (MC) *ʑyá* 2084.
raise (livestock) (LX) *iá* 2516.
raise (livestock) (LX) *pɔ́ ɔ̀* ~ [pɔ:[51]] 2516.
raise (livestock) (MC) *ì pé ɔ̀* ~ [pěz̩] 2516.
raise head (LX) *ʁà* n.b. senses of pfxs 2514.
raise head (MC) *(tæ̀) ʁà* 2514.
raise with hook (LX) *ʁué* 1934.
raise with hook (LX) *tɕhí là* 1934.
raise with hook (MC) *ʁuá* ì ʁwâ 1934.
raise with hook (MC) *koú koú* b 1934.
raise with hook (MC) *koú thà* b 1934.
raise, feed (LX) *mì* 2004.
raise, feed (MC) *tè mù ɳá zì* 2004.
rake (MC) *sɨ̀ tʂào phà* sɨ̀ ~ sɨ̌ 863.
rake (v) (LX) *tshí* 1634.
rake (v) (MC) *phé thà* b 1634.
ram (LX) *iò dò* 342.
ram (MC) *ioù dʑé* 342.
rat, mouse (LX) *zɨ̀ kú* 397.
rat, mouse (MC) *dzé kuè* 397.
read (LX) *só* cf "teach" 1841.
read (MC) *soú* 1841.
real, genuine (LX) *ŋù* n.b. silver is ŋú 1499.
real, genuine (MC) *pè pé* 1499.
really (LX) *χeí χuá* sl=good 2629.
really (MC) *pè pé* 2629.
reason, purpose (LX) *qà pú* 988.
reason, purpose (MC) *ɳá gè lè* 988.
reason, purpose (MC) *kè kè* ? 988.
reason, purpose (MC) *ɳá gì-tʂɨ̀ lè* what-matter 988.
recall (LX) *tə̀ bà ló* 2479.
recall (MC) *tè bè dz̩oû* ~ *tè bè dz̩oú cà* 2479.
receive (LX) *à tsé* 2060.
receive, get (LX) *zí cú* ~ *zɨ̀ cù* 2335.
receive, get (MC) *tè coŭ* 2335.
recent days (MC) *tcà-nə́-sè* these-two-days 1088.
recent days (MC) *tʂà-tɕí-sè* these-few-days 1088.
recently (LX) *tɕà cuà* 1150.
recently (MC) *tcà-tɕì-pú* these-few-years 1150.
recently (MC) *tcà-tɕí-sè* these-few-days 1150.
recently (MC) *tcà nə̀ pù* these-two-years. VH on s2? 1150.
reclaim wasteland (LX) *(zù bá) gà* 2097.
reclaim wasteland (MC) *zuè dzí* 2097.
recline (LX) *à ɕó* also dà- 2383.
recline (MC) *né* 2383.
recognize (MC) *χà sɨ̀* 2343.
recognize (person) (LX) *sɨ́ sɨ́* 2279.
recognize (person) (MC) *χà sɨ̀* 2279.
recognize (word) (LX) *sɨ̀ ~ sɨ́ sɨ́* 2278.
recognize (word) (LX) *só* 2278.
recognize (word) (MC) *zě* 2278.
recognize (word) (MC) *tsɨ́ kè tchè* m1?=Ch zi 2278.
recover (from illness) (LX) *à χeì* 2265.
recover (from illness) (MC) *ù-nà-(qɛ̌)* p-good-s 2265.
recover (from injury) (LX) *à χeì* 2266.
recover (from injury) (MC) *ù-nà-(qɛ̌)* p-good-s 2266.

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red (LX) *cí* STC *(r-)ni. or ?STC n.452 *tya 1454.
red (MC) *nə́* STC *(r-)ni 1454.
redden (LX) *(fià) cì* difft pfxs change sense 1675.
redden (MC) *tè-nə̂* p-red 1675.
redeem, ransom (LX) *(sɻ̀) tchɻ̀ tchá* 2341.
redeem, ransom (MC) *dè coù cá* 2341.
reduce (LX) *fiá gú gú* 2352.
reduce (LX) *fià tù tú* 2352.
reduce (MC) *mí qè uà* 2352.
reduce (swelling) (LX) *(fià) pià (qó)* 2488.
reduce (swelling) (LX) *fiă gù* 2488.
reduce (swelling) (MC) *fià cà* 2488.
reduce, decrease (LX) *fià tsá* 2032.
reduce, decrease (LX) *tchì tchá* 2032.
reduce, decrease (MC) *(fià) pé tchę̀* 2032.
refine (milk) (LX) *tsá* 2141.
refine (milk) (MC) *qà zɨ̀* 2141.
refine (milk) (MC) *(tʂhè) ŋaò thá* m-b(boil)-s 2141.
refine (oil) (LX) *tsá* 2142.
refine (oil) (MC) *(tʂhè) ŋaò thá* m-b(boil)-s 2142.
refine (oil) (MC) *qà zɨ̀* 2142.
regret, repent (LX) *χò χueí* b 1973.
regret, repent (MC) *ʂé χuì* b 1973.
rein in, coerce (MC) *tcí* also tie/strap tightly (difft meaning) STC 484 *kik 2134.
reins (LX) *ʁò-bəì* horse-rope 836.
reins (MC) *ʐòu tá bʐè* 836.
relationship (MC) *dzè dzé* 1017.
relatives (LX) *qà zè* 303.
relatives (MC) *kè dzè* 3d person 303.
relatives (MC) *ù tshì (mú)* 303.
release, set free (LX) *dà-cì* p-v 2327.
release, set free (LX) *sɨ̀-cì* p-v 2327.
release, set free (MC) *dè lĕ* 2327.
religion (MC) *sé-dzà* god-believe 960.
reluctant (to part) (LX) *miè ʁó* 2311.
reluctant (to part) (MC) *tʂó* 2311.
reluctant (to part) (MC) *ʂì pù tè* 2311.
rely on (LX) *ʁuà lí* 2527.
rely on (LX) *khao^{35}-dà* b-s 2527.
rely on (MC) *khó* 2527.
remember (LX) *cì qó lò* 2019.
remember (LX) *cì qə́* 2019.
remember (LX) *tcí dà* b 2019.
remember (MC) *tè-tcí-thà-cà* p-b-s-s 2019.
remember (MC) *tcí-thà-ʐà* b-s-s 2019.
rent (LX) *zù phù* b,do 808.
rent (field) (LX) *tsè dá* b? 2616.
rent (field) (MC) *tăn thà* b 2616.
rent (house) (LX) *tsè dá* b? 2617.
rent (house) (MC) *(tcí) tàn thà* house-b-s 2617.
repair (clothing) (LX) *pà cì* 1679.
repair (clothing) (MC) *pè* 1679.
repair (machine) (LX) *coú dà* b 2500.
repair (machine) (LX) *pà cì* 2500.
repair (machine) (LX) *pó pó* 2500.
repair (machine) (LX) *pù* b 2500.
repair (machine) (MC) *pù* b 2500.
repair (machine) (MC) *phei tʂɨ* 2500.
repair (pot) (LX) *pà cì* 1680.
repair (pot) (MC) *pè* 1680.
repair (shoes) (LX) *pà cì* 2501.
repair (shoes) (MC) *pè* 2501.
repay (LX) *phé* 1703.
repay (MC) *dæ̀ bă* 1703.
replace, substitute for (LX) *χù kə̀* 1792.
replace, substitute for (MC) *là tshɨ̀* 1792.
report on someone (LX) *lá* 1919.
report on someone (MC) *(ʂè) diú* 1919.
report on someone (MC) *lé* 1919.
report on someone (in writing) (MC) *nè (pù)* 1919.
reputation (LX) *qə̀ tshuè* 1003.
reputation (MC) *mè sè* 1003.
rescue, save (LX) *tcoŭ dà* b 2081.
rescue, save (MC) *(tè) tcoù* 2081.
resemble (LX) *ʁuă* 2482.
resemble (MC) *bú tà* 2482.
reserve (seed for planting) (LX) *dzuá* 2154.
reserve (seed for planting) (LX) *tshú* notes 2154.
reserve (seed for planting) (MC) *tɨ̀* =/ə/ 2154.
reside, dwell (LX) *ì* 2082.
reside, dwell (MC) *fiă zì* 2082.
resin (LX) *pié zù* 487.
resin (LX) *piá zù* 487.
resin (MC) *miá-mà* pine-oil 487.
resist (LX) *phé* 1813.
resist (LX) *à quá* 1813.
resist (LX) *qù cù* =1801 1813.
rest (LX) *bà ì* 2499.
rest (LX) *ʁə́ là* 2499.
rest (MC) *(bà) diè* 2499.
retreat (LX) *(fià) thueí* 2426.
retreat (MC) *gè gú pù* 2426.
return (MC) *gú* 1989.
return (CAUS) (LX) *zɨ̀ gó zɨ̀* 1990.
return (CAUS) (MC) *gú zɨ̀* 1990.
return (curtain) (LX) *phé* 1983.
return (curtain) (MC) *tù bà* 1983.
return (fountain pen) (LX) *zí* 1984.

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return (fountain pen) (MC) *piɛ̀ bà* 1984.
return item (MC) *tù bà* 1984.
return purchase (LX) *(fià) thueí* b. also takes sɨ̀-, dà- 2427.
return purchase (MC) *dè thuì* b. tone varies w/ tense, agr 2427.
return to a place (LX) *suè* 1989.
return to a place (LX) *(à) lò* 1989.
return to a place (LX) *(zɨ̀) gó* 1989.
revolve (LX) *suè* b? 2503.
reward (LX) *phé* 1654.
reward (MC) *là tsɨ̀ pù* 1654.
rib (LX) *χá ɹà* 168.
rib (MC) *lè pá* 168.
rice (cooked) (LX) *tò qhuá* 575.
rice (cooked) (LX) *mà má* 575.
rice (cooked) (MC) *mà má* 575.
rice (cooked) (MC) *tɕhò* 575.
rice (uncooked) (LX) *tsheì* 574.
rice (uncooked) (MC) *tɕhì* 574.
rice gruel (LX) *zò tí* 579.
rice gruel (LX) *(mà má) zò* b? 579.
rice gruel (MC) *dzè dzé* 579.
rice plant (LX) *qə̀ mà* 515.
rice straw (LX) *tshì pú* 517.
rich person (MC) *ŋá mù* 234.
rich, wealthy (LX) *ɔ́ pù* 1538.
rich, wealthy (MC) *ŋá mù* 1538.
riddle (LX) *tshè mì tsɨ̀* b 936.
riddle (MC) *tshè mí tsɨ̀* b 936.
ride (horse) (CAUS) (MC) *tsà zɨ̀* 2241.
ride, straddle (LX) *tsà* STC 72? *dzyon 2240.
ride, straddle (MC) *tsà* STC 72? *dzyon 2240.
ridge of land (CL) (LX) *thò* 1247.
ridge of land (CL) (MC) *sú* =mountain 1247.
ridge of land (CL) (MC) *lié* 1247.
right (hand) (LX) *phà tó qò* 1046.
right (hand) (MC) *dá* STC p34 *g-ya ~ *g-ra 1046.
rightward (MC) *dá fià cá qhuà* 1046.1.
ring finger (LX) *liè-ná* m-good 139.
ring for cow nose (LX) *sɨ̀-tí kù* m-round 840.
rip (v) (LX) *phú phú* 2362.
rip (v) (LX) *phú phá* 2362.
rip (v) (MC) *ʂè phù phɔ̀* 2362.
ripe (LX) *(fià) mù* STC 432 *s-min 2345.
ripe (LX) *fiă peì* cf. "old" 2345.
ripe (MC) *(fià) mù* STC 432 *s-min 2345.
rise (LX) *tə̀ sì* 2324.
rise (LX) *tə̀ là* 2324.
rise (MC) *tè tɕò* "come up" 2324.
river (LX) *tsò qhà* 31.
river (MC) *sé-tsuè* m-water 31.
river (CL) (LX) *zá* 1232.
river (CL) (MC) *tó* 1232.
riverbank (LX) *qhuà cì* ?STC *klu·ŋ 32.
riverbank (MC) *dè pià* 32.
riverbank (MC) *fià zɨ̀* 32.
riverbank (MC) *dè tí* 32.
road (LX) *ỳ tò* 41.
road (MC) *ʐ̩ì* 41.
roar (lion) (LX) *cí* 2052.
roar (lion) (LX) *ŋú* STC 261 *u 2052.
roar (lion) (LX) *qà ɹà* "speak" 2052.
roar (lion) (LX) *té tá* 2052.
roar (lion) (MC) *zĕ* 2052.
roar (tiger) (LX) *té tá* 2051.
roar (tiger) (MC) *zĕ* 2051.
rob (LX) *bú bá* 2250.
rob (LX) *(dà) quà có* 2250.
rob (MC) *zɨ̀ tà* 2250.
robber (LX) *bú bá mù* 251.
robber (MC) *mɛ̀ zɨ̀ tá mò* 251.
rock (LX) *ʁò piá* 28.
rock (CL) (LX) *ʁò* ?other forms? 1261.
rock (CL) (LX) *fiò* 1261.
rock (CL) (MC) *qó* 1261.
rock, boulder (MC) *ʐ̩á bʐ̩à* 28.
rock, sway (LX) *mə̀ cà* 2518.
rock, sway (LX) *lì lá* 2518.
rock, sway (MC) *iaò thá* b,s 2518.
rock, sway (MC) *pè lá* 2518.
rod, stick (LX) *ʁuà lí* 822.
rod, stick (MC) *pàN páN* m~N 822.
roll (of fabric) (LX) *ʁù* 1282.
roll (of fabric) (MC) *qhuè* 1282.
roll (v) (LX) *lè cà* 1952.
roll (v) (LX) *qò liú* 1952.
roll (v) (MC) *guìn* b 1952.
roll around, writhe (LX) *qò lý* ?STC *349 *kor 1784.
roll around, writhe (MC) *tàn kuì* 1784.
roll around, writhe (e.g., tantrum) (MC) *bì pù* 1784.
roll over (body) (LX) *dò gò* 1872.
roll over (body) (MC) *tɛ̀ lə̀ cà* 1872.
roll up (fabric) (LX) *lỳ lý* 2086.
roll up (fabric) (MC) *quà lió* 2086.
roll up, curl up (as cat) (LX) *tù tú* 2087.
roll up, curl up (as cat) (MC) *ì-qŏ* 2087.
roller for mill (LX) *zuà kù* 889.
roller for mill (MC) *ɳ̩ĭŋ tsɨ̀* b 889.
roller for mill (MC) *ɳ̩ə̆N tsɨ̀* b 889.
roof (LX) *iá tò* 684.

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roof (MC) *tɕí-tìN pò* house-tip 684.
roof (flat) (MC) *tɕì ʐá (qà)* 684.
rooms (CL) (MC) *qà* =home 1304.
rooster (LX) *ỳ qú* 366.
rooster (MC) *ì qóu* 366.
root (LX) *kà pú* STC 238 *kywiy 470.
root (MC) *(phò) kè kè* STC 238 *kywiy 470.
root (v) (LX) *dó gó* 1933.
root (v) (LX) *tchú* 1933.
root (v) (MC) *bí* 1933.
rope (LX) *beì* 868.
rope (CL) (LX) *ə̀ ~ ə́* 1233.
rope (CL) (MC) *dʐ́ í* 1233.
rope, string (MC) *bʐ́è* 868.
rotten (LX) *tɕý qá* 1902.
rotten (MC) *tsuè qá* 1902.
rough (MC) *tshù là* b? 1488.
rough (flour) (LX) *tshù* b? 1488.
rough (food) (LX) *tchà* 1488.
round, circular, spherical (LX) *bà dí* STC #172 *bwam 1432.
round, circular, spherical (MC) *ỳn thá ~ yàn thá* b 1432.
row (boat) (LX) *χuà dà* b 1976.
row (boat) (LX) *tshɨ́* 1976.
row (boat) (MC) *tʂhuàn dzó* b,s2=?sit 1976.
row (of houses) (LX) *uá* 1298.
row (of houses) (LX) *thuà* 1298.
row (of houses) (MC) *lú* 1298.
row (of houses) (MC) *phè* 1298.
row of grain (CL) (LX) *lú ~ lŭ* 1252.
row of grain (CL) (MC) *lú* 1252.
rowdy (LX) *laó zè* b 1543.
rowdy (MC) *laŏ ʐèN* b 1543.
rub, abrade (LX) *tshɨ́ tshɨ́* b? 2187.
rub, abrade (MC) *tè mô* b? 2187.
rub, abrade (MC) *tè tshɨ́ thà* b 2187.
ruin, fail (of wheat) (LX) *ʁlà* 2199.
ruin, mess up (LX) *tə̀ phə̀ lá* 2199.
ruin, mess up (MC) *tè lə̀ tà zɨ́ ɨ́ ~ [ɨ̂]* 2199.
ruined (clothes) (LX) *dà bià* 2229.
ruined (clothes) (MC) *qhà là* 2229.
ruined (clothes) (MC) *qhà là* 2229.
ruined (clothes) (MC) *(phù)-(ʂè)-phù phə̀* clothes-pfx-ruin 2229.
ruined (house) (LX) *fià bià* 2230.
ruined (house) (MC) *(tɕí ʂà) qhà là* 2230.
ruined (house) (MC) *ʂè dʐ́ uà* 2230.
rule, custom (LX) *kuèi tɕỳ* b 998.
rule, custom (MC) *kueí tɕỳ* b 998.
ruler (LX) *tshɨ́ tsɨ̀* b 811.
ruler (measure) (MC) *zè tè* 811.
run (LX) *tshì tshì* 2214.
run (MC) *ʂè dʐ́ í* 2214.
run away, duck (LX) *dà phó* 1855.
run away, duck (LX) *dà ʁà à pià* 1855.
run away, duck (MC) *kuò* 1855.
rush, dash (LX) *qeí tché* 1725.
rush, dash (MC) *kàn ʂí* b 1725.
rust (LX) *cà-gù* iron-v (cf. 'wrinkle') 64.
rust (LX) *cà tsɨ̀* 64.
rust (LX) *cà-qhə̀* iron-feces 64.
rust (MC) *guì* 64.
rust (v) (LX) *zə̀ ɳì* 2318.
rust (v) (LX) *zɨ̀ zú* VH? 2318.
rust (v) (MC) *dè dzô* 2318.
rust (v) (MC) *guì-dè-ə̀* rust-p-v 2318.
s/he (LX) *tsɨ̀* 1366.
s/he (MC) *fià lí* 1366.
s/he (MC) *fià qó* 1366.
s/he (MC) *fià í* 1366.
sad (LX) *kù tchí* b? 1588.1.
saddle (LX) *ʁò zú* 825.
saddle (LX) *ŋán tsɨ̀* b 825.
saddle (MC) *ŋáN tsɨ̀* b 825.
salary, wages (LX) *dzí gù* =money 804.
salary, wages (MC) *dʐ́à qà phé* 804.
saliva (LX) *piă* 192.
saliva (MC) *tsù-ʐ́é* water-m 192.
salt (LX) *tshɨ́* sometimes appears to have a High-Falling tone. STC 214 *tsa 71.
salt (granulated) (MC) *tshɨ̀-bé* salt-powder 71.
salt (lump) (MC) *tshɨ̀* STC 214 *tsa 71.
salty (MC) *tshɨ̀-qhá* salt-bitter 1530.
salty (enough) (MC) *dzú* ?STC 245 *g-ryum 1530.
sand (MC) *ʂà-bé zɨ̀* b-powder 48.
sausage (LX) *nì pù* 584.1.
sausage (LX) *tshɨ̀ pù* 584.1.
save (money) (LX) *tshú* 2321.
saw (LX) *cà qhò* 853.
saw (MC) *kè ʐ́ í* 853.
saw (v) (LX) *qhò* 2083.
saw (v) (MC) *tʂhù tʂhuá* 2083.
scald, burn (LX) *thò* 2384.
scald, burn (MC) *ʂè thè thoŭ* 2384.
scar (MC) *tsà-pà* m-b(?) 155.
scatter, break up (LX) *dà phó* STC 254 *be ~ *pe 1770.
scatter, break up (MC) *dè phù phû* 1770.
scatter, break up (MC) *tè săn thà* m2=b 1770.
scattered (pearls) (LX) *dà phà ʁà* STC *bra 2291.
scattered (pearls) (LX) *dà ʁò* ?STC *bra 2291.

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scattered (pearls) (MC) *ʂè phù seì* 2291.
scent (LX) *lə̀* 22.
scent (MC) *χoù* 22.
school (MC) *dzɨ́ só bà* 83.
scissors (LX) *cà pò* 816.
scissors (MC) *tɕìn tò* b 816.
scold, abuse (LX) *zɨ́ tà* 2166.
scold, abuse (MC) *dɨ́* 2166.
scoop (LX) *tɕhà qù* 876.
scoop (MC) *tshuɛ̀-tɕì* water-m 876.
scoop (water) (LX) *(tsù)-zá* water-scoop 2523.
scoop (water) (MC) *zá* 2523.
scorpion (MC) *mè tsì-bò lò* m-bug STC 56 *(s-)di·k 447.
scrappy, fragmentary (LX) *qà lí phà tsà* 1611.
scrappy, fragmentary (LX) *qà lí qà tɕhà* 1611.
scrappy, fragmentary (MC) *tɕà mé à diè* 1611.
scrappy, fragmentary (MC) *fià mé à diè* 1611.
scratch (in dirt) (LX) *phà dá* b 2206.
scratch (in dirt) (LX) *phà lá* ?STC 230 *hyak 2206.
scratch (in dirt) (MC) *phiá* ?STC 230 *hyak 2206.
scratch (in dirt) (MC) *(bɛ̀ zɨ́)-χá-thà* dirt-b-s 2206.
scrotum (LX) *bə̀* 145.1.
scrotum (MC) *tà pò* 145.1.
sculpt (LX) *ʁí* 1819.
sculpt (MC) *thiò* 1819.
season (LX) *suà* 1165.
season (LX) *cuà* 1165.
second (LX) *nə̀ ə̀ χé* 1220.
second of month (LX) *nə̀ tɕó* 1119.
second of month (MC) *nə̀ tiù* 1119.
secret (n.) (LX) *mà cuá* 1006.
section (of bamboo) (LX) *zuè* 1276.
section (of bamboo) (LX) *sá* 1276.
section (of bamboo) (MC) *sà* 1276.
section (of bamboo) (MC) *tsuá* 1276.
section (of road) (LX) *sá* 1275.
section (of road) (LX) *zá* 1275.
section (of road) (LX) *zuè* cf. MC 'road' 1275.
section (of road) (MC) *sà* 1275.
sedan chair (LX) *χuà qhə́* b? 844.
sedan chair (MC) *χuà khə́* b? 844.
sedan chair (MC) *tɕào tsɨ́* b 844.
see (LX) *à tɕó* 2103.
see (MC) *tiú (cà)* 2103.
see patient (LX) *iá tsà* 2105.
see patient (MC) *dzí sɨ́ (kì)* 2105.
see patient (MC) *dzí qè tɕè* 2105.
seed (LX) *dzueì* 514.
seed (MC) *(zá)-zueì* food-seed 514.
seed (MC) *zueí-zà* seed-food 514.
seek (LX) *mú lià* 2506.
seek (MC) *mú lià* 2506.
seek (MC) *mú mià* 2506.
seep into (LX) *tɕà qá* 2364.
seep into (MC) *fià thoú thà* b? 2364.
select (LX) *cí qá* 2402.
select (MC) *sè qá* 2402.
self (LX) *iò mó* 1372.
self (MC) *ké zì* b? 1372.
sell (LX) *cuà* 2174.
sell (MC) *tɛ̀ pò* 2174.
send (letter) (LX) *piá* 2567.
send (letter) (LX) *zà* 2567.
send (letter) (MC) *piá* 2567.
send (letter) (MC) *pà mà* 2567.
send someone off (LX) *cì* takes all pfxs 2373.
send someone off (MC) *lè (kî)* 2373.
sentence (CL) (LX) *qú* ? STC *ka 'word' 1266.
sentence (CL) (MC) *qú* ? STC *ka 'word' 1266.
separate, part (CAUS) (LX) *tə́ qá tshé* fià. tone on p. varies ˋ ˊ . 1895.
separate, part (CAUS) (MC) *ʂè ʐɨ́ ʐoú zɨ́* 1895.
separate, sever (LX) *qá tshé* STC 229 *dzya·l. cf. 'ride' 1894.
separate, sever (MC) *kiè ká* 1894.
separated (by a river) (LX) *tɕhá* ?STC 229 *dzya·l 1925.
separated (by a river) (MC) *(tsuè) à-qù-fià-liŭ* one-CL-p-cross(?) 1925.
separated from, scattered (LX) *tə́ dzuá* 1771.
September (LX) *gú lə́* calque 1131.
September (MC) *gù lə́* calque 1131.
servant (MC) *mɛ̀ ʁuà mú* 231.
serve as (LX) *tań dà* b 1724.
serve as (LX) *suá* 1724.
serve as (MC) *qè ʐá* 1724.
serve as (soldier) (LX) *pù* 'do' 1800.
serve as (soldier) (LX) *tàn dà* b 1800.
serve as (soldier) (LX) *(guà) kə̀* 1800.
serve as (soldier) (MC) *dzyɛ́-kè* soldier-go 1800.
sesame (MC) *tʂí mà* b 561.
sesame oil (LX) *sò í-χó* oil-fragrant 593.
sesame oil (LX) *χó-sò í* fragrant-oil 593.
sesame oil (MC) *tʂí mà-má* b-oil 593.
set (sun) (LX) *tshò* 2164.
set (sun) (LX) *dà* 2164.
set (sun) (LX) *sì* 2164.

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set (sun) (MC) *fià dà* 2164.
set of steps (LX) *ʁò tì (kà)* b? 717.
set of steps (MC) *lò thì* b 717.
set on fire (LX) *zə mᵱ cì* 1884.
set on fire (MC) *tsú* 1884.
seven (LX) *cí* STC *s-nis 1180.
seven (MC) *nə́ qò* STC *s-nis 1180.
seventeen (LX) *fiá cí* 1190.
seventeen (MC) *fià nə̀* tone change from 'seven' 1190.
seventh (LX) *cí ɔ́- χeì* 1225.
seventy (LX) *cí sá* 1203.
seventy (MC) *nɨ́ sà* /nə/? 1203.
seventy-one (LX) *cí sá à* 1204.
seventy-one (MC) *nɨ́ sà ɳà à qó* 1204.
sever, cut off (LX) *dà bà* 1923.
sever, cut off (MC) *ʂè-phɔ̌-* p-v 1923.
sever, cut off (MC) *ʂè-liá* p-v ?STC 351 *lep 1923.
sever, cut off (MC) *ʂè-tshoŭ* p-v. ?STC 240 *tsywar 1923.
sew (LX) *ɻà í* ?STC p41, 56 *krwi. ?STC 456 *d-rup 1896.
sew (MC) *ʐ̩ ì* STC p41 *k(h)rwi. aspiration is for Kuki-Naga. ?STC 456 *d-rup 1896.
shadow (LX) *cuá qá* cf. 'bright' 1028.
shadow (MC) *bì* =picture 1028.
shake (head) (LX) *lì lá* 2519.
shake (head) (MC) *peí tià* 2519.
shake hands (LX) *tsé* 2453.
shake hands (MC) *ì pá-zò pà* hand-m 2453.
shake out (dust) (LX) *phá tè* 1831.
shake out (dust) (MC) *thoù thá* b? 1831.
shallow (LX) *tɕhá* 1425.
shallow (MC) *mì ɳá* 1425.
sharp (LX) *tɕà* 1468.
sharp (MC) *tsè* tsè (younger speaker). ɛ/e not a stable distinction 1468.
sharpen (LX) *tɕà-iù-sù suà* knife-m-sharpen 2186.
sharpen (MC) *sù* ?STC 180 *s(y)wiy 2186.
shave (LX) *khuá* 1940.
shave (LX) *tɕhì* b 2395.
shave (MC) *(mù) tʂhuá* hair-shave 1940.
shave (MC) *thí* b 2395.
shave (MC) *kuá* b 1940.
sheath (LX) *cà tshueì* 894.
sheath (MC) *táo-cà tsɨ́* knife (b) - m 894.
shed (MC) *phòŋ tsɨ́* b 93.
shed (skin) (LX) *(ɻà) qhú* STC 342 *r-kwak 2429.
shed (skin) (LX) *ɻà* 2429.
shed (skin) (LX) *qhú* STC 342 *r-kwak 2429.
shed (skin) (MC) *ʁè* 2429.
shed (tears) (LX) *cì* 1823.
shed (tears) (LX) *lò* 1823.
shed (tears) (MC) *ʂé ɳù* = 'come out' 1823.
shed (tears) (MC) *ʂé tɕŏ* 'come' 1823.
sheep (LX) *ió* 341.
sheep (MC) *ioú* 341.
sheep shed (LX) *tɕhá-iuá kù* sheep-b 699.
sheep shed (MC) *tshè ʐ̩é* 699.
sheepskin vest (LX) *phà ɻà* 647.
sheepskin vest (MC) *tshé-ʐ̩à-phà dʐ̩à* sheep-skin-vest 647.
sheet of paper (CL) (LX) *tshè* 1235.
sheet of paper (CL) (MC) *tshí* b? 1235.
shepherd (MC) *tshè tiù mú-kæ̀ bʐ̩ ì* shepherd-child 235.
shin (MC) *tɕhòN kàN kàN* 128.
shine upon (of sun) (LX) *mə cí zé* 2581.
shine upon (of sun) (LX) *mə cí qhuà* 2581.
shine upon (of sun) (MC) *dʐ̩ í* ?STC 187 *tśar 2581.
shiny black (LX) *mú χuà χuà* 1599.
shiny black (MC) *mú dzò qè lì* 1599.
shiny blue (LX) *phú tù tù* 1605.
shiny blue (LX) *peí tsɻ̀ tsɻ̀* 1605.
shoe (LX) *tsuá χà* 652.
shoe (MC) *bɛ̀ tsɨ̀* 652.
shoe (CL) (LX) *zɨ́* 1278.
shoe (CL) (MC) *zà* 1278.
shoes made of grass (LX) *tshaò-χé* b-shoe 653.
shoes made of grass (MC) *tshò-χé* b-shoe 653.
shoot (v) (LX) *qhò* 2312.
shoot (v) (MC) *lə tʂhà* 2312.
shoot target (LX) *dà uà* 2313.
shoot target (MC) *dɛ̀ uɛ̀* 2313.
shop, store (MC) *diăn tsɨ̀-qà* b-place 84.
shop, store (MC) *kóŋ sɨ́-qà* b-place 84.
short (of length) (LX) *ɳà* 1415.
short (of length) (MC) *dzuà dzuà* 1415.
short (of stature) (LX) *bè* 1412.
short (of stature) (MC) *bɛ̀* 1412.
short month (MC) *lə̀-tsú* month-small 2637.
short pants (MC) *iaò khù* m-b 641.
shorts (LX) *iò khú* b? 641.
shoulder (LX) *liá χá* 117.
shoulder (MC) *ì χé* 117.
shoulder (v) (MC) *tueì* 2106.
shoulder (vt.) (LX) *tuè* 2106.
shoulder pole (MC) *pièn táN* b 867.
shout, yell (LX) *cí cí* 2272.

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shout, yell (MC) *zè* 2272.
shout, yell (MC) *qə̂* 2272.
shovel (LX) *cà piá* 858.
shovel (MC) *tɕhuàn tsɨ* b 858.
shrink (LX) *ŋuè* 2334.
shrink (LX) *tù tú* STC p49 *twan 2334.
shrink (MC) *ì qǒ* 2334.
shrink (MC) *dè bʐù bʐí* 2334.
shriveled, shrunken (LX) *pià qó* flat? 1428.
shriveled, shrunken (MC) *ʐí kuà* 1428.
shuttle (LX) *sò ʁò* 891.
shy (LX) *zá qhú* ?STC *śrak, ?STC 162 *kyeŋ 1957.
shy (MC) *dzá khù* ?STC *śrak, ?STC 162 *kyeŋ 1957.
sick, ill (LX) *tə̀ iá* 1678.
sick, ill (MC) *dzí* also, "pain" ?STC *tsa 1678.
sickle (LX) *cà-teí* iron-m 878.
sickle (MC) *cì-dé* knife, iron-m 878.
sickle (MC) *cì dè-tsú* knife-small 878.
side, beside (LX) *piá pú* 1044.
side, beside (MC) *liè zì* 1044.
sieve (LX) *sà tshè* b? 885.
sieve (MC) *ʂaì tsɨ* b 885.
sift (LX) *sé lá* 2299.
sift (LX) *tɕhà* 2299.
sift (MC) *tɕhɨ ʂé là ~ tɕhɨ ʂè lá* 2299.
silk thread (MC) *ʁuè sè lì* 621.
silk, satin (LX) *ʁuè* 622.
silk, satin (MC) *ʁuè* 622.
silver (LX) *ŋú* 60.
silver (MC) *ŋó* 60.
silver coin (LX) *ŋú (sàn dzé)* 800.
silver coin (MC) *ŋó-tɕìn tsè* silver-money 800.
similar (LX) *à ká* 1550.
similar (MC) *à mé kì lè* 1550.
simmer (LX) *qó ~ qò* 1853.
simmer (LX) *tshú* 1853.
simmer (MC) *tə̌n-thà* b-s 1853.
simmer (MC) *qà* 1853.
sing (LX) *tshuá* 1704.
sing (MC) *tʂàN-thà* b-s. m1 also tʂə̌N 1704.
singe, scorch (LX) *cí qhá* 2039.
singe, scorch (MC) *té tɕǐ* 2039.
sink (v) (LX) *fià tì* ?STC 375 *lip 1709.
sink (v) (LX) *fià tsɨ* 1709.
sink (v) (MC) *fià cə̌* 1709.
sisters (LX) *sà tsù* 293.
sisters (LX) *sà ȵì* preferred form. ?STC 271 *na·w 293.
sisters (MC) *sà nə̀* STC 271 *na·w 293.
sit (LX) *fià zú* à-zù = "please sit" 2621.
sit (MC) *dzó* 2621.
six (LX) *tsú* STC 411 *d-ruk 1179.
six (MC) *tʂóu qò* STC 411 *d-ruk 1179.
sixteen (LX) *fá tsú* 1189.
sixteen (MC) *fià tʂhòu* aspirated (!) 1189.
sixth (LX) *tsú ɔ́ χeì* 1224.
sixty (LX) *tsú sá* 1201.
sixty (MC) *tʂóu sà* 1201.
sixty-one (LX) *tsú sá à* 1202.
sixty-one (MC) *tʂóu sà ȵà à qó* 1202.
size (LX) *tsá-bà* small-big 1619.
size (MC) *bʐà-bʐí* big-small 1619.
size (LX) *bà-tsá* big-small 1619.
skill (LX) *cì zɨ* 1016.
skill (MC) *mè-ʁuá* person-help 1016.
skill, technique (LX) *tshà tshà* 1020.
skill, technique (MC) *ì pá-bʐú* hand-high/small 1020.
skilled, proficient (LX) *bú ɻà* 2342.
skilled, proficient (MC) *ŋuè* cf. 'know' 2342.
skillful (LX) *χò sɨ* b 1584.
skillful (MC) *ì pá bʐú* hand-high/small 1584.
skin (human) (LX) *ɻà piá* 150.
skin (human) (MC) *tshé pià* 150.
skin (v.) (LX) *qhuá* STC 342 *r-kwak 1648.
skin (v.) (LX) *ɻà qá* STC 342 *r-kwak 1648.
skin (v.) (MC) *ʐá qà* STC 342 *r-kwak 1648.
skin, hide (LX) *ɻà pià* 331.
skin, hide (MC) *ʐà piá* 331.
skirt (MC) *tɕỳn tsɨ* b 640.
sky (LX) *mù tó* STC 488 *r-muw 1.
sky (MC) *mú pià* STC 488 *r-muw 1.
slander (LX) *phià* 1996.
slander (LX) *qà tsò* 1996.
slander (MC) *mè phí* 1996.
slander (MC) *mè yæN uàn* b? 1996.
slanting, tilted (LX) *qhuá* tones? 1450.
slanting, tilted (MC) *qè tshué* 1450.
slaughter (LX) *tsò tsó* 2254.
slaughter (MC) *tsɨ tɕá* tone change with DO 2254.
slave (LX) *ká pù* 232.
slave (LX) *ké pù* 232.
slave (MC) *mè ʁuà mú* 232.
sleep (v) (LX) *(fià) mà zè* also takes à-. ?STC 197 *myel 2359.
sleep (v) (MC) *ú zè* CMD-sleep 2359.
sleepy (LX) *fià ʁò* 2125.
sleepy (LX) *zù zuá* redup! 2125.
sleepy (MC) *qè tuá* re-check 2125.
sleeve (LX) *phà lì* 628.
sleeve (MC) *phè ì* 628.

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slice (meat) (LX) *qhó* 1920.
slice (meat) (LX) *cá* 1920.
slice (meat) (LX) *tshó* 1920.
slice (meat) (MC) *liá* ?STC 351 *lep 1920.
slippery (MC) *liú thạ* b 1490.
slippery (MC) *(ʐ̩ ǐ) nà* 1490.
slotted spoon (LX) *zɨ́ zà* 768.
slotted spoon (MC) *loù phiaò* b 768.
slow (LX) *à tchá tchà* 1465.
slow (MC) *tó tuì* 1465.
slow (MC) *phiè thá* b. ~ phì 1465.
slow! (MC) *à khà tsɨ́* some speakers 1465.
slow! (MC) *à qhà tsɨ́* 1465.
slowly (LX) *à tchá tchà* 2627.
slowly (MC) *à qà tsɨ́* 2627.
small (LX) *tcí* 1405.
small (LX) *tsá* 1405.
small (MC) *bʐ̩ù bʐ̩ í* 1405.
small clump of trees (CL) (LX) *lòN* 1250.
small rooms (CL) (LX) *sá* 1304.
smallpox (LX) *ɻà zò* 157.
smallpox (MC) *deì mià* 157.
smash to bits (LX) *dʑí* 1807.
smash to fine bits (MC) *tè bé bè (zì)* 1807.
smash to fine bits (LX) *dzà* 1807.
smear, rub (LX) *phà sè* 1689.
smear, rub (MC) *phù ʂà* 1689.
smell, sniff (LX) *uàn dá* b,s 2450.
smell, sniff (LX) *cí dà* b 2450.
smell, sniff (MC) *mí* 2450.
smelling of urine (LX) *tshù* 1534.
smelt (LX) *ʁá* 2143.
smelt (LX) *dzù* 2143.
smelt (MC) *cì-guí* iron-m VH? 2143.
smoke (LX) *mù khú* STC 256 *kuw 21.
smoke (MC) *dá* 21.
smoke (a cigarette) (LX) *tchí* "drink" 1729.
smoke (a cigarette) (LX) *qú (tà)* pucker/suck 1729.
smoke (a cigarette) (MC) *thyé* 1729.
smoke meat (LX) *khú khú* STC 256 *kuw 2505.
smoke meat (LX) *tchú dà* b? 2505.
smoke meat (MC) *qhoù* preferred form? STC 256 *kuw? 2505.
smoke meat (MC) *tchó thà* b? 2505.
smooth, slippery (LX) *χà* 1487.
smooth, slippery (MC) *yé* 1487.
snail (LX) *bù-lià* bug-bark(?) 464.
snail (MC) *á pù khè nì nì* 464.
snake (LX) *bù tshɨ* STC 27? ?STC 447*b-ru·l 428.
snake (MC) *bʐ̩ě* STC 447 *b-ru·l 428.
snare (n) (LX) *sà ɳ̩ì* 'thread' 907.
snare (n) (MC) *sè lì* 'thread' 907.
sneeze (LX) *á tshù-pù* sneeze (onomat!)-do 1782.
sneeze (MC) *á thiaò-pù* m-do 1782.
snore (LX) *mà zè-qhuà* sleep-snore 1787.
snore (MC) *mè-zè-qhuá-pù* sleep-sleep-snore-do 1787.
snot (LX) *tí* STC 101 *s-na 193.3.
snot (MC) *nè* STC 101 *s-na 193.3.
snow (LX) *peì* 14.
snow (MC) *mù pà* 14.
snow (v) (LX) *dà zì* (can be used for hail, too) 2471.
snow (v) (MC) *ʂè tcò* 2471.
snow pig (LX) *pè pià* 394.
soak into (LX) *tì* 2257.
soak into (LX) *pà* 2257.
soak into (MC) *tè* 2257.
soak into (MC) *thoû, fià thŏu thà* b 2257.
soak, immerse (LX) *tə̀* 2076.
soak, immerse (MC) *fià tĕ ~ fiă té tè* 2076.
soap (LX) *ì tsɨ* 731.
soap (MC) *iæN tcè* b ("foreign alkali") 731.
sock (LX) *ʁuà tsɨ* b 651.
sock (MC) *uá tsɨ* b 651.
soft (LX) *mà mà* 1485.
soft (MC) *zà là* 1485.
soft (MC) *ʐ̩òŋ χò* b 1485.
soldier (LX) *guà-(χá)* soldier-green 223.
soldier (MC) *dzyè* 223.
sole of foot (LX) *gɻò cì* 129.2.
sole of foot (LX) *guà cì* 129.2.
sole of foot (MC) *goù pà* STC 418 *pwa 129.2.
solid, durable (LX) *gù* 1495.
solid, durable (MC) *ʂé* 1495.
solidify (LX) *tò* 2191.
solidify (MC) *dè tʂhù* also tʂhŭ 2191.
solidify (MC) *tè kè* 2191.
solidify (MC) *dè nĭŋ tò* s2=b? 2191.
some, a few (LX) *nà dzé* people 1354.
some, a few (LX) *nà fió* 1354.
some, a few (MC) *ɳ̩à qó* 1354.
some, a few (MC) *à tcí qò* 1354.
some, a few (long things) (LX) *nà ɔ́* 1354.
son (LX) *tcì* STC 59 *za 277.
son (MC) *tsɨ* 277.
son-in-law (LX) *tcì mià* STC 324 *ma·k 280.
son-in-law (MC) *tsɨ mià* 280.
song (LX) *zə́ mú* cf. "speech" 939.
song (LX) *là sà* 939.
song (CL) (LX) *sá* 1267.

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song (CL) (MC) *tuăn* b. 1267.
song (CL) (MC) *qú* 1267.
song (CL) (MC) *sà* 1267.
sore (to get a) (MC) *mù-sè χué* 154.
sore, wound (n.) (LX) *qò lò* 154.
sore, wound, scar (n.) (LX) *qò mì* ?STC 446 *r-ma-t 154.
sound, report (CL) (LX) *qú* 1348.
sound, report (CL) (MC) *qú* 1348.
soup (LX) *thó* b 606.
soup (MC) *ʐɛ́* 606.
sour (LX) *tsuà* ?STC *su·r, ?STC 413 *kri(y) 1525.
sour (MC) *tsuí* ?STC *su·r. ?STC 413 *kri(y) 1525.
sow (LX) *pià mià* 356.
sow (n) (MC) *pià miá* 356.
sow broadcast (LX) *phà* 2288.
sow broadcast (LX) *sé* 2288.
sow broadcast (MC) *zuí suì* 2288.
spacious (LX) *qhuè tà* 1420.
spacious (MC) *khuán tʂhò* b 1420.
spark (LX) *mú dzí* cf. charcoal 488.
spark (MC) *mú tì* 488.
sparrow (LX) *ì tshá* =404. ?STC 403 *s-rik ~ *s-ryak. m1?=STC *wa 415.
sparrow (MC) *ì tshé* "bird". ?STC 403 *s-rik ~ *s-ryak 415.
sparrow hawk (MC) *á tʂhì là* STC 333 *laŋ 407.
speak (LX) *qà tɕí* 2361.
speak (LX) *də̀ dá* 2361.
speak (MC) *diú* 2361.
speak, roar, howl (LX) *qá ɻà* 2361.
speak, tell (LX) *ə́* 2361.
spear (not thrown) (LX) *tchè iù* 897.
spear (not thrown) (MC) *dè* pike? 897.
spear (thrown) (LX) *miaò kàn tsɨ* b? 896.
speech (LX) *zə̀ mú* 188.
speech (MC) *zuè mé* 198.
spend (time) (LX) *qhuà* takes dà as pfx 1955.
spend (time) (MC) *pà* 1955.
spice, perfume (MC) *χoù kí* = flavor, smell 595.
spider (LX) *tshɨ́ tshɨ́* 445.
spider (MC) *tʂhà ʂɨ́* 445.
spiderweb (MC) *tʂhà ʂɨ́ bú* s3 = nest 445.
spill out (LX) *tə̀ tshà* 2526.
spill out (LX) *tə̀ suà* 2526.
spill out (MC) *phù* ?STC 248 *pro 2526.
spin (thread) (LX) *lì* 1888.
spin (thread) (MC) *lì* 1888.
spine (LX) *tsù bò-ɻà ká* m-bone 167.
spine (MC) *lòŋ kò* ŋ ~ N 167.
spine (MC) *pei[35] tɕí kù* b 167.
spirit (LX) *só* ?STC (m-)hla 975.
spirit (LX) *tsɨ́* 975.
spirit (MC) *χùn-phɛ̀* b-m 975.
spit (v) (LX) *tuì* STC 168 *twiy, but also *m-thok, p58. 2421.
spit (v) (MC) *tsù ʐɛ́* or m2 = *ə́*. ?STC 231 *m=ts(y)il 2421.
splash, sprinkle (LX) *qhò tò* 2227.
splash, sprinkle (LX) *phà* 2285.
splash, sprinkle (LX) *sé* 2285.
splash, sprinkle (LX) *sé* 2227.
splash, sprinkle (MC) *phù sè* 2227.
splash, sprinkle (MC) *(tsuè) phè* 2227.
splash, sprinkle (MC) *phù sè* 2285.
splash, sprinkle (MC) *ʂè guí* cf. 'blow' 2285.
spleen (LX) *iæn thí* b 182.
spleen (LX) *phà ɻà* also HH tone. passive vocab 182.
spleen (MC) *ɳæ̀n thì* b 182.
spleen (MC) *pá* 182.
split (firewood) (LX) *qə̀ tshɨ́* 2223.
split (firewood) (MC) *lù lià* 2223.
split (firewood) (MC) *sè cà* 2223.
split apart (LX) *qə̀ tshɨ́* 2228.
split apart (MC) *pù cà* 2228.
split apart (MC) *qhà là* 2228.
split open, rend (LX) *dà (zə̀) zà* 2149.
split open, rend (LX) *dà ʁè ʁeí* 2149.
split open, rend (LX) *dà qə̀ qà* STC 469 *ka 2149.
split open, rend (LX) *dà ʁeì* 2149.
split open, rend (MC) *ʂè dʐ ì dʐá* 2149.
spoon for eating (LX) *thiaò ká* b 770.
spoon for eating (MC) *thiaò ká* b 770.
spoon, scoop (LX) *zà* 769.
spoon, scoop (MC) *ɕì zà* 769.
spot, stain (LX) *ɻà zò* 1026.
spot, stain (LX) *zò* 1026.
spot, stain (MC) *tsà pà* 1026.
spread (news) (LX) *(dà) qá ɻà* also takes sɨ. STC 469 *ka 1751.
spread (news) (MC) *ʂè diú* 1751.
spread fertilizer (LX) *phà* 2308.
spread fertilizer (LX) *sú* 2308.
spread fertilizer (LX) *ʁà* 2308.
spread fertilizer (MC) *mú ʁè* 2308.
spread out, unfold (LX) *sɨ phà* 2379.
spread out, unfold (LX) *dà phà* 2379.
spread out, unfold (MC) *zá dʐ ì* 2379.
spread out/apart (LX) *dà ʁò* 2294.
spread out/apart (MC) *ʂè ʐà* 2294.

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spread, circulate (LX) *dá* 2153.
spread, circulate (LX) *dzuá (tà)* 2153.
spread, circulate (LX) *tó* 2153.
spread, circulate (MC) *fià-kiè-ɳá-fià-dâ* down-go-and-down-give 2153.
spread, unfold (LX) *tshà* 2236.
spread, unfold (MC) *tʂhà* 2236.
spring of water (LX) *dò-tsù* m-water 56.
spring of water (MC) *tsuè-qù* water-hole 56.
spring of water (MC) *ʐà-tsué* rock-water 56.
spring, summer (LX) *tɕà qeí* warm-m 1166.
spring, summer (MC) *tsè-qè* warm-m 1166.
sprout (LX) *cà qə* 476.
sprout (LX) *qə mà* 519.
sprout (MC) *cà qè lè kí* 476.
sprout (MC) *sí χuèi* 519.
sprout (v) (LX) *sà qə-tə cì* sprout (var)-grow 1868.
sprout (v) (MC) *tɕò qĕ* 1868.
sprout (v) (MC) *χueì qĕ* 1868.
square (n) (MC) *dzè dzè* 1431.
square (of fabric) (LX) *zuè* 1284.
square (of fabric) (LX) *thò* 1284.
square (of fabric) (MC) *phiè* 1284.
squat (LX) *qù* 1852.
squat (MC) *khù tò* 1852.
squirrel (LX) *zɨ kú tsù* 398.
squirrel (LX) *zɨ kù mí* 398.
squirrel (MC) *tshù lié* ?STC p171 *sre[ŋ] 398.
squirrel (MC) *má tiaó nì* b 398.
stack up (LX) *thú thuá* 2163.
stack up (MC) *thuà* 2163.
stake (LX) *tɕá zá* 874.
stake (MC) *tʂuàN tʂuàN* b 874.
stallion (LX) *ʁò dò* 337.
stallion (MC) *ʐoù qóu* 337.
stamen, pistil (LX) *pá tsù-tsí* flower-DIM 473.
stamen, pistil (MC) *tià tiá-tiè* m-heart 473.
stamp, chop (LX) *tsáN* b 929.
stamp, chop (MC) *dzà* 929.
stand (LX) *tə ì* ?STC 246 *g-ryap 2568.
stand (MC) *(tè) ʐ ì* ?STC 246 *g-ryap 2568.
stand something up (LX) *kú* 1728.
stand up (LX) *toù* 2242.
stand up (LX) *(tù) tshú* 2349.
stand up (LX) *tə ì* 2242.
stand up (MC) *zò* 2349.
stand up (MC) *tè ə* ?STC 246 *g-ryap 2242.
stand up (CAUS) (MC) *tè ə zí* 2243.
standard, accurate (hit) (LX) *ʁuà* 1441.
standard, accurate (hit/measure) (MC) *tʂuè* 1441.
star (LX) *zɨ bà* 5.
star (MC) *dʐè* 5.
stark naked (LX) *kuán tòŋ tòŋ* b? 1608.
stark naked (MC) *pú tɕhìn tɕhìn* 1608.
start (LX) *à tsè* 1155.
start (LX) *à tsè* 2096.
start (LX) *à fiù* 2096.
start (MC) *dé tsì* 2096.
start (v) (MC) *dè tsì* 1155.
steal (LX) *tə kù* STC 33 *r-kəw 2417.
steal (MC) *kú pù ~ kù* 2417.
steam (bread) (LX) *(sò) qó* 2587.
steam (rice) (LX) *(fià) tɕì* 2587.
steam (v) (MC) *tɕè* 2587.
steel (for flint) (MC) *tsuè mià* e/ɛ 748.
steelyard (LX) *tɕhí* 795.
steelyard (MC) *tɕhé* 795.
stele (MC) *peì* b 92.
step (CL) (LX) *ʁuá* 1328.
step (CL) (MC) *tɕà* 1328.
step on (LX) *fià ʁù ʁuá* takes tə- cf. "landslide" 2375.
step on (MC) *tɕhyà* 2375.
step, cut across (LX) *(dà) ʁuá (tɕà)* 2122.
step, cut across (MC) *(dé) tɕà* 2122.
step-father (LX) *pì qú* 309.
step-father (direct) (MC) *á ià* 309.1.
step-father (direct) (MC) *á pù* 309.1.
step-mother (LX) *mià gú* 308.
step-mother (MC) *ɳá ɳà* 308.
step-mother (MC) *ɳá bʐà* 308.
step-mother (direct) (MC) *á ɳà* 308.1.
stick (CL) (LX) *ə* 1242.
stick (CL) (LX) *zuè* 1242.
stick (CL) (LX) *zɨ* b? 1242.
stick (CL) (MC) *dʐ í* b 1242.
stick (knife) into (LX) *cá* 2561.
stick (knife) into (MC) *tshuá* 2561.
stick out (one's head) (LX) *sɨ tshí* 2316.
stick out (one's head) (MC) *ʂè tɕò* SIMP. 2316.
stick out (one's head) (MC) *ʂè tʂhí* CAUS 2316.
sticky (LX) *zà* 1486.
sticky (MC) *pià dzà* 1486.
sticky rice (LX) *pá* 513.
sticky rice (MC) *tɕòu mì* b 513.
stiff (LX) *dà tó* 2034.
stiff (MC) *gù guá* =frozen 2034.
still, yet (LX) *tɕá (ŋó)* 2632.
still, yet (MC) *tɕí ŋà* still have 2632.
still, yet (MC) *mò dʐá* 2632.

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sting (insect) (LX) *zè* 1828.
sting (insect) (MC) *tæ ʁă ~ ʁâ* 1828.
sting (wasp) (LX) *qhò* 2582.
sting (wasp) (MC) *lə* ?cf. arrow 2582.
stingy (LX) *qú tɕì* also qù 1581.
stingy (MC) *diò-bʐá* m-big 1581.
stingy (MC) *caò tɕhì* b 1581.
stinking (LX) *bə̀ tsá* 1523.
stinking (MC) *bù tʂá* 1523.
stir up (LX) *ʁuà tè* also HH, LH 2002.
stir up (LX) *bú là* 2002.
stir up (MC) *tɛ̂ χueì là zɨ́* 2002.
stir, mix (LX) *ʁuà lí* STC 90? *wa·y 2059.
stir, mix (LX) *bú là* 2059.
stir, mix (MC) *χŏ thà* b? 2059.
stir, mix (MC) *χò lié* b 2059.
stir-fry pot (LX) *gə̀ dzì* 758.
stir-fry pot (LX) *tshà piá* 758.
stir-fry pot (MC) *tshà* 758.
stir-fry, saute (LX) *cì cá* 1707.
stir-fry, saute (LX) *tshò* 1707.
stir-fry, saute (MC) *dzì dzá* 1707.
stirrup (LX) *ʁò tshú* 829.
stirrup (LX) *gò tshú* m1=foot 829.
stirrup (LX) *ʁò kú tɕà* hoof? 829.
stirrup (MC) *gòu tɕhuà bá* 829.
stomp feet (LX) *tshù tshú* 1857.
stomp feet (LX) *tshú* 1857.
stomp feet (LX) *tshó dà* b? 1857.
stomp feet (LX) *tɕhuá tá* 1857.
stomp feet (MC) *só tà* 1857.
stone (LX) *ʁò lû* STC 88 *r-luŋ 47.
stone (LX) *ʁò piá* 47.
stone (small) (MC) *lò* STC 88 *r-luŋ 47.
stone wall (LX) *qhà tsù* 704.
stone wall (MC) *lò zù* 704.
stone, boulder (MC) *gò-bʐà* stone-big 47.
stone, boulder (MC) *lò-bʐà* stone-big 47.
stonemason (LX) *qhà tsù-cà-mù* wall-V-agt 238.
stonemason (MC) *lò dzɛ́ mù* 238.
stonemason (MC) *lò tshà mú* 238.
stool, bench (LX) *bè dé* b? 724.
stool, bench (LX) *bà dé* b? 724.
stool, bench (MC) *pàn táŋ* b 724.
stool, bench (MC) *dzò lə̀* more of a pad 724.
stool, bench (MC) *pàn té* s2<Q? 724.
stop up (MC) *tʂɨ̀* STC 422 *tsuw 1842.
stop up (entry) (LX) *qú cú* 1842.
stop up (leak) (LX) *tsɨ̀ tsɨ̀* STC 422 *tsuw 1842.
stop, cease (LX) *à (bà) ì* 2411.
stop, cease (MC) *ù diè* 2411.
stopper, cork (LX) *tsoù tsoú* b? STC 422 *tsuw? 915.
stopper, cork (MC) *tsòu tsóu* b? STC 422 *tsuw? 915.
storehouse, granary (LX) *χó (kè)* 695.
storehouse, granary (MC) *pè qɛ̀* 695.
storeys tall (CL) (LX) *tsɨ̀* 1302.
storeys tall (CL) (LX) *sà* 1302.
storeys tall (CL) (MC) *tshàŋ* b 1302.
story (LX) *(dà) qeí zə̀ mù* 933.
story, tale (MC) *qaĭ sì sè* s1 is fused 933.
story, tale (MC) *qaì qá-kì-zuè mé* before-NOM-speech 933.
story, tale (MC) *qé ì seì sè kì dzɨ̀* 933.
stove (LX) *tsò zò* 755.
stove (MC) *tsɨ̀ qò* 755.
straight (LX) *tí* ?STC 227 *dyam 1449.
straight (MC) *tí* ?STC 227 *dyam 1449.
straight, erect (LX) *tshú* 2412.
straight, erect (LX) *bú* ?STC 352 *b/pleŋ 2412.
straight, erect (MC) *tè tì* 2412.
straight, smooth (LX) *só* 1445.
straight, upright (LX) *qù lá qə̨̀* ?STC 352 *b/pleŋ 1439.
straight, upright (MC) *teì teí* 1439.
straighten (LX) *sɨ̀ tí (zɨ̀)* m3=CAUS 2198.
straighten (MC) *ʂè zɨ́* 2198.
strange, odd (LX) *sé* 1548.
strange, odd (LX) *kuai^{35} dà* b 1548.
strange, odd (MC) *tɕhì kuaì* b 1548.
strap, suspender (LX) *bià dzí* ia ~ ie (VH) 669.
strap, suspender (MC) *tà pò* 669.
straw rain cape (MC) *só í* b 680.
strength (LX) *zɨ̀ ~ dzɨ̀* 982.
strength (LX) *qú* 982.
strength (MC) *dʐà qà* 982.
stretch out (hand) (LX) *tsí* horizontally. ?STC 433 *sriŋ 2314.
stretch out (hand) (LX) *tshí* vertically. ?STC 433 *sriŋ 2314.
stretch out (hand) (MC) *tʂhɨ̀ ~ tʂhɨ́* difft in tense. ?STC 433 *sriŋ 2314.
strike table (LX) *sú tá* 2209.
strike table (LX) *phé dà* b 2209.
strike table (MC) *tuá* 2209.
string (of pearls) (LX) *kù (lì)* 1299.
string (of pearls) (LX) *tshuăN* b 1299.
string (of pearls) (MC) *tʂhuàn tʂhuán* b 1299.
string,thread (LX) *sà ɳì* 868.1.
stroke, touch (MC) *mù liá* 2185.
stroke, touch, feel (LX) *mù-cà* m-touch 2185.

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strum (LX) *thàn dà* b 2381.
strum (MC) *tʂhà* 2381.
stuck (by thorn) (LX) *tshuè* STC 276 *tsow 2562.
stuck (by thorn) (LX) *tshá* STC 276 *tsow 2562.
stuck (by thorn) (LX) *tshà* STC 276 *tsow 2562.
stuck (by thorn) (MC) *tè tsɨ* ?STC 276 *tsow 2562.
student (LX) *dʐì sú mù* character+study+agentive mrkr(?) 226.
student (MC) *dzɨ-só-mù* book-study-AGT 226.
study, teach (LX) *só* 2504.
study, teach (MC) *soú* 2504.
stupid, foolish (LX) *ʁuè* 1569.
stupid, foolish (MC) *ʁuà* 1570.
stutterer (LX) *qù dzý* 266.
stutterer (LX) *qà dzý* 266.
stutterer (MC) *tɕè tsɨ* b? 266.
subject to discipline (LX) *quá tá* 1949.
subject to discipline (LX) *quà* 1949.
subject to discipline (MC) *qù thà* b? 1949.
suck (milk) (LX) *kú* 2360.
suck (milk) (LX) *(tà) tsú tsuà* ?STC p69 *dzo·p 2360.
suck (milk) (LX) *tshí* 2360.
suck (milk) (MC) *qoù ~ qoú* 2360.
suffering (adj) (LX) *mà qeí* 1528.
suffering, calamity (LX) *dʐí tsá* 981.
suffering, calamity (MC) *tsɛ̀ uɛ́* 981.
sugar (LX) *mà-thá* yellow-b(sugar) 601.
sugar (MC) *tshú-kì* sweet-NOM 601.
sugar (MC) *mà-thà* yellow-b(sugar) 601.
sugar (white) (MC) *pè ʂá thàN* b 602.
sugar cane (MC) *kán tsài* b 506.
suitable, appropriate (LX) *χò sɨ̀* b 1966.
suitable, appropriate (MC) *χò ʂɨ̌* b 1966.
sulfur (MC) *lioù χuàŋ* b 70.
sun (LX) *mù ɕí* 2.
sun (MC) *mè sí* mè ~ mɛ̀ 2.
sun (MC) *mè nə̀* STC 81 *nəy 2.
sun and rain (mixed) (LX) *sà pheì* 12.
sunbathe (LX) *lé* 2301.
sunbathe (LX) *qhuà* 2301.
sunbathe (LX) *zé* 2301.
sunbathe (MC) *khuè* 2301.
Sunday (LX) *ʁə́ là mù* 1164.
Sunday (LX) *bà ì mù* 1164.
sunken, concave (MC) *uó tàn tàn* b 1411.
sunken, concave (MC) *uó thą̀* b 1411.
sunken, concave (natural) (LX) *guè* 1411.
sunken, concave (result of process) (LX) *(fià) gù* 1411.
sunrise (LX) *cuá qàn bè* 1097.
sunrise (LX) *mú pù sù* ?STC 332 *praŋ 1097.
sunrise (MC) *qà qù-dɛ̀-dʐà* cover-p-v 1097.
sunrise (MC) *dɛ̀ ɕyà sá* FUT/DIR-bright-PERF 1097.
supper, dinner (LX) *ɻà tí* 578.
supper, dinner (MC) *ʐà té* 578.
support with hand (LX) *tò* 1900.
support with hand (LX) *tà kù* 1900.
support with hand (MC) *ù tsì* 1900.
surname (LX) *mò ʁuà* STC 83? 1001.1.
surname (MC) *mɛ̀* STC 83 1001.1.
surplus (LX) *fià ì* 2322.
surplus (MC) *dé dʐŭ* verb? 2322.
surrender (LX) *thoù cèN* b 2419.
surrender (MC) *thoŭ càŋ* b 2419.
surround (LX) *tchý* ?STC 313 *kroy 1645.
surround (MC) *fià ʁuĕ* 1645.
surround (MC) *fià uì thâ* 1645.
surrounding wall (LX) *qhà tsù-kú lí* kú lí ~ kù lì 705.
sustain business loss (LX) *fiá sí* 2218.
sustain business loss (MC) *tæ̀-bà* p-v 2218.
sustain business loss (MC) *ʂè-pən-ʂè-pù* p-v-p-v 2218.
swallow (n) (LX) *phá tɕá tɕá* ONOMAT 411.
swallow (n) (MC) *iɛ̆n tsɨ* b 411.
swallow (v) (LX) *(sɨ) qò tɕù* 2416.
swallow (v) (LX) *sà qò tɕỳ* on pfx 2511.
swallow (v) (LX) *qò tɕỳ* 2511.
swallow (v) (MC) *ʂè zuì* 2416.
swallow (v) (MC) *zuì* 2511.
sweat (LX) *tsù* 190.
sweat (MC) *tʂhù* 190.
sweep (LX) *cuè té* 2296.
sweep (MC) *sué mè* 2296.
sweet (LX) *tshú* STC 166 *twi(y) 1526.
sweet (MC) *tshú* STC 166 *twi(y) 1526.
sweet potato (LX) *χòŋ saò* b 545.
sweet potato (MC) *χòŋ ʂào* b 545.
swell (LX) *phú* tà phù 2594.
swell (MC) *phò* 2594.
swell (bump on head) (MC) *tè phó* 1410.
swelling (ankle) (LX) *phú phá* 2594 2574.
swim (LX) *ʁə́ là* 2536.
swim (LX) *fiú (tà)* 2536.
swim (MC) *tsuè tɕí tʂhɟ́* 2536.
swing (tail) (LX) *ʁuà ɻà* 2353.
swing (tail) (LX) *lì lá* 2353.
swing (tail) (MC) *tuà* 2353.
swing, sway (MC) *iaò-thá* b-s 1637.

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swing, sway (MC) *doù dà* 1637.
swing, sway (baby) (LX) *mə cà* 1637.
swing, sway (tree) (LX) *lì lá* 1637.
sword (MC) *dè χé* 900.
table (LX) *bá* 722.
table (MC) *tʂuè tsɨ* b? 722.
tadpole (LX) *zò piá-tsù* frog-small 431.
tadpole (MC) *laĭ kè paò* b? 431.
tael, liang (LX) *zò* 1310.
tael, liang (MC) *dʐoù* 1310.
tail (LX) *suà kà* 334.
tail (MC) *suà kè* 334.
tailor (LX) *phò-ʁà í-mù* clothing-m-mrkr 239.
tailor (MC) *phù-ʐì-mú* clothes-sew-agt 239.
take a beating (LX) *dzí* 1623.1.
take a beating (LX) *tsá* 1623.1.
take a name (LX) *tshò* 2261.
take a name (MC) *thè* 2261.
take aim (LX) *dà tí* 2181.
take aim (LX) *pì dá* b? 2181.
take aim (MC) *zé* 2181.
take detour (LX) *gó* 2274.
take detour (LX) *suè* 2274.
take detour (MC) *ʐì kué* 2274.
take notes (LX) *ʁà* 2018.
take notes (LX) *tɕì dà* b 2018.
take notes (MC) *fià cà* 2018.
take out (LX) *tɕhì tɕhá* has minimal tone pair 1737.
take out (MC) *ʂé thè* tone var. 1737.
take out (from above) (LX) *tɕé* 1728.
take out (from between) (LX) *té* 1728.
take out (from between) (MC) *ʂè sí là* 1728.
take stroll (LX) *suè lá* 2293.
take stroll (MC) *dá tʂhɨ-kì* play-go 2293.
take stroll (MC) *suè lù* 2293.
take turns (LX) *á dzé dzè* 2158.
take turns (MC) *à là doú* s1=?1 2158.
take, fetch (LX) *tɕhì tɕhá* 2260.
take, fetch (MC) *thè* 2260.
take, fetch (MC) *ʂè thĕ* 2260.
take, fetch (MC) *(ʂè) thé thè* 2260.
take, grasp (LX) *tsé* takes à, zɨ 2192.
take, grasp (MC) *ʑyá* 2192.
tall, high (LX) *bó* STC 146 *m-raŋ 1408.
tall, high (MC) *bʐú* STC 146 *m-raŋ (cf. 'horse') 1408.
tan (hide) (LX) *qhuá* 2490.
tan (hide) (LX) *nə́* 2490.
tan (hide) (MC) *ʐuà* 2490.
tangerine (MC) *kán tsɨ* b? 499.
target (LX) *zuè* 904.
target (MC) *bì* 904.
tassel (LX) *qà tshuè* 670.
tassel (MC) *qè toú tsò kì* 670.
taste, flavor (LX) *sù* 1010.
taste, flavor (MC) *tè mí* 1010.
taste, try (LX) *sàN (dá)* b,s 1702.
taste, try (MC) *ʂán thà* b 1702.
tasty (LX) *zə-nà* eat-good 1553.
tasty (LX) *iá* 'good' 1553.
tasty (LX) *tiè-nà* eat-good 1553.
tasty (LX) *sù qə* 1524.
tasty (MC) *χoù* 1524.
tasty (MC) *zé* 1553.
taxes (LX) *suei*[35] b 807.
tea (LX) *tsù lə qə* STC 486 *la 610.
tea (MC) *cà qè* (leaves) 610.
teach (LX) *só* 2040.
teach, study (MC) *soú* 2040.
teacher (LX) *qə́ bá* s2=old 227.
teacher (MC) *cìN sɨ* 227.
team (of cattle) (LX) *guà* 1329.
team (of horses, men) (LX) *bó* 1297.
team (of horses, men) (MC) *phè* 1297.
team of oxen (MC) *gú* 1329.
teapot (MC) *tʂhà fù* b 780.
teapot(?) (LX) *tshà χù* b. χù ~ ɸù (once) 780.
tear down (house) (LX) *zà zí* 1695.
tear down (house) (MC) *dʐɨ dʐí* 1695.
tears (LX) *mə lí qə* 194.
tears (MC) *mù lé qè* ɛ ~ e 194.
tell (LX) *qá ʁà* 1918.
tell (LX) *fiá* 1918.
tell (MC) *diú* 1918.
tell fortune (MC) *kuà duà* 1764.
tell fortune (MC) *suàn míŋ-pù* b-do 1764.
tell fortune, divine (LX) *suà* 1764.
tell lie (LX) *ì zɨ (pù)* 2287.
tell lie (MC) *zè ʐə pù* 2287.
temple (LX) *tɕhí dzà* 90.
temple (MC) *sé-tɕì* god-room/home 90.
ten (LX) *fià dzó* ?STC *gip 1183.
ten (MC) *fià diú (qò)* ?STC *gip 1183.
ten million (LX) *à tó-ʁuá* thousand-ten.thousand 1217.
ten million (MC) *à tshè uá* 1217.
ten thousand (LX) *ʁuá* b? 1214.
ten thousand (MC) *à uá* 1214.
tender, delicate (LX) *tsí* 1509.
tender, delicate (MC) *lè* 1509.
tenth (LX) *fià dzó (ə́) χeì* 1228.
tenth of month (LX) *fià dzó* 1121.
tenth of month (LX)2340.
fià dzó 1121.

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tenth of month (MC) *fià diú* 1121.
test, examine (LX) *khaò dá* b 2107.
test, examine (MC) *khò kǐ* 2107.
testicles (LX) *bə̀-* poss = bə̀ ə̀- or bə̀ ɹə̀ 145.
testicles (MC) *zuì zuí* PTB *dzəy. cf. 'pit, stone' 145.
than (comparative mrkr) (LX) *sɨ́* 2642.
than (larger ~, etc.) (MC) *(lə́) sò (bʐà)* 2642.
that (MC) *fià* 1384.
that (less distant) (LX) *thà* 1384.
that (more distant) (LX) *thá* 1384.1.
that one (MC) *fià qó* 1385.
that one (less distant) (LX) *thò* 1385.
that one (more distant) (LX) *thó* 1385.1.
that one, it, that person (MC) *fià í* fià jí 1385.
that side, there (LX) *thà tɕhí qhuà* 1388.
that side, there (LX) *thà piá qhuà* 1388.
that side, there (MC) *fià zɨ̀* 1388.
the, DEM (LX) *dì* 2645.
their (MC) *fià ŋá kì* 1368.1.
themselves (LX) *ió lià* 1375.
themselves (dual) (LX) *ió nì* 1375.
there (LX) *thə̀ gá* 1387.
there (MC) *fià í qà* 1387.
there is (a matter) (LX) *ŋó* 2540.
there is (a matter) (MC) *ŋá* 2540.
there is (person) (LX) *ì* STC 264 *s-ri 2538.
there is (person) (MC) *zì* STC 264 *s-ri 2538.
there is (something on table) (LX) *sì* 2543.
there is (something on table) (MC) *tɨ̀* 2543.
there is (tree) (LX) *ʁuà* 2539.
there is (tree) (MC) *ŋá* 2539.
there is (tree) (MC) *uɛ̀* 2539.
there is not (a matter) (LX) *mò fió* rhinoglottophilia, v. harmony 2540.
there is not (a matter) (MC) *mì ŋà* 2540.
there is not (person) (LX) *mì í* 2538.
there is not (person) (MC) *mì zí* 2538.
there is not (something on table) (LX) *mì sí* . . 2543.
there is not (something on table) (MC) *mì tɨ́* 2543.
there is not (tree) (LX) *mì ʁuá* 2539.
there is not (tree) (MC) *mì ŋà* 2539.
there is not (tree) (MC) *mì uɛ́* 2539.
these (LX) *tɕà χé* 1379.
these (MC) *tɕà ŋá* 1379.
they two (LX) *tsɨ̀ ɳí* 1367.
they two (MC) *fià ŋá-nə̀-qó* they-two-CL 1367.
they, them (LX) *tsɨ̀ lià* 1368.
they, them, those people (MC) *fià ŋá* 1368.
thick (of paper) (LX) *lià* 1422.
thick (of paper) (MC) *lià (liù)* 1422.
thick (of porridge) (LX) *tɕì* 1480.
thick (of porridge) (LX) *fiə́-* 'dry' 1480.
thick (of porridge) (MC) *lià* 1480.
thick, wide (LX) *pà* ?STC 172 *bwam (cf. round) 1406.
thick, wide (MC) *tshù là* ?STC 356 *tu·k 1406.
thick, wide (MC) *bʐà* 1404.
thickness (thick-thin) (LX) *pà-bé* thick-thin 1621.
thickness (thick-thin) (LX) *bé-pà* thin-thick 1621.
thief (LX) *mù kù mù* 250.
thief (MC) *qù* 250.
thigh (LX) *duà qà-pà* leg-thick 126.
thigh (MC) *duà-bʐà* leg-big (calque?). cf. STEDT *b(r)la 'thigh' 126.
thin (of fabric) (LX) *qá* 1483.
thin (of fabric) (LX) *tɕhá* 1483.
thin (of fabric) (MC) *ʐá* 1483.
thin (of humans) (LX) *χuá* 1474.
thin (of humans) (MC) *χuá* 1474.
thin (of paper) (LX) *bù* STC 138? *pleŋ 'flat', etc. 1423.
thin (of paper) (MC) *bù* STC 138? *pleŋ 'flat', etc. 1423.
thin (of person) (LX) *χuá* takes sà pfx 2346.
thin (of person) (MC) *χuá* takes ʂæ̀ pfx 2346.
thin, slender (LX) *bé* 1407.
thin, slender (MC) *dì* 1407.
thin, slender (MC) *bʐ́ í* 1407.
thing, tool, gift (MC) *pà nà* 721.
thing, tool, gift, property (LX) *pà nà* 721.
think (LX) *bà ló* 2478.
think (MC) *bè dzoú* affricate? 2478.
think (about) (MC) *bè dʐoú* 2137.
think (of V-ing) (LX) *bà ló* 2480.
think (of V-ing) (MC) *bè dʐoú* s1 has ɛ? 2480.
third (LX) *tshè ə́- χeì* 1221.
third day of month (MC) *sèi tiú* 1120.
third of month (LX) *tshé tɕò* 1120.
thirsty (LX) *ə́-* 2112.
thirsty (LX) *qà tə̀ ə́-* 2112.
thirsty (LX) *tsù tə̀ pià* 2112.
thirsty (MC) *pià* 2112.
thirteen (LX) *fià sé* 1186.
thirteen (LX) *fià tshé* 1186.
thirteen (MC) *fià sí* 1186.
thirty (LX) *tshè sá* 1195.

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thirty (MC) *sí sà* i ~ əi 1195.
thirty-one (LX) *tshè sá à* 1196.
thirty-one (MC) *sí sà ɳà à qó* 1196.
this (dem. noun) (LX) *tcà* 1377.
this (demonstrative noun) (MC) *tcí* 1377.
this one (LX) *tcò* 1378.
this one (DEM + CL) (MC) *tcà qó* 1378.
this person (MC) *tcà íí* 1378.
this side, here (LX) *tcà piá qhuà* 1381.
this side, here (LX) *tsə gá* 1381.
this side, here (LX) *tsò* 1381.
this side, here (MC) *tcà zì* 1381.
thorn (LX) *tchí* ?STC 276 *tsow 494.
thorn (MC) *tshí* b? 494.
those (LX) *thà χeí* 1386.
those (MC) *fià ŋá* 1386.
thou, you (sg) (LX) *ù* 1362.
thou, you (sg) (MC) *nò* 1362.
thou, you (sg) (D.O.) (MC) *ù ò* [wò] 1362.2.
thousand (LX) *tú* ?< WT stoŋ. STC 32 *stoŋ 1212.
thousand (MC) *(à) tshè* b? ?STC 32 *stoŋ 1212.
thrash, whip (LX) *qà teì* 1730.
thrash, whip (MC) *tuá* 1730.
thread (LX) *sà ɳí* 619.
thread (MC) *sè lì* 619.
thread (needle) (LX) *sí* 1742.
thread (needle) (MC) *ʂè sí* 1742.
three (LX) *tshè* STC 409 *g-sum 1176.
three (MC) *sí qò* STC 409 *g-sum 1176.
three days ago (LX) *zì zí cį* 1088.
three days ago (MC) *dzè dzè sé* 1088.
three days from now (LX) *dzì só cį* 1091.
three days from now (MC) *dì sóu* 1091.
three thousand fifty (LX) *tshé tò (nà) ʁuè sá* n.b. vowel in s2. VH 1213.
three thousand fifty (MC) *sì tshé ɳà ʁuà sá* 1213.
thresh grain (LX) *sú tá* 1777.
thresh grain (LX) *tuè tuè* 1777.
thresh grain (LX) *zà tá* 1777.
threshold (LX) *dzù khù* 712.
threshold (MC) *diò tè* 712.
throat (eating) (LX) *qù mù* 175.
throat (eating) (MC) *χòŋ nòN-quà* b-m ŋ=N? 175.
throat (speech) (MC) *χòŋ nòN* b 176.
throat, voice (LX) *tchì* 176.
throw (at target) (LX) *cí* 2418.
throw (at target) (LX) *ʁuà ʁà* 2418.
throw (at target) (MC) *tuà* 2418.
throw away (LX) *ʁuà ʁà* 2281.
throw away (LX) *sì dzuá* 2281.
throw away (MC) *ʂuè* 2281.
throw away (MC) *(ʂè) tuà* 2281.
throw on (garment) (LX) *(zì) χéi* 2222.
throw on (garment) (MC) *bià* 2222.
thrush (LX) *tshà ʁuæN* 425.
thrush (MC) *thò ʁò* 425.
thumb (LX) *lià só-pà* finger-thick 136.
thumb (LX) *pàN bá qə* m-big-front 136.
thumb (LX) *lià só-mià* finger-mother 136.
thumb (MC) *í nə qè-bʐà-(kí)* finger-big-NOM 136.
thunder (LX) *mú gú* 8.
thunder (MC) *mù gó* 8.
thunder (v) (LX) *mú gú (gú)* 1791.
thunderbolt (LX) *gú* 9.
thunderbolt (MC) *mù gó* 9.
thunderbolt (MC) *mù dè gô* 9.
thunderbolt (v) (LX) *mú gú qà tè* 1789.
thunderbolt (v) (LX) *mú gú dà gú* 1789.
thunderbolt (v) (MC) *mù dè gô* 1789.
Tibetan (LX) *là fiú* 206.
Tibetan (MC) *mà ʂà* 206.
Tibetan barley (LX) *zí* 522.
Tibetan barley (MC) *dzí* 522.
tidy up (LX) *có tsheì* 2337.
tidy up (MC) *sù sué* 2337.
tidy up (MC) *ʂà thiè* 2337.
tie (belt) (LX) *dé* ?STC 421 *du-t ~ *tu-t 2025.
tie (belt) (LX) *cì cí* ?STC 484 *kik 2025.
tie (belt) (LX) *dzì* dzí = belt 2025.
tie (belt) (LX) *zù zuà* 2025.
tie (belt) (MC) *dì* takes cognate obj. ?STC 421 *du-t ~ *tu-t 2025.
tie (knot) (LX) *(dà) phà ʁà* 2066.
tie (knot) (MC) *ʐà gú* 2066.
tie up (MC) *tsò dʐá* 1643.
tie up (MC) *dì* ?STC 421 *du-t ~ *tu-t 1643.
tie up (cattle) (LX) *tsù* ?STC 421 *du-t ~ *tu-t 2355.
tie up (cattle) (MC) *tsò* ?STC 421 *du-t ~ *tu-t 2355.
tie up (foot, e.g.) (LX) *dé* ?STC 421 *du-t ~ *tu-t 1643.
tie up (person, thing) (LX) *zù zuá* 1643.
tie up loosely, gather (LX) *ʁò* 1643.
tie up strongly (LX) *ʁù lì* 1643.
tiger (LX) *piá* 377.
tiger (MC) *pì dá* s2 in wild animal names 377.
tight (LX) *cí* 1491.
tight (LX) *tcí* 1491.

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tight (MC) *sé* 1491.
tight (belt) (LX) *cì cí* 1491.
tight, close (LX) *zə cì cí* 2073.
tight, close (MC) *tè sé* 2073.
tight, crowded (LX) *tcì tcí* 1491.
tighten, close up (LX) *à tcìn dá* b? 2074.
tighten, close up (LX) *(zì) cì cí* STC 370 *ts(y)i·p 2074.
tighten, close up (MC) *tcɨ* STC 370 *ts(y)i·p 2074.
tighten, close up (MC) *dè sé zɨ* 2074.
tile (roof, e.g.) (LX) *ʁuà* b? 702.
tile (roof, e.g.) (MC) *ià* 702.
tile maker (MC) *ià pù tiá mù* 240.
tile maker (MC) *ià guí mù* 240.
time (LX) *ʁá* 1084.
time (LX) *tuá* 1084.
time (MC) *zì tsé* 1084.
time (go one) (CL) (LX) *dù* also "(come one) time" 1345.
time (hit one) (CL) (LX) *tshù* also "(kick one) time" 1349.
time (hit one) (CL) (LX) *cí* 1349.
time (hit one) (CL) (MC) *té pì* 1349.
time (kick one) (CL) (MC) *tʂhù* 1350.
tin (LX) *tsɨ́* 65.
tin (MC) *tcɨ́* 65.
tinder (LX) *pú* 747.
tinder (MC) *χò tshaò* b 747.
tinea, skin fungus (LX) *cuæN* b. 158.
tinea, skin fungus (MC) *cyæN* b 158.
tingle (LX) *bò bò* 2368.
tingle (MC) *tshù tshû ~ tshù tshú* 2368.
tip (LX) *ɹà qə̀ tcý* 1052.
tip (MC) *tcìn tcìn* b 1052.
tip (MC) *tìN pò* occurs in words for mtn top, roof, etc 1052.
tip over (LX) *dzù* 1805.
tired (LX) *dà qò* 2135.
tired (LX) *dà bà* STC 29 *bal 2135.
tired (MC) *bà* STC 29 *bal 2135.
to (speak ~) (LX) *zɨ́ gà* POST 2641.
to dry (grain) (MC) *ì khuǎ* 1657.
tobacco (LX) *mú-qhú* smoke-m 568.
tobacco (LX) *iá* b 568.
tobacco (LX) *ià* b? 611.
tobacco (MC) *mù qhué* calque 'smoke'. STC 256 *kuw 568.
tobacco (MC) *mù khué* calque 'smoke'. STC 256 *kuw 611.
tobacco pipe (LX) *iæN-káŋ* b-m 568.1.
tobacco pipe (LX) *ià pú-lə* m-stick.up 568.1.
today (LX) *pú cɻ* LX "day" terms either have the pattern HL (two syllables), or LHL (three syllables) 1085.
today (MC) *pé-sę̀* ?= sky-bright 1085.
tofu (LX) *də ì* 597.
tofu (MC) *deì dzì* 597.
together (LX) *à só* 2631.
together (MC) *à ioú* 2631.
toilet, cesspit (LX) *tshè kù* 690.
toilet, cesspit (MC) *tchè-qù* feces-pit 690.
tomb (LX) *mú pú* 95.
tomb (MC) *mé pù* 95.
tomorrow (LX) *tə bəí cɻ* 1089.
tomorrow (MC) *tè péi* 1089.
tomorrow night (LX) *tə pei^{35} dzì tsɨ́* weird tone 1093.
tomorrow night (MC) *tæ péi giè tsɨ́* 1093.
tongue (LX) *zə qə̀* 172.
tongue (MC) *zì qé* 172.
tonight (LX) *pei^{35} dzì tsɨ́* weird tone (from syllable conflation?) 1092.
tonight (MC) *pè gié tsɨ́* 1092.
tooth (LX) *sù* STC 437 *s-wa 170.
tooth (MC) *dzè kè* 170.
top (LX) *qə̀ teì* 1061.
top (MC) *lià χà* 1061.
top, above (MC) *qé tè* 1061.
topple (v.i.) (LX) *dà dzù* 1802.
topple (v.i.) (LX) *ʁù ʁuá* 1802.
topple (v.i.) (MC) *ʂè dʐuǎ* VH? 1802.
topple (v.i.) (MC) *ʂè guǐ* 1802.
torch (LX) *mú-gú* fire-m 750.
torch (MC) *mè cà dʐà* 750.
tortoise (MC) *ú khuéi* b 427.
touch (LX) *tshà* tshá in cmds 2185.
touch (LX) *phà cá* 2185.
touch (MC) *ì dzǎ* 2185.
toward, counter-clockwise ego (pfx) (LX) *zɨ* - 1077.
towel (LX) *(qà-χó là-) phà tsɨ* face-wash-towel (b.) 667.
towel (MC) *phà tsɨ* b 667.
tower (LX) *pà thà* m-b(tower) 96.
tower (MC) *ló dʐ ì* stone(?)-m 96.
trample, step on (LX) *tchuà (ɳɻí)* 1686.
trample, step on (MC) *(fià) tchuà* 1686.
transcribe (LX) *thàn dá* 1705.
transcribe (LX) *ɹà* 1705.
transcribe (MC) *cà* 1705.
transfer possession (LX) *dà zɨ́* 2603.
transfer possession (MC) *dè zɨ̂* 2603.
transport (LX) *sú-dà* b-s 2340.
trap (n) (LX) *ỳ kù* bird-basket 908.
trap (n) (MC) *cỳ χó-ʐè pù* hunt-hole 908.

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trash, refuse (LX) *mà só* 752.
trash, refuse (MC) *tʂà tʂà* 752.
traveling expenses (LX) *ỳ phù* 801.
traveling expenses (MC) *phàn tɕhè* 801.
treasure (MC) *ŋó-ɳà-kà* silver-and-gold 657.
treasured object (MC) *paó peì* b 657.
treat, cure (LX) *pò ʐà* 2525.
treat, cure (LX) *i[35] dà* b 2525.
treat, cure (MC) *ǐ thà* b 2525.
treat, cure (MC) *dzí sɨ̀* 2525.
tree (LX) *(cì) phù* 465.
tree (MC) *phò* 465.
tree (CL) (LX) *zuè* 1251.
tree (CL) (LX) *phù* tree 1248.
tree (CL) (MC) *phò* 1248.
tree (CL) (MC) *ʁòu* 1248.
tree (CL) (MC) *phò* 1251.
tree trunk (LX) *cì-tò* m-firewood 466.
tree trunk (MC) *phò ʐ́ í* 466.
treetop (MC) *phò tìN pò* 468.
tremble, shiver (LX) *tshà té* 1864.
tremble, shiver (MC) *lɛ̀ lɛ̀-pú* m-do 1864.
tremble, shiver (MC) *lɛ̀ sɛ̀ sɛ̀* 1864.
trip-hammer (MC) *tɕhì-χuà lá-kì-thiò* rice-wash-NOM-m 881.
trip-hammer (MC) *thiò* ?STC 317 *tow 881.
tripod (LX) *cè-mì* iron-m. VH? 786.
tripod (MC) *mú bò sè* 786.
trunk, box (LX) *cáŋ tsɨ* b 726.
trunk, box (MC) *soù* 726.
try, test (LX) *kao[35] dà* b. 2328.
try, test (MC) *kaŏ thà* b 2328.
tube for blowing on fire (LX) *mù phú liù* fire-light/blow-? 788.
tube for blowing on fire (MC) *mú-phù-diò* fire-light/blow-door 788.
tuber of elevated gastrodia (LX) *tiéN mà* b 573.
tuber of elevated gastrodia (LX) *dzuá qà* 573.
tuber of elevated gastrodia (MC) *thién mà* b 573.
tug (LX) *kú tsé* 2080.
tug (LX) *kú tɕá* 2080.
tug (MC) *sè sá* 2080.
tumble down (LX) *fià qà tɕá* 2350.
tumble down (LX) *fià qà liú* 2350.
tumble down (MC) *fià tshoù* 2350.
tumble down (MC) *fià tuà* 2350.
turban (LX) *dé* 643.
turban, head scarf (MC) *còŋ tɕì* 643.
turn (body) (LX) *suè* takes *zɨ* 2601.
turn (body) (MC) *suè* 2601.
turn around (self) (LX) *zì* 1821.
turn around (self) (LX) *suè* 1821.
turn around (self) (MC) *ʁó* 1821.
turn around (self) (MC) *fià liâ* 1921.
turn around (self) (MC) *dɛ̀ suè* tone var's 1821.
turn around (self) (MC) *dɛ̀* 1821.
turn corner (LX) *sɨ̀ gó* 2602.
turn corner (LX) *suè* 2602.
turn corner (MC) *goú* 2602.
turn head, repent (LX) *suà χá* 1991.
turn head, repent (MC) *dæ̀ ʁà* 1991.
turn head, repent (MC) *dɛ̀ suĕ* 1991.
turn head, repent (MC) *dæ̀ ʁó* 1991.
turn inside out (LX) *dò gò* 1871.
turn inside out (MC) *ʂè qè toù* 1871.
turn on water (LX) *tsù cì* 1880.
turn on water (MC) *tsuè lɛ̀* 1880.
turn water wheel (LX) *tshí* 1708.
turn water wheel (LX) *kú* 1708.
turn, move (CAUS) (MC) *tè sèN goú zɨ* 2604.
turn, move (CAUS.) (LX) *suè zɨ́* best pfx. is dà 2604.
turn, move (SIMP) (MC) *tè sèN goú* 2605.
turn, move (SIMP.) (LX) *suè kò* s2=? 2605.
turtledove (LX) *ỳ gù χó* 422.
turtledove (MC) *guè guè* 422.
tweezers (LX) *cà-tè* iron-pinch 817.
tweezers (MC) *(tɕón)-tɕà tsɨ* m-b 817.
twelve (LX) *fià nə* sometimes *ná* 1185.
twelve (MC) *fià ná* tone change from 'two' 1185.
twenty (LX) *nə sá* 1193.
twenty (MC) *nə sá* 1193.
twenty-one (LX) *nə sá à* 1194.
twenty-one (MC) *nə sè tí* 1194.
twenty-one (MC) *nə sá ɳà à qó* 1194.
twig fence (LX) *tsà pià* 719.
twig fence (MC) *à tsà ~ á tsă* 719.
twig fence (MC) *tsà kí* 719.
twist rope (LX) *lì* tone notes 1759.
twist rope (MC) *lì* 1759.
two (LX) *nə* STC 4 *g-nis 1175.
two (MC) *nə qó* STC 4 *g-nis 1175.
two (liters) (LX) *nò ʁú* 1318.
two (liters) (MC) *cɛ́* 1318.
two cupped hands-full (LX) *phòN* b. 1288.
two cupped hands-full (LX) *ʁú* 1288.
two cupped hands-full (MC) *phòŋ phóŋ* b 1288.
two dollars (coins) (LX) *nə-tchæN* two-b 1314.
two dollars (coins) (MC) *nə dzé* 1314.

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two taels of liquor (LX) *cì nə zò* ??? 1313.
two taels of liquor (MC) *nə dzo̧u* 1313.
two years ago (LX) *dzɨ́ pù ~ zɨ́ pù* 1144.
two years ago (MC) *dzɛ́ pù* cf. two days ago 1144.
two years from now (LX) *dzà dzá tcj̀* 1146.
two years from now (MC) *χoù pú* 1146.
ugly (LX) *khú* 1513.
ugly (LX) *mí sè* 1560.
ugly (LX) *tsà qhú* 1560.
ugly (MC) *mì tá* 1513.
ugly (MC) *mì pá ʂè* 1560.
ugly (MC) *mí-pà ʂɨ* m-b 1513.
ugly (MC) *mì tá* 1560.
umbilical cord (LX) *pú tsɨ suà pù* 148.
umbilical cord (MC) *pè tʂɨ tʂɨ́* 148.
umbrella (LX) *tsò sà* 818.
umbrella (MC) *sæN* b 818.
unclear (LX) *fià nì* 2001.
unclear (MC) *χuèi là* s1=b? 2001.
uncover, take off (lid) (LX) *qà* ?STC 479 *klup 2061.
uncover, take off (lid) (MC) *ʂè dzí* 2061.
under (a building) (LX) *qà tò* 1068.
under (a building) (MC) *qà tà* 1068.
under (a building) (MC) *(lòu) qà tá* 1068.
under (a mountain) (LX) *qà tò* 1073.
under (a mountain) (MC) *sù qà tà* 1073.
under (the table) (LX) *qà tò* 1066.
under (the table) (MC) *qà tà* 1066.
underground (LX) *qà tò* 1070.
underground (LX) *qà tɕí* 1070.
underground (MC) *zué pè-qà tà* field-under 1070.
understand, comprehend (LX) *tà tshà* 2137.
understand, comprehend (LX) *tshà tshà* 2137.
understand, comprehend (MC) *sɨ uà* 2137.
understand, know (LX) *sɨ* STC 182 *syey 1832.
understand, know (LX) *tshà* 1832.
understand, know (MC) *sɨ uá cà* STC 182 *syey 1832.
understand, know (MC) *sɨ (ʐá)* STC 182 *syey 1832.
understand, know (MC) *tè χuè cá* 1832.
undress (LX) *ʁò* takes dà- 2432.
undress (LX) *χú* takes dà- 2432.
undress (MC) *loú* 2432.
unit of weight equal to 5 kilos (LX) *tchí* STC 369 *ki·n 1315.
unit of weight equal to 5 kilos (MC) *tché* STC 369 *ki·n 1315.
unravel (clothes) (LX) *zà zí* 1694.
unravel (clothes) (MC) *dʐɨ dʐ í* 1694.
untied, undone (LX) *sɨ χú* 2295.
untied, undone (LX) *dà phà ʁà* 2295.
untied, undone (MC) *ʂè ʐà gû* 2295.
upper half of body (LX) *ʁó qhuà* chest-part 1082.
upper half of body (MC) *cì peí qè tè* 1082.
upper millstone (LX) *ʁò kù* 882.
upper millstone (MC) *ŋæN tsɨ* b? 882.
upside down, inverted (LX) *dó gó* 1446.
upside down, inverted (MC) *guì ~ guí* = left (hand) 1446.
upward (pfx) (LX) *tə̀* - 1080.
upward (pfx) (MC) *tɛ̂* - 1080.
urge, advise (LX) *qà cí* 2270.
urge, advise (MC) *mè soú* 2270.
urinary bladder (LX) *bí-sò qò* urine-pocket 186.
urinary bladder (LX) *ŋò phó* 186.
urinary bladder (MC) *biè tà pó* 186.
urinary bladder (MC) *biè phò dá* 186.
urinate (LX) *cà pò* ?STC 77 *ts(y)i 2286.
urinate (LX) *(dà) bí* 2286.
urinate (MC) *bié biè* 2286.
urine (LX) *bí* 188.
urine (MC) *biĕ* 188.
use (n) (LX) *pò ì* 1031.
use (n) (LX) *pò sɨ* 1031.
use (n) (MC) *iò sɨ ŋá* 1031.
use, employ (LX) *mí-fàŋ pièn* m-b gloss?? or is s1=person 2332.
use, employ (LX) *ʁua[35] tà* tone var's 2332.
use, employ (MC) *ʁuà ə̀ ~ [ʁwăʐ]* 2332.
uterus (LX) *phì cì* 149.
uvula (LX) *zə̀ qə̀ tcý* s3 cf. tip, bud, appear(?) 173.
uvula (LX) *zə̀ qə̀-tsá* tongue-small 173.
uvula (MC) *zɨ qé-tsú* tongue-small 173.
vapor (LX) *lə̀* 23.
vapor, steam (MC) *(tchì) lè* 23.
vary, change (v.i.) (LX) *miè uá* 1669.
vary, change (v.i.) (MC) *tɛ̀ lă* STC 283 *lay 1669.
vat, jar (LX) *qhà* 781.
vat, jar (MC) *tsuè-tshoú* water-m 781.
vegetable (LX) *kù tsù* 530.
vegetable (MC) *tchòu tì* includes cabbage, celery, rapeseed, chives, etc 530.
vegetable (wild, sp.) (MC) *pià tì kú* Sichuanese /tser[31] gen[55]/ 530.
vegetable dish (LX) *kù tsù* 583.
vegetable dish (MC) *tchò tì* 583.
vegetable oil lamp (LX) *sò í-mú-gú*

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vegetable.oil-fire-m 739.
vegetable oil lamp (MC) *táŋ-tʂà* b-m 739.
vertical flute, Qiang flute (MC) *cáo* b (Qiang flute not used in Mianchi) 952.
vertical, upright (LX) *tshú* 1448.
vertical, upright (MC) *zó* 1448.
very (heavy) (LX) *(zɨ) χuà* (how to gloss this?) 2628.
very (heavy) (MC) *qè qè (dzɨ)* 2628.
vest (LX) *khá ɳá tsɨ* b? 633.
vest (MC) *khàn tɕín tsɨ* made of fabric. b? 633.
vest (MC) *phà dʐà* 633.
village (LX) *tshuá-kù* village-place ?STC *tyal 79.
village (MC) *tshuá* ?STC *tyal 79.
village (MC) *tshuá-(bʐà)* village-big. ?STC *tyal 79.
village (MC) *tshuà qó* village-this. ?STC *tyal 79.
vinegar (LX) *tshŭ* b 598.
vinegar (MC) *tshŭ* b 598.
violin (LX) *fù tɕhìn* b 953.
violin (MC) *fù tɕhìn tsɨ* b 953.
visit doctor (LX) *iá tsà* m1=sick 2104.
visit doctor (MC) *dzí sɨ (kì)* m3?= 'de' ptcl 2104.
voice (MC) *tɕhì* b? 197.
vomit (LX) *ʁà qú* 2202.
vomit (MC) *ì ə* other forms 2202.
vow, pledge (v) (LX) *fà sɨ* b. tones vary 1863.
vulva (LX) *phí tsɨ* 146.
vulva (MC) *thà bá* 146.
wad, pile, pack (LX) *thuà* 1281.
wad, pile, pack (MC) *lò ló* 1281.
wad, pile, pack (MC) *tiè* 1281.
wad, pile, pack (MC) *dʐòu* 1281.
waist (LX) *tà qà* 124.
waist (MC) *dì dĭ-sɨ* m-place 124.
wait (LX) *zò* 1809.
wait (MC) *zoù* 1809.
walk (LX) *kə* 2614.
walk (MC) *kè gú* cf. 'go', 'foot' 2614.
walk (MC) *kè ɕì* 2614.
walnut (LX) *bù dù ʁà qhú* s3=separated 508.
walnut (MC) *ʁò lò* 508.
want (LX) *ɕà* 2524.
want (LX) *tɕhá* 2524.
want (MC) *khí* 2524.
warm (LX) *lé* ?STC 381 *lum 1518.
warm (MC) *duè* 1518.
warm (water) (LX) *dó* 1517.
warm (water) (MC) *duè* 1517.
warm self by fire (LX) *khuà* 2108.
warm self by fire (LX) *(mù) lé* ?STC 381 *lum 2108.
warm self by fire (MC) *mú-khuè* fire-roast 2108.
wash (bowl) (LX) *χò là* ?STC 493 *(m-)syi/al. or, more likely, syll. breaking from NQ. 2459.
wash (bowl) (MC) *(ʁó) χuà là* ?STC 493 *(m-)syi/al 2459.
wash (clothes) (LX) *χò là* ?STC 493 *(m-)syi/al 2460.
wash (clothes) (MC) *(phù) χuà là* ?STC 493 *(m-)syi/al 2460.
wash (face) (LX) *χò là* ?STC 493 *(m-)syi/al 2462.
wash (face) (MC) *ʁuà là* 2462.
wasp (MC) *bià-bù* wild-bug 455.
waste (MC) *mì lá pù* 2555.
waste (MC) *ɕí tɕhɨ́* 2555.
waste (grain) (LX) *phù sé* e.g., wasted by people(check exact meaning?) 2555.
waste (grain) (LX) *ʁuà lí* 2555.
waste (grain) (LX) *phù lá* e.g., eaten by animals 2555.
water (LX) *tsù* *twiy STC 168 52.
water (MC) *tsuè* *twiy STC 168 52.
water drop (LX) *tsù-cù qə* water-m 55.
water drop (MC) *tsuè-tè* water-m 55.
watery, dilute (LX) *zò* 1481.
watery, dilute (MC) *ʐá* 1481.
wave (n.) (LX) *tsù qə* 53.
wave (n.) (MC) *tsuè bù* 53.
wave hand (LX) *lì tɕhí* 1763.
wave hand (MC) *tɕaó thà* b? 1763.
way, means (LX) *thiaò tshən* or HH. b? 990.
way, means (MC) *pʂú thè* 990.
we (MC) *á lè* 1361.
we (MC) *qá lè* 1361.
we (excl) (LX) *qà lià* 1361.
we (inclusive) (LX) *ú lià* w/v variation 1369.
we two (MC) *ŋà-lè-(nə-qó)* I-he-two-CL 1360.
we two (MC) *tɕó lè* 1360.
we two (exclusive) (LX) *qà ɳí* 1360.
we two (inclusive) (LX) *ú ɳì* 1370.
wear (bracelet) (LX) *tsè* 1798.
wear (bracelet) (MC) *tsì* 1798.
wear (clothes) (LX) *gù* 1740.
wear (clothes) (MC) *(tè) gù* STC 160 *gwa ~ *kwa 1740.
wear (hat) (LX) *tà* 1797.

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wear (hat) (MC) *tà* b? 1797.
wear (head cloth) (LX) *dé* 1796.
wear (head cloth) (MC) *tà* 1796.
wear (jewelry) (LX) *ʁué* 2235.
wear (jewelry) (MC) *tà* 2235.
wear (jewelry) (MC) *tsì* 2235.
wear (shoes) (LX) *tsù* 1741.
wear (shoes) (MC) *tè tsù* 1741.
wear a hole into (LX) *(dà) bià* 1743.
wear a hole into (MC) *(ʐè pù) ʂè tɕǐ* 1743.
wear clothes (MC) *phù gù* STC 160 *gwa ~ *kwa 2222.
weasel (?) (LX) *tɕhỳ lí qə̀* Sichuanese *diao ling zi*. cf. squirrel 398.
weather (LX) *mú* 6.
weather (MC) *mú pià* 6.
weave (basket) (LX) *kà* 1668.
weave (basket) (MC) *tyà* STC p21 *tak 1668.
wedge (LX) *cý* 872.
wedge (MC) *(sé) cò* 872.
week (LX) *bà ì* 1157.
week (MC) *bà-diè* rest(?)-m 1157.
weigh (grain) (LX) *tɕhì tɕhí* STC 369 *ki·n 1710.
weigh (grain) (MC) *tɕhé* STC 369 *ki·n 1710.
weld (LX) *hăn dà* b 1962.
weld (MC) *χăn thà* b -n ~ -Ø 1962.
weld (MC) *dʐú* 1962.
weld (MC) *deì* 1962.
well (n.) (LX) *tsù-kù* water-pit 37.
well (n.) (MC) *tsuè-kù* water-pit 37.
Wenchuan (name of county and county seat) *qhó-tsà*.
west (LX) *mù ɳí-dà ʁù* sun-opposite-direction 1038.
west (MC) *mè sí-fià-dà-sɨ* sun-down-go-place 1038.
west (MC) *mè nà-fià-dá-sɨ* sun-down-go-place 1038.
wet field (LX) *tsù-zù* water-field 45.
what (LX) *nə́ ì* cf. '-self' words 1391.
what (MC) *ní lè* 1391.
wheat, barley, etc (LX) *ʁə̀* STC 150 *mruw 524.
wheat, barley, etc (MC) *lè* ?STC 150 *mruw 524.
wheel (MC) *kuìN kuìN* 824.
wheel (MC) *kuìN kuə̀* new form (?) 824.
where (LX) *nə́ gá-tshá* which-place 1393.
where (MC) *à tá (lè)* 1393.
which one (LX) *nə́ gá-ó* which-CL 1392.
which one (MC) *ʂí lè* of people 1392.
which one (MC) *ní lè* of things 1392.
while (CL) (LX) *tuá* 1336.
while (CL) (MC) *tá pà* 1336.
while (CL) (MC) *tuá* 1336.
whimper in pain (MC) *dzì sɨ́ sɨ́* 1970.
whip (LX) *ʁuà-bə̀i* m-rope 837.
whip (MC) *ʁuà tsɨ̀* 837.
white (LX) *phé* 1453.
white (MC) *pʂí* 1453.
white cabbage (LX) *phà tseì* b 531.
who (LX) *sɨ́* 1390.
who (MC) *ʂí lè* 1390.
why (LX) *nə̀ gà* 1398.
why (MC) *ɳà kí lè nì* 1398.
wick (LX) *mù lí qə̀* gloss? 740.
wick (LX) *χò tshaò* 740.
wick (MC) *mè cà-tié* m-heart 740.
wick (MC) *táŋ tshaò* b 740.
wide, broad (LX) *lá* 1418.
wide, broad (MC) *lá* 1418.
widow (LX) *kuà mə̀ tsɨ̀* b 310.
widow (MC) *kuà mù tsɨ̀* b in past could re-marry relative(?) 310.
widower (LX) *kuà kòŋ tsɨ̀* b 311.
widower (MC) *kuà kóŋ tsɨ̀* b in past could re-marry relative(?) 311.
wife (LX) *tcè mì* ?STC 297 *mow 307.
wife (MC) *tcé (tsɨ̀) mèi* ?STC 297 *mow 307.
wild carnivore (LX) *pià-χó* tiger(?)-wild 375.
wild carnivore (MC) *cỳ* 375.
wild goose (LX) *ŋa^{35} ʁò* b? 412.
wild goose (MC) *ŋæ^{35} uò* b? 412.
wild herbivore (LX) *iò χó* 376.
wild herbivore (MC) *cỳ* 376.
wild pig (LX) *pià χó* 385.
wild pig (MC) *pià χá* 385.
wild radish (LX) *zuà mù* "mountain radish" 573.
willing (LX) *ʁò ~ ʁó* 2552.
willing (MC) *ʁoù ʐà ~ ʁoù ʐă* 2552.
willow tree (LX) *iæN lioú-phù* b-tree 482.
willow tree (MC) *iá liù-phò* b-tree 482.
willow tree (wild) (LX) *sə́ ɔ́ ɔ ~ rə* 482.
win, beat (LX) *tə̀ qò* 2528.
win, beat (MC) *qà* 2528.
win, triumph (LX) *tà qò* 2323.
win, triumph (MC) *tɛ́ qă* VH 2323.
wind (LX) *mù ʁó* u / o in first syll 11.
wind (MC) *mè mè* 11.
wind (MC) *mé mè* 11.
wind (thread), tangle (LX) *ʁò lì* 1699.
wind (thread), tangle (MC) *dʐà* 1699.
window (LX) *tshán dzɨ̀* b 714.

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window (MC) *tshán tsɨ* pronunciation varies. b 714.
wing (LX) *dzuà ɻà* 370.
wing (MC) *zà kè* 370.
winnow (LX) *ʁà ʁò* 2513.
winnow (LX) *sú tá* 2513.
winnow (MC) *zá tʂí* grain + winnow (?). This is a verb phrase and not a single word, as evidenced by the tones 2513.
winnowing fan (LX) *pù tɕì* b 887.
winnowing fan (MC) *pò tɕì* b 887.
winnowing fan (MC) *tòu tɕhà* big one 887.
winter melon (MC) *tóŋ kuá* b 548.
wipe (table) (LX) *má dà* b? 1681.
wipe (table) (LX) *tshá dà* b,s 1681.
wipe (table) (MC) *tshà* b 1681.
wipe (table) (MC) *sué mè* 1681.
wipe (table) (MC) *mà tɕè* 1681.
wipe away, erase (LX) *tshà tshí* 1682.
wipe away, erase (MC) *cé tshoù zɨ́* 1682.
witch (LX) *sɨ pí mià* 248.
wither (LX) *fiǎ χà* 2119.
wither (MC) *à lià sɨ̌* 2119.
wither and fall (LX) *sò* 1818.
wither and fall (LX) *sè sì* 1818.
wither and fall (LX) *phià* 1818.
without (v.i.) (LX) *mǒ* 2176.
without (v.i.) (MC) *mì ŋà* et al 2176.
without benefit (LX) *mò fió* 2544.
wok (LX) *tshà piá* 756.
wok (MC) *tshà* 756.
wolf (MC) *sèi ~ sè* 401.
woman (LX) *tɕá tù* 216.
woman (MC) *tɕè liú mù* 216.
wood ear fungus (LX) *ɔ́ tsɨ́* tone variations, incl. LL 567.
wood ear fungus (MC) *à dà-nə́ ké* grandmother-ear 567.
wood, timber (LX) *cì tò* STC 233 *siŋ 707.
wood, timber, firewood (MC) *sè* STC 233 *siŋ 707.
wood-chopper (LX) *ʁuà teí* 879.
wood-chopper (MC) *cì dé* m1=iron 879.
wooden tray (LX) *bú-phàn tsɨ* [dzɨ] board-b 783.
wooden tray (LX) *bú-phàN pháN* board-b. vowel in borrowed syllables is unstable 783.
wooden tray (MC) *phàn phàn* b 783.
wooden tray (MC) *sè phàn phán* -n~-N 783.
woodpecker (MC) *tɕhuà mù ɳòu* b ɳòu ~ ɳɑò 423.
wool (LX) *tchà χù* also HL tone combo 350.
wool (MC) *tshé-mù* goat-hair 350.
wool cloth (LX) *nì tsɨ* b 624.
wool cloth (MC) *nì tsɨ* b 624.
work on a job (LX) *dzì pù* 1915.
work on a job (LX) *dzì bá lá* 1915.
work on a job (MC) *dʐɨ́ pú kè* 1915.
work on a job (MC) *dʐɨ́ pú kì* 1915.
work song (MC) *ʂàN kɔ́* b 940.
worry (LX) *cì ɔ́* heart-dry 2576.
worry (LX) *χó tá* 2576.
worry (MC) *tè tɕaò tɕè (zɨ̂)* b 2576.
worry (MC) *qé lè* best form 2576.
worry, be anxious (LX) *cì-ɔ́* heart-dry 1867.
worry, be anxious (LX) *kù tchì* 1867.
worry, be anxious (MC) *ì qè tshoŭ* 1867.
worry, be anxious (MC) *tə́ tɕaó thà* b 1867.
worship (LX) *ʁuà cà* 1639.
worship (MC) *zà pú* m-do 1639.
wrap (medicine) (LX) *qú tá* ?STC p110 *(r-)tul 1644.
wrap (medicine) (MC) *(yè) quà lió* 1644.
wrap (medicine) (MC) *(yè) mà* 1644.
wring (kerchief) (LX) *tɕoù dá* b 2189.
wring (kerchief) (MC) *dʐù dʐuá* cf. pinch 2189.
wrinkle (LX) *ɻà gù* 151.
wrinkle (n) (MC) *tsì qò* 151.
wrinkle (v) (MC) *tsì kò* 1438.
wrinkly (LX) *tɕì tú* adj? 1438.
wrist (LX) *lì qù* 134.
write (LX) *ɻà* STC 429 *riy 2494.
write (MC) *cà* 2494.
written character (LX) *dzì* b? 918.
written character (MC) *dzɨ́* b 918.
wrong, mistaken (LX) *dà tsà* asp? 1757.
wrong, mistaken (MC) *kè tshù* 1757.
wrong, mistaken (MC) *té tshĕ* 1757.
yak (female) (LX) *tchà tchà mí mià* 322.
yak (male) (LX) *tchà tchà mí* 320.
yak, *pianniu* (female) (MC) *mià bó* STC 136 *broŋ 322.
yak, *pianniu* (male) (MC) *bó (zɨ́) ~ bò zɨ́* STC 136 *broŋ 320.
Yama, King of Hell (MC) *sɨ́ pù bʐà* 965.
Yama, King of Hell (MC) *ŋæ̀n uàŋ láo iè* b 965.
yamen, government (MC) *zé qà* 89.
yawn (LX) *hà há pù* onomat 1785.
yawn (MC) *χà pû* b?-do 1785.
year (LX) *pù* 1141.
year (MC) *(à) pù* 1141.
year (calendar/age) (CL) (LX) *pù* 1341.
year (calendar/age) (CL) (MC) *pù* 1341.
year (of animal's age) (LX) *pù* 1292.

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year (of animal's age) (MC) *pù* 1292.
year, next (LX) *dzá tcį* 1145.
year, next (MC) *diá tchį* 1145.
year, this (LX) *tsé pù* 1142.
year, this (MC) *tsé pų* pu ~ pų 1142.
yellow (LX) *χá* 1455.
yellow (MC) *χá* 1455.
yellow weasel (LX) *tcà qó* 399.
yellow weasel (MC) *χuàŋ suèi ló* b 399.
yesterday (LX) *ní cį* ?STC 368 *niŋ 1086.
yesterday (MC) *ná sę* ?STC 368 *niŋ 1086.
Yi nationality (LX) *lò ló* 205.
Yi nationality (MC) *mà ʂà* 205.
yield, surrender (LX) *fià sì* 2481.
yield, surrender (MC) *tè χó* ɛ/æ? 2481.
yoke (LX) *tò lì* 839.
yoke (MC) *nè tsù* 839.
yonder, way over there (MC) *fiă lè* 1383.
yonder, way over there (furthest) (LX) *thà gá* 1383.
you (pl) (LX) *ù lià* 1365.
you (pl) (MC) *ú lè* 1365.
you two (LX) *ù ɳí* 1364.
you two (MC) *ú lè nà qó* 1364.
young (of person) (LX) *pù-sù tsá* year-age-young 1511.
young (of person) (MC) *ʂù-tsà tsá* age-small 1511.
young man (LX) *biè phà* 217.
young man (MC) *bè liù tsú* 217.
young man (MC) *má mà* 217.
young woman (LX) *tcá* 218.
young woman (MC) *tcè tsù tsú* 218.
younger brother (LX) *tú-tsù* 3d pers. m-small. STC 309 *d/toy 285.
younger brother (MC) *pí mù* said by elder sis 285.
younger brother (MC) *tòu tsú* said by elder bro 285.
younger brother (direct) (LX) *á còN* 285.1.
younger siblings (LX) *sà ɳì* 295.
younger siblings (MC) *mè tiè* ?STC 309 *d/toy 295.
younger sister (LX) *sá tsù* 3d person 286.
younger sister (MC) *liù* said by bro/sis 286.
younger sister (direct) (LX) *á mì* 286.1.
your (pl) (MC) *ú lè kì* 1365.1.
your (sg) (MC) *ù kì* 1362.1.
yourself (LX) *ué ì* /Ø/ -> [β] /_u cf. 1362 1374.
yourself (MC) *uí nà* 1374.
yourselves (LX) *veí lià* ~ *ví lià* 1374.
yuán (Chinese dollar) (LX) *piá* 1332.
yuán (Chinese dollar) (MC) *kó* 1332.
zero (MC) *mì-ŋà* NEG-have 1210.
zhàng (3 1/3 meters) (LX) *zá* b? some tone var. 1322.
zhàng (3 1/3 meters) (MC) *dʐá* b 1322

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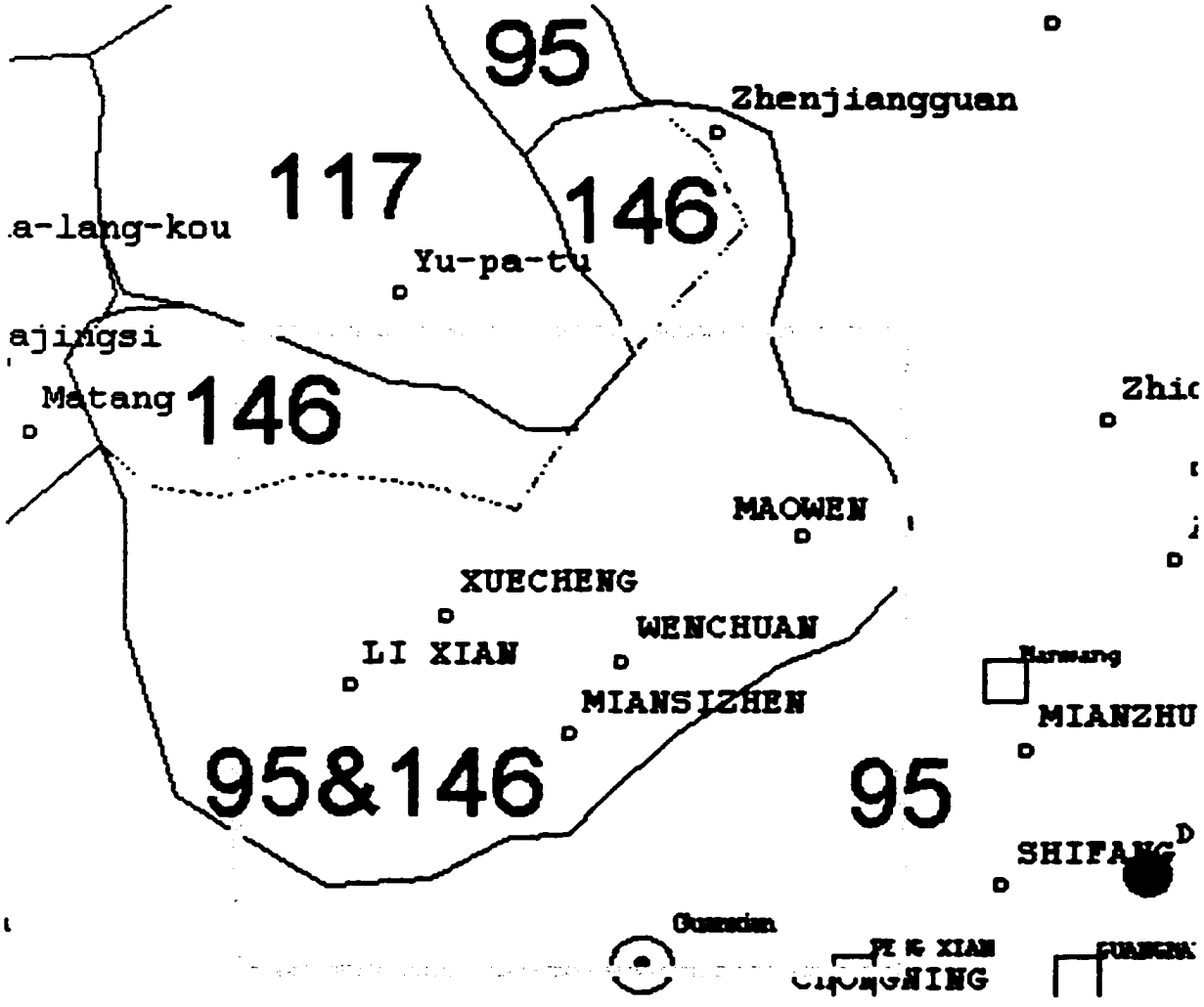
Appendix C: Maps and Charts

This appendix consists of the following maps and charts:

1. Map of the Qiang area (SIL).
2. Dialect names, locations and map from *QYJZ*:177-179.
3. Dialect names, population figures from LIU 1998b:16-18, corresponding to tables 1.2 - 1.4.

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Below is a map of the Qiang-speaking area (cross-hatched and labeled "95 & 146"), provided by Barbara Grimes, editor of the *Ethnologue* (Summer Institute of Linguistics). Note that the area called "MAOWEN" is also called *Maoxian* or "Mao county." Chengdu is south of the area included in this map.



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The following lists of dialect names and locations, and the dialect map are taken from QYJZ: 177-179.

方　言

羌语可以划分为南部和北部两个方言。南部方言主要分布在茂汶羌族自治县的大部分地区、汶川县的大部分地区、理县的南部地区，约有六万人。北部方言主要分布在自治县北部的赤不苏地区以及黑水县的大部分地区，约有七万人。南、北两个方言各分五个土语，其分布情况大致如下。

南部方言

1.大鼓山土语：主要分布在理县南部薛城一带的薛城、上孟、下孟、兴隆、甘堡、列列、九子、木卡、扑头、蒲溪等地，约有八千人。

2.桃坪土语：主要分布在理县南部桃坪一带的桃坪、佳山、甘溪、三岔、曾头、牛山、西山、通化、古城等地，约有四千人。

3.龙溪土语：主要分布在汶川县北部龙溪一带的龙溪、布兰、巴夺、下庄、木上等地，约有三千人。

4.绵池土语：主要分布在汶川县威州区的克枯、布瓦、雁门、索桥、萝卜、七盘沟，绵池区的绵池、玉龙、白土坎、克约、草坡以及茂汶羌族自治县的南新、别立一带，约有一万四千人。

5.黑虎土语：主要分布在茂汶羌族自治县中部和南部的凤仪、土门、沙坝、校场等区，包括白溪、三龙、回龙、繁荣、幸福、太平、渭门、沟口、黑虎等地以及红光、丰收等公社，共有三万多人。

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北部方言

1.芦花土语：主要分布在黑水芦花一带的三打古、沙石多、羊茸、泽盖、二古鲁、上阴山、上阳山等地，约有一万二千人。

2.麻窝土语：主要分布在黑水县的麻窝一带，包括扎窝、俄恩、红岩、西尔、双溜索、下阴山、下阳山等地，约有一万五千人。

3.茨木林土语[1]：主要分布在小黑水区的茨木林一带，包括二木林、热窝、乌木树、慈坝、青朗沟等地，约有九千人。

4.维古土语：主要分布在黑水县南部维古区的维古一带，包括木苏、上龙坝、下龙坝、石碉楼、色耳古等地，约有一万五千人。

5.亚都土语：主要分布在黑水县的南部瓦不梁子一带以及茂汶羌族自治县北部的赤不苏一带，包括曲谷、和平、圈城等地，约有一万多人。

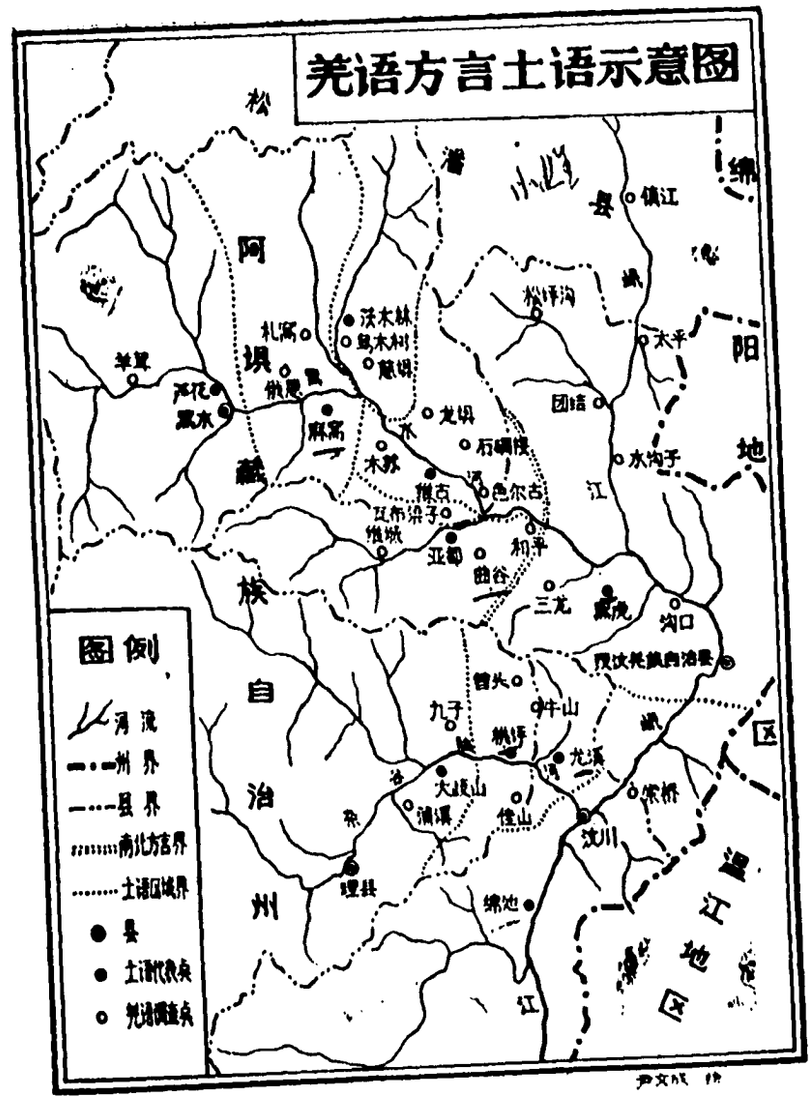
附羌语方言土语分布示意图（见第179页）

此外，在本州松潘县镇江关一带，尚有少数羌族居住，他们的话属羌语南部方言。这一地区的羌语和茂汶羌族自治县较场区的水沟子、松平沟、团结、太平等地的羌语也许可划为一个土语。因尚未作详细调查，暂不作定论。

羌语南、北两个方言的差别比较大，在语音、词汇、语法等方面都各有自己的特点，这是划分羌语方言土语的主要根据。下面分别进行介绍。

一、语音方面

南、北两个方言的语音特点，在语音部分的音系举例中，已经作了较详细的介绍，桃坪话音系基本上可以代表南部方言的主



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The following table corresponds to Table 1.2 in this dissertation (Liu 1998b:16).

县	民族	人口(1990)	操羌语者	占本县羌族或藏族比例
茂县	羌	89000	72000	80.9%
理县	羌	16000	9700	60.6%
汶川	羌	29000	18000	62.1%
松潘	羌	2300	1700	73.9%
北川	羌	48000	100	0.02%
丹巴	羌	1200	0	0
黑水	藏	58000	49600	85.5%

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The following table corresponds to Tables 1.3 and 1.4, although the dialects are arranged in a different order. with SQ dialects coming first (Liu 1998b: 17-18).

方言	土语	分布地区	使用人口
南部方言	大岐山	理县的薛城、上孟、下孟、兴龙、甘堡、列列、九子、木卡、朴头、蒲溪等	7400
南部方言	桃坪	理县的桃坪、佳山、甘溪、三叉、曾头、牛山、西商、通化、古城等	4900
南部方言	龙溪	汶川县的龙溪、布兰、巴夺、下庄、木上等	3300
南部方言	绵池	汶川县除了龙溪土语以外的其他地区	15700
南部方言	黑虎	茂县的黑虎、苏加坪、飞虹、沟口、渭门、椒园坪等	16000
南部方言	三龙	茂县的凤仪、三龙、沙坝、回龙、白溪、洼底、雅珠寨等	15000
南部方言	较场	茂县的较场、石大关、太平、松坪沟等地和松潘县镇江关的西侧地区以及北川县的个别地区	19000
北部方言	雅都	茂县的赤不苏、雅都、曲谷、维城以及黑水县的瓦钵梁子、色尔古等	23000

北部方言	维古	黑水县的维古、木苏、龙坝、洛多、石碉楼等	11000
北部方言	麻窝	黑水县麻窝、扎窝、双溜索、西尔、红岩、俄恩等	12000
北部方言	茨木林	黑水县的茨木林、格窝、乌木树、热窝、晴朗沟等	9800
北部方言	芦花	黑水县的芦花、沙石多、羊茸、泽盖、二古鲁、卓格都等	14000

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