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► **To cite this version:**

Ekaterina Chirkova. The Qiangic Subgroup from an Areal Perspective: A Case Study of Languages of Muli. *Language and Linguistics*, 2012, 13 (1), pp.133-170. hal-00553056v2

HAL Id: hal-00553056

<https://hal.science/hal-00553056v2>

Submitted on 22 Jun 2011

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The Qiangic Subgroup from an Areal Perspective: A Case Study of Languages of Muli

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Abstract: In this paper, I study the empirical validity of the hypothesis of “Qiangic” as a subgroup of Sino-Tibetan, that is, the hypothesis of a common origin of thirteen little-studied languages of South-West China. This study is based on ongoing work on four Qiangic languages spoken in one locality (Mùlǐ Tibetan Autonomous County, Sìchūān), and seen in the context of languages of the neighboring genetic subgroups (Yí, Na, Tibetan, Sinitic). Preliminary results of documentation work cast doubt on the validity of Qiangic as a genetic unit, and suggest instead that features presently seen as probative of the membership in this subgroup are rather the result of diffusion across genetic boundaries. I furthermore argue that the four local languages currently labeled Qiangic are highly distinct and not likely to be closely genetically related. Subsequently, I discuss Qiangic as an areal grouping in terms of its defining characteristics, as well as possible hypotheses pertaining to the genetic affiliation of its member languages currently labeled Qiangic. I conclude with some reflections on the issue of subgrouping in the Qiangic context and in Sino-Tibetan at large.

Keywords: Qiangic, classification, areal linguistics, Sino-Tibetan

摘要：本文針對羌語支為漢藏語系亞語族這一假設進行研究並考察其實證效度。該假設認為中國西南地區的 13 種尚未得到充分研究的語言擁有一個共同的起源（即它們具有親緣關係）。本研究通過對四川省木里藏族自治縣內的四種羌語支語言的長時間實地調查及研究，並將其與相鄰的亞語族（彝語、納西語、藏語、漢語）作

This is a reworked version of a paper presented at the International Symposium on Sino-Tibetan Comparative Studies in the 21st Century, held at the Institute of Linguistics, Academia Sinica, Taipei, Taiwan on June 24-25, 2010. I would like to thank Sūn Hóngkāi 孫宏開 and other participants of the symposium for their input and suggestions. I am also grateful to Guillaume Jacques, Alexis Michaud, Jonathan Evans and the anonymous reviewers of *Language and Linguistics* for useful comments on earlier versions of the paper; for Sing Sing Ngai for help with translating the abstract into Chinese; and for Franz Huber for creating the map. The field research on which this paper is based was sponsored by the Agence Nationale de la Recherche (France) as part of the research project “What defines Qiang-ness? Towards a phylogenetic assessment of the Southern Qiangic languages of Muli” (acronym PASQi) (ANR-07-JCJC-0063).

The following abbreviations and conventions are used: 3 = third person singular pronoun; PRF = perfective; WT = Written Tibetan; - = morpheme boundary within a lexical word; == = clitic boundary; ~ = free variation between two forms; * = unattested form which has been historically reconstructed.

Data from secondary sources are provided in the original transcription. In clusters, “N” stands for a nasal that is homorganic to the following consonant. Tone notation in Shixīng, Lizu, Kami and Púmǐ is provided in superscript letters, where “H” stands for high tone and “L” for low tone. In these languages, the tone of the metrically prominent first syllable spreads rightward, and tones in non-prominent positions are not pronounced (see Chirkova and Michaud, 2009; Jacques, 2011; Chirkova, forthcoming, for details). Tone notation is hence provided to the left of the lexical word. On monosyllabic words, “HL” stands for the falling tone, whereas “LH” stands for the rising tone. On words of two syllables or more, “H” is realized as a sequence of H tones; “HL” is realized as H on the first syllable and L on all following syllables; “LH” is realized as L on all syllables up to the penultimate and H on the last syllable.

出比較。在搜集到的材料研究基礎上，本文對羌語支自成一支這個假設提出質疑，認為目前被看作羌語支成員之定義特徵應該是由於相鄰的語言之間的特徵相互擴散。我們進一步提出木里縣內目前被同時劃分為羌語支的四種當地語言各自相異，不大可能有密切的親緣關係，因此，我們認為“羌語支”應被看作是一個以區域特徵來定義的概念，並提出有關目前被認為是屬於羌語支成員的語言之間的親緣歸屬問題的幾個假設。本文反思羌語支作為亞語族這一問題，並將這一思考推擴到漢藏語系語言之歸屬分類這一問題上。

關鍵詞：羌語支、語言歸屬分類、區域語言學、漢藏語系

1. Introduction

This paper examines the empirical validity of the Qiangic subgrouping hypothesis, as studied in the framework of the project “What defines Qiang-ness: Towards a phylogenetic assessment of the Southern Qiangic languages of Mùlǐ”. The project focuses on four Qiangic languages, as spoken in Mùlǐ Tibetan Autonomous County 木里藏族自治縣 (WT *mu li rang skyong rdzong*). This county is part of Liángshān Yí Autonomous Prefecture 涼山彝族自治州 in Sìchūān Province, People’s Republic of China.

INSERT MAP 1 ABOUT HERE

Map 1. Location of Mùlǐ Tibetan Autonomous County

The four studied languages are: (1) Shǐxīng (spoken in Shuǐluò 水洛 township), (2) Lizu [a.k.a. Ěrsū] (spoken in Kǎlā 卡拉 and Luǒbō 裸波 townships),¹ (3) Nàmùzī [a.k.a. Nàmùyī] (spoken in Luǒbō 裸波 township), and (4) Púmǐ [a.k.a. Prinmi] (spoken in the central part of the county). Púmǐ is the language of the ethnic majority of Mùlǐ and a local lingua franca.²

These four Qiangic languages are studied in the context of the local Tibetan dialect (Kami Tibetan), the local Chinese dialect (South-Western Mandarin), and the local Na languages (with a special focus on the little-studied Laze language, spoken in Xiàngjiǎo 項腳 township of Mùlǐ and locally known as Mùlǐ Shuǐtián 木里水田 or Lārè 拉熱).³

¹ Lizu is held to be the western dialect of the Ěrsū language.

² While Shǐxīng is restricted in distribution to Mùlǐ, the remaining three languages are also spoken beyond the borders of this county. Nàmùzī is also spoken in Miǎnníng 冕寧, Xīchāng 西昌, Yányuán 鹽源 and Jiǔlóng 九龍, all in Sìchūān Province. Púmǐ is further spoken in the neighboring Yányuán and Jiǔlóng, in Sìchūān Province, as well as in Lánpíng 蘭坪, Nínglàng 寧蒗, Yǒngshèng 永勝, Lìjiāng 麗江, Yúnxìàn 雲縣, Wéixī 維西, all in Yúnnán Province. Finally, the Ěrsū language, which appears to be closely related to Lizu, is spoken in Gānlùò 甘洛 and Yuèxī 越西 of Liángshān Prefecture, as well as in Gānzī *dkar mdzes* 甘孜 Tibetan Autonomous Region and Yǎ’ān 雅安 District, all in Sìchūān Province.

³ The term “Na languages” is an alternative to the term “Nàxī language” in Chinese linguistic classification. Both comprise Nàxī proper (or in Chinese classification, the western dialect of Nàxī) and Moso (or in Chinese classification, the eastern dialect of Nàxī) (Hé and Jiāng 1985:104-116, Gàì and Jiāng 1990:70). The designation “Na” derives from the fact that the relevant ethnic groups all have “Na” as their group

The goals of the project are: (1) in-depth documentation of the selected languages; and on that basis (2) reflection on the validity of Qiangic as a phylogenetic unit (i.e. stressing genetic relationship and common inheritance over surface similarities) and as a monophyletic unit (i.e. assuming a single common ancestor for all subgroup languages).

This paper is organized as follows. Section 1.1 provides a brief overview of the essential features and challenges of the Qiangic hypothesis (Qiangic as a genetic unit). Section 2 summarizes the first results of documentation work. It essentially focuses on the synchronic similarities observed between the languages under study. Based on these data, I argue that features presently held as probative of membership in the Qiangic subgroup are rather indicative of a linguistic area, as these features are also found in the local varieties of the languages of other genetic subgroups (e.g. the local Tibetan dialect) and are absent from their nearest relatives outside of the area. Given that the reason for salient similarities shared by the languages of Mùlǐ is demonstrably due to diffusion across genetic boundaries, I furthermore argue that, contrary to the received view, the four local languages currently labeled Qiangic are highly distinct. That is, they are not likely to be closely genetically related. Section 3 discusses the defining characteristics of Qiangic as an areal grouping. It also reviews alternatives for drawing genetic conclusions about the areal languages of uncertain affiliation, currently labeled Qiangic. Section 4 concludes this paper with some reflections on the issue of subgrouping in the Qiangic context and in Sino-Tibetan at large.

1.1. Qiangic as a genetic unit: Summary and challenges

Qiangic is the hypothesis of a common origin of thirteen, geographically adjacent and little-studied Sino-Tibetan languages of South-West China. Twelve of these languages are still spoken, one is extinct (Tangut).

The idea that some languages of the Chinese Southwest cohere to form a Sino-Tibetan subgroup can be traced to F. W. Thomas (1948:88-109), who proposed a “Hsifan group” based on wordlists of Qiāng, rGyalrong, Púmǐ, Ěrgōng, Ěrsū and Nàmùyī. The label “Qiangic”, under which the group is currently known, was introduced by the eminent Chinese linguist Sūn Hóngkāi in the 1960s as an umbrella term for the Qiāng, Púmǐ, and rGyalrong languages (Sūn 1962:561; 1982; for the history of Qiangic subgroup, see Sūn 2001b:160-164). The Qiangic group was expanded in the 1970s, when new languages discovered and explored in pioneering work by Sūn Hóngkāi in Western Sìchuān (e.g. Shǐxīng, Guìqióng, Nàmùyī and Ěrsū) were also seen as Qiangic (Sūn 1983a, 1983b, 2001; further elaborated in Huáng 1991). Finally, Tangut was added to the group in the 1990s (Sūn 1991).

name in their respective autonyms (Yáng 2006). Na languages are held to be transitional between Yí-Burmese and Qiangic languages, sharing lexical material with both groups, but lacking the extensive morphology of (Northern) Qiangic (e.g. Bradley 1997:37, Sūn 2001a).

The hypothesis of a close relationship between Laze and Na languages essentially relies on the history, culture, and self-awareness of the group (based on Guō and Hé 1994:6-7 and fieldwork by Alexis Michaud). The assumption of a close genetic relationship between Laze and Na is equally supported by regular sound correspondences between these languages, as discussed in Jacques and Michaud (forthcoming).

After Sūn (1983a, 2001b), the thirteen Qiangic languages are subdivided, mainly on geographical grounds, into (1) a more phonologically and morphologically complex, and relatively better-studied northern branch, and (2) a less phonologically and morphologically complex, and virtually unexplored southern branch. The northern branch includes Qiāng proper, Púmǐ, Mùyǎ, Ērgōng (Horpa), rGyalrong, Lavrung and Tangut. The southern branch comprises Zhābā, Quèyù, Guìqióng, Ērsū, Nàmùyī and Shìxīng.

The Qiangic languages occupy a compact, contiguous geographical area in the borderlands of Tibet. Chinese historiographic sources claim that this area was historically populated by a host of nomadic tribes, traditionally labeled “Hsifan” and closely linked to Tibetan culture and religion.⁴ The Qiangic hypothesis entails that Qiangic languages share a number of common features due to their descent from a (recent) common ancestor.

The Qiangic hypothesis essentially relies on shared lexical items and typological similarities, of which directional prefixes (topography-based spatial deixis) is de facto the essential feature probative of Qiang-ness (e.g. Matisoff 2004:105). After Sūn (2001:166-170), a complete list of Qiangic features probative of the membership in this subgroup includes: (1) shared vocabulary, (2) large number of consonant clusters, (3) large consonant and vowel inventories, (4) uvular phonemes, (5) contrast between prenasalized and plain initials, (6) three medials: *i*, *y*, *u*, (7) vowel harmony (mostly in languages of the northern branch), (8) few or no consonantal codas, (9) tones, (10) reduplication as important means of word formation, (11) singular-dual-plural distinction in nouns, (12) diminutive formation with a suffix derived from the morpheme for ‘child’ or ‘son’, (13) numeral classifiers, (14) case forms of personal pronouns, (15) dual and inclusive-exclusive forms of personal pronouns, (16) person and number agreement in verbs (in languages of the northern branch), (17) directional prefixes, (18) reciprocal forms, (19) differentiation of existential (locative) verbs, (20) rich inventories of case markers.

Yet, the Qiangic subgroup has been controversial since it was first proposed, for these four reasons:

(1) The restricted nature of the supporting evidence. This evidence is essentially limited to typologically common features, which are also found with considerable frequency in non-Qiangic languages of the area (see §2 for discussion). The probative value of the evidence is furthermore substantially outweighed by the conspicuous absence of cognacy among the shared systems. This has led some scholars to straightforwardly identify some putative Qiangic features as parallel developments (e.g. LaPolla 2003:30 for case marking and existential verbs) or areal phenomena (e.g. Shirai 2009 for directional prefixes).

(2) The small percentage of shared common vocabulary. While this feature, in contrast to the typological characteristics above, could provide more reliable support for the

⁴ In Chinese historiographic sources, the label “Hsifan” mostly points to peripheral groups in the circumference of ethnic Tibet, sharing with ethnic Tibetan their religions and culture, but speaking their own languages. The same label is also occasionally used as a collective name for everything that is non-Chinese in the western periphery. The term is non-committal as to the genetic relationship between the groups in question, which, while most likely all Sino-Tibetan, are therefore for all purposes to be considered as not closely genetically related.

hypothesis of a common origin of these languages, the percentage of shared vocabulary is relatively small. It ranges from 25% between any two random Qiangic languages in more optimistic estimations (Sūn 1983a:103-105) to less than 20% in more conservative assessments (Huáng 1991:355). In addition, this percentage includes many widespread Sino-Tibetan cognates and there is considerable overlap with other subgroups of the area (most notably, Yí, Na, and Tibetan). To compare, a geographically adjacent non-Qiangic language Moso (Na) shares no less than 26,9% of cognates with Qiāng (estimation based on a sample of 1.017 basic vocabulary items, excluding 141 Chinese loanwords, in Gài and Jiāng 1990:71).

(3) The absence of common innovations. The Qiangic subgroup has so far not been supported by common innovations, i.e. unique events common to the histories of all the languages in the subgroup, as distinct from (a) diffusion across language boundaries, (b) independent, parallel developments, (c) retention from an earlier state or, finally, (d) chance. Common innovations are held to be the only reliable basis for a linguistic subgroup (e.g. Thurgood 2003:5). In other words, the Qiangic subgroup is essentially based on synchronic features, rather than on evidence from historical comparison.⁵

(4) The historical, ethnic and linguistic complexity of the geographical area occupied by Qiangic languages.

Historically, the area of distribution of the Qiangic languages lies in the zone of mixed Tibetan and Chinese influence, at the intersection of three superpowers that became dominant in the 7th and 8th centuries AD:

- the Tibetan Empire, instituted by Srong-btsan sgam-po (620-649 or 650)
- the Táng Chinese court (618-907)
- the Nánzhào kingdom (730-902) with its capital in Dàlǐ, later succeeded by the Dàlǐ kingdom (937-1253), related to modern Yí and Bái groups.

These three superpowers were succeeded by a federation of small tribal states, kingdoms, and dependent districts (such as the kingdoms of Nangchen, Lithang, rGyalthang, or

⁵ The only (phonological) innovation for the Qiangic subgroup proposed so far is brightening, that is, a strong tendency for the Proto-Sino-Tibetan rhyme *-a to be raised and fronted to -i or -e in Tangut and modern Qiangic languages, as proposed by James A. Matisoff (2004). Matisoff discusses this development essentially in relation to Tangut, but he also points out a number of parallels in modern Qiangic languages. He argues that this development is unusual in the Sino-Tibetan context, and it is therefore a valuable criterion for membership in the Qiangic group. At the same time, Matisoff (2004:350) notes that modern Qiangic languages do not display brightening to the same degree, and that the phenomenon is not regular, either within the same language or cross-linguistically. The following observations regarding this development can furthermore be made. Relatively few items shared by both Tangut and modern Qiangic languages have so far been proposed (33 words in total, Matisoff 2004). Of these, even fewer are shared by more than four Qiangic languages at a time. Conversely, those that are shared by most Qiangic languages, such as ‘salt’ (in 12 languages) and ‘rabbit’ (in 9 languages) appear to be good candidates for cultural loanwords, and are hence inconclusive as to the genetic relatedness between the languages in question. Finally, this phenomenon is equally attested in non-Qiangic languages of the area, such as Na and Yí. For example, both ‘salt’ and ‘rabbit’ also display the effects of brightening in Nàxī and Moso as well as in Nosu (Northern Yí): ‘salt’, Nàxī and Moso, both ts^he³³; Nosu ts^hu³³ (Zhū 2005:236); ‘rabbit’: Nàxī t^ho³³le³³, Moso t^ho³³li³³; Nosu t^hu²¹u²¹ (Zhū 2005:162).

rMili), some of which maintained a de facto independent status until well into the 20th century.

Ethnically and linguistically, the area lies at the intersection of, most importantly, Bodic and Yí-Burmese, as well as some unclassified groups, such as Na and Bái. The area of distribution of Qiangic languages is characterized by long-standing multilingualism. Long-standing multilingualism suggests diffusion as key factor in the formation of the languages of the area. It equally poses an important challenge to the subgrouping of local languages as based on common innovations and shared cognates, as no objective criteria have yet been found either to distinguish independent innovations from shared retentions, or to factor out parallel developments or effects of diffusion (see Harrison 2003:232-239 for discussion).

Not surprisingly, in view of the problems above, the membership of the Qiangic subgroup is fluid and has many times been adjusted and remains undecided for some languages.

The Báimǎ language (also known as Báimǎ Tibetan) of Northern Sìchuān and Southern Gānsù provinces was added to Qiangic in the 1980s, because it displays features that are held to be typical of this subgroup, such as directional prefixes (Sūn 1980). Currently, opinions are split between Báimǎ being a separate Bodic language (e.g. Nishida and Sūn 1990, Sūn et al. 2007:207-223) and an aberrant Tibetan dialect (Huáng and Zhāng 1995, Zhāng 1994a, 1994b).

The relationship of the Tangut and rGyalrong languages to Qiangic is equally a matter of ongoing debate. LaPolla (2003:30), for instance, argues that the relation of rGyalrong to the Rawang and Kiranti groups is much clearer than to the Qiangic group, and that similarities shared by rGyalrong and Qiangic may simply be areal influence. Notably, three northern Qiangic languages, rGyalrong, Lavrong and Horpa-Shangzhai (Ērgōng or Dào fú 道孚 in different classifications) have been demonstrated by Jackson T.-S. Sun (2000a, 2000b) to be an independent and coherent subgrouping in its own right, namely, rGyalrongic.

The Nàmùyī language, held as one of Southern Qiangic languages, is argued to be genetically related to Yí and Na languages, rather than to Qiangic languages (Lāmǎ 1994; Huáng 1997:13-15). This conclusion is essentially based on the large amount of related words between Yí, Na and Nàmùyī.⁶ Notably, the same conclusion has been reached on the basis of historical, cultural, and anthropological evidence (Yáng 2006).

The Shǐxīng language is likely to be related to Na languages, given that speakers of Shǐxīng are considered by Nàxī historians as part of the Na ethnos (Guō and Hé 1994:8-9).⁷

⁶ Inferences that can be drawn from lexical comparisons of some local languages of uncertain affiliation with Yí and Na are complicated by the lack of well-defined diagnostic criteria to distinguish between Yí and Na groups, that share much lexical material. Hence some local languages of Mùlǐ, e.g. Nàmùyī (Lāmǎ 1994; Huáng 1997:13-15) or Laze (Huáng 2009), are ambivalent between these two groups in terms of their respective shared vocabulary.

⁷ Notably, Sūn (2001:167) also points to a large percentage of shared lexical items between Shǐxīng and Na languages, which he argues to be borrowings in Shǐxīng. In a similar vein, Sūn interprets numerous lexical sharings between Ērsū and Yí languages as results of contact (ibid.)

All in all, the Qiangic hypothesis remains problematic. The two major inter-related challenges are: (1) establishing an objective foundation for subgrouping in an area that is historically, ethnically, and linguistically complex, and whose languages have not been previously documented; and (2) gathering sufficient evidence to generate and evaluate hypotheses related to the genetic affiliation of those local languages (currently held as Qiangic) that cannot be straightforwardly integrated into the neighboring genetic subgroups.

2. Qiangic as a genetic unit, as examined on the basis of four Qiangic languages of Mùlǐ

The project “What defines Qiang-ness” takes on the challenging task of assessing the validity of the Qiangic hypothesis. The approach is to focus on little-studied Qiangic languages spoken in one locality, Mùlǐ Tibetan Autonomous County, and to view these languages in the context of equally little-known local varieties of the Tibetan and Na languages. Given that one of the major challenges of the Qiangic hypothesis is the historical, ethnic and linguistic complexity of the area occupied by Qiangic languages, the choice of one locality allows one to restrict to a manageable size the scope of the contact situation and the number of involved languages in order to coherently assess the impact of both internal (genetic) factors and external (contact) factors. The choice of Mùlǐ as the single locality to be studied is additionally supported by these factors: (1) Mùlǐ displays one of the highest concentrations of Qiangic languages; combining within its borders several Southern Qiangic languages (Shǐxīng, Lizu, Nàmùzī) and one Northern Qiangic language (Púmǐ); (2) Mùlǐ is a historically stable administrative entity (the semi-independent kingdom of rMili), which guarantees recoverability of relevant sociolinguistic and historical information.

Mùlǐ is a multi-ethnic and multi-lingual county. Speakers of the four Qiangic languages of Mùlǐ are officially classified, together with the local ethnic Tibetans (Kami Tibetans), as members of the Tibetan nationality. Together, they account for 32,59% of the county population (Mùlǐ Zàngzú Zìzhìxiàn Zhì Biānzuǎn Wěiyuánhùi forthcoming). Their most important historical neighbors include Nosu (28% of the county population) and Na groups (Nàxī and Moso together 9,96%). Historically more recent new comers to this area are Sinitic (South-Western Mandarin) (21,32%), Miáo (6,96%), as well as Bùyī, Zhuàng, Bái and some other groups (altogether ca. 1,17%).

The project initially operated under the assumption that the four Qiangic languages of Mùlǐ are closely genetically related. In line with practices of mainstream historical linguistics, the initial goals were accordingly set: (1) to stratify loanwords in the four studied languages from languages whose historical development is well-documented and understood (most importantly in the areal historical and cultural context, Tibetan), (2) to find regular sound correspondences over sets of putative cognates, and (3) to search for common phonological and lexical linguistic innovations between the surveyed Qiangic languages.

In contrast to the original assumption of relatedness, the first results of documentation work reveal diversity as a salient feature of the Qiangic languages of Mùlǐ. In fact, contrasts between the languages are so sharp that they cast considerable

doubt on the assumed genetic relationship between them (see discussion below). This warrants a closer investigation of newly collected data to further evaluate this diversity, prior to proceeding with work that relies on the assumption of relatedness of the group.

The following subsections (2.1-2.4) discuss similarities between the four Qiangic languages of Mùlǐ, as seen in the context of their most important genetic neighbors (Tibetan, Yí, Na, Sinitic). The proposed comparison is based, on the one hand, on available data on well-described varieties of Tibetan, Yí, Na and Sinitic, and, on the other hand, on newly collected data on the local Mùlǐ varieties of these languages (for the time being, excluding the local variety of Nosu (Northern Yí)). Lexical data are not included in the present overview, suffice it to say that the four languages share relatively few lexical items in their basic vocabulary. Overall, the percentage of shared lexical items is estimated around the customary Qiangic threshold of 20%, with cultural (Tibetan) lexicon accounting for a sizeable part of related words between the four languages.⁸

2.1. Similarities between the four Qiangic languages of Mùlǐ

The present list of similarities is not intended to be exhaustive or final, but rather represents work in progress that will have to be modified when more comparative data become available. The list was initially intended as an overview of all shared features between the four Qiangic languages studied in the project (Shǐxīng, Lizu, Nàmùzī, Púmǐ). Coincidentally, the shared features turned out to be essentially restricted to features postulated as characteristic of the membership in the Qiangic subgroup (such an overlap is indicated below as “Qiangic feature”). Notably, the list does not include such common features shared by the majority of local genetic subgroups (excluding only the later arrival into the area, Sinitic), as SOV or Noun-Adjective word orders. I have also omitted some relatively non-committal Qiangic features, such as “large consonant and vowel inventories”, especially because those of the four examined languages do not appear to be significantly larger than those of their generic neighbors.⁹ And in order not to detract from the main line of argument, illustrative examples are deferred to the appendix at the end of the paper.

Features shared by the four Qiangic languages of Mùlǐ include:

⁸ Consider some examples from basic vocabulary: ‘man, person’: Púmǐ ^Hmə, Lizu ^Htsʰo, Nàmùzī ^Htsʰo, Shǐxīng ^Hhī; ‘food; cooked rice’: Púmǐ ^Hbei, Lizu ^Hkʰa, Nàmùzī ^{LH}dzæ, Shǐxīng ^Hhə. Some examples from more culturally oriented vocabulary include: ‘deity’ (WT *lha*), Púmǐ ^Hta, Lizu ^{LH}ta, Nàmùzī ^{LH}tæ, Shǐxīng ^{LH}gi-ta; ‘flag’ (WT *dar*), Púmǐ ^{LH}ti, Lizu ^{LH}ta, Shǐxīng ^{LH}ti. A side observation is that Tibetan loans in the four Qiangic languages appear to derive from distinct donor dialects. For example, ‘flower’ is ^{LH}Nburu in the local Tibetan dialect (Kami), but ^{LH}metɕo or ^{LH}meto in Lizu, and mi⁵⁵tɕo³¹ in Nàmùzī, all related to WT *me tog*.

⁹ For example, Púmǐ has a total of 42 initials (40 initial consonants and 2 consonant clusters) and 34 rhymes (7 oral vowels, 5 nasal vowels, 22 diphthongs). To compare, Nosu has 44 initial consonants and 10 rhymes (8 syllabics, 2 non-syllabics) (Lǐ and Mǎ 1983:83-84). Bātáng 巴塘 ‘*ba*’ *thang* Tibetan has 48 initials (42 initial consonants, 6 consonant clusters) and 31 rhymes (9 oral and 8 nasal vowels, 5 diphthongs and 9 rhymes ending in a glottal stop) (Gésāng 1989:16, 20).

The Qiangic feature “case forms of personal pronouns” is not included in the present list, as in the surveyed languages, these forms are transparent combinations of a relevant personal pronoun and a case marker. For this reason, this feature is subsumed on the list under “case marking”. The Qiangic feature “reciprocal” is included on the list under “reduplication”.

- (1) Pronunciation of the vowel /u/ (in Púmǐ ǝ) as a syllabic bilabial trill after bilabial and apical stops
- (2) Uvular phonemes: (a) contrastive with velars, as in Shǐxīng, Lizu, Nàmùzī, or (b) allophones of velar phonemes, as in Púmǐ (Qiangic feature)
- (3) Common principles of prosodic organization: tone systems characterized by culminativity—a restriction of not more than one pronounced lexical tone per prosodic word with one tonal assignment (mostly restricted to the first syllable of the word) affecting much or all of the prosodic word (Qiangic feature “tones”, see Evans 2008 for discussion)
- (4) Identical principles of word-formation, including: (a) extensive use of reduplication (Qiangic feature), (b) compounding and (c) affixation. The latter comprises:
 - (i) Kinship prefix *a-* (for older kin)
 - (ii) Diminutive suffix derived from the morpheme for ‘child’ or ‘son’ (Qiangic feature, non-related forms)
 - (iii) Gender suffixes for animals
- (5) Numeral classifiers (Qiangic feature, for the most part non-related forms, see §2.2 for discussion)
- (6) Directional Prefixes (Qiangic feature, for the most part non-related forms)
- (7) Past/non-past distinction (suppletive forms) in some high frequency verbs and nominalization markers (for the most part non-related forms)
- (8) Multiple existential verbs (Qiangic feature, for the most part non-related forms)

All in all, similarities (phonological, morphological, syntactic) between the four languages are strikingly few. Furthermore, given the apparent non-relatedness of relevant markers in shared systems, the majority of similarities are symptomatic of parallel developments. The observed phenomena can also be interpreted as pattern-borrowings, that is, replications of the abstract organizational pattern of the model construction of an external source using suitable elements in the replica language (Matras and Sakel 2007). Put differently, the structural similarities observed between the four languages are likely to be instances of grammaticalization, where only the patterns of the other language are replicated (i.e. the organization, distribution and mapping of grammatical or semantic meaning), while the form itself is not borrowed. Overall, this type of grammaticalization is typical for linguistic areas.

2.2. Differences between the four Qiangic languages of Mùlǐ

The range of differences between the four surveyed languages is far more extensive and involves virtually all linguistic sub-systems. Differences can further be divided into two types: (1) overall dissimilarities (non-overlapping systems), and (2) dissimilarities among overlapping systems (non-cognate marking).

The former type of differences can be illustrated by distinct orders of demonstrative and noun in the four languages. The four Qiangic languages of Mùlǐ have no less than three distinct orders for demonstrative and noun, namely:¹⁰

(1) Dem-N (Púmǐ and Lizu), e.g. Púmǐ ˩u˥ti ˩l-mə ‘that woman’, Lizu ˩ku-tʰɛ ˩hjaqɑ ‘this child’

(2) N-Dem (Nàmùzī), e.g. ju³¹ tæ⁵⁵=ly⁵⁵ ‘this house’

(3) Dem-N-Dem (Shǐxīng), e.g. ˩hɑ ˩tɔpi ˩hɑ ‘this story’, ˩tʰi ˩hĩ ˩l-tʰi ‘that man’. Notably, Shǐxīng also has an alternative order, N-Dem, as in ˩lpu-mi ˩hɑ ‘this frog’, ˩hĩ ˩l-tʰi ‘that man’. There appears to be a semantic distinction between the two variant orders, with the latter rather more specifically denoting definiteness of the modified noun, e.g. ˩bɔ ˩hpʰu-tɕi-tɕi ˩l-tʰi ‘the (or that) white yak’ (Chirkova 2009).¹¹

As to the latter type of differences (dissimilarities among overlapping systems), none of the overlapping structural features listed in §2.1, has cognate marking in all four languages (see the appendix at the end of the paper). In addition to the apparent non-relatedness of relevant markers, the structural features shared by the four languages vary widely with respect to specific semantic and syntactic contexts and the degree of grammaticalization per language. Let us take numeral classifier systems in the four languages as an example. (I will restrict the comparison to a more grammaticalized category of classifiers, namely sortal classifiers, i.e. those that individuate whatever they refer to in terms of the kind of entity that it is.) Based on the overall number of classifiers and their morphosyntactic environments and functions, the following patterns emerge.

Nàmùzī has the most developed system among the four languages. In terms of the overall number of sortal classifiers, Nàmùzī has most classifiers of the four compared languages (ca. 10 in the collected data). Some frequent forms include: (a) mo for people and large animals, (b) pʰæ for cattle, (c) jæ for small animals, (d) po for trees, plants, (e) ly, general classifier for inanimate entities. Classifiers in Nàmùzī can directly modify nouns, which use serves to increase precision of reference. This is to say that if a classifier occurs as the only determinative of the noun, it expresses singularity and referentiality (specificity or definiteness). For example, bu⁵⁵=phæ⁵¹ ‘(that, definite) yak’, Nbrə³¹=mo⁵⁵ ‘(that, definite) wife, woman’. Finally, nouns in Nàmùzī cannot be modified by numerals without an accompanying classifier, and Nàmùzī classifiers are obligatory with both numerals and demonstratives.

¹⁰ Púmǐ data are from Guillaume Jacques (p.c.) and Lù (2001); Lizu and Shǐxīng data are from personal research; Nàmùzī data are from Huáng and Rénzēng (1991) and from personal research.

¹¹ The demonstrative pronouns in the four languages are as follows: Púmǐ ˩təbie ‘this’, ˩tʰubie ‘that’; Lizu ˩ku-tʰɛ ‘this’, ˩wo-tʰɛ ‘that’; Nàmùzī tæ⁵⁵=ly⁵⁵ ‘this’, tʰo³¹=ly⁵⁵ ‘that’; Shǐxīng ˩hɑ ‘this’, ˩hɑ³ ‘that’. Demonstratives in Nàmùzī are obligatorily followed by the general classifier ly, the etymology of the second syllable of Lizu demonstratives is uncertain.

Púmǐ also has relatively many sortal classifiers (9 listed in Lù 2001:151-152). For example, ^{LH}mǐmǎ ^Htɜ=^Htsə ‘one beggar’, ^{LH}səkɜradzui ^Htɜ=^Htsa ‘one stick’, ^Hzəpə ^Ltɜ=^Hpɛ ‘one axe’. As a rule, Púmǐ classifiers cannot modify a noun without an accompanying numeral and numerals cannot modify a noun without an accompanying classifier. A classifier is not required with a demonstrative.

Quite dissimilar to the relatively well-developed classifier systems in Nàmùzī and Púmǐ, those of Lizu and Shǐxīng are fairly restricted and consist each of only two shape-based sortal classifiers. These two classifiers are furthermore only used with numerals and are not required with demonstratives.

In Lizu, the two sortal classifiers are: (1) ka ‘strip’, a classifier for elongated objects, e.g. ^Hdzɛ ^Ltɛ=^Lka ‘river’, ^Hbja ^Htɛ=^Hka ‘one rope’; and (2) pu, a more general classifier, widely used with non-human and, more specifically, flat objects, e.g. ^Hrwa ^Ltɛ=^Lpu ‘one chicken’, ^HLnbuto ^Ltɛ=^Lpu ‘one knife’. A classifier is not required to follow a numeral in Lizu, if the noun that it modifies is animate, e.g. ^HLndza ^HLtɛ ‘one Chinese’, ^HLts^ho ^HLzɛ ‘four people’. In the case of inanimate nouns, a classifier is not required with the numeral ^HLtɛ ‘one’, e.g. ^HLsɛ-dzumɛ ^Ltɛ ‘one log’.

Finally, the two sortal classifiers in Shǐxīng are (1) the general classifier ku ‘item’, e.g. ^{LH}li ^Lna=^Lku ‘two hands’, ^{LH}ci-bɜ ^{LH}guɜ=^Lku ‘nine pans’; and (2) the classifier for elongated objects rē ‘strip’, e.g. ^HLɜsi ^Ldzi=^Hrē ‘one arrow’, ^{LH}q^həwɜ ^Lni=^Hrē ‘two sticks’. A classifier in Shǐxīng cannot modify a noun without a numeral, whereas the numeral ^{LH}dzi ‘one’ can co-occur with nouns without a classifier, to denote indefiniteness and singularity. The following table summarizes the observed patterns:

	Number	Can a classifier modify a noun without a numeral? (Related function)	Can a numeral modify a noun without a classifier? (Related function)	Are classifiers obligatory with demonstratives?
Nàmùzī	many	+ (singularity, definiteness)	-	+
Púmǐ	many	-	-	-
Lizu	2	some can (singularity, definiteness)	+ (mostly with animate nouns; numeral ‘one’, indefiniteness)	-
Shǐxīng	2	-	+ (numeral ‘one’, indefiniteness)	-

Table 1. Number, morphosyntactic environments and functions of sortal classifiers in the four Qiangic languages of Mùlǐ

The observed degree of variation between the four Qiangic languages of Mùlǐ (both in terms of overall disparity of their respective lexical, phonological, morphological and syntactic organization and of scalability and non-cognacy of shared systems) is unusual for a low-level subgroup, which Qiangic is purported to be, especially given the contiguity of the geographical area occupied by the four surveyed languages.¹² In contrast

¹² Conversely, a comparable degree of variation is possible in geographically discontinuous groups. For instance, in relation to the order of demonstrative and noun and differences in classifier use as evoked above, comparable examples can be found, respectively, among Chin languages, which combine Dem-N,

to the observed diversity, the expectation would rather be that similar organization of these purportedly closely genetically related languages is reinforced through contact, as it is generally held that areal influence contributes to retaining ancestral characteristics (e.g. Dryer 2008:24). Alternatively, in linguistics, as in biology, overall similarity and recency of ancestry are usually proportional (e.g. Sokal and Sneath 1963:223, Nichols 1992:250). This is to say that groups characterized by a large number of similarities are more likely to be more recently evolved from a common ancestor, whereas groups that have few similarities in common are more likely to have diverged from a common ancestor at a much older date. The striking diversity of the four Qiangic languages of Mùlǐ is hence critically in need of explanation when generating hypotheses concerning the relationship between these languages and their linguistic history.¹³

2.3. Similarities between the four Qiangic languages of Mùlǐ in an areal context

Let us now turn to an examination of the similarities between the four Qiangic languages of Mùlǐ from an areal perspective, as compared to their genetic neighbors Yí, Na, Tibetan, and Sinitic (South-Western Mandarin). I will compare the four Qiangic languages first to well-documented varieties of these latter languages and then to newly-documented varieties of these languages spoken in Mùlǐ. On the whole, the majority of similarities between Lizu, Nàmùzī, Púmǐ, and Shìxīng are non-specific to the Qiangic languages of Mùlǐ and, instead, are shared with their genetic neighbors.

All in all, among the similarities shared by the four Qiangic languages of Mùlǐ, as considered in the context of their neighboring languages, three types of situations can be distinguished: (1) similarities shared across several local subgroups, (2) similarities shared by the four Qiangic languages with only one of the local subgroups (either Yí, Na or Tibetan), and (3) features more specific to the languages of Mùlǐ (both Qiangic and non-Qiangic) and not shared with the languages spoken in the neighboring areas.

The first type includes features that are shared with most neighboring subgroups, essentially with Yí, Na, and Sinitic. These include: extensive use of reduplication in word formation, gender suffixes for animals, diminutive formation with the morpheme for ‘child’ or ‘son’, kinship prefix *a-* and numeral classifier systems.

The second type includes features that are shared either with the southern genetic neighbors of the four Qiangic languages (i.e. Yí and Na languages), or with their northern genetic neighbor (Tibetan). Features shared with Yí and Na include (1) pronunciation of /u/ as a bilabial trill after bilabial and apical stops, as characteristics of all Northern Yí varieties as well as of Na languages (see Lǐ and Mǎ, 1983:52-53, 77 for Northern Yí; and

N-Dem and Dem-N-Dem orders within one group, Dryer 2008:41-42, and Sinitic languages. In the latter group, Cantonese exhibits a number of unusual characteristics in the syntax and semantics of its classifiers, such as the possessive classifier construction, which are not paralleled in other Sinitic languages (Matthews 2006). Crucially, such instances of deviation from one common type in a geographically discontinuous group are generally attributed to language contact with other genetic groups. For example, in the case of Cantonese, the unusual characteristics of its classifier systems are argued to be due to contact with Tai-Kadai and Hmong-Mien languages (Matthews 2006).

¹³ One possible explanation of the striking diversity of the Qiangic languages of Mùlǐ, if these are taken to be members of one lower genetic subgroup, would be a recent abrupt migration. This, however, does not appear to be the case, according to the respective oral histories of the groups (as outlined in Xiè 1992:48).

Yang, 2009:3, for Yǒngníng Na), and (2) multiple existential verbs (see Zhū, 2005:160-161 for Northern Yí; and Hé and Jiāng, 1985:51-53, for Na). The feature shared with Tibetan is the past/non-past distinction in some high frequency verbs. Finally, while held to be essentially exclusive to Qiangic languages and not typical in well-documented, standard varieties of Yí, Na and Tibetan, uvular phonemes are equally attested in Moso (Gài and Jiāng 1990:71-72), in some varieties of Nosu (Lāmă 1994:51), as well as in a number of Tibetan dialects spoken in the zone of distribution of Qiangic languages (for example, Yǎjiāng 雅江 *nyag chu kha*, Acuo, 2008; Shíbàzi 石壩子 *kun sngon*, Huá and Gǎzàngtā, 1997; Zhongu 熱務溝 *zho ngu*, J. Sun, 2003:782-783).

The third type comprises: (1) tone systems characterized by culminativity, and (2) directional prefixes. These are features that appear exclusive to the local linguistic varieties of Mùlǐ (both Qiangic and non-Qiangic).

Let us now examine the similarities between the four Qiangic languages in the context of the previously unrecorded local varieties of Tibetan, Na, and Sinitic, spoken in Mùlǐ, as studied in the context of the Qiang-ness project. These local varieties are, respectively, Kami Tibetan (data from personal research, Chirkova forthcoming), Laze (based on Huáng 2009), and the local Chinese dialect (based on Lǐ 2010).

Kami Tibetan is spoken by the historically oldest inhabitants of Mùlǐ.¹⁴ This dialect appears to possess almost the precise combination of similarities, as shared by the four Qiangic languages of this county, including even those that are generally held to be exclusive to Qiangic languages (such as directional prefixes), and only excluding pronunciation of /u/ as a bilabial trill after bilabial and apical stops and the precise categorization of existential verbs (see Appendix for examples). In fact, spoken in the geographic zone occupied by Qiangic languages, the Kami Tibetan dialect appears to possess almost an entire set of features which are held as diagnostic of the membership in the Qiangic subgroup. It even exhibits such strikingly non-Tibetan features as extensive use of reduplication in word formation and an incipient classifier system.

Laze, which is likely to be closely related to Na languages, is said to have arrived in Mùlǐ approximately six generations ago from the neighboring Yányuán County (Guō and Hé 1994:6-7). It likewise exhibits a number of diagnostic Qiangic features. For example, (1) directional prefixes, namely: (a) gɛ- ‘upward’, (b) a more general prefix tʰia- or tʰie- that can indicate several distinct directions, and (c) a perfective prefix lə-; and (2) case forms of personal pronouns distinguished by tonal alternation. For example, the first person pronoun: absolutive form ɲɑ⁵³ ‘I’, ergative/agentive form ɲɑ³¹, genitive form ɲɑ³³ ‘mine’; the second person pronoun: absolutive form nu³³ ‘you’, ergative/agentive form nu³¹, genitive form nu³³ ‘your’ (Huáng 2009).

Similar to Laze, the local dialect of Chinese arrived into the area relatively recently (estimated as ca. 2-3 centuries ago). Nevertheless, this local Chinese dialect has demonstrably undergone considerable restructuring. The most striking non-Sinitic morphosyntactic features acquired by this dialect in Mùlǐ, as compared to its kin varieties

¹⁴ According to Kessler (1986:20, 46), Mùlǐ has been settled by Tibetans since ca. 680 AD, i.e. after the unification of the Tibetans with the Hsifan nomadic tribes, who settled in the areas to the East of Tibet between 618 and 906 AD. However, it was only after 1253 that Mùlǐ formed the southeastern corner of the at that time still existing Tibetan empire.

outside Mùlǐ (including even those spoken in the neighboring counties of Yányuán and Xīchāng, Lǐ 2010), are a variant verb-final word order, accompanied by the Noun-Numeral-Classifier order, and the development of several cases marked by postpositions.¹⁵ Case marking in the Mùlǐ dialect of Chinese is yet another example of pattern-borrowing, in which one native Chinese morpheme, *ʂaŋ*²¹³ or *xaŋ*²¹³ 上, is used to denote various relations within the noun phrase, approximating those of cases in the local languages, most importantly, animate patient (primary object or anti-ergative), instrumental and locative cases.¹⁶ The ongoing restructuring of Chinese and Laze, witness of the intensity of language contact situation in Mùlǐ, are equally remarkable for their evident rapidity, which is quite contrary to the assumption that processes of convergence take millennia to complete.

In sum, a preliminary comparison of the four Qiangic languages of Mùlǐ in an areal context yields diversity as the most characteristic feature of these languages and no features that are exclusively shared by these languages as opposed to the neighboring genetic subgroups. At the same time, the process of contact-induced restructuring, as observed in the latter languages, is suggestive of Mùlǐ as a zone of active contact-induced structural convergence.

2.4. Some preliminary conclusions

The following conclusions to the discussion in this section can be made.

First, the Qiangic hypothesis in its southern end is based on insufficient evidence. Notably, it overlooks the fact that features postulated as probative of Qiang-ness are equally attested in the local varieties of languages of the neighboring genetic subgroups (Yí, Na, Tibetan, Sinitic).

Second, the profound restructuring of the local non-Qiangic languages (e.g. the Tibetan and Chinese dialects of Mùlǐ) indicate that Mùlǐ is an active convergence area, that includes languages that are genetically unrelated, but share a number of distinctive traits. In other words, the fact that genetically unrelated local languages share a number of distinctive traits is precisely because of contact-induced diffusion.

¹⁵ Consider the following example of the S-O-Num-Cls-V word order in this dialect:

i ²¹	t ^h ien ⁴⁴	ten ⁵³	lao ⁵³	ʂ	t ^h a ⁴⁴	tɕiəu ²¹³	tʂu ⁴⁴	tso ²¹³ tɛr ⁴⁴	i ²¹	ko ²¹³	ɕian ⁵³
一	天	等	了	是	他	就	豬	坐墩兒	一	個	想
one	day	wait	PRF	be	3	just	pig	Rump	one	item	think

iao²¹³.

要

Want

‘He waited one whole day, he really wanted to buy a piece of pig’s rump.’

¹⁶ For example, (1) animate patient marking: *ŋo*⁵³*men*⁴⁴ *ni*⁵³ *ʂaŋ*²¹³ *taŋ*⁴⁴ *fan*⁴⁴*i*²¹ 我們你上當翻譯 ‘we will translate for you.’; (2) instrumental marking: *tɕiəu*²¹³ *ken*⁴⁴ *ŋo*⁵³*men*⁴⁴ *nian*⁵³ *ko*²¹³ *tsei*²¹³ *nian*⁵³ *t^hian*⁴⁴ *t^hiao*²¹*ken*⁴⁴ *ʂaŋ*²¹³ *tʂ^h*²¹*fan*²¹³ *ian*²¹³ *lei*⁴⁴ 就跟我們兩個這兩天調羹上吃飯樣的 ‘just like the two of us were eating with a spoon this couple of days’, (3) locative marking: *pan*²¹³ *t^hi*⁴⁴ *ʂaŋ*²¹³ *lon*⁵³ *lao*⁵³ *ʂ*²¹³ 半梯上攏了 ‘reached half the stairs’.

Third, given the intensity and extent of the convergence process, as glimpsed through the local varieties of languages of known affiliation, convergence cannot be excluded as a (non-genetic) factor which has contributed to the formation of the little-known and highly distinct languages of Mùlǐ, currently labeled Qiangic. Furthermore, given that cross-linguistically, no cases of completely isolated structural interference in just one linguistic subsystem have so far been attested (e.g. Thomason and Kaufman 1988:60), the degree of restructuring as observed in languages of Mùlǐ is symptomatic of comparable interference affecting a range of linguistic subsystems of the languages labeled Qiangic, including also their respective lexicon (cf. Thomason and Kaufman 1988:207). In this context, the diagnostic value of lexical comparisons, if lexical correspondences are taken to be the only or the weightiest indication of genetic relatedness, is at best uncertain.

In sum, in view of the salient dissimilarities in all linguistic subsystems and the demonstrable similarities with genetically unrelated local languages, it appears prudent to err on the side of caution and, hence, to consider these four Qiangic languages of Mùlǐ as not closely genetically related.

3. Qiangic as an areal grouping: Defining features and member languages

The preceding discussion suggests that the initial research goals and the related methodology of the Qiang-ness project are in need of adjustment. In my personal work, the main objective of the project remains related to the Qiangic hypothesis, albeit in a new understanding, that is, as an areal grouping. I propose to investigate the history and the (respective) affiliation of the languages currently labeled Qiangic as critically related to the history of the area in which they are spoken, and which is typified by a number of salient traits. The two newly formulated objectives, namely, (1) studying the Qiangic area, and (2) inferring the relationship between its little-studied member languages currently labeled Qiangic, are discussed in turn below.

Linguistic or convergence areas (such as Mùlǐ or, broader, Qiangic) have been argued to be essentially analogous to geographical dialect continua, with different features (isoglosses) extending over different areas (e.g. Dahl 2001, Bisang 2004, 2006:88). Given this parallel, convergence areas can be profitably studied using methods and major insights of dialectology, of the latter, most importantly, a contrast between the typologically more consistent core and more diverse periphery. The relevant approach consists in: (1) defining characteristic local features, (2) describing their geographical distribution and local configurations, (3) adducing reasons for this distribution: arriving at an understanding of the (socio)linguistic mechanisms that lie behind the geographical distribution of linguistic phenomena, the location of isoglosses, and the diffusion of linguistic innovations.

In the area under discussion, the defining areal features considerably overlap with those established for the Qiangic subgrouping hypothesis (Qiangic as a genetic unit), but they are not limited to them. A new understanding of Qiangic as an areal grouping naturally entails that a coherent understanding of its linguistic history as well as that of its member languages necessitates moving beyond the current practice of restricting the scope of examined languages to those labeled Qiangic. Increasing the scope of languages

naturally increases the number of relevant characteristic traits. For example, characteristic features of Mùlǐ are essentially those outlined for Shǐxīng, Lizu, Nàmùzī, and Púmǐ in §2, but not limited to these. When all local languages are taken into account, a complete list of features is likely to be larger, with some features non-overlapping for some languages. For instance, pronunciation of /u/ as a syllabic bilabial trill after bilabial and apical stops is equally common for Nosu, Shǐxīng, Lizu, Nàmùzī, and Púmǐ (after ə), but this feature is not attested in Kami Tibetan. Also, an egophoric-non-egophoric (conjunct-disjunct) system is shared by Kami, Lizu and Púmǐ (and possibly, Laze), but not by Nàmùzī or Nosu.

As pointed out in §2, features shared by Lizu, Nàmùzī, Púmǐ, and Shǐxīng can be further divided into those shared by these languages (1) with several neighboring genetic groups, (2) with either the southern or the northern genetic neighbors of these languages, and (3) those, mostly restricted to the languages of Mùlǐ (of all local genetic subgroups). Discarding the non-committal first type, the second and the third types appear most telling as to the linguistic history of the local Mùlǐ languages. Namely, the second type is suggestive of a link (either genetic or through contact) with either Yí, Na, or Tibetan, whereas the third type that is essentially restricted to the Qiangic area (exemplified by directional prefixes, and, possibly, also uvulars) is potentially indicative of some features that may originate in the local languages, that are unrelated to any of the better known local genetic subgroups (Yí, Na, Tibetan).

Furthermore, the precise inventory and the scalability of the structural (typological) features that are shared by the languages of Mùlǐ are symptomatic of a transition in the area between two widely divergent typological types, namely (1) Tibetan and (2) Yí and Na. Of these two types, Tibetan is agglutinative with complex suffixal morphology (e.g. well-developed case marking systems). It does not have numeral classifiers or multiple existential (locative) verbs. Tibetan has template word-tone systems (J. Sun 1997). The typologically close Yí and Na, on the other hand, are predominantly isolating. Yí expresses syntactic relations essentially by means of a rigid word order, whereas Na makes restricted use of case marking. Both Yí and Na have well-developed systems of numeral classifiers and multiple existential (locative) verbs. The two groups have omnisyllabic tonal systems. In addition, the recent arrival into the area, Sinitic, represents yet another typological type. Similar to Yí and Na, Sinitic is isolating, it has omnisyllabic tones, and a well-developed numeral classifier system. On the other hand, Sinitic has a predominant verb-medial word order and no multiple existential verbs.

Language contact in the research area leads to the mutual rapprochement of these distinct types, yielding a number of transitional subtypes in the languages of Mùlǐ. This development can be clearly detected in the local languages of known genetic affiliation. For example, Kami Tibetan acquires such a non-Tibetan trait as an incipient classifier system, whereas the local Chinese dialect develops such a non-Sinitic feature, as a system of postpositional case markers. Notably, in Sino-Tibetan at large, those structural features that are common in the languages of Mùlǐ (e.g. numeral classifiers, multiple existential verbs) are held to be recent, largely independent and subject to contact effects from nearby languages (e.g. LaPolla 1994, Bradley 2005:224 for classifier systems). This entails that in local Mùlǐ languages of uncertain affiliation, these linguistic systems are

likewise likely to have been affected by language contact, potentially obscuring the relationship of these languages with their possible relatives outside of the area.

Let us now turn to the issue of inferring the genetic affiliation of the local phylogenetically more obscure languages (Shǐxīng, Lizu, Nàmùzī, Púmǐ). Two possibilities are conceivable:

(1) These languages are related to the neighboring genetic subgroups and are considerably restructured through contact in the area to obscure the original relatedness.

(2) These languages are genetically unrelated to the neighboring genetic subgroups and, possibly, also to each other, with a further possibility of distinct subgroups among them, similar to rGyalrongic, and/or isolates. These languages may likewise be considerably restructured through contact to make them more similar to their non-genetic areal neighbors.

Reliance on areal characteristic features confounds the two types (the current Qiangic hypothesis, Qiangic as a genetic unit). Conversely, differentiation between the two possibilities necessitates new subgrouping that will take into account (1) areal tendencies, as gleaned through restructuring of local varieties of languages whose genetic affiliation is not disputed, and (2) typological profiles of the neighboring genetic subgroups to serve as reference points for comparison. In sum, it calls for an interdisciplinary approach, combining studies on language typology, language contact, and comparative-historical linguistics.

The conventional subgrouping procedure based on prioritizing a limited number of similarities that may be indicative of common ancestry (common innovations) and essentially favoring one linguistic subsystem (lexicon), in the absence of objective criteria to factor out diffusion, cannot guarantee objectivity of results in an area of considerable historical, ethnic and linguistic complexity (such as the one discussed presently), especially in the absence of previous attestations of its languages. A reliable alternative consists of subgrouping based on a maximum large number of synchronic similarities, that are further not prioritized as to their historical significance, that is, overall synchronic similarities, whatever these similarities may signify (genetic inheritance or results of diffusion). Overall similarity between any two languages or groups of languages is a function of the similarity of the many traits in which they are being compared. (Note that the use of a broad range and variety of correlated similarities, both in structure and form, effectively eliminates chance and parallel developments as their possible origins.) Distinct subgroups can be constructed because of diverse trait correlations in the groups under study. Notably, this procedure yields natural groups, that is, groups whose members share many correlated features and which are, for that reason, likely to be monophyletic. Finally, overall synchronic (or phenetic) similarity and phylogenetic history are treated as formally independent of one another, and phylogenetic information is obtained by conjecture from synchronic type of evidence.¹⁷

¹⁷ The approach is that of numerical taxonomy in biology, based on the ideas of Michel Adanson and developed in Sokal and Sneath (1963). Applied in linguistics, this approach is an excellent candidate for quantitative methods, such as NeighbourNet, which is argued to favor a phenetic, rather than a cladistic

A natural objection to this approach may be that reliance on synchronic similarities runs the risk of confounding among similarities those due to genetic inheritance and those due to convergence. Fortunately, in linguistics, as in biology, phenetic groups are usually monophyletic and there is as yet no acceptable evidence that overall convergence or convergence in phenetic resemblance does take place to any marked extent (e.g. Sokal and Sneath 1963:97). Furthermore, in linguistics, mixed languages, such as pidgins and creoles (e.g. Ma'a [Mbugu] or Media Lengua), whose origins are non-genetic, represent an extremely rare and unusual effect of societal contact, so that, in most cases, it is possible to distinguish mixed languages, whose origins are non-genetic, from languages whose development has followed a more common genetic line (cf. Thomason and Kaufman 1988:3). The local Tibetan dialect of Mùlǐ is a case at hand. While considerably restructured due to areal convergence (acquiring many non-Tibetan features and loanwords), its lineage is beyond dispute (given overall clear continuity in its phonology, morphology, lexicon and syntax with its nearest relatives outside of the area).

I propose to use this procedure as a hypothesis-generating tool in connection to the (respective) affiliation of Shǐxīng, Lizu, Nàmùzǐ, and Púmǐ. This procedure can rely on existing hypotheses based on impressionistic or more systematic and grounded assessments of the overall respective similarities of these languages with their various neighbors. According to these previous hypotheses, Púmǐ is conceivably related to Qiāng and Mùyǎ, as argued to be fully substantiated by cognate sets (Thurgood 2003:17). Shǐxīng, on the other hand, is likely to be related to Na languages (Guō and Hé 1994:8-9). Finally, on the strength of, for the time being, impressionistic lexical and structural similarities, Lizu and Nàmùzǐ may be more closely related to Yí languages than they are to their remaining linguistic neighbors (for Nàmùzǐ, see Lāmǎ 1994; Huáng 1997:13-15).¹⁸ Needless to say, at this stage, these are merely working hypotheses, to be either confirmed or falsified by systematically taking into account a variety of linguistic subsystems and features.

In the following section, I will elaborate on the hypothesized close relationship between Shǐxīng and Na languages, as this relationship appears to be most straightforward among all aforementioned cases. This relationship is assessed against the background of areal typological tendencies, as discussed above.

3.1. On the similarity between Shǐxīng and Na languages

approach (McMahon and McMahon 2006:72), or statistical methods, as, for instance, used in dialectometry. A similar approach is advocated in Kessler (2001), where it is however restricted to the domain of lexicon, to allow application of statistical methods in historical linguistics.

¹⁸ For example, Lizu shares with Yí many lexical items (cf. Sūn 2001:167). It also shares with Nosu many grammaticalizations (both form and function), such as (1) grammaticalization from 'man, person' (Lizu su, Nosu su) to a nominalizer, e.g. Lizu ^HLʂɛ-tʂ^hu-su 'blacksmith' (from ^HLʂɛ 'iron', ^HLʂ^hu 'to forge'), or (2) that from the verb 'to make' (Lizu ^{LH}mu, Nosu m³³) to an adverbializer, e.g. Lizu ^Ha-za=mu ^{LH}ji 'take care', literally 'go slowly', a conventional expression of farewell). Overall, many Lizu function words have formally and functionally close counterparts in Nosu (based on Hú 2002).

Shǐxīng displays significant similarity with Na languages in all its linguistic subsystems and no comparable similarity with any other local language or group of languages. Most importantly, there is substantial continuity between Na languages and Shǐxīng in terms of their morphology and syntax (as a productive combination of meaning and form), namely:¹⁹

(1) Derivational morphology. Gender suffixes for animals, ‘male’: Nàxī p^hv³³, Shǐxīng p^hz; ‘female’ (feminine and augmentative): Nàxī mi³³/mv³³, Shǐxīng mi. Nàxī male suffix zo³³ corresponds to the male and diminutive suffix zō in Shǐxīng. Both forms stem from morphemes for ‘male, son’.

(2) Aspectual marking:

(a) progressive aspect marker (grammaticalized in Moso and Shǐxīng from the locative verb ‘to exist’), i.e. Yǒngníng Na dzo³¹; Shǐxīng dzō. Compare, ‘to exist’: Yǒngníng Na dzo³³, Shǐxīng ^Hdzō

(b) perfective aspect marker: Nàxī siə³³, se³¹; Yǒngníng Na ze³³; Shǐxīng sɿ. For example, ‘have eaten’: Nàxī ndzu³³se³¹; Yǒngníng Na dzu⁵⁵ze³¹; Shǐxīng ɬɜ-dzɜ=^Hsɿ (with the perfective prefix lɜ-)

(c) possibly, also the experiential marker: Nàxī dzi³³, Yǒngníng Na dzi³³, Shǐxīng dzɜ. For example, ‘have once eaten’: Nàxī ndzu³³dzi³³, Yǒngníng Na dzu⁵⁵dzi³³, Shǐxīng ɬɜ-dzɜ=^Hdzɜ

(3) Nominalizer, grammaticalized in Moso and Shǐxīng from the morpheme for ‘person’. For example, ‘wood-cutter’: Yǒngníng Na su³³da³¹xī³³ (from xī³³ ‘person’), Shǐxīng ^Hl-sī-ti-hī (from ^Hhī ‘person’).

(4) Reduplication in adjectives with the prefix a- (to signal intensification). For example, Lǐjiāng mbe³³ ‘thin’ vs. ə³³mbe³³mbe¹³ ‘very thin’; Guābié bi³³ ‘thin’ vs. a³¹bi⁵⁵bi³³ ‘very thin’, Shǐxīng ^{LH}bə ‘thin’ vs. ^{LH}a-bə-bə ‘very thin’.

(5) Suppletive forms of the verbs ‘to come’ and ‘to go’:

‘to come’	Lǐjiāng Nàxī	Yǒngníng Na	Shǐxīng
past	ts ^h u ³¹	ts ^h u ³¹	^{LH} tɕ ^h ũ
non-past	ts ^h u ³¹ , lu ³³ , lə ³³	zi ³³ , zu ³³	ɬɜ, ^{LH} liu
imperative	lu ³³	zu ³³	^{LH} liu
‘to go’			
non-past	bɯ ³³ , bə ³¹	bi ³³	^{LH} bi
past	k ^h u ⁵⁵ , xɯ ³³ , xə ¹³	k ^h e ¹³ , xɯ ³³	^{LH} xɑ
imperative	fɑ ³³	xv ³³	^{LH} xu

¹⁹ This overview is based on the list of diagnostic morphological and syntactic similarities between Nàxī and Moso in Jiāng (1993), to which I added my Shǐxīng data. Some additional features shared by Nàxī, Moso and Shǐxīng are cited, for Nàxī and Moso, from Hé and Jiāng (1985), Lidz (2006), and Yang (2009). Some similarities between Shǐxīng and Na languages are also discussed in Chirkova (2009).

(6) Some continuity in the system of existential verbs (even though that in Shǐxīng is more elaborate than those in Nàxī and Moso, with some unrelated forms), namely: ‘to have, to possess; to exist’: Lǐjiāng Nàxī dzɿ³³ (inanimate entities), ndzɿ³³ (animate entities); Yǒngníng Na dzo³³; Shǐxīng ^{LH}dzõ (inanimate entities), ^{LH}jĩ (animate entities); ‘to exist (inside a container)’: Lǐjiāng Nàxī zɿ³³, Yǒngníng Na zɿ³³, Shǐxīng ^{Hk}hɯz; ‘to exist (attached to an entity)’: Lǐjiāng Nàxī dzu³¹, Yǒngníng Na dɿ³¹, Shǐxīng ^{LH}dzi.

Some additional features include:

(1) grammaticalization of the verb ‘to make’ into an adverbializer, e.g. Lǐjiāng tʂ^{hɯ}³¹ be³³ ndzɿ³³ ‘go quickly’ (from be³³ ‘to make’), Shǐxīng ^{Ltʂ}hõ ^{Lbɜ}=^{Hsi} ^{LH}p^hæ ‘precipitously escape’ (from ^{LH}bɜ ‘to make’, followed by the clause connector si)

(2) delimitative verbal prefix related to the numeral ‘one’, Yǒngníng Na dɿ³³- from dɿ³³ ‘one’ (Lidz 2006), Shǐxīng dzi- from ^{LH}dzĩ ‘one’. For example, Yǒngníng Na dɿ³³-dɿ¹³ ‘to follow (for a while)’, Shǐxīng ^{LH}dzi-ɕĩ ‘to have a look’.

At the same time, internal divergence between Shǐxīng and Na languages is manifested in the lack of agreement between lexical and some grammatical subsystems.²⁰ Divergences between grammatical subsystems are furthermore essentially restricted to those systems that appear to be particularly prone to restructuring in the Mùlǐ area, as observed in its languages of known genetic affiliation, or to those salient phenomena that are exclusive to the area, namely:

(1) Shǐxīng’s system of case markers is more developed than that in other Na languages. More precisely, Shǐxīng has more cases than Nàxī and Moso; and case markers that overlap between these languages appear unrelated.

(2) Shǐxīng has a highly reduced classifier system with only two sortal classifiers (one general and one for elongated entities, see §2.2). The development of its classifier system furthermore fits within the context of the overall south-north gradual reduction of classifier systems in Na languages. Thus, Nàxī has slightly over 40 sortal classifiers (as counted from Pinson 1998:245-251), Yǒngníng Na has approximately 15 sortal classifiers (Lidz 2006:8-14, Yang 2009:24-25), whereas Laze has only 5 to 10 sortal classifiers (Huáng 2009, Alexis Michaud, p.c.). This transition appears further

²⁰ While systematic lexical comparison between Shǐxīng and Na languages is yet to be undertaken, pending also a rigorous phonological analysis of Shǐxīng, two observations regarding shared lexical items between Shǐxīng and Na languages can be made. First, on an impressionistic level, lexical similarities between these languages are substantial, but they are expected to be significantly fewer than 60%, as shared between Nàxī and Moso. Notably, in comparison to the latter languages, Shǐxīng has an extensive number of Tibetan and Púmǐ loans. Second, some diagnostic regular correspondences between Nàxī and Moso (such as that between a prenasalized initial in Nàxī and a non-nasal initial in Moso) may be paralleled in Shǐxīng (a non-nasal initial followed by a nasalized vowel). For example, ‘bridge’: Nàxī ndzo³¹, Moso dzo³³, Shǐxīng ^{Hz}ẽ; ‘to sit; to live’: Nàxī ndzu³¹, Moso dzu¹³, Shǐxīng ^{Hd}zũ; ‘short’: Nàxī ndør³³, Moso da³³, dør³³; Shǐxīng ^{LH}ẽ.

accompanied by that (also south to north) from omnisyllabic tone systems (Nàxī) to restricted tone systems, characterized by neutralization of tonal contrasts (Yǒngníng Na, Laze). A correlated development is that of classifiers: from free forms (Nàxī) to bound forms (enclitics to numerals, as in Laze).

(3) Shǐxīng also has a better developed (than in other Na varieties) system of existential (locative) verbs.

(4) Shǐxīng has directional prefixes.

(5) Shǐxīng has a tone system characterized by culminativity (as discussed in detail in Chirkova and Michaud 2009).

The reason for these dissimilarities between Shǐxīng and its supposed Na relatives outside of the area is likely to be contact influence from the areal neighbors of Shǐxīng, most importantly, its closest geographical neighbors in Shuǐluò Tibetan and Púmǐ. So, as a first approximation, Shǐxīng can be hypothesized to be a Na language that has undergone considerable restructuring in Mùlǐ.²¹

More fine-grained studies, including the largest possible range and number of similarities between Shǐxīng and Na, accompanied by careful lexical comparisons, will reveal whether these languages form one natural group and will further lead to the conclusion of the precise nature of the relationship between them (genetic or contact-induced).

4. Subgrouping in the Qiangic area and Sino-Tibetan at large

It is a lasting contribution of Sūn Hóngkāi to the field of Sino-Tibetan studies to single out the Qiangic area, and to identify some of its key features, while focusing on its languages of uncertain affiliation. Follow-up investigations, such as the ongoing work on the languages of Mùlǐ, as discussed presently, suggest that the initial interpretation of the nature of similarities between the more obscure languages of the Qiangic area as genetic requires adjustment, and that a coherent understanding of the relationship between these languages critically relies on that of the complex multi-lingual area, in which they are spoken. To adduce an explanation to the many salient areal features, some of which are truly unique in the Sino-Tibetan context, we will need to move beyond the usual practice of restricting the scope of studied languages to those labeled Qiangic. This new approach will increase both the number of concerned languages and the number of relevant areal features. As a result, Báimǎ Tibetan will rightfully reclaim its place as a valid and telling member of the Qiangic *Sprachbund*.

²¹ Notably, the two putative Na languages of Mùlǐ, Laze and Shǐxīng, both exhibit salient areal Mùlǐ features and differ essentially in their respective degree of restructuring. Namely, Shǐxīng is more profoundly (lexically, prosodically and syntactically) restructured than Laze. As a first approximation, this may be simply due to a longer time of residence in Mùlǐ, and consequently, a longer time of exposure to convergence: ca. 500 years for the Shǐxīng group (Xiè 1992:48) vs. ca. 200 years for the Laze (Guō and Hé 1994:6-7).

Needless to say, the unique features of the Qiangic area are likely to provide new insights into the history of Sino-Tibetan at large. Not surprisingly, related comparative and reconstruction work can only be revealing, if it is performed on coherent, natural groups, whereas the issue of the precise subgrouping in the complex Qiangic area is far from resolved, as I have tried to show.

On a broader scale, the problem of subgrouping, as discussed in relation to Qiangic, is emblematic for Sino-Tibetan at large, where the precise subgrouping of constituents remains in many cases controversial. In addition to outstanding challenges of subgrouping in historical linguistics in general, such as lack of objective criteria to distinguish retentions from innovations or absence of objective criteria to factor out diffusion or identical independent change (see Harrison 2003:232-239 for discussion), added challenges to subgrouping in the Sino-Tibetan context comprise (Handel 2008:426, 431, 435):

(1) absence of a complete reconstruction of Proto-Sino-Tibetan, that makes it difficult to identify shared innovations with certainty between proposed subgroups (at the same time, a complete reconstruction in turn requires a clear subgrouping, without which it is difficult to properly weight and evaluate data from the daughter languages)

(2) insufficient documentation of many Sino-Tibetan languages

(3) complex migration histories and areal convergence, obscuring recognition of genetic relationships (e.g. LaPolla 2001)

(4) existence of many languages with monosyllabic roots that increases the probability of chance resemblances leading to the false identification of cognates.

Yet one more momentous challenge of the Sino-Tibetan family is the pervasive absence of previous attestations (direct historical evidence) of many of its languages.

Solutions to these fundamental problems may or may not be found. For instance, no previous attestations of genetically obscure languages of the Qiangic area are in all likelihood forthcoming. While steadily working towards solutions and hoping that some obstacles can eventually be overcome, in my opinion, studies on the linguistic history of Sino-Tibetan languages have in the meantime everything to gain by turning to a broad range and variety of available and steadily growing body of empirical evidence, including that which is normally discarded by the conventional comparative method (such as typological features) for many clues that they can provide on specific scenarios of diachronic change.

The initial phase of classifying Sino-Tibetan languages now appears to be complete. It consists of “classification from above” (family into subgroups) and is based on a small number of criteria (cognate vocabulary, common innovations). This allows scholars to isolate groups of a manageable size for study. Due to the use of a small number of criteria, this type of classification unavoidably runs the risk of yielding groups that are not natural (not monophyletic), and hence are neither complete nor sufficiently discrete to be used for precise purposes, such as reconstruction work. The next logical

step to be taken is to refine proposed subgroups to ensure completeness and accuracy of information that can be obtained from each of them on their respective ancestral states. In my opinion, this can be profitably done by changing the approach to that of “classification from below” (languages to subgroups), especially at the often fuzzy boundaries of already proposed subgroups, to arrive at groups that are defined by overall synchronic similarities, in other words, groups that are likely to be monophyletic. An added bonus of the classification from below is that definition of each natural group is intrinsically relational to that of its kin. Consequently, pursuit of boundaries of each and every natural group is bound to shed light on the nature, scope, and history of many of its areal neighbors.

Appendix: Features shared by the four Qiangic languages of Mùlǐ (Púmǐ, Lizu, Nàmùzī, Shǐxīng) exemplified and compared to Kami Tibetan (related to §§2.1 and 2.3)

(1) Pronunciation of the vowel /u/ (in Púmǐ ə) as a syllabic bilabial trill after bilabial and apical stops. For example, Lizu ^Htu [tɕ⁵¹] ‘bean’, Nàmùzī tu¹³ [tɕ¹³] ‘to slaughter’, Shǐxīng ^Hdu [dɕ⁵⁵] ‘oil’, Púmǐ ^Hpə [pɕ⁵⁵] ‘to dig’. This feature is not attested in Kami.

(2) Uvular phonemes: (a) contrastive with velars, as in Lizu, Nàmùzī and Shǐxīng, e.g. Lizu ^{LH}ne-ko ‘to put (inside something)’ vs. ^{LH}ne-qo ‘to be blind’; Shǐxīng ^Hk^hɕ ‘foot’ vs. ^Hq^hɕ ‘feces’, or (b) allophones of velar fricatives, as in Púmǐ and Kami Tibetan. For example, Púmǐ: ^{LH}xɑ [χɑ²⁴] ‘to bite’, ^Hyǎ [ɣǎ⁵⁵] ‘fang’; Kami, ^Hxo [χɔ⁵⁵] ‘meat, flesh’ (WT *sha*), ^Lxu [χu¹³] ‘yoghurt’ (WT *zho*).

(3) Common principles of prosodic organization: tone systems characterized by culminativity—a restriction of not more than one pronounced lexical tone per prosodic word with one tonal assignment (mostly restricted to the first syllable of the word) affecting much or all of the prosodic word, see Chirkova and Michaud (2009) for the prosodic organization of Shǐxīng, Chirkova (2008) for the prosodic organization of Lizu, and Chirkova (forthcoming) for the prosodic organization of Kami.

(4) Identical principles of word-formation, including:

(a) Extensive use of reduplication. Reduplication involving dynamic verbs expresses frequentative or iterative meaning, e.g. Lizu ^Hka ‘to hit’ vs. ^Hka-ka ‘to fight’, Nàmùzī ^{LH}qæ-qæ ‘to scratch an itch’, Shǐxīng ^{LH}dzō-dzō ‘to run’. An additional meaning of reduplication is reciprocity, e.g. Shǐxīng ^{LH}qao-qao ‘to help (each other)’. The meaning of reduplication for stative verbs (adjectives) is intensification, e.g. Lizu ^Hzu ‘thick’ vs. ^Hzu-zu ‘(very) thick’; Shǐxīng ^Hguɕ-guɕ ‘(very) round’; Kami ^Lzō ‘light’ vs. ^{LH}zō-zō ‘(very) light’.

(b) Compounding, e.g. Nàmùzī ^{tie}55-^{bie}31 ^{lo}55-^{χo}31 ‘carrot’, from ^{tie}55-^{bie}55 ‘turnip’, ^{lo}55-^{χo}31 ‘red’; Lizu ^Hts^ho-mo ‘elderly person’, from ^Hts^ho ‘person’, ^{LH}h^e-mo ‘old’ (with the

directional prefix t^he-); Shǐxīng ^HLts^hɜ-χao ‘salty’, from ^HLts^hɜ ‘salt’, ^HLq^haosō ‘bitter’ (the initial q^h- in ‘bitter’ undergoes lenition in the intervocalic position, see Chirkova 2009)

(3) Affixation. This type comprises:

- (i) Kinship prefix *a-* (older kin), e.g. Lizu, ^Ha-ja ‘older sibling (brother or sister)’, Nàmùzī: æ⁵⁵-jæ⁵⁵ ‘older sibling (brother or sister)’, Shǐxīng and Kami: ^{LH}a-ju ‘older brother’, ^{LH}a-zi ‘older sister’
- (ii) Diminutive suffix derived from the morpheme for ‘child’ or ‘son’:

	Diminutive suffix	Meaning	Examples
Púmǐ	^H tsuə	‘son’	^{LH} mɜtsə ‘cat’: ^{LH} mɜtsə-tsuə ‘kitten’
Lizu	1. jɛ	‘small’	^H Ltɕ ^h ɛ ‘dog’: ^H Ltɕ ^h ɛ-jɛ ‘pup’
	2. ^{LH} jaqa	‘child’	^{LH} mutsɿ ‘cat’: ^{LH} mutsɿ jaqa ‘kitten’
Nàmùzī	zə ⁵⁵	‘child’	jo ⁵⁵ ‘sheep’: jo ⁵⁵ -zə ⁵⁵ ‘lamb’
Shǐxīng	^{LH} zō	‘child, male’	^{LH} mazɿ ‘cat’: ^{LH} mazɿ-zō ‘kitten’
Kami	1. ka	‘child’	^H tʃ ^h ə ‘dog’: ^H tʃ ^h ə-ka ‘pup’ ^H wu-li ‘cat’: ^{LH} wu-ka ‘kitten’
	2. tʃ ^h ə (WT <i>phrug</i>)	‘child’	^H wu-li ‘cat’: ^{LH} wu-tʃ ^h ə ‘kitten’

(iii) Gender suffixes for animals (in Kami, prefixes):

	Female	Male	Examples
Púmǐ	mǎ	pu	^{LH} mɜtsə ‘cat’: ^{LH} mɜtsə-mǎ ‘female cat’ ^L k ^h ə ^{LH} dza ‘dog’: ^H k ^h iə-mǎ ‘bitch, female dog’; ^{LH} k ^h iə-pu ‘male dog’
Lizu	mæ	1. Np ^h e	^H Ltɕ ^h ɛ ‘dog’: ^H Ltɕ ^h ɛ-ma ‘bitch, female dog’; ^H Ltɕ ^h ɛ-Np ^h e ‘male dog’
		2. bu	^{LH} mutsɿ ‘cat’: ^{LH} mutsɿ-ma ‘female cat’; ^{LH} mutsɿ-bu ‘male dog’
Nàmùzī	mie	1.(N)phu 2. (ta ⁵⁵ -)bu ⁵⁵	fræ ⁵⁵ ‘chicken’: fræ ⁵⁵ -mie ⁵⁵ ‘hen’; fræ ⁵⁵ -phu ⁵⁵ ‘rooster’ χa ³³ la ⁵⁵ ‘cat’: χa ³³ la ⁵⁵ a ⁵⁵ -mie ⁵⁵ ‘female cat’; χa ³³ la ⁵⁵ ta ⁵⁵ -bu ⁵⁵ ‘male dog’
Shǐxīng	mi	p ^h ɜ	^H Lk ^h uɜ ‘dog’: ^H Lk ^h uɜ-mi ‘bitch, female dog’; ^H Lk ^h uɜ-p ^h ɜ ‘male dog’ ^{LH} mazɿ ‘cat’: ^{LH} mazɿ-mi ‘female cat’; ^{LH} mazɿ-p ^h ɜ ‘male dog’
Kami	mu (WT <i>mo</i>)	p ^h u (WT <i>pho</i>)	^H tʃ ^h ə ‘dog’: ^{LH} mu-tʃ ^h ə ‘bitch’; ^{LH} p ^h u-tʃ ^h ə ‘male dog’ ^H wu-li ‘cat’: ^{LH} mu-li ‘female cat’; ^{LH} p ^h u-li ‘male cat’

(5) Numeral classifiers (see §2.2)

Kami has an incipient system of numeral classifiers, in which classifiers are optional and restricted to animate nouns. Consider, for instance, the optional use of the (incipient) classifier ^HNgu (WT *mgo* ‘head’) in the expression ^Lŋə=^HNgu ^Ltɕi (WT *mi mgo gcig*) ‘one person’.

(6) Directional Prefixes:

	up	down	inside	outside	towards oneself	from oneself
Púmǐ	tə ⁵⁵ -	nɜ-	hɜ-	kʰə-	də-	tʰɜ-
Lizu	dɛ-	nɛ-	kʰɛ-	tʰɛ-		
Nàmùzī	lo-	mi-		tɕʰi-		
Shǐxīng	dzi-	miɛ-	kʰu-	bə-		
Kami	jæ-	mæ-			tsʰæ-	pʰæ-

In addition, Shǐxīng has an aspectual (perfective) prefix lɜ-.

(7) Past/non-past distinction (suppletive forms) in some high frequency verbs and nominalization markers. Consider, for instance, past and non-past stems of the verb ‘to go’:

	Past stem	Non-past stem
Púmǐ	^{HL} ɕō	^{HL} ɕə
Lizu	^{LH} da	^{LH} ji
Nàmùzī	hũ ⁵⁵	bie ³⁵
Shǐxīng	^{LH} xɑ	^{LH} bi
Kami	^{Hs} hō (<i>song</i>)	^L Ndzu (<i>gro</i>)

In addition, patient nominalizers in Lizu and Shǐxīng have distinct past and non-past forms, namely, in Lizu: (a) past -mi, e.g. ^{LH}ne-dzɿ=^{LH}mi ‘those that have been eaten’, and (b) non-past -ly, e.g. ^{LH}dzɿ-ly ‘edibles, things to eat’. In Shǐxīng: (a) past -li, e.g. ^Hdzō=li ^{LH}zō ni ^{LH}biɜ-tʰɜ ‘rice and bacon that he used to have’, and (b) non-past -gɜ, e.g. ^{LH}dzɜ=gɜ ‘edibles, things to eat’.

(8) Multiple existential verbs:

Existential verb	Púmǐ	Lizu	Nàmùzī	Shǐxīng
to have, to possess	^{HL} bō ⁵¹	^{LH} bo	bo ⁵⁵	^{LH} dzō
to exist (of animate entities)	^{HL} zɛ	^H dzo	dzo ⁵⁵	^{LH} ji
to exist (of inanimate entities)		^{LH} ha	ndzæ ³¹	^{LH} dzō
to exist (of movable entities)		^{LH} dzwa	zə ³¹	
to exist (inside a container)	^{HL} kui or ^{HL} tei	^{HL} dzɛ		^H kʰuɜ
to exist (attached to an entity)	^{HL} diã			^{LH} dzi
to exist (of abstract entities)	^{LH} ɕi	^{LH} ɲɛ	dzə ⁵⁵ -gi ⁵⁵	

Existential verbs in Kami fall into two contrastive types, on the one hand, those that belong to the personal sphere of the speaker (egophoric), and, on the other hand, those that do not. For example, for the verb ‘to exist; to be’, the egophoric form is ^LNdə (*dug*) and the non-egophoric form is ^Hŋō (*snang*); for the verb ‘to have, to possess’, the egophoric forms are ^Lzu (*yod*) (old knowledge) and ^Lzã (*yod.?*) (new knowledge), whereas the non-egophoric form is again ^Hŋō (*snang*).

References

- Acuo, Yeshe Vodgsal Atshogs 意西微薩·阿錯. 2008. Chéngzhāng Zàngyǔ de yīnxì 程章藏語的音系 / The phonological system of Chengzhang Tibetan. Paper presented at the Workshop on Tibeto-Burman languages of Sichuan, Institute of Linguistics, Academia Sinica, Taipei, Taiwan. November 21-22, 2008.
- Bisang, Walter. 2004. Dialectology and typology—an integrative perspective. *Dialectology Meets Typology: Dialect Grammar from a Crosslinguistic Perspective*, ed. by Bernd Kortmann, 11-45. Berlin: Mouton de Gruyter.
- . 2006. Linguistic areas, language contact and typology: Some implications from the case of Ethiopia as a linguistic area. *Linguistic Areas: Convergence in Historical and Typological Perspective*, ed. by Yaron Matras, April McMahon, and Vincent Nigel, 75-98. Hampshire: Palgrave MacMillan.
- Bradley, David. 1997. Tibeto-Burman languages and classification. *Tibeto-Burman Languages of the Himalayas (Papers in Southeast Asian Linguistics No.14)*, ed. by David Bradley, 1-71. Canberra: Department of Linguistics, Research School of Pacific and Asian Studies, Australian National University.
- . 2005. Why do numerals show ‘irregular’ correspondence patterns in Tibeto-Burman? Some Southeastern Tibeto-Burman examples. *Cahiers de Linguistique—Asie Orientale* 34.2:221-238.
- Campbell, Lyle. 2006. Areal linguistics: A closer scrutiny. *Linguistic Areas: Convergence in Historical and Typological Perspective*, ed. by Yaron Matras, April McMahon, and Vincent Nigel, 1-31. Houndmills, Basingstoke, Hampshire: Palgrave MacMillan.
- Chirkova, Katia. 2008. Essential characteristics of Lizu, a Qiangic language of Western Sichuan. Paper presented at the Workshop on Tibeto-Burman languages of Sichuan, Institute of Linguistics, Academia Sinica, Taipei, Taiwan. November 21-22, 2008.
- . 2009. Shìxīng, a Sino-Tibetan language of South-West China: A grammatical sketch with two appended texts. *Linguistics of the Tibeto-Burman Area* 32.1:1-90.
- . Forthcoming. A first look at Kami, the Tibetan dialect of Muli. Special issue of *Language and Linguistics* on the phonology of lesser-known Tibetan dialects, ed. by Jackson T.-S. Sun.
- Chirkova, Katia, and Alexis Michaud. 2009. Approaching the prosodic system of Shixing. *Language and Linguistics* 10.3:539-568.
- Dahl, Östen. 2001. Principles of areal typology. *Language Typology and Language Universals, Sprachtypologie und Sprachliche Universalien: An International Handbook*, ed. by Martin Haspelmath, Ekkehard Koenig, Wulf Oesterreicher, and Wolfgang Raible, 1456-1470. Berlin and New York: Walter de Gruyter.
- Dryer, Matthew S. 2008. Word order in Tibeto-Burman languages. *Linguistics of the Tibeto-Burman Area* 31.1:1-83.
- Gài Xīngzhī 蓋興之, and Jiāng Zhúyí 姜竹儀. 1990. Nàxīyǔ zài Zàng-Miányǔ zhōng de dìwèi 納西語在藏緬語中的地位 [The position of Nàxī within Tibeto-Burman]. *Mínzú Yǔwén* 《民族語文》 [Minority languages] 1:63-73.

- Gésāng Jūmiǎn 格桑居冕 (skal bzang 'gyur med). 1989. Phonological analysis of Batang Tibetan. *Acta Orientalia Academiae Scientiarum Hungaricae* 43.2-3:331-358.
- Guō Dàliè 郭大烈, and Hé Zhìwǔ 和志武. 1994. *Nàxīzú Shǐ* 《納西族史》 [History of the Nàxī]. Chéngdū 成都: Sìchuān Mínzú Chūbǎnshè 四川民族出版社.
- Evans, Jonathan. 2008. Structured privativity and the complexity of simplicity, or the ups and downs of privative tone (manuscript).
- Handel, Zev. 2008. What is Sino-Tibetan? Snapshot of a Field and a Language Family in Flux. *Language and Linguistics Compass* 2/3:422-441.
- Harrison, S.P. 2003. On the limits of the comparative method. *The Handbook of Historical Linguistics*, ed. by Brian D. Joseph, and Richard D. Janda, 213-243. Malden, Oxford and Carlton: Blackwell Publishing.
- Hé Jírén 和即仁, and Jiāng Zhúyí 姜竹儀. 1985. *Nàxīyǔ Jiǎnzhì* 《納西語簡誌》 [A brief description of the Nàxī language]. Běijīng 北京: Mínzú Chūbǎnshè 民族出版社.
- Hú Sùhuá 胡素華. 2002. *Yǐyǔ Jiégòu Zhùcí Yánjiū / Research on Yi Structural Particles* 《彝語結構助詞研究》. Běijīng 北京: Mínzú Chūbǎnshè 民族出版社.
- Huá Kǎn 華侃, and Gǎzàngtā 尕藏他. 1997. Zàngyǔ Sōngpānhuà de yīnxì hé yǔyīn de lìshǐ yǎnbiàn 藏語松潘話的音系和語音的歷史演變 [Sound system of Sōngpān Tibetan and its historical development]. *Zhōngguó Zàngxué* 《中國藏學》 [Tibetology in China] 29.2:134-44.
- Huáng Bùfán 黃布凡. 1991. Qiāngyǔ zhī yǔyán 《羌語支》 [Qiangic languages]. *Hàn-Zàng Yǔ Gàilùn* 《漢藏語概論》 [A general introduction to Sino-Tibetan languages], ed. by Mǎ Xuéliáng 馬學良, vol. 2:208-369. Běijīng 北京: Běijīng Dàxué Chūbǎnshè 北京大學出版社.
- . 1997. Tóngyuáncí bǐjiào cíbiào de xuǎncí fānwéi hé biāozhǔn—yǐ Zàng-Miǎn yǔ tóngyuáncí bǐjiào cíbiào de zhǐdìng wéi lì 同源詞比較詞表的選詞範圍和標準——以藏緬語同源詞比較詞表的制定為例 [On the scope and criteria of word selection for comparative cognacy lists, exemplified by a draft list of cognate words in Tibeto-Burman languages]. *Mínzú Yǔwén* 《民族語文》 [Minority languages] 18.4:10-16.
- . 2009. Mùlǐ Shuǐtiánhuà gàikuàng 木里水田話概況 [An outline of the Shuǐtián language of Mùlǐ]. *Hàn-Zàngyǔ Xuébào* 《漢藏語學報》 [Journal of Sino-Tibetan Linguistics] 3: 30-55.
- Huáng Bùfán 黃布凡, and Rénzēng Wàngmǔ 仁增旺姆. Nàmùzīyǔ 納木茲語 [The Nàmùzī language]. *Zàng-Miányǔ Shíwú Zhǒng* 《藏緬語十五種》 / *Fifteen Tibeto-Burman languages*, ed. by Dài Qìngxià 戴慶夏, Huáng Bùfán 黃布凡, Fù Àilán 傅愛蘭, Rénzēng Wàngmǔ 仁增旺姆, and Liú Júhuáng 劉菊黃, 153-173. Běijīng 北京: Běijīng Yànshān Chūbǎnshè 北京燕山出版社.
- Huáng Bùfán 黃布凡, and Zhāng Míng huì 張明慧. 1995. Báimǎhuà zhīshǔ wèntí yánjiū 白馬話支屬問題研究 [A study of the genetic affiliation of Báimǎ]. *Zhōngguó Zàngxué* 《中國藏學》 [Tibetology in China] 2:79-118.

- Jacques, Guillaume. 2011. Tonal alternations in the Pumi verbal system. *Language and Linguistics* 12.2: 359-392.
- Jacques, Guillaume, and Alexis Michaud. Forthcoming. Approaching the historical phonology of three highly eroded Sino-Tibetan languages: Naxi, Na and Laze. *Diachronica*.
- Jiāng Zhúyí 姜竹儀. 1993. Nàxīyǔ dōngbù hé xībù fāngyán yǔfǎ yìtóng gài kuàng 納西語東部和西部方言語法異同概況 [Syntactic similarities and differences between Western and Eastern dialects of Naxi]. *Mínzú Yǔwén* 《民族語文》 [Minority languages] 4:43-50.
- Kessler, Brett. 2001. *The Significance of Word Lists*. Stanford, CA: CSLI Publications.
- Kessler, Peter. 1986. *The Historical Kingdom of Mili*. Zürich, Tibet-Institut Rikon, Laufende Arbeiten zu einem Ethnohistorischen Atlas Tibets (EAT).
- Lāmǎ Cíwò 拉瑪茲偓. 1994. Nàmùyīyǔ zhīshǔ yánjiū 納木依語支屬研究 [On the genetic affiliation of the Nàmùyī language]. *Mínzú Yǔwén* 《民族語文》 [Minority languages] 1:50-60.
- LaPolla, Randy. 1994. Parallel grammaticalizations in Tibeto-Burman: Evidence of Sapir's "drift". *Linguistics of the Tibeto-Burman Area* 17.1:61-80.
- . 2001. The role of migration and language contact in the development of the Sino-Tibetan language family. *Areal Diffusion and Genetic Inheritance: Case Studies in Language Change*, ed. by R.M.W. Dixon and A.Y. Aikhenvald, 225-254. Oxford: Oxford University Press.
- . 2003. Overview of Sino-Tibetan morphosyntax. *The Sino-Tibetan Languages*, ed. by Graham Thurgood, and Randy J. LaPolla, 22-42. London: Routledge.
- Lǐ Lán 李藍. 2010. Sìchuān Mùlǐ xiàn fāngyán jìlùè 四川木里縣方言記略 [The Chinese dialect of Mùlǐ, Sìchuān: A survey]. *Fāngyán* 《方言》 [Dialects] 2: 114-133.
- Lǐ Mǐn 李民, and Mǎ Míng 馬明. 1983. *Liángshān Yíyǔ Yǔyīn Gàilùn* 《涼山彝語語音概論》 [Introduction to the Phonetics of Liángshān Yí]. Chéngdū 成都: Sìchuān Mǐnzú Chūbǎnshè 四川民族出版社.
- Lidz, Liberty. 2006. A synopsis of Yongning Na (Mosuo). Paper presented at the 39th International Conference on Sino-Tibetan Languages and Linguistics, University of Washington, Seattle, September 14-17, 2006.
- Lù Shào zūn 陸紹尊. 2001. *Púmǐyǔ Fāngyán Yánjiū* 《普米語方言研究》 [A Dialectal Study of the Púmǐ Language]. Běijīng 北京: Mǐnzú Chūbǎnshè 民族出版社.
- Matisoff, James A. 2004. "Brightening" and the place of Xixia (Tangut) in the Qiangic branch of Tibeto-Burman. *Studies on Sino-Tibetan Languages: Papers in Honor of Professor Hwang-chen Gong on his Seventieth Birthday*, ed. by Ying-chin Lin, Fang-min Hsu, Chun-chih Lee, Jackson T.-S. Sun, Hsiu-fang Yang and Dah-an Ho, 327-353. Taipei: Institute of Linguistics, Academia Sinica.
- Matras, Yaron, and Jeanette Sakel. 2007. Investigating the mechanisms of pattern replication in language convergence. *Studies in Language* 31.4:829-865.
- Matthews, Stephen. 2006. Cantonese grammar in areal perspective. *Grammars in Contact: A Cross-Linguistic Typology*, ed. by Aikhenvald, Alexandra Y., and R.M.W. Dixon, 220-236. New York: Oxford University Press.

- McMahon, April, and Robert McMahon. 2006. Keeping contact in the family: Approaches to language classification and contact-induced change. *Linguistic Areas: Convergence in Historical and Typological Perspective*, ed. by Yaron Matras, April McMahon, and Vincent Nigel, 51-74. Houndmills, Basingstoke, Hampshire: Palgrave MacMillan.
- Mùlǐ Zàngzú Zìzhìxiàn Zhì Biānzuǎn Wěiyuánhui 木里藏族自治縣誌編纂委員會 [Mùlǐ Tibetan Autonomous County Gazetteers Editing and Compiling Committee] (eds.). Forthcoming. *Mùlǐ Zàngzú Zìzhìxiàn Zhì* 《木里藏族自治縣誌》 [Gazetteers of Mùlǐ Tibetan Autonomous County]. Chéngdū 成都: Sìchuān Rénmín Chūbǎnshè 四川人民出版社.
- Nichols, Johanna. 1992. *Linguistic Diversity in Space and Time*. Chicago: The University of Chicago Press.
- Nishida Tatsuo 西田龍雄 and Sūn Hóngkāi 孫宏開. 1990. *Hakuba yakugo no kenkyū: Hakuba no kōzō to keitō* 《白馬譯語の研究:白馬語の構造と系統》 [A study of the Báimǎ-Chinese vocabulary 'Báimǎ yìyǔ': the structure and affiliation of the Báimǎ language]. Kyoto 京都: Shokado 松香堂.
- Pinson, Thomas M. 1998. *Naqxi-Habaq-Yiyu Geezhee q Ceeqhuil: Naxi-Chinese-English Glossary with English and Chinese Indexes*. Dallas: The Summer Institute of Linguistics.
- Shirai Satoko. 2009. Directional prefixes in nDrapa and neighboring languages: An areal feature of Western Sichuan. *Issues in Tibeto-Burman Historical Linguistics*, ed. by Nagano Yushiko, 7-20. Osaka: National Museum of Ethnography.
- Sokal, Robert R., and Peter H.A. Sneath. 1963. *Principles of Numerical Taxonomy*. San Francisco and London: W.H. Freeman and Company.
- Sūn Hóngkāi 孫宏開. 1962. Qiāngyǔ gàikuàng 羌語概況 [An outline of the Qiāng language]. *Zhōngguó Yǔwén* 《中國語文》 [Chinese language and writing] 12:561-571.
- . 1980. Báimǎ rén de yǔyán 白馬人的語言 [The language of the Báimǎ]. *Báimǎ Zàngrén Zúshǔ Wèntí Tǎolùnjí* 《白馬藏人族屬問題討論集》 [A collection of discussions on the question of the ethnic classification of the Baima Tibetans], ed. by Sìchuān Shěng Mínzú Yánjiūsuo 四川省民族研究所 [Sichuan Nationalities Research Institute], 15-26. Chéngdū 成都: Sìchuān Mínzú Yánjiūsuo 四川民族研究所.
- . 1982. Qiāngyǔ zhīshǔ wèntí chūtàn 羌語支屬問題初探 [Preliminary explorations on the linguistic classification of Qiangic]. *Mínzú Yǔwén Yánjiū Wénjí* 《民族語文研究文集》 [Collection of papers on minority language studies], ed. by *Mínzú Yǔwén* Editorial Board, 189-224. Xīníng 西寧: Qīnghǎi Mínzú Chūbǎnshè 青海民族出版社.
- . 1983a. Liùjiāng liúyù de mínzú yǔyán jí qí xìshǔ fēnlèi 六江流域的民族語言及其係屬分類 [Minority languages of the six river valley and their genetic classification]. *Mínzú Xuébào* 《民族學報》 [Scholarly journal of nationalities] 3:99-273.

- . 1983b. Chuān xī mínzú zǒuláng dìqū de yǔyán 川西民族走廊地區的語言 [Languages of the ethnic corridor of Western Sichuān]. *Xīnán Mínzú Yánjiū* [Studies on the Southwest Nationalities] 《西南民族研究》, ed. by Zhōngguó Xīnán Mínzú Yánjiū Xuéhuì 民族研究學會 [Association of Studies on China Southwest Nationalities], 429-454. Chéngdū 成都: Sìchuān Mínzú Chūbǎnshè 四川民族出版社.
- . 1991. Cóng cíhuì bǐjiào kàn Xīxià yǔ yǔ Zàng-Mián yǔzú Qiāngyǔzhī de guānxi. 從詞彙比較看西夏語與藏緬語族羌語支的關係 [The relationship between Tangut and the Qiang branch of Tibeto-Burman from the point of view of shared lexical items]. *Mínzú Yǔwén* 《民族語文》 [Minority languages] 2:1-11.
- . 2001a. Nàxī yǔ zài Zàng-Mián yǔzú yǔyán zhōng de lìshǐ dìwèi 納西語在藏緬語族語言中的歷史地位 [On the historical position of Naxi within Tibeto-Burman language family]. *Yǔyán Yánjiū* 《語言研究》 [Studies in Language] 1: 90-99.
- . 2001b. Lùn Zàng-Mián yǔzú zhōng de Qiāng yǔzhī yǔyán 論藏緬語族中的羌語支語言 [On the Qiangic branch of the Tibet-Burman language family]. *Language and Linguistics* 2.1:157-181.
- Sūn Hóngkāi 孫宏開, Katia Chirkova (齊卡佳), and Liú Guāngkūn 劉光坤. 2007. *Báimáyǔ Yánjiū* 《白馬語研究》 [The Baima language]. 2007. Běijīng 北京: Mínzú Chūbǎnshè 民族出版社.
- Sun, Jackson T.-S. 1997. Typology of tone in Tibetan. *Chinese Languages and Linguistics IV: Typological Studies of Languages in China*, 485-521. Symposium Series of the Institute of History and Philology, Academia Sinica, Number 2. Taipei: Academia Sinica.
- . 2000a. Parallelisms in the verb morphology of Sidaba rGyalrong and Guanyinqiao in rGyalrongic. *Language and Linguistics* 1.1:161-190.
- . 2000b. Stem alternations in Puxi verb inflection. *Language and Linguistics* 1.2:211-232.
- . 2003. Phonological profile of Zhongu: A new Tibetan dialect of Northern Sichuan. *Language and Linguistics* 4.4:769-836.
- Thomas, F.W. 1948. *Nam: An Ancient Language of the Sino-Tibetan borderland*. Publications of the Philological Society XIV. London: Oxford University Press.
- Thomason, Sarah Grey, and Terrence Kaufman. 1988. *Language Contact, Creolization, and Genetic Linguistics*. Berkeley, Los Angeles and Oxford: University of California Press.
- Thurgood, Graham. 2003. A subgrouping of the Sino-Tibetan languages: The interaction between language contact, change, and inheritance. *The Sino-Tibetan Languages*, ed. by Graham Thurgood, and Randy J. LaPolla, 3-21. London: Routledge.
- Xiè Jiànyóu 謝建猷. 1992. Mùlǐ duōyǔ shèqū 木里多語社區 [On the multi-lingual community of Mùlǐ]. *Mínzú Yǔwén Yánjiū Xīntàn* 《民族語文研究新探》 [Advances in Studies on Minority Languages of China], ed. by Mǎ Xuéliáng 馬學良 et al., 47-58. Chéngdū 成都: Sìchuān Mínzú Chūbǎnshè 四川民族出版社.

- Yáng Fúquán 楊福泉. 2006. “Nàmùyī” yǔ “Nà” zhī zúqún guānxi kǎoluè “納木依” 與 “納” 之族群關係考略 [The ethnic relationship between the Nàmùyī and Nà]. *Mínzú Yánjiū* 《民族研究》 [Minority Studies] 3:52-59.
- Yang Zhenhong. 2009. An overview of the Mosuo language. *Linguistics of the Tibeto-Burman Area* 32.2:1-43.
- Zhāng Jìchuān 張繼川. 1994a. Báimǎhuà yǔ Zàngyǔ (shàng) 白馬話與藏語（上） [Báimǎ and Tibetan (Part 1)]. *Mínzú Yǔwén* 《民族語文》 [Minority Languages] 2:11-24.
- . 1994b. Báimǎhuà yǔ Zàngyǔ (xià) 白馬話與藏語（下） [Báimǎ and Tibetan (Part 2)]. *Mínzú Yǔwén* 《民族語文》 [Minority Languages] 3:58-67.
- Zhū Wénxù 朱文旭. 2005. *Yíyǔ Fāngyánxué* 《彝語方言學》 [A study of Yi dialects]. Běijīng 北京: Zhōngyāng Mínzú Dàxué Chūbǎnshè 中央民族大學出版社.