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Methodological issues in Rma etymology

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Abstract

This paper examines the state-of-the-art for the historical study of the Rma (Qiang) language (< Trans-Himalayan/Sino-Tibetan) and points out some methodological issues in earlier work. The paper discusses how vowel correspondences have been obfuscated by loanwords, onomatopoeic forms, and analogical levelling. It also discusses the analysis of compound forms and points out how certain compound forms have been incorrectly etymologized. It deals with broader, more fundamental issues in prior work such as top-down rather than bottom-up reconstructions, and problematic conceptualizations of what constitutes reconstructions. The article offers potential solutions to the issues discussed and points out where future work would be most profitable.

Keywords: Rma/Qiang; Etymology; Vowels; Comparative method; Compounding; Tibeto-Burman; Trans-Himalayan/Sino-Tibetan; Loanwords

1. Introduction

Rma (also called Qiang) is a Trans-Himalayan[1] language spoken in north-western Sichuan, China. Although Rma varieties are relatively well documented, issues of etymology and historical linguistics for Rma are still at an early stage.

The difficulties that the Rma varieties pose to the historical linguist are manifold. In addition to being internally diverse, unevenly documented, and without written tradition, Rma varieties as a whole are typified by radical phonological progressiveness. For example, while certain varieties preserve ancient complex onsets, all varieties have lost all codas from proto-Trans-Himalayan (Benedict 1983; LaPolla and Huang 2003: 23, *inter alia*). These phonological innovations can obscure cognancy with other related languages, or even across varieties. Furthermore, Rma is spoken in a highly multilingual region and has been subject to areal influence from different Trans-Himalayan languages (Chirkova 2012).

Advances in Rma historical-comparative work have also been hampered by issues external to the structure and history of the language and which stem from methodological problems with historical linguists working on Rma. To date, the most information about Rma etymology is to be found in Chang (1967),[2] Evans (2001), Matisoff (2003), and

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[1] The family is also called Sino-Tibetan. The name of the family is a point of contention. I use "Trans-Himalayan" simply because it is neutral with respect to ethnonyms. The sub-grouping of the family is not relevant to this paper.

[2] Both Chang and Evans reconstruct the phonological systems of Rma varieties of Li and Wenchuan counties. Chang was working with a smaller data set from fewer dialects. Evans' work supersedes that of Chang, but in some cases introduces new errors. A detailed review of the two systems is beyond the scope of this paper.

the *Sino-Tibetan Etymological Dictionary and Thesaurus* (hereafter STEDT). Some etymological notes are given by LaPolla and Huang (2003) and Sims (2014) for the Ronghong and Yonghe varieties respectively. These contributions will be critically discussed throughout.

This paper is but a small part of the large task of building and improving upon earlier works on Rma historical linguistics. The aim here is not an exhaustive review of the Rma etymologies proposed so far, but to point out some general methodological tendencies in earlier work on Rma which may help the future historical linguist.[3]

1.1. Outline

This paper is organized as follows. Section 2 concerns certain Rma vowel correspondences and illustrates how irregular forms may be explained. Section 3 discusses issues relating to the analysis of compounds. Section 4 discusses more general methodological issues with prior work and Section 5 gives some concluding remarks.

2. Vowel correspondences

This section addresses the vowel correspondences of Rma varieties. It examines the approach of Evans (2001) and puts forward an alternative approach.

2.1. Evans' correspondences

Evans (2001) contains the most comprehensive study of Rma diachrony to date, with over 1,000 proposed correspondence sets for Rma. Nonetheless, there are methodological issues that undermine the usefulness of some of Evans' reconstructions, especially for the vowels. In general, Evans (2001) identifies forms with the same vowel across varieties, reconstructs an identical vowel, and treats exceptions as exhibiting proto-variation. For example, Evans (2001: 176) states that Longxi Rma /o/ :: Mianchi Rma /o/ and that both reflect *o. Evans gives a small number of problematic sets (5) to support this claim. Evans (2001: 177) also states that Longxi /u/ :: Mianchi /u/ and that both reflect *u. Again, there is a rather small number of problematic sets (5) given to support this claim. Nonetheless, Evans goes on to state that:

> In spite of these correspondences, there are about forty-eight sets in which it is not possible to distinguish between PSQ [Proto-Southern Rma] *u and *o, because both /u, o/ are present in the supporting forms .... For most of these sets [sic] equivocal sets, the protovowel is determined by simple majority, or by peeking at the vowels present in Northern Qiang [Rma]. This alteration is not unheard of in other branches of TB. Benedict has observed that "the high medial vowels *u and *i of TB are well maintained in Tibetan, Kachin and Lushei, but partial or complete replacement by lower vowels (o ∼ e ∼ a) is characteristic of Burmese, Garo and many other TB languages".

Table 1 gives a summary of correspondences for these vowels found in the forms reconstructed by Evans.

There are no fewer than eleven distinct correspondence patterns in Table 1, including three different, unpredictable, outcomes for both *u and *o, two for *u/o and, three for

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[3] Rma data are cited directly with the change of [CuV] and [CiV] sequences to medials [w] and [j] (see Sun 2003; Evans 2006b on this issue). Middle Chinese reconstructions follow Baxter (1992). Old Chinese reconstructions follow Baxter and Sagart (2014). For clarity, I add the English infinitive to the gloss of Rma verbs. Thus, Mianchi *né* "sleep" (Evans 2001: 329) –> *né* "to sleep".

Table 1. Vowel correspondences found in Evans 2001

Longxi	Mianchi	Evans' Proto-Southern Rma
u	u	*u
u	o	*u
u	ou	*u
u	o	*u/o
u	ou	*u/o
u	ou	*o/u
o	ou	*o/u
o	u	*o/u
o	o	*o
o	ou	*o
ou	ou	*o

*o/u. Thus, the starred forms do not predict the attested forms. This approach is methodologically unsound, as reconstructions which do not predict the attested forms are not useful. As Hill (2012: 64) makes clear:

> The goal of comparative linguistics is not the invention of unattested languages but rather the explanation of systematic relationships among attested languages; progress in reconstruction is a by-product of increasingly precise statements of such relationships.

Evans (2006a: 113) recognizes that "some revision of PSQ [Proto-Southern-Rma vowels] is needed", but has not yet revised his reconstructions. The following section gives an alternative analysis that explains the relationship between these Longxi and Mianchi vowels.

2.2. The present analysis

I propose that Longxi /o/ :: Mianchi /ou/ and that Longxi /u/ corresponds with Mianchi /o/ for native forms. Other correspondence patterns are the result of borrowings from other languages or dialect mixing, onomatopoeia, or analogical levelling.

2.2.1. Longxi /o/ :: Mianchi /ou/

Longxi /o/ :: Mianchi /ou/. Evidence is given in Table 2. Note that Longxi H and L tones correspond to Mianchi H and L.[4]

This correspondence is validated by a regular correspondence with Ronghong /u/. Consider Table 3.

2.2.2. Longxi /u/ :: Mianchi /o/

Longxi /u/ :: Mianchi /o/. Consider the evidence in Table 4. Note again the regular tonal correspondences between Longxi and Mianchi.

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[4] The forms where Longxi /tsʰ/ :: Mianchi /s/ < *Cs clusters (Evans 2001). The onset correspondences for the form "tael" are regular (see Evans 2001: 115).

Table 2. Longxi /o/ :: Mianchi /ou/

Longxi	Mianchi	Gloss
gò	goù	"foot"
gó	goú	"to turn a corner"
ʁò	ʐ̢où	"horse"
ʁò	ʁoù	"to agree"
qò	qoù	"to be scared"
jó	joú	"sheep"
qà tó	qὲ toú	"hair (of head)"
tó	toú	"to be cold (of hands)"
tsʰó	tsʰoú	"to pluck"
tsó ɲì	tsoú nà	"flea"
tsʰó tà	soú tà	"to dance"
tsʰó ɕì	soú nà	"to listen"
zò	zoù	"to wait"
zò	dʐ̢où	"tael"
só	soú	"to teach, study"

Table 3. Longxi /o/ :: Mianchi /ou/ :: Ronghong /u/

Longxi	Mianchi	Ronghong	Gloss
qò	qoù	qu	"to be scared"
tó	toú	stu	"to freeze (hands)"
tsʰó	tsʰoú	tsʰu	"to pluck"
tsʰó tà	soú tà	χsu	"to dance"
tsʰó ɕì	soú nà	kʂuɕɕ	"to listen"
tsó ɲì	tsoú nà	tsun	"flea"
só	soú	su	"to teach, study"

The correspondence is again confirmed by comparison with Ronghong. See Table 5 for examples.

Table 5 also suggests a change *wə > ə took place after bilabials in Ronghong. The vowel correspondences proposed for native forms are given in Table 6.

This raises the question, what about the other nine correspondence patterns in Table 1? The following section attempts to answer this question.

2.3. Irregularities

Loanwords introduce exceptions to regular sound correspondences. Tibetan and Chinese loans have long been known in Rma (Sun 1988), but Rma-internal loans have not yet been identified.

Table 4. Longxi /u/ :: Mianchi /o/

Longxi	Mianchi	Gloss
pú	pó	"to buy"
pʰù	pʰò	"tree"
bù	bò	"to pile up"
ɦà mù	ɦà mò	"dark (sky)"
dá mṳ	dá mò	"cloud"
tsù	tsò	"to tie up (cattle)"
zú	dzó	"to sit"
tɕʰú	tɕʰó	"to raise"
lú	ló	"to blend with water"
ŋú	ŋó	"silver"
qú	qó	"to drink"
ʁú	ʁó	"to lower (head)"

Table 5. Longxi /u/ :: Mianchi /o/ :: Ronghong /(w)ə/

Longxi	Mianchi	Ronghong	Gloss
pú	pó	pə	"to buy"
pʰù	pʰò	pʰə	"tree"
bù	bò	bə	"to pile up"
zú	dzó	dzwə	"to sit"
ŋú	ŋó	ŋwə	"silver"

2.3.1. Tibetan loans

Tibetan loans are more frequent in the Rma varieties of Heishui county (Liu 1981), and also in Songpan County (Huang et al. 2019). See Liu (1981) on Tibetan loans into Mawo Rma.

Table 7 gives three different forms which are probably Tibetan loanwords and shows how these forms have different vowel correspondences from those we find for inherited words.

Regarding "dragon", Evans (2001: 235) notes that "It is probable that this is an ancient borrowing from Tibetan",[5] and does not reconstruct a proto-form.

For "demon", Evans (2001: 289) reconstructs *du L. LaPolla and Huang (2003: 355) give the Ronghong form du-gṳ-mi "ghost, spirit" and note that mi = "eyes".[6] The vowel correspondences are irregular and suggest that these forms are Tibetan loans.[7] The same can

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[5] STEDT (#3629) lists these forms as supporting *m-bru(ŋ/k) DRAGON/THUNDER. The correspondence of Longxi /u/ to Mianchi /u/ is irregular and suggests that this word is indeed from Tibetan 'brug "dragon".

[6] This word is also loaned from Tibetan into Japhug Rgyalrong βduut "une sorte de monstre" (Jacques 2015a: 33).

[7] Contrast this with an inherited form: Longxi dù "poison", Ronghong dwə "poison". These forms are related to Tibetan dug "poison" and Chinese 毒dú "poison" < Middle Chinese *dowk < Old Chinese *[d]ˤuk.

Table 6. Vowel correspondences for inherited forms

Longxi	Mianchi	Ronghong
u	o	(w)ə
o	ou	u

Table 7. Probable Tibetan loans

Longxi	Mianchi	Evans' Proto-Southern	Ronghong	Tibetan	Gloss
bú	bú	–	ʐb̪u	ʼbrug	"dragon"
dù	dù	*dù L	du-g̻u̻-mi	bdud	"demon"
zà pù	ʐè̪ pù	* [ʐa̻ L pu L]	ʐo̻ pu	brag.phug	"cave"

be said for "hole, cave".[8] Recognizing the aforementioned Tibetan loans explains the otherwise exceptional vowel correspondences.

2.3.2. Chinese loans

Chinese loans have long been discussed in the literature (Sun 1988; LaPolla and Huang 2003: 46–7). Consider Longxi *lò pú* "radish" and Mianchi *lò pú* "radish". These forms, both from Chinese 蘿蔔 *luóbo* "radish", show irregular correspondence for both [o] and [u]. Evans (2001) discusses many instances of borrowings from Chinese. Table 8 gives forms which have irregular vowel correspondences within Rma due to being borrowings from Chinese.[9]

Nonetheless, certain loanwords from Chinese have gone unnoticed, and, in some cases, Evans reconstructs Proto-Southern Rma forms for the Chinese loans. Table 9 gives forms which have not been recognized as Chinese loans. For these forms, Evans reconstructs a proto-Southern form. However, treating these as native forms ignores the irregular vowel correspondences.

It should be noted that in Southwestern Mandarin, the variety of Mandarin in contact with Rma, the words "gong", "elder brother", "loose", and "clump, heap" share the same vowel nucleus: [o].

Some of the forms in Table 9 are straightforwardly loans from Chinese. For example, "gong" is a loan due to the vowel correspondence, but also because this musical instrument is generally accepted to be Chinese in origin (see Kunst 1947). Evidence that "trough" is a loanword comes from the fact it is found in Ronghong *wə-tsʰu* "manger" (horse-trough) (LaPolla and Huang 2003: 347). Note the irregular vowel correspondence for Ronghong.

Some of the forms are possibly Chinese loans, but the relationship is not as certain. These include: "clump, heap", "row of grain", "to dip pen", and "elder brother".

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[8] Evans (2001) does not give an explicit reconstruction for "hole". Nonetheless, he lists the Longxi and Mianchi forms as evidence for his Proto-southern Rma *ʐ (2001: 116), *a (p. 172), *p (p. 102), and *u (p. 177) and does not identify this form as a loan. Tibetan *brag.phug*, a compound of "cliff" + "hole", is loaned into other Burmo-Qiangic languages: Tshobdun Rgyalrong *pra-pʰuʔ* "cave", Jiulong Prinmi *ʐəˡˡ puˢˢ*, Zuosuo Prinmi *ʐəˡ³ puˢˢ*, Ludian Prinmi *ʐəˡ³ pʰuˢˢ* (Lù 2001: 486–7), Wenquan Prinmi *gerəpŭ* "grotto" (Daudey and Gerong Pincuo 2022: 200). Sims (2020: 75) considered the Rma and Prinmi forms cognate, but this is probably incorrect.

[9] Forms which are borrowed with [o] vowels in Longxi and Mianchi have the rhyme *o* in Sichuanese Mandarin, despite the different spellings in Pinyin. Thus, Sichuanese *tsʰo²¹³* "chisel", *sõŋ⁴⁵* "loose", etc.

Table 8. Chinese loans

Longxi	Mianchi	Form	Gloss
kú jé	kú í	姑爷 gūye	"father's sister's husband"
fù	fù	服 fú	"dose of medicine"
pù	pù	補 bǔ	"repair"
tsʰŭ	tsʰŭ	醋 cù	"vinegar"
tsʰù là	tsʰù	粗 cū	"rough, coarse"
χò	χó	盒子 hé	"box"
χò sɨ́	χò ʂɨ̀	合適 héshì	"fitting"
χò ɕàN	χò ɕàN	和尚 héshang	"monk"
χòŋ saò	χòŋ ʂaò	紅苕 hóngsháo	"sweet potato"
jàN χó	jàN χò	洋火 yánghuǒ	"matches"
tsʰŏ	tsʰŏ tsɨ̀	鉒 cuò	"chisel"
lò kʰwàN	lò kʰwáN	籮筐 luókuāng	"large basket"
só	sóŋ tʰà̰	松 sōng	"loose"

Table 9. Probable Chinese loans

Longxi	Mianchi	Evans' Proto-Southern	Form	Gloss
lú ~ lŭ	lú	*lu (H) "row of grain"	路 lù	"road, route"
sú	sú	*su H "to dip pen"	書 shū	"book, to write"
à kò	qó qò	*ko - "elder brother"	哥 gē	"elder brother"
–	lò ló	*lo - "gong"	鑼 luó	"gong"
tʰò	tʰò	*tʰo L "piece of land"	坨 tuó	"clump, heap"
pjé tsʰoù	pjá tsʰò̰ṵ	*tsʰo L "trough"	槽 cáo	"trough"

For example, it seems possible that the forms for "to dip pen" are loans from Chinese 書 shū "book, to write". The meaning "to write" for the Chinese form is more archaic. This comparison is admittedly speculative, but seems more plausible than reconstructing a literary term for a language without a written tradition.

Nonetheless the explanation of loans from Chinese seems the most likely at this point. Even if these are ultimately not Chinese loans, they should not be reconstructed in this way as they introduce multiple correspondences between proto-Southern Rma and the modern varieties such that the reflexes are not predictable based on the proto-forms.

2.3.3. Cross-dialectal borrowings

Cross-dialectal borrowings are more difficult to detect than borrowings from closely related languages, but are an important part of sorting out the historical phonology of a language. I can find in prior work no identification of cross-dialectal borrowings. In this section, I invoke cross-dialectal borrowings in order to explain vowel correspondences which are exceptional to the patterns summarized in Table 10.

Table 10. Potential cross-dialectal loans

Longxi	Mianchi	Ronghong	Gloss
mó	*mó*	*ʐmə*	"corpse"
sò qeí	*só qè*	*swəq*	"winter"
ŋò mjà	*ŋò mjà*	*ŋwə mi*	"female cow"

While the Mianchi :: Ronghong correspondences are regular, the Longxi forms have *o* where we would expect *u*. There is no indication that these forms are borrowings from another language. One solution is to propose that the Longxi forms are Mianchi loans. There are two reasons for this. The first is phonological: *H.L tones correspond regularly to collapsed monosyllables in Ronghong (cf. "flea", "listen" in Table 3).[10] Thus the etymological tone for "winter" should be H.L, as seen faithfully reflected in Mianchi, and not the aberrant L.H in Longxi. For this reason, we would expect the directionality of borrowing to be from Mianchi into Longxi, and not the inverse. The second reason is sociological. Liu (1998) reports 3,300 Longxi speakers and 15,700 Mianchi speakers. These numbers are outdated, yet it is clear that Mianchi is a much larger variety. This makes a loan from Longxi > Mianchi less plausible. The Mianchi and Longxi varieties are geographically close, and are both spoken in Wenchuan county. Thus, positing interdialectal loans from Mianchi to Longxi is not unreasonable.

2.3.4. Onomatopoeic forms

Evans (2001) reconstructs several onomatopoeic forms, and thereby introduces irregular vowel correspondences. Consider the forms in Table 11.

Evans (2001: 268) notes that "cat", "appears to be onomatopoeic". Evans' (2001) reconstruction of these onomatopoeic forms is problematic.[11] The importance of excluding onomatopoeic forms has long been known to the comparative method (Lottner 1862; see discussion by Lehmann 1976). Authorities on the comparative method caution against comparing onomatopoeic forms, which are frequently renewed by more imitative forms and thus generally unreliable in historical linguistics (Hock 1991: 50; Harrison 2003: 216; Campbell 2013: 317; Millar and Trask 2015: 207; Rankin 2017: 184). Most of the forms in Table 11 are pointed out by Campbell (2013: 321) as cross-linguistically likely to be onomatopoeic (overlapping forms in bold):

> A way to reduce the sound-imitative factor is to omit from consideration words which cross-linguistically are often imitative in form, for example, words meaning "**blow**", "breathe", "suck", "laugh", "cough", "sneeze", "break/cut/chop/split", "cricket", "crow" **(and many bird names in general)**, "**frog/toad**", "**lungs**", "baby/infant", "beat/hit/pound", "call/shout", "breathe", "choke", "cry", "drip/drop", "**hiccough**", "kiss", "shoot", "snore", "spit" and "whistle", among others.

2.3.5. Unresolved issues

This section presents an unsolved problem regarding vowel correspondences for certain numerals in Rma. Consider the data in Table 12.

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[10] LaPolla and Huang give a voiceless [u] in the form for "listen" *kʂuɛtɕu̥*. This feature may be an artifice of a sub-phonemically rounded coda due to the [u] vowel (cf. discussion in LaPolla and Huang 2003: 32). See Sun (2003) for a critique of the way voiceless vowels have been analysed in the literature on Rma.

[11] For example, *q/k i/ou H *pu* L "cuckoo" does not predict the attested forms and construes irregular segmental correspondences as proto-variation (see Fellner and Hill 2019: 98–101 on this methodological issue). LaPolla and Huang (2003: 335) have pointed out that Ronghong Rma *kuput ~ kupət* "cuckoo" is onomatopoeic. Consider also Tibetan *khu.byug*, French *coucou*, Hungarian *kakukk*, Vietnamese *chim cu*, Turkish *guguk*, etc.

Table 11. Onomatopoeic forms

Longxi	Mianchi	Evans' Proto-Southern	Gloss
pʰú	pʰú	*χpʰu H	"to blow"
qí pù	koú pù	*q/k i/ou H pu L	"cuckoo"
qà pù tsʰè	qè pú ~ qè pù	*q a/e L pu (L)	"hiccup, belch"
mà n̪ù	mè n̪òu	*ma L n̪u (L)	"cat"
ỳ qú	ì qóu	*q o/u H	"rooster"
tsʰù	tsʰòu	*tsʰ u/o (L)	"lungs"
zò pjá	dzò pjá	*dzo L pja H	"frog"

Table 12. Rma numerals

Longxi	Mianchi	Evans' Proto-S.	Ronghong	Japhug	Tibetan	Chinese	Gloss
tsʰè	sí qò	*kʰsi	xsə	χsum	gsum	三 *sam < *s.rum	"three"
tsú	tʂóu qò	*χtʂu (H)	χtʂu	kutʂɤɣ	drug	六 *ljuwk < *k.ruk	"six"
gú	gú qò	*χgwə	zgwə	kungut	dgu	九 *kjuwX < *[k]uʔ	"nine"

Note that these numbers do not pattern like native forms, nor like loans from Tibetan or Chinese. Looking closer, we see alternations in compounds with these three numbers as well. Consider Table 13.

We see consonantal and vocalic alternations in Ronghong, as well as consonantal and tonal alternations in Longxi and Mianchi.[12] Note that lack of tonal correspondences between Longxi and Mianchi. This is suggestive of either early borrowings from another language, inter-dialectal borrowing, analogical levelling, or some combination.[13]

2.3.6. Summary

Evans' (2001) study of Rma historical phonology is a landmark work to which this and future work on Rma is indebted. Nonetheless, Evans' (2001: 177) "majority rules" approach to reconstruction leads him, paradoxically, to reconstruct forms with non-etymological correspondences (Longxi /u/ :: Mianchi /u/ and Longxi /o/ :: Mianchi /o/) with the most confidence, and to posit proto-variation for forms with etymological correspondences (Longxi /o/ :: Mianchi /ou/, Longxi /u/ :: Mianchi /o/).

Evans (2001) recognizes the lack of regularity for his correspondences, and states that "Not all reconstructions are equally definite" (p. 95), and that "not all reconstructions are created equal" (p. 98). This is essentially true. Some are loans from Tibetan and Chinese, some are probably interdialectal loans, some are onomatopoeic, and some have possibly been subject to analogical levelling. True cognates are "created equal" by definition. They share a historical development and have been subject to the same regular sound changes.

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[12] Note that the Ronghong numbers lack the complex onset in the "teen" forms. It seems probable that the Longxi form ɦà sé "thirteen" is inherited and that ɦà tsʰé "thirteen" has been created on analogy with "three" and "thirty".

[13] See Bradley (2005) and Jacques (2017) on irregular numerals in Burmo-Qiangic.

Table 13. Rma numerals (continued)

Longxi	Mianchi	Ronghong	Gloss
tsʰè	sí qò	xsə	"three"
hà sé ~ hà tsʰé	sí qò	ha si	"thirteen"
tsʰè sá	sí sà	xsu su	"thirty"
tsú	tṣóu qò	χtṣu	"six"
há tsú	hà tṣʰòu	ha tṣu	"sixteen"
tsú sá	tṣóu sà	χtṣu su	"sixty"
gú	gú qò	zgwə	"nine"
há gú	hà gù	ha gu	"nineteen"
gú sá	gù sà	zgu su	"ninety"

The following section pivots from vowel correspondences to look at etymologies proposed for compound forms.

3. Compounds

Shafer (1974) noted Rma's phonological progressiveness, propensity for compounding, and the general difficulty in recognizing compounds in Rma. On the whole, the importance of compounding in the evolution of the Rma language has been underestimated (but see Zheng 2017 on compounds in Longxi Rma). This section examines several compound forms that have been overlooked or misinterpreted.

3.1. A "far"-fetched etymology

Matisoff (2003: 195) gives a problematic etymology of the Mawo Rma word for "far". Writing about his PTB root *g-wəy-n FAR:

> There is actually some evidence that this root had an initial velar at the PTB and PST stages, as suggested by the following Qiangic forms: Qiang [Rma] Mawo [*guɚ*] χe; Qiang [Rma] Taoping χua³³; Muya qʰuɐ⁵⁵rɐ⁵³; Queyu kua⁵⁵kua⁵³; Shixing qʰua⁵⁵ [ZMYYC #817], all perhaps < PTB *g-wəy. There is also an attractive comparison with Chinese 遠 OC *giw̯ǎn* [GSR #256f-g] (Mand. *yúan*), perhaps with suffixal *-n.

The bracketed text (italicized in the original) indicates that it is the first of the two Mawo Rma syllables that is meant to lend evidence for a velar prefix. This is odd given that the Taoping Rma form χua³³ "far", which has a uvular onset, is also cited as evidence of a velar onset. Of the languages cited here, only Queyu has velars. Baxter and Sagart (2014) reconstruct Chinese 遠 *yuǎn* "far" < Middle Chinese *hjwonX < Old Chinese *C.ɢʷanʔ, with a uvular initial.[14]

Issues of uvularity aside, the above analysis is rooted in a misunderstanding of the Mawo form. Mawo Rma *gwɚ χe* is a compound in which the first syllable is "road" and the second syllable is "far". Consider the Ronghong Rma forms *gwa-ha* "far", and *gwe-ɲi*

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[14] Matisoff (2003: 20–21) states that "Postvelars are generally secondary developments of the TB *velar series", but only offers an account for the development of uvulars in Lahu.

"near" (LaPolla and Huang 2003: 381), these forms contain the same morpheme found in Ronghong *gwə:¹* "road". Consider also the parallel situation in Mianchi Rma: *ʐí-χwà* "far, distant", *ʐí-zɛ̀* "near". Both contain the Mianchi word *ʐì* "road". The Mianchi forms are correctly analysed by Evans (2001: 361) as compounds with "road" as the initial element. In this case, a lack of recognition of the internal structure of the Rma form has led to problematic comparisons with other languages.

3.2. A "cloudy" etymology

Matisoff (2003: 271; STEDT #5656) lists Mawo *zdɤm* "cloud" as a reflex of his PTB **s-dim* CLOUD, without discussion of the fact that the *-m* in Mawo is secondary. As Jacques (2015b) has pointed out, the -m in this form must be secondary, as Rma lost all codas (see LaPolla and Huang 2003 and references therein).

The Mawo form *zdɤm* "cloud" is nearly identical to forms found in Rgyalrong, i.e. Japhug Rgyalrong *zduum* "cloud" and Kyomkyo Situ *zdeʔm* "cloud".[15] Thus, one possibility is that the Mawo form is borrowed from Rgyalrong. Another possibility is that the *-m* coda in Mawo Rma "cloud" comes from the second syllable of a compound form. Evans (2001) analyses the apparently cognate forms Longxi *dá mṳ̀* "cloud" and Mianchi *dá mò* "cloud" as compounds with the second element meaning "dark". Note that the change **Cd > d* is regular in Longxi and Mianchi (see Evans 2001: 162–3). In this view, the Mawo coda *-m* would come from a second element meaning "dark". Both explanations are possible, but in either case, the *-m* in Mawo *zdɤm* "cloud" would not be a reflex of the ancient coda *-m* posited by Matisoff.

3.3. A "corralled" etymology

On the basis of Longxi *tɕʰý* "to enclose (sheep)" and Taoping *ŋu⁵⁵ tɕi⁵⁵* "enclosure", Evans (2001: 280) reconstructs a proto-Southern Rma form **tɕ/tɕʰ i/y* H. Segmentally, this comparison is problematic. The Longxi verb is related to Mawo *tɕʰu* "to pen (sheep)". The unrelated Taoping noun appears to be a compound of *zɭ³¹ ŋu³³* "bovine" and *tɕi⁵⁵ ko³³* "home".

3.4. A "thorny" etymology

Evans (2001: 390) gives an etymology of "numbing pepper" (*Zanthoxylum bungeanum*) as being related to "mutton". Mianchi *tsʰɛˑnɑ́* "numbing pepper" is glossed "mutton?-red" and Evans notes that "(one kind tastes like mutton)". An issue with this etymology is that the Mianchi form *tsʰɛ̀* is not "mutton" but "goat". It seems more likely that the first syllable is related to Chinese 刺 *cì* < Middle Chinese **tsʰje* H < Old Chinese **[tsʰ]ek-s* "thorn" or Tibetan *tsher.ma* "thorn" and that any similarity with "goat" is coincidental. The second syllable is indeed "red". Thus, this compound is "red thorn", which makes more intuitive sense.[16] See Jacques and D'Alpoim Guedes (2023) for a discussion of the etymology of *Zanthoxylum*.

3.5. An "edgy" etymology

STEDT (#0594) links the first syllable of Longxi Rma *tɕà qó* "knife edge" with PTB **m-dzya* EDGE/SIDE. The Longxi form is a compound in which the first syllable comes from *tɕà pjá*

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[15] Thanks to an anonymous reviewer for this observation.
[16] Lai Yunfan (personal communication) kindly drew my attention to Wobzi Khroskyabs *rtsʰaV́* "poivre" (Lai 2017: 780).

Table 14. Longxi Rma :: Matisoff's PTB

Lóngxī	Gloss	PTB	STEDT	Gloss
tɕà qó	"knife edge"	*m-dzya	#0594	EDGE, SIDE
tsʰá (tò)	"bridge"	*m-dzam	#3604	BRIDGE/LADDER
zɨ́	"drop (of oil)"	*m-dz(y)ak	#0557	DRIP/DROP (n.)
zɨ̀	"eat"	*m-dz(y)a-k/n/t/s	#0035	EAT/FOOD/FEED/RICE

"knife"[17] and the second syllable, -qó, means "edge". Consider the Longxi form tɕà pjá tsò "back of knife blade". Thus, the comparison does not work well semantically. Even granting a comparison of Longxi "knife" with *m-dzya EDGE/SIDE, the segmental correspondence (PTB *m-dz :: Longxi tɕ-) is not well supported. Consider the data in Table 14.

This etymology should be abandoned due to the weak semantics and problematic segmental correspondences.

3.6. A "bollocks" etymology

STEDT (#1654) draws a connection between the Rma form for "testicles" and Matisoff's Proto-Tibeto-Burman *pu EGG. While many languages have replaced "testicle" with "egg" (i.e. Spanish), there are some issues with this analysis for Rma.

First, neither the onset nor the vowel fit well with the other Rma :: PTB correspondences proposed by Matisoff. Consider the words in Table 15. Longxi forms are from Evans (2001), except for "smell bad" which is from Zheng (2017).

We see that Longxi /b/ generally corresponds with Matisoff's *b, and that Longxi /u/ generally corresponds with Matisoff's PTB *u. Thus, a comparison of bɚ̀ "testicle" and his PTB *pu EGG does not work well segmentally.

Second, looking within Rma, we see a more likely etymology. The rhotic vowel may be explained as resulting from a collapse of two syllables. Evans (2001: 410) gives the Longxi possessive forms for "testicles" as both bà ɚ̀ and bà ɹà. This suggests that the rhotic vowel is from a second syllable which has undergone coalescence.[18] Evans and Sun (2015) give the Hongyan Rma form for "bollock" as ʐə, which seems to be the origin of the second syllable. The first syllable, with the b- initial, is possibly related to Japhug Rgyalrong tɯ-mbɯ "penis" and Tangut 𗹀₅₃₆₂ biʳj 2.33 < *mbej "penis" (see Jacques 2014: 168; Gong 2020). In brief, the Rma forms seem to come from an old compound and thus comparisons with forms meaning "egg" in other languages are probably incorrect.

4. Broader methodological issues

Taking a step back from any one sound correspondence or etymon, we see a more general problem with the way certain comparisons have been made in Rma historical linguistics. This section discusses some of these methodological problems including: (1) top-down comparisons; and (2) lack of commitment to regular sound change.

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[17] Compare with Taoping Rma tɕa³¹ dʐo³³ "knife".
[18] The form for "testicles" has a long rhotic vowel in the Yadu variety: bɚɚ, which can also be taken as a trace of a disyllabic compound.

Table 15. Longxi Rma :: Matisoff's PTB

Lóngxī	Gloss	PTB	STEDT	Gloss
pʰu	"to blow"	*pu	#0075	BLOW
bə̀	"testicle"	*pu	#1654	EGG
bù sá	"smell bad"	*bu	#5756	STINK/SMELL BAD
pù	"pus"	*s-bu	#0075	PUS
bù ló	"bug"	*bəw	#2178	INSECT/SNAKE/VERMIN/BUG
bé	"thin, slender"	*ba	#5551	THIN/FLAT
bjà	"carry on back"	*ba-k	#0570	CARRY/SHOULDER
dù	"poison"	*(d/t)uk	#2202	POISON
tsú	"six"	*d-k-ruk	#2621	SIX
kù kú	"inside"	*(g/k)uŋ	#0820	HOLE/ORIFICE/INNER PART

4.1. Comparisons with Proto-Tibeto-Burman

The *modus operandi* of Rma etymologists has been to give top-down comparisons of Rma with reconstructions of proto-languages. For instance, Evans (2001) references Proto-Tibeto-Burman forms from Benedict (1972), and also references proto-Tibeto-Burman forms from Matisoff (2003: 228), Proto-Lolo-Burmese forms (2003: 305, 307), as well as his own reconstructions of proto-Qiangic (2003: 228, 296, 302, 314) and of proto-Northern-Rma (2003: 226). Evans (2001) does make direct comparisons with an impressive number of attested languages.[19] Nonetheless, because of the intermittent nature of these comparisons, it is not possible to ascertain the sound correspondences with any one language. In a similar fashion, LaPolla and Huang (2003) give a lexicon of the Ronghong variety with intermittent comparisons with Benedict's Proto-Tibeto-Burman, except for the numerals, which follow Matisoff (1997). Evans (2006a) gives is a study of the history of certain Rma vowels filtered through Matisoff's (2003) starred forms. Sims (2014) gives a lexicon of the Yonghe variety of Rma and posits a smattering of connections between Rma forms and Matisoff's (2003) starred forms throughout.

A general problem with this approach is that reconstructed forms may change in light of new data or analyses.[20] A more specific problem is that neither Benedict's nor Matisoff's starred forms were arrived at through the standard comparative method (Chang 1973; Miller 1974; Sagart 2006; 2008; Hill 2019; Fellner and Hill 2019). See also an interview with Li Fangkui on the methodological problems (Chan and LaPolla 1998).[21]

Aside from the matter of how these forms were arrived at, the issue still stands that the starred forms do not predict attested forms. As an example, let us consider the 70 connections posited between Benedict's PTB and Ronghong Rma by LaPolla and Huang (2003) in their lexicon of the Ronghong variety. Let us consider only the forms linked with PTB *a.

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[19] These include: Mandarin Chinese (Evans 2001: 302), Amdo Tibetan (290, 320), Written Tibetan (224, 229, 319) Written Burmese (305), Prinmi (228), Lahu (234, 305), Akha (255. 288, 292), Rgyalrong (296), Muya (272, 296), Stau (Ergong) (272, 294), Ersu (302), Queyu (302), Namuyi (308), and Shixing (300, 308).

[20] See, for example, the major change to the reconstructed vowel system of Proto-Tibeto-Burman between Matisoff (2003) and Matisoff (2015).

[21] See Matisoff (1975, 2007), for responses to Miller (1974) and Sagart (2006), respectively. See Handel (2019) on Fellner and Hill (2019).

Table 16. PTB :: Ronghong

PTB	Ronghong	GLOSS	VOWEL	Page
*pa	apa	"grandfather"	*a > a	366
*ta	tɕa-	PROH	*a > a	175
*m-twa	ʁdwa	"hammer"	*a > a	350
*ka	qʰa	"to be bitter"	*a > a	374
*kla	ła	"to slip"	*a > a	363
*l/b-ŋa	ʁwa	"five"	*a > a	383
*tsa	tsʰa	"fat"	*a > a	357
*tsa	tsʰə	"salt"	*a > ə	342
*gwa	gwə	"to wear"	*a > ə	346
*swa	ʂwə	"tooth"	*a > ə	358
*dza	dzə	"to eat"	*a > ə	360
*za	zə	"grandson"	*a > ə	376
*ŋwa	ŋwə	"cow"	*a > ə	336
*b(y)a	bə	"bee"	*a > ə	337
*na	ʐdzə	"rest"	*a > ə	364
*twa	tu	"handspan"	*a > u	352
*ŋa	ʁu	"goose"	*a > u	337
*g/r-na	ɲukṵ	"ear"	*a > u	358
*r-gya	kʰeˑ	"hundred"	*a > eˑ	384
*s-la	ɕiʂwe	"moon"	*a > i	331
*na	ʐdzi	"disease, illness"	*a > i	364
*sna	ɕtɕytsṵ	"nose"	*a > y	358

This is widely agreed to be the least controversial vowel in the family (Matisoff 2003: 162; Sagart 2006; Hill 2019: 236) and should be the most straightforward. We will further limit ourselves to cases where LaPolla and Huang posit a link with open syllables. This yields 22 different examples, in which we find no fewer than six different reflexes of Benedict's *a in Ronghong.[22] Examples are given in Table 16.

Bringing these examples together reveals a major division between Ronghong /ɑ/ and /ə/ unaccounted for by Benedict's starred forms.[23] Because these are all open syllables, it is a problem that cannot be said to result from lost codas.

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[22] Although the forms for the numbers "five" and "hundred" come from Matisoff (1997) and not Benedict (1972), they are open syllables with *a in both systems.

[23] Some of the correspondences could, perhaps, be dismissed as anomalous. The forms for "ear" and "nose" both involve compounding in Rma and could reasonably be ignored. The prohibitive prefix, which has multiple allomorphs (LaPolla and Huang 2003: 175) could be excluded. The *r- prefix might explain the vowel quality in "hundred". See LaPolla and Huang (2003: fn 23) on this form. Note that LaPolla and Huang state that "ear" and "goose" and "moon" are only "possibly" related to the starred forms.

Vowel raising and fronting has been observed in many Trans-Himalayan languages in the region. This tendency has been called "brightening", and has been argued to be a common innovation in Qiangic languages (Matisoff 2004). One might propose that the apparent vowel split of Benedict's PTB **a* into *a* and *ə* in Ronghong is the result of brightening. Nonetheless, this is problematic for two reasons. First, recent work has shown that brightening is not a shared innovation but a set of parallel developments (see Chirkova 2012: 5 fn. 5; Chirkova and Handel 2019; Lai 2022; Hill 2022). Second, there is no obvious phonological condition for "brightening" in Ronghong Rma. Consider the forms for "fat" and "salt" in Table 16. These two forms are segmentally identical in Benedict's system but have different forms in Ronghong.

This belies a more fundamental problem with the way reconstructions are conceptualized. Because reconstructions are merely a shorthand way of indexing the known facts of regular correspondences between cognates, they, by definition, predict attested forms. Reconstructions are not meant to be an amalgam of the phonetic material in attested forms, as we see in Evans' **q/k i/ou* H *pu* L "cuckoo" or Matisoff's Proto-Tibeto-Burman **m/p/s-(l/d)ap* ARM / HAND / WING.[24]

4.2. Regularity of sound change

Some linguists who have worked on Rma have not strongly committed to the principles of regularity of sound change, and this has hindered progress in discovering sound laws. Evans (2001) in particular has expressed doubts about *Ausnahmslosigkeit* as it relates to Rma vowels:

> Mianchi (as well as other Southern Qiang dialects) is subject to irregular vowel harmony … Although vowel harmony is always anticipatory, it does not appear to be regular in any of the dialects … Because vowels in non-final syllables are subject to this irregular vowel harmony, proto-rhymes are much more difficult to compare and reconstruct than are proto-initials. (Evans 2001: 65).

> … Even at the microlevel undertaken here, many questions arise as to the strength of attestation of certain roots, and many sound laws are far from regular for one dialect. (Evans 2001: 96).

> Nevertheless, there is often unexplained variation in the [monopthong vowel] reflexes, which is due in part to vowel harmony processes that have not been applied evenly throughout the lexicon (Evans 2001: 99).

Evans states that the tones of Rma are "unstable … and often unpredictable" (2001: 231) and subject to "irregular and unpredictable tone sandhi" (2001: 244). Although much has been made of the irregularity or unpredictability of Rma tones, the forms in Tables 2 and 3 attest to the regularity of tonal correspondences *for true cognate forms*.

Evans (2001: 257) also alludes to grammatically conditioned sound change: "At present I have no explanation for this apparent palatalization, other than the unpredictability of phonological developments in functors". This type of explanation is not in line with the comparative method (see Hill 2014).

Evans (2006b: 113) makes a broader claim that:

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[24] Note that Matisoff's ARM / HAND / WING represents a hypothetical word with the following variants: **map, *pap, *sap, *mlap, *plap, *slap, *mdap, *pdap, *sdap*.

> Correspondence sets in Qiang [Rma] (and in Qiangic) are often riddled with forms that deviate slightly from the dominant sound laws (Chang 1967, Evans 2001).

This is correct, but it highlights an underlying problem with the correspondence sets themselves, not a fundamental unruliness of the Rma language.

5. Conclusion

This paper has discussed issues in Rma historical phonology and emphasized several facets of Rma historical linguistics which deserve more attention, including vowel correspondences, loans, analogy, and compounds. This section points out some useful next steps.

Since Evans' (2001) landmark monograph, there have been many publications on previously undocumented Rma varieties: Ronghong (LaPolla and Huang 2003), Qugu (LaPolla and Poa 2003; Huang and Zhou 2006; Zhou 2010), Puxi (Huang 2004), Yonghe (Sims 2014, 2018), Longxi (Zheng 2017), Xiaoxing (Huang *et al.* 2019), Luobozhai (Wang 2017), among others. Thus, the time is ripe for further historical comparative work that incorporates advancements in the documentation of Rma and builds on Evans (2001), while sifting out the problematic correspondences.

Compounds are an important aspect of Rma word formation, but a lack of recognition of compounds has hampered historical-comparative work. Recent studies of compounds in Tibetan (i.e. Bialek 2018) could serve as a model for how an in-depth treatment of compounds in Rma should be carried out.

Rather than relying on top-down comparisons with hypothetical languages, a study comparing two well-documented varieties of Rma, such as Longxi and Ronghong, with one traditionally written Trans-Himalayan language, such as Tibetan, Tangut, or Burmese, is long overdue. Such an undertaking would hopefully bring advances to the study of Rma historical phonology in the same way that Jacques (2014) has brought great advancements to the study of Rgyalrongic through a comparison of Tangut and Japhug (see Hill 2015).

Scepticism of the regularity of sound change has left many irregularities in Rma unexplained. In some cases, irregularity has been touted to be a basic trait of the Rma language or of the Qiangic subgroup. These issues have been raised enough that it bears affirming: regular phonetic sound change, borrowings, and analogy are sufficient to explain the historical evolution of the Rma language and its close relatives.

While many Rma sound laws have been discovered by Chang (1967), Sun (1981), Evans (2001), and LaPolla and Huang (2003), the lack of an index of these sound laws has impeded comparative work. An inventory of Rma sound laws, paralleling what Hill (2011) has provided for Tibetan, would be a boon to the field.

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