Negation in Longxi Qiang

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Negation in Longxi Qiang shows distinctive features in comparison to other recorded Qiang varieties. The choice between the two negative prefixes /mí-/ and /mì-/ and the volition indicated by these two negative markers in Longxi Qiang are similar to those of negators pu^{31} and mei^{55} in Wenchuan Mandarin. To a large extent, pu^{31} corresponds to /mí-/ and mei^{55} corresponds to /mì-/. Moreover, two negative constructions with positive meaning in Wenchuan Mandarin are borrowed into Longxi Qiang. I believe that the development of a negation system similar to Wenchuan Mandarin in Longxi Qiang is not a coincidence; language contact is an important factor accounting for it.

Keywords: Qiang, Longxi, negation, language contact, superstratum influence

1. Introduction

The Qiang language belongs to the Qiangic branch of the Tibeto-Burman family, of Sino-Tibetan stock (Sun 1981: 2). Qiang language speakers are scattered over Aba Tibetan and Qiang Autonomous Prefecture, located in northwestern Sichuan Province. Longxi Township is located in Wenchuan County, Aba Tibetan and Qiang Autonomous Prefecture, Sichuan Province, China.

The first aim of this paper is to describe negation in Longxi Qiang. This analysis will present distinctive features of negation in the Longxi variety. The second aim of this paper is to discuss the trigger of tonal changes in negated verb forms. The examples of Longxi Qiang cited in this paper were obtained from my fieldwork carried out between 2013 and 2015 in Madeng Village, Longxi Township. I also worked with consultants in the Wenchuan County seat, Weizhou, because some of them were working and living there. The texts and conversations recorded during all of the fieldwork add up to over eight hours. The Wenchuan Mandarin data is provided by Wenchuan Mandarin monolingual speakers.

The questions discussed in this paper are as follows. Section 2 gives an overview of the tonal system. I shall analyze the nature of tone in Longxi Qiang by using carrier sentences, rather than recording in isolation. Section 3 introduces the features of negation in Longxi Qiang, which are different from those recorded in other Qiang varieties such as Taoping, Puxi, Qugu, and Ronghong. Section 4 will analyze different verb types and their interaction with negators based on the notion of Aktionsart (Van Valin & LaPolla 1997: Chapter 3). Section 5 will illustrate the structural similarities of negation in Longxi Qiang and Wenchuan Mandarin. Section 6 will then postulate that the negative forms in Longxi Qiang are due to contact influence from Wenchuan Mandarin, which has become a superstratum influence (Thomason & Kaufman 1988). I shall further examine the cognitive and behavioral reasons for this superstratum influence (LaPolla 2009). The last section will summarize this paper.

2. The tonal system and tonal derivation rules of Longxi Qiang

The difference between the two forms of the negative prefix, /mí-/ and /mì-/, is tonal. Four tones can be found in Longxi Qiang, as shown in Table 1.[1] In addition to encoding lexical contrasts such as those given in Table 1, Longxi Qiang has a few examples in which the tonal contrast is used to distinguish word classes, for example, the noun *bí* 'urine' vs. the verb *bì* 'urinate' differ only in terms of tone patterns.

Table 1. Representation of tone in Longxi Qiang

Description	Tone value	Symbol	Example
High level(H)	55	´	*zá* 'spoon'
Mid or Low-falling (L)	33~31	`	*zà* 'clever'
Low-rising (R)	213	ˇ	*zǎ* 'cry'
High falling (F)	51	^	*lê* 'what'

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1. Among recorded Qiang varieties, Mawo, Qugu, Ronghong, and Puxi are atonal; Taoping, Longxi, Mianchi, and Yonghe are tonal. Based on Evans' data collected in 1997, Longxi Qiang has five tones: mid or low-falling (33~31), high level tone (55), low (falling) rising (13–213), mid-rising (35), and high-falling tone (51) (Evans 2001: 84). However, the mid-rising tone (35) is not found in my personally collected data. Twelve instances found in his Longxi glossary bear mid-rising tone. Among these 12 instances, just two cases ('disappear' and 'use, employ') are native words, and the other 10 are loan words. Aside from the problem of loanwords, in my data none of these 12 instances manifests a mid-rising tone.

Syllables with variable tones are also found in Longxi Qiang. The variable syllables surface with either high or low-falling tone. The most common variable syllables are grammatical function words, but verb roots also have variable tones. The tone of a variable syllable depends on the tone of the preceding or following syllable.

2.1 Tonal dissimilation

Tonal dissimilation in Longxi Qiang mainly includes two patterns: progressive dissimilation and regressive dissimilation.

2.1.1 *Progressive dissimilation*
There are two patterns of progressive dissimilation as described in (1) and (6). The morphemes that show progressive dissimilation involve two types in terms of tone: some (such as /tsʰu/ and /zə/) do not carry a specific tone, but the others (such as /uà/, /mà/, /kɜ̀/ and /lò/) carry an underlying low-falling tone.

(1)   a.   /L + tsʰu/ → [L-tsʰú]
       b.   /F + tsʰu/ → [F-tsʰú]
       c.   /H + tsʰu/ → [H-tsʰù]
       d.   /R + tsʰu/ → [R-tsʰù]

The tonal pattern of /tsʰu/ 'too' is determined by that of the preceding verb or adjective, as it dissimilates with that syllable in terms of tone. If the preceding verb or adjective's last syllable bears low-falling tone or high-falling tone, the degree adverb marker /tsʰu/ 'too' appears as high tone, as in (2)–(3). By contrast, if the preceding verb or adjective's last syllable bears high tone or low-rising tone, the degree adverb marker /tsʰu/ 'too' would surface with low-falling tone, as in (4)–(5).

(2)   *qà   dà-**bà**=**ts**ʰ**ú**=sà.*
      1SG AND-tired=too=1SG.CSM
      'I was too tired.'   (T7)[2]

(3)   *tsə̀   pə̂ˈ=**ts**ʰ**ú**.*
      3SG can=too
      '(S)he can do many things.'

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2.   The abbreviations CV and T in the following examples represent conversation (CV) and text (T). The two digits separated by a colon indicate the number of the conversation or text and the page of the example. For example, '(CV1:20)' indicates that the example was taken from the first conversation (CV) and its 20th page. "+" is for morpheme fusion, "=" for clitic boundary, and "-" for morpheme boundary.

(4) *aì* ***tí**=**tsʰù**=tì* ***miá-qà**.*[3]
    EXT straight=too=DEF NEG$_1$-can
    'Too straight (wood) is not feasible.' (T12)

(5) *tsə̀* *ə̌ˈ=**tsʰù**.*
    3SG say=too
    '(S)/he said too much.'

Progressive dissimilation is also found in syllables with underlying low-falling tone such as the prospective aspect markers /uà/ and /mà/ and the serializing verbs /kè/ 'go' and /lò/ 'come'. Here, I take /uà/ as an example to clarify this type of progressive dissimilation. The tone change rule given in (6) indicates that the variable syllable /uà/ surfaces as high tone [uá] when the tone of the preceding syllable is low-falling, as illustrated in (7). In other cases, namely preceded by high, low-rising or high-falling tone, the variable syllables keep the low-falling tone, as illustrated in (8–10).

(6) /L + uà/ → [L-uá]

(7) *qà* *ŋí* *kè=**uá**.*
    1SG sleep go=1SG.NCSM
    'I'm going to sleep.'

(8) *qà* *ʁuàlà* *dà-**uá**=**uà**.*
    1SG outside AND-call=1SG.NCSM
    'I'm going to call.'

(9) *qà* *zǎ=**uà**.*
    1SG cry=1SG.NCSM
    'I'm going to cry.'

(10) *qà* *màtə̀* *tə̀-**qâˈ**=**uà**.*
    1SG Qiang.language UP-say=1SG.NCSM
    'I shall speak Qiang.'

2.1.2 *Regressive dissimilation*

Pronouns manifest regressive dissimilation. If a pronoun is followed by the topic marker =*zù* or the Chinese loan pause particle *mà*, the underlying low-falling tone of the pronoun changes to high tone. In my recorded corpus, this tonal dissimilation of pronouns does not occur obligatorily. In (11), the underlying low-falling

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3. *miá-* here is caused by vowel harmony, also see the same negator *miá-* in Example (12) and (89–91). Its underlying form is /mí-/ used to negate states. *miá-qà* is negative form of auxiliary verb *qà* 'can', a type of stative verb. The continuative aspect negator *miá-* is a fused form: /mí/~/mì/ + /tɕá/ > /miá/. These two negators are not the same thing.

tone of the 1SG pronoun and the 3SG pronoun dissimilate with the low-falling tone of the topic marker =*zù*.

(11) **qá=zù**   *tsǎnŷ*   *tsʰuá-jì.*   **tsə́=zù**   *làmò*   *ʁeìtə̀*   *tsʰuá-jì*   *jà!*
     1SG=TOP Tibetan(CH) sing-NMLZ[4] 3SG=TOP FILL Mandarin sing-NMLZ EXC
     'I sang a Tibetan song. She sang a Mandarin song!'   (CV5:10)

The pause particle *mà* is borrowed from Wenchuan Mandarin. The borrowed particle *mà* appearing after an argument marks a speaking pause. In (12–13), the 3SG pronoun /tsè̀/ and the 1SG pronoun /qà/ change to high tone due to the low-falling tone of the particle *mà*.

(12) **tsə́ mà**   *à-tɕè*   *mì-zé=là*   *miá-qà=pù*   *uè.*
     3SG P(CH) one-CL.HB NEG$_1$-take.care=NFIN NEG-can=HET FIN
     'He needs at least one person to take care of him.' (lit: It is not acceptable that
     even one person does not take care him.)   (CV8:7)

(13) **qá mà** *meìmeí*   *làmò* *nə̀-tsʰè̀-ó*   *dà-zə́=sà.*
     1SG P(CH) younger.sister(CH) FILL two-hundred-CL AND-give=1SG.CSM
     'I gave younger sister two hundred *yuan*.'   (CV4:26)

2.2   Tonal assimilation

Aside from the progressive and regressive dissimilation pattern shown above, progressive and regressive assimilation patterns are also found in Longxi Qiang. The assimilation in Longxi Qiang generally refers to the situation that the high tone of a morpheme/word assimilates the following or preceding syllable. Compared with the high tone, the low-falling tone has little influence on the following or preceding syllable.

2.2.1   *Progressive assimilation*

Numeral-classifier compounds in Longxi generally manifest progressive assimilation. The low-falling tone or low-rising tone of the classifier assimilates to the high tone of the numeral, as in (14b) and (15b). By contrast, the low-falling tone of the numeral does not influence the surface tone of the classifier, as in (14a), (15a) and (16a). The classifiers bearing low-rising tone are borrowed from Wenchuan Mandarin. In my personally collected data, no classifiers bearing high-falling tone have been found yet. In (14), classifier *ò* is a 'generic' sortal classifier. I infer from

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4.   In the Longxi variety, there are independent clauses that end in the nominalizer *-jì*. This construction is used by speakers to indicate certainty of an assessment, see also Example (88).

the surface tonal pattern of the numeral-classifier compounds [à-ò] 'one', [nə̀-ò] 'two', [zə̀-ò] 'four' and [ʁuè-ò] 'five' that the classifier *ò* has an underlying low-falling tone. If the underlying tone of this classifier were high tone, the tonal pattern of these numeral-classifier compounds would appear as [L-H] as in (16a). '*tsʰè* 'three' + CL' always shows the surface tone pattern [L-H], regardless of the tonal input of the classifier.

(14) the classifiers with underlying low-falling tone

    a. /L + L/ → [L-L]   (progressive assimilation)

        /à-ò/ → [à-ò]   'one'

        /nə̀-ò/ → [nə̀-ò]   'two'

        /zə̀-ò/ → [zə̀-ò]   'four'

        /ʁuè-ò/ → [ʁuè-ò]   'five'

    b. /H + L/ → [H-H]   (progressive assimilation)

        /tsú + ò/ → [tsú-ó]   'six'

        /ɕí + ò/ → [ɕí-ó]   'seven'

        /tsʰá + ò/ → [tsʰá-ó] 'eight'

        /gú + ò/ → [gú-ó]   'nine'

If the classifier bears underlying low-rising tone, it will assimilate to the high tone of the numeral, as in (15b). The borrowed classifier *tuǎn* (< Chinese *tuǎn*) is used for paragraphs. The low-falling tone of the numeral does not influence the tone of the classifier, so the following classifier *tuǎn* keeps the original low-rising tone, as in (15a).

(15) the classifiers with underlying low-rising tone

    a. /L + R/ → [L-R]   (progressive assimilation)

        /à + tuǎn/ → [à-tuǎn]

        /nə̀ + tuǎn/ → [nə̀-tuǎn]

        /zə̀ + tuǎn/ → [zə̀-tuǎn]

        /ʁuè + tuǎn/ → [ʁuè-tuǎn]

    b. /H + R/→ [H-H]   (progressive assimilation)

        /tsú + tuǎn/ → [tsú-tuán]

        /ɕí + tuǎn/ → [ɕí-tuán]

        /tsʰá + tuǎn/ → [tsʰá-tuán]

        /gú + tuǎn/ → [gú-tuán]

The classifiers bearing high tone keep the original high tone no matter whether the preceding numeral is high or low-falling tone as in (16a–b). The classifier *bó* is used for groups of people or animals.

(16) the classifier with underling high tone

    a.   /L + H/ → [L-H]

        /à + bó/ → [à-bó]

        /nà̀ + bó/ → [nà̀-bó]

        /tsʰè + bó/ → [tsʰè-bó]

        /zà̀ + bó/ → [zà̀-bó]

        /ʁuè + bó/ → [ʁuè-bó]

    b.   /H + H/ → [H-H]

        /tsú + bó/ → [tsú-bó]

        /ɕí + bó/ → [ɕí-bó]

        /tsʰá + bó/ → [tsʰá-bó]

        /gú + bó/ → [gú-bó]

Continuative aspect marker plus verb root also manifests progressive assimilation. If the continuative aspect marker *tɕá=* attaches to a verb root, the tone of the verb root will assimilate to high tone due to the influence of the continuative aspect marker. In (17), the underlying tone of the verb root *pù* 'do' is low-falling tone. In (18), the underlying tone of the verb root *ə̌ˀ* 'say' is low-rising tone. Both the low-falling tone and low-rising tone surface as high tone once the continuative proclitic *tɕá=* attaches to the tonal syllable.

(17) *à-uà*   *ké*   **tɕá=pú** *pù tɕʰé* *uè.*   (< *pù* 'do')
      DOWN-stoop ADV CON=do do need FIN
      'It is necessary to still stoop like this.'

(18) *kaì* **tɕá=ə̌ˀ**   *uè. xò-naînaì.*   (< *ə̌ˀ* 'say')
      ADV CON=say FIN He(CH)-grandmother(CH)
      'Grandmother He still said like this.'

In the negation, the negative marker fuses with the continuative marker, forming the syllable *miá*. When this form is used with a verb root, the tone of the verb root will also assimilate to high tone due to the high tone of the negator/aspect marker, see example *miá-kʰúkʰuá* (NEG₁.CON-hot) in (80) and *maí-sə́* (NEG₁.CON-know) in (81).

2.2.2   *Regressive assimilation*

Regressive assimilation indicates that the tone of a morpheme/word assimilates to the following syllable. If a directional prefix is followed by a disyllabic verb root bearing the tonal pattern HH, it would surface with a high tone, as in (19). The underlying tone of the directional prefix is low-falling. The tonal process can be seen as a directional marker assimilating to the high tone of the verb root.[5]

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5.   In Examples (19a–d), the verbal prefixes do not encode direction; they function as perfective markers. In Longxi, as in other Qiangic languages, the pairing of a verb with a given directional is often arbitrary.

(19)   directional prefix + disyllabic verb root
/L + HH/ → [H-HH]
   a.   /à + tɕýqá/ → [á-tɕýqá]   'get mildew'
   b.   /à + záló/ → [á-záló]   'laugh at'
   c.   /tə̀ + ɕíká/ → [tə́-ɕíká]   'be selected (as)'
   d.   /tə̀ + súsuá/ → [tə́-súsuá]   'calculate'

2.3   The decomposition of the low-rising tone

In Longxi Qiang, besides /H, L/ tonal inventories, low-rising tone is also found in underlying representations. A low-rising tone following a prefix bearing low-falling tone would surface as high tone, as in (20). As illustrated in (21–23), the underlying representation of the verbs *ză* 'cry', *uă* 'call' and *ə̌ɹ* 'say' are rising tone. The surface representation of the rising tone is high tone. The verb roots change into high tone, influenced respectively by the directional prefixes, as in (21–22), and the prohibitive prefix *tsə̀-* given in (23). In Example (48), the negative perfective aspect *mì-ə́ɹ* 'didn't say' also illustrates this tonal change process.

(20)   prefix + verb root
/L + R/ → [L-H]
/mì + ə̌ɹ/ → [mì-ə́ɹ]

(21)   **dà-zá**   kăn-pà.   (< **ză** 'cry')
AND-cry soon-become
'(Grandmother) was about to cry shortly.'

(22)   à-ŋá   pùsù tsá-mù   án-tɕè   **dà-uá**=ɕì   làn.   (< **uă** 'call')
a-little age   small-NMLZ some-CL.HB AND-call=1PL.CSM ATT(CH)
'I convened some younger people.'

(23)   qá mà kaì **tsə̀-ə́ɹ**   pù tɕʰé.   (< **ə̌ɹ** 'say')
1SG P(CH) ADV PROH-say do need
'I thought (she) didn't need to say in this way.'

Evans (2008) concludes that in Mianchi Qiang, "syllables may have H, L, or ∅ tone in their underlying representations." Evans (2008) remarks that contour tones in Mianchi Qiang must have a morphological origin. For example, in Mianchi Qiang the contour tone *zĭ* in *tə̀-zĭ* 'dry in the sun' is derived from high tone *zí* 'dry'; the contour tone *bză* in *dà-bză* 'enlarge' comes from low-falling tone *bzà* 'big'. The morphological tonal change process for rising tones in Mianchi Qiang is exactly opposite to that in Longxi Qiang.

2.4   Tonal derivation rules of negation

The selection of negators /mí-/ and /mì-/ in Longxi Qiang depends on verb classes. Verb classes in Longxi Qiang are related to inherent (Aktionsart) and viewpoint aspect. So before analyzing the tonal derivation rules of negation, I shall introduce Aktionsart and viewpoint aspect marking first.

2.4.1   *Aktionsart in Longxi Qiang*

Van Valin & LaPolla (1997: Chapter 3) discuss the semantic representation of verbs and other predicates. They adopt the approach of lexical decomposition based on Aktionsart distinctions proposed by Vendler (1967). Van Valin & LaPolla (1997: 91) conclude that in Vendler's view "the verbs and other predicating elements could be classified in terms of their inherent temporal properties, and [he] proposed four basic classes: states, achievements, accomplishments, and activities." I adopt the definition and examples of these four basic classes. States are defined as 'non-dynamic and temporally unbounded'. Activities are 'dynamic and temporally unbounded'. Achievements 'code instantaneous changes, usually changes of state but also changes in activities'. Accomplishments are 'temporally extended (not instantaneous) changes of state leading to a terminal point'. These classes and English examples are summarized below (Van Valin & LaPolla 1997: 92).

a.   States: e.g. *be sick, be tall, be dead, love, know, believe, have*
b.   Achievements: e.g. *pop, explode, collapse, shatter* (all intransitive)
c.   Accomplishments: e.g. *melt, freeze, dry* (the intransitive versions); *recover from illness, learn*
d.   Activities: e.g. *march, walk, roll* (the intransitive versions); *swim, think, rain, read, eat*

In Longxi Qiang, accomplishments can be morphologically derived from states. Directional markers express the meaning 'become' as in (24). In § 4 to follow, I shall discuss these four classes and their negative counterparts.

(24)   States
    ŋí 'black' *pà* 'correct'   [+static], [−telic], [−punctual]
    Accomplishments
    ʂə̀-ŋí   tə̀-pà   [−static], [+telic], [−punctual]
    OUT-black   UP-correct
    'become black' 'become correct'

(25)   Activities
    tɕʰá   kòkó=à   [−static], [−telic], [−punctual]
    eat.1SG.NCSM   OUT-go=1SG.NCSM
    '(I) am eating' '(I) am walking'

(26) Accomplishments
    à-tɕà   *dà-xuǎ-là*   [−static], [+telic], [−punctual]
    DOWN-learn AND-melt-LOAN
    'learned'   'melted'

(27) Achievements
    à-tɕì 'find' *à-tɕó* 'see'   [−static],[+telic], [+punctual]

Huang (2005) discussed the correlation between viewpoint aspect and Aktionsart in Ronghong Qiang. Aspect and Aktionsart in Ronghong are consistent with those in Longxi Qiang. Imperfective aspect and continuative aspect generally appear in states and activities; perfective aspect and experiential aspect occur in accomplishments and achievements. Prospective aspect is used for a temporally unbounded activity because an event that is about to happen does not have a change of state. I shall employ the notion of Aktionsart to analyse verb classes and their interaction with the negative prefix in Longxi.

2.4.2 *Viewpoint aspect in Longxi Qiang*

In terms of affirmative clause, aspect in Longxi Qiang is indicated by various devices like clitics, prefixation, auxiliary verbs, inflection and reduplication. Prospective aspect is related to person. For 1SG, the prospective aspect marker is enclitic /uà/; for other persons, prospective aspect is marked by the enclitic /mà/. The auxiliary verb *pà* 'become' and enclitic =*jì* are used for change of state. Experiential aspect is expressed by auxiliary verb *dʑá*. Continuative aspect marker *tɕá*= and *aí*= express an action to be still happening. Iterative aspect is expressed by a reduplicated verb complex. The directional prefixes and verb agreement are the most important methods to distinguish perfective aspect and imperfective aspect. Perfectivity indicates the view of a situation as a single whole, without distinguishing the various separate phases that make up that situation, while imperfectivity pays essential attention to the internal structure of a situation (Comrie 1976: 16). In (28), the unmarked verb *tɕʰí* 'eat' describes the action 'having meal' to be happening at noon. The action 'had meal' in (29) is seen as a whole. In (29), perfective aspect is realized by the directional marker *ʂə̀-*.

(28) *tsóŋvû*   *tsə̀ká*   *màmá* ***tɕʰí***.
    noon(CH) here   meal   eat
    '(Uncle) was having meal here at noon.'   (CV1:28)

(29) *tsə̀ká* ***ʂə̀-tɕʰí****=zùtàzù, jè-tiântsóŋ=zù*   *tə̀-ké*.
    here   OUT-eat=TOP   one(CH)-o'clock(CH)=TOP UP-go
    'After having (meal) here, (uncle) went upwards (to his daughter's house) at
    one o'clock.'   (CV1:28)

Directional markers may be omitted in the case of perfective aspect. In terms of first and second person, a person marker is an important indication of the perfective sense. Person markers reflect aspect. For first person singular, =*à* is used for imperfective aspect; =*sà* is used for perfective aspect. In the case of third person, person marking cannot be used to distinguish imperfective aspect and perfective aspect, because the verb root is unmarked. If the directional marker indicates the direction of action, there would be two possible roles of the directional marker. Whether the directional marker indicates perfective aspect depends on context. Evans (2004: 25) also points out that Southern Qiang has fused agreement and aspect markers to a great degree. Southern Qiang dialects share a set of fused perfective + person markings. In the case of imperfective aspect and prospective aspect, the role of directional markers is to indicate the direction of the action, and is not related to perfectivity.

Negation in Longxi Qiang is asymmetric. In the case of asymmetric negation, the members of the affirmative and its negative counterparts lack a one-to-one correspondence (Miestamo 2005: 54). Negative forms in Longxi Qiang involve changes in marking of aspect and person. For example, the prospective aspect marker in affirmative sentences is /mà/ or /uà/. In a negative counterpart, however, the prospective aspect is realized by a different tonal pattern within the [negative prefix plus verb root] construction, rather than by the aspect marker /mà/ or /uà/. Affirmative prospective predicates are marked by the enclitics /mà/ or /uà/, but such prospective aspect markers do not appear in corresponding negative clauses. For example, *mì-ká* and *mì-pú*, exemplified in (30–31), are negative prospective predicates whose corresponding affirmative forms *kà=uá* (go=1SG.NCSM) and *pù=má* (do=PRO) are marked by prospective aspect markers =*uá* and =*má*.

(30) *tɕoŭ   tsà=zákà   **mì-ká**=là,   sá=zákà   kà   lán?*   **/mí + kà/**
     then(CH) 3SG=LOC   NEG₁-go=NFIN who=LOC go   ATT(CH)
     'Then (if) I don't go to his place, whose place can I go to?'   (CV1:58)

(31) *qàlà mù   tàpeí xaìsǎ   kaì   **mì-pú**=nì.*   **/mí+pù/**
     1PL   person future also(CH) ADV NEG₁-do=1PL.NCSM
     'In the future we won't celebrate (birthdays) like this.'   (CV4:50)

Negation also involves changes in markings of person. Person marking does not distinguish negation of perfective and imperfective aspect because both of them are marked by the same person marker. For example, affirmative perfective predicate takes person marking =*ɕì* as in (32), while its corresponding negative form is attached by a different person marking =*nì* as in (33). The clause 'we are full' given in (32) indicates a change of state, while the clause 'we are not full yet' given in (33) expresses non-change of state. In this situation, the person markers =*ɕì* and =*nì* present a distinction between change of state and non-change of state,

rather than difference between perfective and imperfective aspect. Person marker =*ɕì* of affirmative experiential predicate in (34) and person marker =*nì* of negative experiential aspect in (35) also presents a distinction between change of state and non-change of state.

(32) affirmative perfective aspect
    qàlà mù   tə̀-χeì=ɕì.
    1PL person UP-full=1PL.CSM
    'We are full.'

(33) negative counterpart of (32)
    qàlà mù   tə̀-mì-χeì=nì.
    1PL person UP-NEG₂-full=1PL.NCSM
    'We are not full yet.'   (CV6:31)

(34) affirmative experiential aspect
    qàlà mà   tə̀-gà   kə́   dʐá=ɕì.
    1PL P(CH) UP-open go   EXP=1PL.CSM
    'We went to open (the box) before.'

(35) negative counterpart of (34)
    qàlà mà   tə̀-gà   kə́   mì-dʐá=nì.
    1PL P(CH) UP-open go   NEG₂-EXP=1PL.NCSM
    'We never went to open (the box).'   (CV6:10)

In Longxi Qiang, person is fused with viewpoint aspect. Two sets of person markers in Longxi Qiang manifest a difference between non-change of state and change of state. Continuative, imperfective, prospective, negative perfective and negative experiential predicates are marked by person markers for non-change of state. By contrast, positive perfective and experiential aspects use together with person markers for change of state, as shown in Table 2. Person marker /uà/ fuses first singular person and prospective aspect. The other person markings for prospective aspect are not fused with prospective aspect marker /mà/. /uà/ in Table 2 is in slashes, and the other form are not, because the underlying low-falling tone of /uà/

Table 2. Person markers in the Longxi variety

	Non-change of state	Change of state
1SG	/uà/, à	sà
2SG	nə̀	sə̀
3SG	–	–
1PL	nì	ɕì
2PL		
3PL	–	–

may surface as either high or low-falling tone as discussed in § 2.1.1, and the other person markers do not undergo such progressive dissimilation.

2.4.3 *Negators /mí-/ and /mì-/ are two separate morphemes*
In Longxi Qiang, the negator for temporally non-telic states and activities is /mí-/, and the negator for telic accomplishments and achievements is /mì-/. The negator /mì-/ is added to the verb root directly, while the negator /mí-/ has tonal change in some environments, as shown in (36) and (37).

Table 3. Distributions of the negators /mí-/ and /mì-/ in Longxi Qiang

Negator in Longxi Qiang	/mí-/	/mì-/
Verb types	states activities	accomplishments achievements
Surface tonal patterns	(36) /mí + H/ → [mí-L] (37) /mí + L/ → [mì-H] (38a) /mí + R/ → [mí-R] (38b) /mí + F/ → [mí-F]	/mì + H/→ [mì-H] /mì + L/ → [mì-L] /mì + R/ → [mì-H]* /mì + F/ → [mì-F]
	(40a) /mí + HH/ → [mí-LL] (40b) /mí + HL/ → [mí-LL] (40c) /mí + LL/ → [mí-LL] (40d) /mí + LH/ → [mí-LH]	/mì + HH/ → [mì-HH] /mì + HL/ → [mì-HL] /mì + LL/ → [mì-LL] /mì + LH/ → [mì-LH]

* This pattern illustrates the decomposition of the low-rising tone where a low-rising tone is preceded by a prefix.

Rule (36) means the high tone of the verb root dissimilates with the high tone of the negator. Rule (37) means the tones of the negator and the verb root are reversed from the original tones to avoid homophones.

(36) /mí + H/ rule
    [mí-L]   tonal dissimilation

(37) /mí + L/ rule
    [mì-H]   reverses of original tones on negator and verb

The tone pattern /mí+H/ surfacing as [mí-L], as in (36), can avoid the surface tonal pattern [mí-H], with two high tones. In addition, if there is only tonal dissimilation, both /mí+H/ and /mí+L/ will appear as [mí-L], and then it will generate many homophonous negative forms, for example, ʦá 'small' and ʦà 'look', *pù* 'do' and *pú* 'buy', *zà* 'spoon' and *zá* 'clever', *zú* 'sit' and *zù* 'breed', *zà̀* 'enough' and *zá̀* 'give'. Considering these two issues, the tonal derivation rules given in (36–37) not only avoid the tonal pattern [mí-H], but distinguish the surface tone of /mí+H/ from that of /mí+L/.

Evans (2008: 475) discusses the tonal polarity of negated existential verbs in Mianchi. He points out that the negative prefix always bears low-falling tone, and the tone on the existential verb is reversed from its citation form. For example, *mì-ŋà < ŋá* 'have (wealth), there is (a matter)', *mì-ʑí < ʑì* 'there is (person)', *mì-lɛ́ < lɛ̀* 'there is (something contained)'. The tonal derivation rule of negation in Longxi Qiang is different from that in Mianchi Qiang. However, it is the negative prefix that causes the change in the verb's tone in Mianchi, and that is what is happening in Longxi as well.

If the negator /mí-/ attaches to a disyllabic verb whose first syllable is high tone, both /mí+HH/ and /mí+HL/ will surface as [mí-LL], where the high tone of the verb root is dissimilated by the high tone of the negator. In Longxi Qiang, disyllabic verbs with the same consonants and vowels are very rare, so it is not easy for [mí-LL] homophonous negative forms to arise. Thus the tonal derivation rules given in (37) are applied to mono-syllabic verbs, rather than disyllabic verbs.

Environments where the negator /mí-/ does not need to undergo the tonal change process (36–37) are found:

In terms of states and activities, the negator /mí-/ always surfaces as high tone [mí-] in three environments: (a) with verb roots bearing low-rising or high-falling tone, (b) with disyllabic states and activities, (c) with verb roots taking directional prefixes.

a. *Verb roots bearing low-rising or high-falling tone*
When used with monosyllabic activity verbs bearing low-rising or high-falling tone, the negator /mí-/ and the verb root retain the original tonal pattern. As shown in (38), with a verb root bearing a low-rising tone or high-falling tone, the negative prefix has a high tone and the verb root maintains its original tone, as illustrated in Examples (39).

(38) a. /mí + R/ → [mí-R]
     b. /mí + F/ → [mí-F]
(39) a. /mí + zǎ/ → [mí-zǎ]   'don't/won't cry'
     b. /mí + qâˀ/ → [mí-qâˀ]   'don't/won't say'

b. *Bisyllabic states and activities*
With disyllabic states and activities, the negative prefix appears as [mí-], as in (40). The tonal patterns given in (40) show that the negative prefix always bears high tone [mí-]. If the first syllable of a disyllabic verb root bears a high tone, the verb root will change into the tonal pattern LL, as in (40a–b). If the first syllable of a disyllabic verb root bears a low-falling tone, the verb root retains its original tonal pattern, as in (40c–d). Examples (41) and (42) illustrate the tonal change process given in (40).

(40) a.   /mí + HH/ → [mí-LL]
       b.   /mí + HL/ → [mí-LL]
       c.   /mí + LL/ → [mí-LL]
       d.   /mí + LH/ → [mí-LH]

(41) examples of negative disyllabic states
       a.   /mí + pʰúlú/ → [mí-pʰùlù] 'not expensive'
       b.   /mí + tápò/ → [mí-tàpò]   'not like'
       c.   /mí + ɕìnà/ → [mí-ɕìnà]   'not happy'
       d.   /mí + mùpá/ → [mí-mùpá] 'not cold'

(42) examples of negative disyllabic activities
       a.   /mí + tsʰóɕì/ → [mí-tsʰòɕì] 'don't/won't listen'
       b.   /mí + záló/ → [mí-zàlò]   'don't/won't laugh'
       c.   /mí + mùɕà/ → [mí-mùɕà]   'don't/won't shake'
       d.   /mí + bùliá/ → [mí-bùliá]   'don't/won't dig'

c. *Verb roots taking directional prefixes*
A predicate in imperfective aspect or prospective aspect involves a verb either with or without a directional marker. I am going to compare these two patterns. When a verb stem is preceded by a directional marker to indicate the direction of an action, the verb root and the negator keep their original tones, for example, *ʂə̀-mí-tsà* (OUT-NEG$_1$-look) in (43b) and *zə̀-mí-pú* (IN-NEG$_1$-buy) in (44b). On the contrary, if a verb stem is not prefixed with a directional marker, the verb root and/or the negator may appear with changed tones, for example, *mì-tsá* (NEG$_1$-look) in (43a) and *mí-pù* (NEG$_1$-buy) in (44a).

(43) a.   *tsà*   'look'
           mì-tsá   'don't look/won't look'
       b.   *ʂə̀-tsà*   'look outward'
           ʂə̀-mí-tsà 'don't look outward/won't look outward'

(44) a.   *pú*   'buy'
           mí-pù   'don't buy/won't buy'
       b.   *zə̀-pú*   'buy'[6]
           zə̀-mí-pú 'don't buy/won't buy'

---

6. Semantically, a very small number of verbs have only one inherent direction. These verbs then combine with only one directional marker. In (44b), the verb *pú* 'buy' can only take the directional marker *zə̀-* since the action 'buy' is performed towards the center. In the Qugu variety, some verbs also have only one directional marker, which is determined by the direction of the action denoted by the verb, for example: *de-le* (outwards direction) 'give', and *tu-jy* (upwards direction) 'stand up' (Huang & Zhou 2006: 267).

The negative activities *mì-tsá* and *mí-pù* without directional prefixes illustrate the tonal derivation rules given in (36–37).

(45) a. /mí + tsà/   rule
[mì-tsá]   reverses of original tones on negator and verb
'don't look/won't look'
b. /mí + pú/   rule
[mí-pù]   tonal dissimilation
'don't buy/won't buy'

The tonal change process of *dà-mí-uá* (AND-NEG₁-call) shows that in the case of a directional marker co-occurring with a negative prefix, the directional prefix, rather than the negative prefix, influences the tone of the verb root. The negation *dà-mí-uá* is not directly derived from the underlying form /dà-mí-uǎ/. The underlying low-rising tone of the verb root /uǎ/ 'call' surfaces as high tone in (46), and then the negative prefix *mí-* attaches to the verb stem *dà-uá*.

(46) /L + R/ → [L-H]
/dà + uǎ/ → [dà-uá]

Although the presence or absence of directional prefixes in many cases is related to perfectivity, the perfective negator *mì-* is not due to the influence of the directional prefix. The negative prefix *mì-* bears low-falling tone irrespective of its position in the verbal complex, either at the beginning or following a directional prefix. I shall use the perfective verb stems not prefixed with directional markers and the imperfective (or prospective) verb stems prefixed with directional markers to demonstrate this. For example, the verb *ə̌ɟ* 'say' generally does not take a directional marker even in the case of perfective aspect. In (47), the 1SG person marker =*sà* indicates perfective aspect. Negative counterpart of (47) presents non-change of state as given in (48). Without the influence of a directional prefix, the perfective negator /mì-/ has a low-falling tone at the beginning of the verbal complex, as in (48). As discussed in § 2.3, the low-rising tone following a prefix bearing low-falling tone surfaces as high tone as in (20), so /mì-ə̌ɟ/ surfaces as [mì-ə́ɟ]. Examples (48) and (50) also show that /mí-/ and /mì-/ are two separate morphemes.

(47) affirmative perfective aspect
ə̌ɟ=pù=sà.
say=HET=1SG.CSM
'(I) told (him).'   (CV5:54)

(48) negative counterpart of (47)
mì-ə̌ɟ=puà.   /mì + ə̌ɟ/
NEG₂-say=HET.1SG.NCSM
'(I) didn't tell (him).'

(49) affirmative imperfective aspect
qà ǎˈ=puà.
1SG say=HET.1SG.NCSM
'I'm telling (him).'

(50) negative counterpart of (49)
qà **mí-ǎˈ=puà.**   /mí + ǎˈ/
1SG NEG₁-say=HET=1SG.NCSM
'I'm not telling (him).'

As presented above, when a verb stem takes a directional marker to express the
direction of an action, the negator keeps the original tone. Examples (52) and (54)
illustrate negation of the verb complex *dà-uá* 'call'. Negators /mí-/ and /mì-/ are
in the same position: preceded by the directional prefix *dà-* and followed by the
verb root *uá* 'call'. Neither of them have tonal change. *dà-mì-uá* (negative perfec-
tive aspect) and *dà-mí-uá* (negative prospective aspect) form a minimal pair to
demonstrate that the tonal difference of negators is not due to the influence of the
directional prefix. The selection of negator changes depending on aspect, rather
than depending on its position in relation to the directional prefix.

(51) affirmative perfective aspect
qà ʁuàlà dà-uá=sà.
1SG outside AND-call=1SG.CSM
'I called.'

(52) negative counterpart of (51)
qà ʁuàlà **dà-mì-uá.**
1SG outside AND-NEG₂-call.1SG.NCSM
'I didn't call.'

(53) affirmative prospective aspect
qà ʁuàlà dà-uá=uà.
1SG outside AND-call=1SG.NCSM
'I'm going to call.'

(54) negative counterpart of (53)
qà ʁuàlà **dà-mí-uá.**
1SG outside AND-NEG₁-call.1SG.NCSM
'I'm not going to call.'

One more minimal pair given below also illustrates that the lexical tones of the
negators show they are two separate morphemes. In (56) and (58), the negators
mì- and *mí-* appear in the same environment: preceded by the directional prefix
tà- and followed by the verb root *tsʰótà* 'jump'. Directional marker *tà-* indicates the

upward direction of the action 'jump'. The minimal pair *tə̀-mì-tsʰótà* and *tə̀-mí-tsʰótà* demonstrates that the perfective negator *mì-* bears low-falling tone and the prospective negator *mí-* bears high tone.

(55) affirmative perfective aspect
      qà   tə̀-tsʰótà=sà.
      1SG UP-jump=1SG.CSM
      'I jumped up.'

(56) negative counterpart of (55)
      qà   tə̀-mì-tsʰótà.
      1SG UP-NEG₂-jump.1SG.NCSM
      'I didn't jump up.'

(57) affirmative prospective aspect
      qà   tə̀-tsʰótà=uá.
      1SG UP-jump=1SG.NCSM
      'I'm going to jump up.'

(58) negative counterpart of (57)
      qà   tə̀-mí-tsʰótà.
      1SG UP-NEG₁-jump.1SG.NCSM
      'I'm not going to jump up.'

3. Scope of negation in Longxi Qiang

Van Valin & LaPolla (1997: 45) point out that 'a crucial fact about operators is that different operators modify different layers of the clause: some only modify the nucleus, some only modify the core, and some modify the whole clause. The scope of core negation is only on part of the core'. Negation in Longxi Qiang can be an operator which can modify different layers of the clause: the nucleus, the core, or the whole clause.

3.1 Nuclear negation

The nucleus is a syntactic unit. It corresponds to the predicate, which refers only to a verb, an adjective, or a nominal of some sort (Van Valin & LaPolla 1997: 26). For example, negation given in (58) functions as a nuclear operator, which negates the verb *tə̀-tsʰótà* 'jump up'.

3.2   Core negation

The core of the clause includes the nucleus and the argument(s) of the predicate (Van Valin & LaPolla 1997: 26). Examples (59) and (60) display the same sentence 'Grandfather does not raise pigs now' occurring in different contexts. In (59), the undergoer *pià* 'pig' is negated since it contrasts with another argument *ỳ* 'chicken' in context. In (60), the actor *ájì* 'grandfather' is negated since it contrasts with another argument *xuáxuá* 'Huahua' in the following context. In these two examples, the scope of negation is over one of the core arguments.

(59) *ájì   pià mí-ɕì   pà   uè. ỳ   ɕí pà   uè.*
grandfather pig NEG₁-feed become FIN chicken feed become FIN
'Grandfather does not raise pigs now. He is raising chickens.'

(60) *ájì   pià mí-ɕì   pà   uè. xuáxuá   ɕí pà   uè.*
grandfather pig NEG₁-feed become FIN Huahua(CH) feed become FIN
'Grandfather does not raise pigs now. Huahua is raising (pigs).'

3.3   Clausal negation

Clausal negation (proposition negation) negates the entire proposition. It can be paraphrased as 'it is not the case that' (Van Valin & LaPolla 1997: 45–46). In Longxi Qiang, proposition negation is expressed by *kaì/kè mí-ŋú* (ADV NEG-COP) 'it is not like this'. The adverb refers to the fact in the context. In (61), the proposition is 'the house is very wide', which is negated by the negative copula.

(61) *kèké=tì   xaìsǎ   nànaì   aì   kʰuán-là.   kè*
house=DEF also(CH) so.much EXT wide(CH)-LOAN ADV
mí-ŋú=pù   kà?
NEG₁-COP=HET Q.TAG
'(Your daughter's) house is that wide, is it not?'   (CV8:52)

4.   Different verb types and their interaction with negators

There are three negators /mí-/, /mì-/ and /miá-/ in Longxi Qiang. The selection of negators is related to inherent and viewpoint aspect. States and activities share the negator /mí-/; accomplishments and achievements share the negator /mì-/; continuative aspect uses the negator /miá-/. /mì-/ always surfaces as [mì-], while /mí-/ may undergo tonal change in some environments; see Table 3. Negator /miá-/ for continuative aspect seems to be a fused form: /mí~mì/ + /tɕá/ > /miá/. /miá/ has

different form in the speech of older speakers compared to that of younger speakers. In the speech of older speakers, the negative prefix is *miá-*. In the speech of younger speakers, the negative prefix has variations *miá/maí/mé. maí-* seems to be a fused form: /mí~mì/ + /aí/ > /maí/. *tɕá* and *aí* are continuative aspect markers. Vowel [e] of negator [mé] is a common alternate form of [ai].

4.1   States and their negative counterparts

Only /mí-/ is used to negate states. The tonal derivation rules of negation for states are given in Table 3. For example, the surface tonal pattern of the negative states *bà* 'big' and *tɕá* 'small' are *mì-bá* 'not big' and *mí-tɕà* 'not small' respectively.

The tonal pattern of the negation of Longxi Qiang's five existential verbs, one type of stative predicate, is L-H (NEG$_1$-EXIST), namely: *mì-jí, mò-ó,*[7] *mì-sá, mì-liá, mì-uá.* The verb *jì* is used for animate referents, *ŋó/sà* is used for inanimate referents,[8] *lià* is used for referents located in certain kinds of containment, and *uà* is used for immovable referents.

In (62), the Wenchuan Mandarin loan adjective *kʰuán-là* 'wide' is counted as a disyllable (HL),[9] not a monosyllable. The high tone of the adjective is dissimilated by the high tone of the negator /mí-/.

(62) *kèké=tì   xaìsǎ   nànaì   aì   **kʰuán-là**.   kè   mí-ŋú   pù   kà?*
house=DEF also(CH) so.much EXT wide(CH)-LOAN ADV NEG-COP do Q.TAG
*tǎnián   meì   zólà ké   **mí-kʰuàn-là**   pù.*
aunt(CH) APRON like ADV NEG$_1$-wide(CH)-LOAN do
'(Your daughter's) house is that wide, is it not? Your aunt's house is not wide.'
(CV8:52)

In my recorded data, I find that the negation of the state *sà* 'know' is *mí-sà*, not *mì-sá*, as in (63). I suppose that the verb root of the verb *sà* 'know' and the existential verb *sà* bear the same underlying tonal pattern, so their negative forms surface with different tonal patterns in order to disambiguate homophones.

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7.   This is one of the very few examples of vowel harmony with the negative prefix in Longxi Qiang. The consonant /ŋ/ of existential verb /ŋó/ is deleted when it is combined with the negative prefix.

8.   The existential verbs *ŋó* and *sà* seem to be interchangeable. More research is needed to determine the factors that influence the usage of these two existential verbs.

9.   When verbs (including adjectives) in Wenchuan Mandarin are borrowed into Qiang, a native verbal final syllable [tà/là~tá/lá] is added to the monosyllabic verb.

(63) *ɕaûfeí*   *ŋɪ̀=nə̀*   ***mí-sə̀.***   (< *sə̀* 'know')
     Xiaofei(CH) character=even NEG$_1$-know
     'Xiaofei is illiterate.' (lit: Xiaofei does not even know characters.)   (CV5:40)

Example (64) presents a change from a state of 'needing' to 'not needing'. In terms
of the meaning 'don't need the pen anymore', negative state verb *mí-tɕʰà* indicates
'not need', and the meaning 'change' is realized by the auxiliary *pà* 'become'.

(64) *qà* ***mí-tɕʰà***   *pà=sà.*   /**mí + tɕʰá**/
     1SG NEG$_1$-need become=1SG.CSM
     'I don't need (the pen) anymore.'   (CV1:70)

4.2   Activities and their negative counterparts

Only /mí-/ is used to negate activities. In (65), *mí-tɕʰì* denotes negative ongoing
action 'not having meal'. In (66), *mì-pú* presents negative habitual action 'don't cook
(meal)'. Habitual action occurs regularly. One negative form, *mì-pú,* corresponds
to both imperfective predicate as in (66) and prospective verb form as in (67). In
affirmative clauses there is a dedicated prospective aspect marker /uà/ used to dis-
tinguish prospective from imperfective aspect, while in negative clause these two
aspects share the same forms *à* (see § 2.4.2).

(65) *qà* *tɕà-tákè*   *màmá* ***mí-tɕʰà.***   /**mí + tɕʰí**/
     1SG this-time meal   NEG$_1$-eat.1SG.NCSM
     'I am not having meal now.'

(66) *qà* *áɕímáqè=zə́kà*   *màmá* ***mì-puá.***   /**mí + pù**/
     1SG every.day=LOC[10] meal   NEG$_1$-do.1SG.NCSM
     'I don't cook meals every day.'

Prospective aspect predicate in (67) refers to an event that 'we won't celebrate birth-
days like this'. The affirmative counterpart of (67) is marked by prospective aspect
marking =*má*, i.e. *pù=má=nì* (do=PRO=1PL).

(67) *qàlà mù*   *tə̀peí xaìsə̌*   *kaì* ***mì-pú=nì.***   /**mí + pù**/
     1PL person future also(CH) ADV NEG$_1$-do=1PL.NCSM
     'In the future we won't celebrate (birthdays) like this.'   (CV4:50)

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10. In the Longxi variety, the pattern of isomorphy of case marking *zə́kà* developed along a series
of clines: locative > dative > animate undergoer > temporal > whole-part relation (cf. LaPolla
1995: 1150). *zə́kà* in Examples (66) and (73) denotes whole-part relation.

Affirmative change of state is expressed by the auxiliary *pà* 'become'. When change of state is negated, the auxiliary *pà* 'become' follows the negated activity, as in (68). *mì-pú pà=sà* '(I) don't work anymore' is different from *qà mì-pú=à* 'I don't/won't work'; the former presents a change from 'work' to 'not work', while the latter is not related to a prior state.

> (68) *qà **mì-pú** pà=sà.* /mi+pu/
> 1SG NEG$_1$-do become=1SG.CSM
> 'I don't work anymore.' (CV8:2)

4.3 Accomplishments and their negative counterparts

In the case of accomplishment verbs, the negative prefix bears a low-falling tone /mì-/, and the tonal pattern of the verb root is unchanged. In (69–70), the low-falling tone negator *mì-* is added to the accomplishment verbs *à-tɕà* 'learn' and *xuă-là* 'melt' directly.

> (69) *qà màtə̀ à-mì-tɕà.*
> 1SG Qiang.language DOWN-NEG$_2$-learn.1SG.NCSM
> 'I didn't learn Qiang language.'

> (70) *tsùpá dà-mì-xuă-là.*
> ice AND-NEG$_2$-melt-LOAN
> 'Ice didn't melt.'

In the case of non-state verbs, the directional marker *tə̀-* denotes upward direction, and *à-* refers to downward direction, while directional markers preceding adjectives express the meaning 'become'. In (71), the relationship between states and accomplishments is clear. The negative accomplishments are all realized by negator /mì-/, whose surface tone is [mì-]. *mì-bá* 'not big' is different from *tə̀-mì-bà*. *tə̀-mì-bà* focuses on a change from small to big, but *mì-bá* just describes a small size and has nothing to do with a change of size.

> (71) a. *bà* 'big' (state) *tə̀-bà* 'became big' (accomplishment)
> *tə̀-mì-bà* 'didn't become big'
> b. *tsá* 'small' (state) *à-tsá* 'became small' (accomplishment)
> *à-mì-tsá* 'didn't become small'
> c. *χuá* 'thin' (state) *ʂə̀-χuá* 'became thin' (accomplishment)
> *ʂə̀-mì-χuá* 'didn't become thin'
> d. *já* 'ill' (state) *tə̀-já* 'became ill' (accomplishment)
> *tə̀-mì-já* 'didn't become ill'

In (72), *dà-sùpá* (AND-hungry) 'become hungry' is an accomplishment, which is derived from the state *sùpá* 'hungry'.

(72) *mù* *tʰà-χé* *à-ŋá* **dà-mì-sùpá**=*zə̀*=*pàn*.
people that-PL a-little AND-NEG$_2$-hungry=CAUS=become.CERT
'(I) didn't cause those people to be a little hungry.' (T7)

The negative prefix for experiential aspect is /mì-/. It is added to the experiential auxiliary *dʑá*, rather than to the main verb root, as in (73).

(73) *púɕì* *tɕà-χé*=*zə́kà* *tə̀-qâ˞* **mì-dʑá**-*jì*.
today this-PL=LOC up-say NEG$_2$-EXP-NMLZ
'These (words) (said) today were indeed never said (before).' (CV11:10)

4.4 Achievements and their negative counterparts

Longxi Qiang has lexical achievement verbs, as given in (74).

(74) a. *mùliá* 'look for' Activity
 à-tɕì 'find' Achievement
 b. *tsà* 'look' Activity
 à-tɕó 'see' Achievement
 c. *tsʰó* 'listen' Activity
 á-lóŋtɕí 'hear' Achievement

The negative prefix for achievement is /mì-/ as in (75).

(75) *vù* *án-tù* **à-mì-tɕó**=*zù*, *miá-qà* *pù uè*.
2SG some-CL.times DOWN-NEG$_2$-see=TOP NEG$_1$-can do FIN
'If you didn't see (me) for some time, it would not be feasible.' (CV1:68)

4.5 Negation for continuative aspect

In affirmative sentences, *tɕá*= and *aí*= indicate continuative aspect as in (76–77).

(76) *tʰí* *laûxə̌˞*=*tì* *peìjì* **tɕá**=*jí* *làn*. (< *jì* 'existential verb')
that old.man(CH)=DEF now CON=EXIST ATT(CH)
'That old man is still alive now.' (T7:24)

(77) *kè*=*tì* *à-zuè*=*zù*, *nàná* **aí**=*ŋó* *pù lán*?
house=DEF DOWN-cut=TOP how.much CON=EXIST do ATT(CH)
'After deducting (the fee of the) house, how much (money) is left?' (CV8:18)

Examples (78–82) illustrate different variations of negative prefixes for continuative aspect.

(78) negative activity
peìjì **mé-zə́=là**...
now NEG₁.CON-give=NFIN
'Now (the leader) still does not give (us) (salary).' (CV7:44)

(79) negative accomplishment
piàtsʰə̀=tì **tà-mé-ə́ɹ.** *à-ŋá tə̀-ə́ɹ=zù, à-ŋá dà-kʰuà.*
fatty.meat=DEF UP-NEG₂.CON-dry a-little UP-dry=TOP one-little AND-take
'The fatty meat still has not become dry. If (the meat) becomes dry, (her brother)
will take a little (meat) to (us).' (CV6:63)

In the continuative aspect, the negative prefix [miá-/maí-/mé-] for states (including existential verbs) is the same as that for other verb types. Moreover, the low-falling tone of the verb root assimilates to the high tone of the negative prefix [miá-/maí-/mé-].

(80) negative state
kàmaí **miá-kʰúkʰuá** *tʰà-ɕyà.* (< **kʰùkʰuá** 'hot')
so.much NEG₁.CON-hot that-period
'that period when (the weather) is still not very hot' (CV8:67)

(81) negative state
maí-sə́=nì *lân, peìjì nàná lià-jì=tì* (< **sə̀** 'know')
NEG₁.CON-know=1PL.NCSM ATT(CH) now how.many EXIST-NMLZ=DEF
mà.
P(CH)
'(We) still don't know how much (polyporus umbellatus fruit) is (in the box).'
(CV6:9)

(82) negative state (existential verb)
xaûtsà tsə̌nkueíxuǎ **mé-ŋó** *pù uè.* (< **ŋó** 'existential verb')
very(CH) regularity(CH) NEG₁.CON-EXIST do FIN
'(Our dancing team) is still not managed regularly.' (CV5:25)

5. Superstratum influence of Wenchuan Mandarin on Longxi Qiang

Longxi Qiang has had long-term contact with Wenchuan Mandarin. Negation in Longxi Qiang reflects the properties of negation in Wenchuan Mandarin in the following three areas: negation for different verb classes, volition involved in negation, and negative forms indicating positive meaning. These patterns are the usual Wenchuan Mandarin patterns, and so the patterns found are original in Wenchuan Mandarin and borrowed in Longxi Qiang. It could not be the case that Qiang influenced Wenchuan Mandarin. Wenchuan Mandarin has two frequently used negative markers *pu³¹* and *mei⁵⁵*. To a large extent, *pu³¹* corresponds to /mí-/ and *mei⁵⁵* corresponds to /mì-/.

5.1 Negator *pu³¹* for states and activities

The negative prefix /mí-/ for states and activities in Longxi Qiang corresponds to the negator *pu³¹* in Wenchuan Mandarin. In Wenchuan Mandarin, the negator for states is *pu³¹*, rather than *mei⁵⁵*, for example: the negation of state *kau⁵⁵ɕin²¹³* 'happy' is *pu³¹ kau⁵⁵ɕin²¹³* 'not happy', rather than **mei⁵⁵ kau⁵⁵ɕin²¹³*.

The negator *pu³¹* in Wenchuan Mandarin can be employed for activities. For example, the negative activity /mí + pù/ 'don't cook' given in (66) corresponds to the negative form *pu³¹ tsu²¹³* (not do) in Wenchuan Mandarin; the negative ongoing action /mí + tɕʰí/ 'not having (meal)' given in (65) corresponds to *pu³¹ tsai²¹³ tʂəˑ³¹* (not PROG eat) 'not having (meal)' in Wenchuan Mandarin.

5.2 Negation *mei⁵⁵* for accomplishments and achievements

The distribution of *mei⁵⁵* in Wenchuan Mandarin is similar to that of the negator /mì-/ in Longxi Qiang in that both of these two negators are used for accomplishments and achievements. For example, the negative accomplishments *à-mì-tɕà* 'didn't learn' given in (69) is similar to *mei⁵⁵ ɕyo³¹xuei²¹³* (not learn), *tə̀-mì-bà* 'didn't become big' given in (71a) corresponds to *mei⁵⁵ pian²¹³ ta²¹³* (not become big), *tə̀-qâˑ mì-dʐá* 'never said before' given in (73) corresponds to *mei⁵⁵ so³¹ ko²¹³* (not say EXP) in Wenchuan Mandarin. The negative achievements *à-mì-tɕó* 'didn't see' given in (75) is equal to *mei⁵⁵ kan²¹³tɕan²¹³* (net see) in Wenchuan Mandarin.

5.3 Volition of negative markers

In Longxi Qiang, the negative prefix /mí-/ involves volition, whereas /mì-/ does not. In Wenchuan Mandarin, pu^{31} be related to volition while mei^{55} does not necessarily imply volition.[11] In the case of activity verbs, when the negation marker is pu^{31}, the subject's volition is clearly involved, though this is not necessarily the case for mei^{55}. The volition of the negative marker /mí-/ in Longxi Qiang is the same as that of pu^{31} in Wenchuan Mandarin; the volition of the negative marker /mì-/ in Longxi Qiang is similar to that of mei^{55} in Wenchuan Mandarin.

Examples (83–84) display the difference in volition of /mí-/ and /mì-/ in Longxi Qiang. The action 'not buy' in (83) does not involve the villagers' volition, while the actions in (84) do involve volition. In (83), the situation of the negation is that many villagers need to buy insurance, but previously not all of the villagers were informed that they could buy insurance. Therefore, they didn't buy insurance previously. In (84), the case of the negation is that almost all of the villagers know how to buy insurance, but some of them think it is expensive. Therefore, they do not want to buy it.

(83)   *dàqeí*   ***zɘ̀-mì-pú-mù***   *joŭsɘ̌*   *peìjì=nɘ̀*   *pú*   *pà=ɘ̌�*   /**mì + pú**/
     previously TO-NEG₂-buy-NMLZ again(CH) now=even buy become=HS
     làn.
     ATT(CH)
     '(I heard) those who didn't buy (insurance) previously have begun to buy it.'
                                                          (CV11:20)

(84)   *tʰá*   ***mí-pù=là***   *nɘ̀kà*   *pù-jì?*   /**mí + pú**/
     that NEG₁-buy=NFIN how   do-NMLZ
     '(If) (Madeng Villagers) don't buy (insurance), how will they do (it)?'
                                                           (CV11:22)

Contrasting examples are given in (85) and (86). Example (85) means '(s)he refuses to buy insurance'. In (86), mei^{55} has nothing to do with his or her volition. The negation pu^{31} mai^{51} (not buy) 'won't buy/don't buy' given in (85) corresponds to the negation *mí-pù* (NEG₁-buy) in Longxi Qiang. The negated verb mei^{55} mai^{51} (not buy) 'didn't buy' given in (86) corresponds to the negated verb *zɘ̀-mì-pú* (TO-NEG₂-buy) in Longxi Qiang.

(85)   Wenchuan Mandarin
     $tʰa^{55}$ pu^{31} mai^{51} $pau^{51}ɕan^{51}$.
     3SG not buy   insurance
     '(S)he does not want to buy insurance./(S)he won't buy insurance.'

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11.   Here, verbs not involving volition are excluded, for example, *ŋí* 'sleep', *tʰá* 'wide', *ŋó* 'exist'.

(86) Wenchuan Mandarin
  t^ha^{55} mei^{55} mai^{51} $pau^{51}ɕan^{51}$.
  3SG not buy insurance
  '(S)he didn't buy insurance.'

The similarities of the negators in Longxi Qiang and Wenchuan Mandarin are summarized in Table 4.

Table 4. Summary of selection of negators in Longxi Qiang and Wenchuan Mandarin

Verb types	Viewpoint aspects	/mì-/	mei^{55}
States	Imperfective		
	Change of state		
Activities	Prospective Imperfective		
	Change of state		
Accomplishments	Perfective	à-mì-tɕà 'didn't learn'	mei^{55} $ɕyo^{31}xuei^{213}$ 'didn't learn'
	Experiential	tà-qâˤ mì-dʐá 'didn't say before'	mei^{55} so^{31} ko^{213} 'didn't say before'
	Change of state	tà-mì-bà 'didn't become big'	mei^{55} $pian^{213}$ ta^{213} 'didn't become big'
Achievements	Perfective	à-mì-tɕó 'didn't see'	mei^{55} $k^han^{213}tɕan^{213}$ 'didn't see'
	Experiential	à-tɕó mì-dʐá 'didn't see before'	mei^{55} $k^han^{213}tɕan^{213}$ ko^{213} 'didn't see before'
Verb types	**Viewpoint aspects**	**/mí-/**	**pu^{33}**
States	Imperfective	mí-k^huàn-là 'not wide'	pu^{31} $kuan^{55}$ 'not wide'
	Change of state	mí-tɕ^hà pà 'don't need anymore'	pu^{31} $ɕy^{55}jau^{213}$ lo^{31} 'don't need anymore'
Activities	Prospective Imperfective	mì-pú 'don't do/won't do'	pu^{31} tsu^{213} 'don't do/won't do'
	Change of state	mì-pú pà 'won't work anymore'	pu^{31} $koŋ^{55}tso^{31}$ lo^{31} 'won't work anymore'
Accomplishments	Perfective		
	Experiential		
	Change of state		
Achievements	Perfective		
	Experiential		

5.4   Negative forms indicating positive meaning

There are three negative constructions found in Longxi Qiang for denoting the intensification meaning 'very', one native and two calqued from Wenchuan Mandarin. The native strategy indicating 'very' is to use the degree adverbs *aì* and *mòqò*, as in (87–88).

(87) *juàkù=tì   aì   tə̀-ə́ʴ=àn.*
mouth=TOP EXT UP-dry=CERT
'I am very thirsty now.' (lit: the mouth has become very dry now.)   (T14)

(88) *mútsʰúɕì tsà   kə́=zù,   mòqò bó,   kaì pà   pù uè.*
next.day look go=TOP EXT   high ADV become do FIN
'On the next day when (he) went to look at (the tree), (the tree) had become very high like this.'   (T9)

The first calqued construction is [adjective + negator + 'can']; the other one is the negator co-occurring with the modal verb 'need'.

If a positive state verb type is followed by the negative auxiliary verb *miá-qà* (NEG$_1$-can), it indicates a positive meaning, as with the adjective *ɕìnà* 'happy' in (89) and the existential verb *uà* in (90). This is different from when there is a non-state verb type plus *miá-qà*, which expresses a negative meaning 'cannot do', as in (91). As shown in Examples (89–90), the positive adjectives *tə̀-ɕìnà* (UP-happy) 'become happy' and the positive existential verb *dà-uà* (AND-EXIST) 'start having' receive the non-final marker *là*. This construction [adjective + *miá-* 'not' + *qà* 'can'] corresponds to [adjective + te^{31} + $pu^{31}ɕin^{31}$] (adjective + adverbial particle + 'not can') in Wenchuan Mandarin. See the example given in (92).

(89) *tseĭ   tɕoŭtɕoú púɕì tə̀tsuà tə̀-ɕìnà=là   miá-qà paì.*
3SG.GEN uncle(CH) today morning UP-happy=NFIN NEG$_1$-can become.CSM
'Her uncle became very happy this morning.'   (CV2:92)

(90) *tseĭ   tɕì=tì   mà,   ŋǎnsə̌   tsʰə̀piá   dà-uà=là*
3SG.GEN son=DEF P(CH) indeed(CH) fatty.meat AND-EXIST=NFIN
miá-qà   pà.
NEG$_1$-can become
'Her son indeed became very fat.'   (CV1:39)

(91) *tə̀-tueí-tà   miá-qà   pà=sà   jà!*
UP-carry-V NEG$_1$-can become=1SG.CSM EXC
'(I) cannot carry (water) anymore!'   (T14)

(92) Wenchuan Mandarin
tse^{213} $sə^{213}$ $ɕan^{213}tsaĭ^{213}$ xuo^{51} te^{31} pu^{31} $ɕin^{31.}$
this   thing now   popular particle not can
'This thing is very popular now.'

In Longxi Qiang, a negative construction can indicate the positive meaning 'high degree of necessity to perform an action', either a deontic modal sense or desiderative sense. The native strategy to indicate this meaning is simply a main verb with the addition of the modal verb *tɕʰé* 'need'. This is similar to the construction *fei^{55}-jau^{213}* (not need/want) or *fei^{55}-te^{31}* (not must) in Wenchuan Mandarin, which indicates high necessity or obligation as in (93), or a speaker's strong willingness as in (94).

(93)   Wenchuan Mandarin
    ni^{51} fei^{55}-te^{31}   *pa^{51} koŋ^{55}tso^{31} tsu^{213} uan^{31}.*
    2SG not-necessary ba   work   do   finish
    'You must finish your work.'

(94)   Wenchuan Mandarin
    ŋo^{51} pu^{31} zaŋ^{213} tʰa^{55} kʰan^{213},   tʰa^{55} fei^{44}-jau^{213} kʰan^{213}.
    1SG not allow 3SG look   3SG not-need look
    'I don't allow her/him to look. (S)he must look.'

In (95), the negative form *tà-mí-mì* (UP-NEG$_1$-raise) 'not raise' co-occurs with the modal verb *tɕʰé* 'need', which means the action 'raise my daughter' is her obligation. This is similar to the construction *fei^{55}-te^{31}* given in (95).

(95)   *tà-mí-mì=là*   *kà pù tɕʰé làn.*
    UP-NEG$_1$-raise=NFIN ADV do need ATT(CH)
    '(I) need raise (my daughter).'   (CV8:36)

In (96), *zà-mí-pú* 'not buy' co-occurs with *tɕʰé* 'need'. This construction is similar to *fei^{55}-jau^{213}* given in (98). These two constructions have a desiderative sense, indicating the speaker's strong willingness to do something.

(96)   *án-tsʰè̀-wò=là*   *zà-mí-pú   kà=là jì-tǎn-là*   *tiè^{12}*
    some-hundred-CL=TOP TO-NEG$_1$-buy go=NFIN IN-stew(CH)-LOAN eat
    tɕʰé=nì   *làn.*
    need=1PL.NCSM ATT(CH)
    '(We) need to go to buy (beef) (costing) hundreds *yuan*, (because we) need cook to eat.'   (CV3:54)

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12. These are forms for 'eat': *tiè* and *tɕʰí*. The former is used for foods not in a container; the latter is used for foods in a container such as a bowl.

6. Discussion

Chinese influences Qiang deeply. The Qiang people have been contact with Han Chinese for a long time (see Sun 1988; LaPolla & Huang 2003: 5; Huang & Zhou 2006: 281). Longxi Qiang has been in close contact with the Han Chinese, and this trend is increasing. There are two main reasons for this development. First, while previously most Qiang in Longxi Township practiced subsistence agriculture, in recent years many Qiang have left the farm. These laborers choose to earn money in Weizhou Township, the economic center of Wenchuan County. They work with non-Longxi Qiang speakers and speak Wenchuan Mandarin. Secondly, Chinese is the primary language of instruction in local primary and secondary schools. Contact-induced language changes differ in different Qiang areas (Sun 1988: 65). For example, almost all Longxi Qiang (even speakers over 90) are bilingual, speaking both Longxi Qiang and Wenchuan Mandarin. By contrast, speakers of the Longba variety, spoken in Longba Township, Heishui County, show a much lower level of bilingualism than those in Longxi. Even though there is contact with Tibetan and Chinese, I found some Longba Qiang speakers over 80 who are monolingual. This situation is like that of Luoduo Township (further north than Longba). In some villages in Luoduo, there are several middle-aged women who are not fully conversant in Chinese (personal communication with Nathaniel Sims). Thomason & Kaufman (1988: 47) point out that "intensity of contact in a borrowing situation crucially involves factors of time and of level of bilingualism… If there is extensive bilingualism on the part of borrowing-language speakers, and if this bilingualism persists over a long period of time, then substantial structural borrowing is a probability." Bilinguals in Longxi exactly meet these two factors that often lead to structural borrowing.

Sun (1988: 65) discusses contact-induced changes in terms of lexicon, phonology, and morphosyntax. He points out that unlike the deep influence of Chinese on the lexicon and phonology, the morphosyntax of Chinese still affects Qiang at a surface level. In my recorded data, many contact-induced morphosyntactic changes, including calqued structures are used in Longxi Qiang. The negative structures indicating positive meaning (discussed in § 5.4) are examples of calqued constructions.

Asymmetry in the social roles of the languages may determine the direction of change (Matras 2012: 19). In the case of contact between Longxi Qiang and Wenchuan Mandarin, the latter is regarded as the 'dominant language', and Longxi Qiang is the non-dominant or minority language. Matras (2009; 2012) discussed the motivations for contact-induced changes: 'gaps' in the structural inventory of the recipient language, the 'prestige' of the donor language, the 'cognitive pressure' on bilinguals to simplify the selection procedure, and 'creativity of speakers'

to achieve communicative goals. My assumption is that Longxi Qiang-Wenchuan Mandarin bilingual speakers notice that Wenchuan Mandarin is in possession of two negators that do not exist in Longxi Qiang, and then speakers of the Longxi variety innovated different negators. The creativity of Longxi Qiang speakers to achieve communicative goals is a significant element for the generation and formation of different negative forms.

Many examples of superstratum influence of Chinese on minority languages are found among the Tibeto-Burman languages. LaPolla (2009: 229) gives one example of the influence of Chinese on Bai, where a large number of loan words and word order patterns have been gradually borrowed. This is similar to the influence of Chinese on Longxi Qiang, where aside from over 30% of loan words from Wenchuan Mandarin we find a shift to Chinese structures, such as negative prefixes and constructions. Liu (1998) suggested that the loss of consonant codas, simplification of consonant clusters, and Chinese loanwords has given rise to tonogenesis in Southern Qiang. Evans (2001) argues that the development of tone in Southern Qiang is likely to be recent and correlated with the morphological complexity of Qiang varieties. LaPolla (2009) looks at the habits of behavior and conceptualization to explain superstratum influence, where the habits of the use of one language (L1) are affected by the habits of the use of a second language (L2), if L2 use is used frequent enough.

The two negative prefixes /mí-/ and /mì-/ in the Longxi variety are very similar to the negators pu^{31} and mei^{55} in Wenchuan Mandarin, which is largely due to heavy contact with Wenchuan Mandarin. LaPolla (2003: 127) remarks that "learning another language means learning to think in a different way, or to construe the world in a different way, and this may then affect our native language." My hypothesis is that prior to the long period of contact with Wenchuan Mandarin, negation in the Longxi variety was expressed by only one negative form, corresponding to other Qiang varieties. Due to heavy contact with Wenchuan Mandarin, speakers of the Longxi variety came to feel the need to reflect verb classes, aspectual selections, and volition using different negation strategies as Wenchuan Mandarin does, and so developed different negative forms. This is a case of the habits of Wenchuan Mandarin Chinese negation affecting negation in the Longxi Qiang variety.

7. Conclusion

This article discussed negation in Longxi Qiang. From the perspective of Aktionsart, negation of each verb type displays a distinct tonal pattern. The selections of the negators /mì-/ and /mí-/ in Longxi Qiang are similar to those of the negators mei^{55} and pu^{31} in Wenchuan Mandarin. Moreover, the volition of the negators /mì-/ and /mí-/ in Longxi Qiang are identical to those of the negators mei^{55} and pu^{31} in

Wenchuan Mandarin. Two negative constructions expressing positive meaning in Wenchuan Mandarin can also be found in Longxi Qiang. I have applied LaPolla's analysis in explaining this superstratum influence, where the habits of Wenchuan Mandarin use are reflected in Longxi Qiang. More examples of superstratum influence of Wenchuan Mandarin on the Longxi variety can be found. For example, serial verb constructions are very rare in other recorded Qiang varieties, but are widely found in the Longxi variety.

Acknowledgements

Abbreviations

1	first person	FIN	final particle
2	second person	HET	heterophoric
3	third person	HS	hearsay maker
ADV	adverb marker	LOAN	loan word marker
ANAP	anaphoric pronoun	LOC	locative maker
AND	andative direction marker, movement from the deictic center	NEG$_1$	negative prefix /mí-/
		NEG$_2$	negative prefix /mì-/
ATT	speaker attitude marker	NFIN	non-final marker
CAUS	causative marker	NMLZ	nominalizer
CERT	epistemic certainty	NCSM	non-change of state marker
CH	Chinese loan word	OUT	outwards directional marker
CL	classifier	P	pause
CON	continuative aspect	PL	plural
COP	copula	PRO	prospective aspect marker
CSM	change of state marker	PROG	progressive
DAT	dative marker	Q	question particle
DEF	definite marker	RHET	rhetorical question marker
DOWN	downwards directional marker	SG	singular
EXC	exclamative	TAG	tag question
EXIST	existential verb	TOP	topic marker
EXP	experiential auxiliary	UP	upwards directional marker
EXT	extent adverb	V	verb citation

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