

The Historical Dynamics of Morphological Complexity in Trans-Himalayan

Scott DeLancey
University of Oregon

Certain subbranches of Trans-Himalayan (Sino-Tibeto-Burman) stand out as islands of complexity in a Eurasian sea of simplicity (Bickel and Nichols 2013). Others show a radically simpler verbal system more consistent with their South and Southeast Asian neighbors. The complex systems include elaborate systems of argument indexation; most of these reflect a hierarchical indexation paradigm, which can be traced to Proto-Trans-Himalayan. This morphology has been lost in many languages, including the most familiar branches of the family such as Sinitic, Boro-Garo, Tibetic, and Lolo-Burmese, as a result of creolization under intense language contact. The archaic system is preserved fairly intact in rGyalrongic and Kiranti and with various structural reorganization in several other branches. The Kuki-Chin branch has innovated an entirely new indexation paradigm, which in some subbranches has completely replaced the original system, while in others the two paradigms coexist.

1. Introduction

Several branches of Trans-Himalayan (TH) stand out in the context of languages of Asia for their morphologically complex verbal systems. These are restricted to isolated mountain regions, which Bickel and Nichols (2013), characterize as a “typological enclave”, a relic zone where archaic complexity has been preserved:

Lai [a Kuki-Chin language] apparently reflects the typological profile of Tibeto-Burman before the great spread of this family into Southeast Asia. Outside the Kuki-Chin and a few other branches of Tibeto-Burman, this profile survives only in the archaic Kiranti group that is spoken in relatively isolated Himalayan mountain pockets. (Bickel and Nichols 2013)

As we will see, the Kuki-Chin branch to which Lai belongs deviates considerably from the Proto-Trans-Himalayan (PTH) pattern, but it has indeed reconstituted a new version of the typological profile which we find instantiated in its original form in several other branches. Complex verb paradigms are more common and widespread in Trans-Himalayan than Bickel and Nichols imply, and are found literally across the length and breadth of the family, dotted along both of the mountain ranges which form the axes of the Tibeto Burman area – east to west the entire range of the Himalayas, extending into Sichuan and Yunnan, and north to south from Sichuan down along the Patkai or Purvanchal mountains through Mizoram.

1.1 Trans-Himalayan Typology and Classification

The languages discussed here are usually labeled “Tibeto-Burman”, traditionally thought of as one of two branches of the Sino-Tibetan family. But, while there is no serious doubt about the genetic relationship of Sinitic and the various Tibeto-Burman groups, there is no reason to think

of Tibeto-Burman as a clade. Rather it is a paraphyletic category: the languages grouped together as TB have no common ancestor that is not also ancestral to Sinitic. To avoid the binary implications of the term Sino-Tibetan, it has been proposed to rename the Sino-Tibetan family as Trans-Himalayan (van Driem 2013), and that term (hereafter TH) is adopted here. Sinitic has diverged radically from the rest of the family under intense contact with Hmong-Mien and Tai-Kadai languages and adopted much of the Mainland South East Asian phonological and syntactic typological profile (Bisang 2008, DeLancey 2013a). Most of the rest of the family shares a broad SOV typological pattern which among Tibeto-Burmanists is generally assumed to be original (LaPolla 2015).

As Bickel and Nichols infer from the geographical distribution of the pattern, complex verbal structure is an archaic feature in the family, which has been lost in many of the daughter branches under intense language contact. This distribution of complexity across the family tells us three things: complexity is ancient in this stock, complexity can be maintained over long periods of time in an Asian environment, and complexity can be completely lost. A fourth point is illustrated by secondary developments in Kuki-Chin, which has innovated new complexity and then, in some branches, jettisoned the old. I have discussed radical decomplexification in various TH branches elsewhere; the purpose of this paper is to illustrate the maintenance and reconstitution of complex verb agreement systems: maintenance in two archaic clades, Kiranti and rGyalrongic, and reconstitution in Kuki-Chin.

Excluding Sinitic, Karenic and Bai, we find three typological patterns across the family. The stereotype of the family is founded on the the best-known languages, with very transparent, regular agglutinative grammar, paradigmatically simple, though sometimes with remarkable syntagmatic complexity (Matisoff 1969, Post 2010, 2015). This is the typology of Lolo-Burmese, Tibetic, and Boro-Garo, which include the languages through which the Tibeto-Burman languages came to be known to linguistics in the 19th century. A quite different pattern has a morphologically complex verb with elaborate argument indexation and transitivity management systems. Two variations on this type occur. In one we find substantial archaic morphology, as in rGyalrongic, Nungic, Kiranti, in some varieties of Kham within Magaric, and in dramatically modified form in Jinghpaw-Northern Naga and vestigially in Kuki-Chin. In the other, exemplified by Kuki-Chin, we see an innovative paradigm with only a few traces left of the ancient system.

The classification of the TH languages is a vexed problem, primarily, at least in my view, because the dramatic decomplexification which has occurred in many languages and branches has erased most of the kind of morphological evidence on which solid classification is based. The following classification, while neither complete nor controversial, will give the reader a sense of the relationships among the various languages and branches discussed in this paper. Clades in which at least some archaic agreement morphology is retained are bolded:

Eastern

Macro-Qiangic

rGyalrongic**rGyalrong**: Situ, etc.**other**: Khroskyabs, etc.**Qiangic**: Qiang, Primi, etc.

Naic: Naxi, etc.

Lolo-Burmese

Western

Tibeto-Kinnauri

West Himalayan: Bunan, etc

Tibetic

Kham-Chepeng**Magaric**: Magar, Kham**Chepeng****Kiranti**

Western: Thulung, etc.

Central: Camling, etc

Eastern: Limbu, etc.

Newaric:

Newar: Kathmandu, **Dolakha**other: Baram, **Thangmi****Central**? **Nungic**

Sal

Jinghpaw-Luish: **Jinghpaw** (Gauri, Nhkum, Hkahku, etc.), Singpho

Northern Naga:

Nocte-Tangsa: Nocte, Tangsa, Tutsa

Chang-Konyak: Phom, Chang, Konyak, etc.

Boro-Garo

Kuki-Chin

Northwest: Moyon, Monsang, etc.**Northeast**: Tedim, Sizang, Paite, Thadou, etc.

Central: Mizo, Bawm, Hakha Lai, etc.

Mara

Southern: Daai, Hyow, Cho, Matu, etc.**1.2 Dimensions of Complexity**

The notion of the relative “complexity” of languages has been widely discussed in recent work (e.g. Dahl 2004). In this paper I am not concerned with any idea of overall complexity of one language relative to another, but purely with the complexity of argument indexation and closely-associated categories such as inverse marking in the verb. The simplest measures of complexity

are the number of position classes, of distinct morphs, and of verb forms which are distinguished. These are partially independent: a language which distinguishes two numbers in all three persons distinguishes 6 verb forms, but may have as few as 4 or as many as 6 different morphemes depending on whether plural forms are distinct from singulars or are composed of the singular forms plus an invariant plural marker. Irregular and other unpredictable forms and alternations are also relevant to the problem of overall complexity, but I will not attempt to assess this variable in this paper. (For an early attempt to quantify an overall index of complexity including irregularity, see Weidert 1985).

The simplest paradigm obviously is no paradigm, in languages with no argument indexation whatever, as in Sinitic, Tibetic, Lolo-Burmese, and Boro-Garo. A maximally complex TH paradigm distinguishes 11 intransitive verb forms: 3 persons and 3 numbers, with inclusive/exclusive distinguished in dual and plural. A transitive paradigm may also have inverse marking, special marking for the local categories, and sometimes indexation of both arguments of a transitive verb. In Kiranti, in particular, we may find distinct person indices depending on the S/A/O status of the argument. Very complex paradigms are found in the Kiranti and Kham-Chepeng groups in Nepal, Nungic in northern Myanmar, the rGyalrongic languages of Sichuan and the Nocte-Tangsa languages within Northern Naga in Northeast India. Complexity in Kuki-Chin is a distinct question, as we will see.

Most TH agreement systems, and most that we will consider here, show hierarchical rather than subject indexation. In TH hierarchical systems are always more complex than subject systems, as they generally distinguish more position classes and always distinguish more verb forms than subject-indexation systems.

1.3 Loss of Complexity

There is a definite, though not perfect, correlation between gross type and geographic and historical effects. The best-known examples of the transparent, regular, agglutinating pattern are languages which have been lingua francas, particularly of broad empires, such as Sinitic, Tibetic, Burmese, and Boro-Garo (DeLancey 2013b). Others are found in more isolated circumstances, but some show apparent evidence of intense contact and creolization, e.g. Tani (Post 2013, 2015). But all the groups which have best preserved archaic verb paradigms are spoken in isolated mountain areas. (There are also examples of decomplexified languages in these environments, e.g. Lolo-Burmese and the languages of Nagaland and northern Manipur). The innovative complex type is particularly characteristic of the Kuki-Chin branch. I have discussed the sociohistorical contexts which lead to wholesale loss of morphological complexity at length elsewhere (DeLancey 2010, 2013a, b, 2014a).

Chinese, Tibetan and Burmese are examples of dramatic morphological simplification, which therefore was once considered the original pattern in the family. Since it is now clear that the proto-language had a complex system of hierarchical argument indexation in the verb, the simpler languages of the family present examples of how complexity is lost. While different factors can be identified in the histories of particular languages, the major factor in Trans-Himalayan is evidently language contact, most conspicuously in the context of expansionist urban state-formation. The most archaic systems are found in small, relatively isolated subbranches: rGyalrongic in the mountains of Sichuan, Nungic in the most inaccessible mountain valleys of northern Myanmar, Kiranti and Kham-Magar languages of the mountain valleys of Nepal, and Northern Naga and NW Kuki-Chin in parts of Myanmar and Northeast

India so remote that the languages have been virtually unknown until very recently. These are all residual zones (in the sense of Nichols 1992); all languages of the valley spread zones are thoroughly creolized, even when they have near relatives in residual zones which are much more complex.

We find a number of instances in which one language has abandoned indexation while a close relative retains it – for example Kathmandu and Dolakha Newar (Genetti 1988a), Baram (Kansakar et. al. 2011) and Thangmi (Turin 2012), or Konyak/ Wancho/Phom and Nocte/Tutsa/Tangsa within Northern Naga (DeLancey 2015). An instructive example is Singpho and Jinghpaw. The elaborate and opaque indexation system of Jinghpaw (DeLancey 2011) is found only in some dialects of the language; it is absent, for example, in the Singpho dialects of Assam (Morey 2010). The Jinghpaw paradigms cannot be recent innovations, because they are demonstrably cognate with those in the Nocte-Tangsa languages (DeLancey 2011, 2015), and contain other material which has no apparent source within the language, but can be explained by comparison with more distantly related languages (van Driem 1993, DeLancey 2014b, 2015). The movement of Singpho into Assam occurred only a few centuries ago (see e.g. S. Baruah 1985:376, T. Baruah 1977), which suggests that the loss of the indexation system might have been quite sudden. Singpho is confined to hill areas, but since the origin of the Singpho tribes involved an invading group who conquered and enslaved a local population (Leach 1954, Maran 2007), here too we can invoke intense language contact as a motivating factor in typological shift.

While such catastrophic abandonment of the entire morphological category of indexation is the commonest type of decomplexification in TH (DeLancey 2013b), we also find examples of more gradual erosion of complexity, involving loss of dual and/or clusivity, and more importantly, shift from hierarchical to subject indexation. The latter is seen in Western Himalayan, Magar, Newar, a few Kiranti (e.g. one dialect of Sunwar, compare Genetti 1988b, Borchers 2008) and rGyalrongic (J. Sun and Tian 2013) languages, and very dramatically in Kuki-Chin (Section 4). We are not yet in a position to explicate the causes of this tendency in all cases. I will here simply state as an area for future research the hypothesis that we might be able to correlate the shift to subject indexation with certain types of contact situation. In three languages in the far west (Bunan, see Widmer to appear), middle (Newar, see Genetti 1988a) and east (Primi, see Daudey 2014) of the Tibeto-Burman area subject agreement has been reanalyzed as a “conjunct-disjunct” or “egophoric” system. It is possible that all three cases can be attributed to Tibetic influence.

2. Complexity Old and New

Table 1 gives an approximate reconstruction of the agreement forms which can be reconstructed for PTH:

	SG	DU	PL
1EXC	Σ -ŋ(a)	S-tʃi	Σ -ka
INC			Σ -i
2	Σ -n ~ t- Σ		Σ -ni
3	--		ma-S

Table 1: Intransitive person-number indices in Proto-Trans-Himalayan

In transitive constructions indexation followed a broadly hierarchical pattern, although it is not yet clear which argument(s) were indexed in the “local” $1 \rightarrow 2$ and $2 \rightarrow 1$ forms.

The Kiranti branch of eastern Nepal and the rGyalrongic branch of western Sichuan both preserve most of the original PTH paradigm (cp. Table 8 below), although individual languages within these units show considerable recent variation. The Kuki-Chin languages have innovated a completely new paradigm. Originating in Proto-Kuki-Chin (PKC) as a simple subject agreement system with 3 persons, 2 numbers, and clusivity, this has grown in the various daughter languages into much more complex paradigms, the champion (so far attested) being the magnificent hierarchical system of Mara. Comparing Mara with Kiranti and rGyalrong languages (2.4) we can see that Mara has abandoned earlier, and innovated new, complexity. In Sections 3 and 4 we will see some of the details of this process, which will show that rather than a case of loss followed by reconstitution, the two processes proceeded together, with one paradigm being built as the other was abandoned.

2.1 Extreme Complexity in rGyalrongic

The rGyalrongic branch consists of four rGyalrong languages and several others. The greatest complexity is found in rGyalrong proper; we will look at Situ or Eastern rGyalrong (Jiǎomùzú dialect, Prins 2011; for other rGyalrong paradigms see J. Sun and Shi 2002, Jacques 2004, Gong 2014, inter alia). The intransitive paradigm already presents us with substantial complexity:

	SG	DU	PL
1	Σ -ŋ	Σ -dʒ	Σ -j
2	tə- Σ -n	tə- Σ -ndʒ	tə- Σ -jn
3	--	Σ -ndʒ	Σ -jn

Table 2: Intransitive person-number indices in Situ rGyalrong

Although the synchronic analysis of the non-1st non-singular forms is debatable, we have here 9 different verb forms involving at least 7 morphs. Further complexity is seen in the syntagmatic irregularity of 2nd person marking, involving both a suffix and a prefix, while all other indices are suffixes.¹

In the transitive paradigm 9 morphemes, expressing person (*t-* 2nd), number (*-dʒ* dual, *-j* plural), person + number (*-ŋ* 1SG), person + role (*-n* 2O, *-w* 3O), hierarchical relations (*wu-* ~ *-o-* inverse; *-a-* $1 \rightarrow 2$; *k-* $2 \rightarrow 1$) distinguish 21 different forms:

¹ Except for Situ, the rGyalrong proper languages have only the *#t-* prefix for 2nd person, and the other rGyalrongic languages only the *#-n* suffix. Situ is the only TH language that I know of that attaches both to the same stem.

O	1SG	1DU	1PL	2SG	2DU	2PL	3SG	3DU	3PL
A									
1SG				ta- Σ -n	ta- Σ -n-dʒ	ta- Σ -jn	Σ -ŋ		
1DU							Σ -dʒ		
1PL							Σ -j		
2SG	ko- Σ -ŋ	ko- Σ -dʒ	ko- Σ -j				tə-S-w		
2DU							tə- Σ -ndʒ		
2PL							tə- Σ -jn		
3SG	wu- Σ -ŋ	wu- Σ -dʒ	wu- Σ -j	to- Σ -n	to- Σ -n-dʒ	to- Σ -jn	Σ -w	Σ -n-dʒ	Σ -jn
3DU							Σ -n-dʒ		
3PL							Σ -jn		

Table 3: The transitive paradigm of Jiāomùzú Situ rGyalrong

Almost all of this complexity is ancient. All the suffixes, the 2nd person *t-* prefix, and almost certainly the inverse *u-* are all inherited from PTH; only the vocalism of the 1→2 prefix and the *k-* in the 2→1 form are recent, both dating to proto-rGyalrong (Jacques to appear) but probably not proto-rGyalrongic.

2.2 Extreme Complexity in Kiranti

In Kiranti we find far more complexity in the verb than in any other TH languages, with considerable variation and innovation. Consider the paradigm of Camling, a Southern Central Kiranti language (Ebert 1997):

	SG	DU	PL
1EXC	Σ -uŋa	Σ -c-ka	Σ -i-(m)ka
INC		Σ -ci	Σ -i
2	ta- Σ -n	ta- Σ -ci	ta- Σ -i
3	--	Σ -ci	mi- Σ

Table 4: Intransitive person-number indices in Camling

This is more complex than Situ in marking the additional category of clusivity. Otherwise it is very comparable, with 10 verb forms (arguably representing 11 categories), to Situ's 9, distinguished by 6 morphs, to 7 in Situ.

The Camling transitive paradigm is considerably more complex than that of Situ, and not simply because of the multiplicative effect of the clusivity distinction. There are 10 morphs, comparable to 9 in Situ, but, with (at least) 5 or 6 position classes to Situ's 3, distinguishing 27 verb forms to 21 in Situ:

A	O	1			INC		2			3	
		S	D	P	D	P	S	D	P	S	NS
1	S						Σ -na	Σ -na-ci	Σ -na-ni	Σ -uŋa	Σ -uŋ-c-uŋa
	D									Σ -c-ka	
	P									Σ -um-ka	Σ -um-c-um-ka
I	D									Σ -ci	
	P									Σ -um	Σ -um-c-um
2	S	ta - Σ -uŋa	ta - Σ -c-ka	ta - Σ -i-ka					ta - Σ -u	ta - Σ -u-cy-u	
	D	ta - Σ -ci							ta - Σ -ci		
	P	ta - Σ -i							Σ -um	Σ -um-c-u-m	
3	S	pa - Σ -uŋa	pa - Σ -c-ka	pa - Σ -i-ka	pa - Σ -ci	pa - Σ -i	ta - Σ -a	ta - Σ -ci	ta - Σ -i	Σ -u	Σ -u-cy-u
	D									pa - Σ -ci	
	P									pa - Σ	Σ -u-cy-u

Table 5: Transitive paradigm of NW Camling (prefixes in bold)

And the morphs are much less paradigmatically consistent. One, 2nd person *ta-*, expresses person only; one, *-ci*, expresses number only, but not in a consistent fashion – when it indexes an A argument it expresses dual, but when it indexes a 3rd person object argument, where the dual/plural distinction is not marked, it expresses non-singular. Four suffixes, 1SG *-uŋa*, 1PL.(INC) *-i*, 1PL.EXC *-ka*, and 2PL *-ni*, are portmanteaus expressing person and number. One, 3OBJ *-u-*, expresses person and role, and two affixes, *pa-* in 3 \rightarrow 1/Inc and 3ns \rightarrow 3 and *-na* in 1 \rightarrow 2, seem to mark hierarchical relations. Finally *-m-* combines all of these categories, indexing 3PL.OBJ, but only in direct configurations, i.e. when A is 1st or 2nd person.

Person indexation is unsystematic. Any 2nd person argument is indexed by *ta-* except in the 1 \rightarrow 2 form where instead we have a unique form, *-na*, which occurs nowhere else in the paradigm and thus uniquely marks this local configuration. Etymologically it is the original 2nd person index, cognate to 2SG *-n* in Khroskyabs and Situ, but synchronically it is anomalous in the paradigm.

2.3 Innovative Complexity in Kuki-Chin

The morphological profile of the Kuki-Chin languages of the southern Indo-Myanmar border region diverges dramatically from the archaic system which we have seen in rGyalrongic and Kiranti. In Section 4 we will see a range of complexity across the Kuki-Chin branch. Here we will look at one language, Mara² (Arden 2010), which shows an innovative paradigm of a level of complexity comparable to anything which we find elsewhere in the family. The intransitive paradigm is relatively simple, distinguishing only two numbers:

² Mara, also known as Lakher, is sometimes classified as Central Kuki-Chin, but VanBik (2009) presents phonological evidence that it constitutes a distinct Maraic branch of KC.

	SG	PL
1	<i>ei</i> Σ	<i>ei-ma</i> Σ
2	<i>na</i> Σ	<i>na-ma</i> Σ <i>ei</i>
3	<i>a</i> Σ	<i>a-ma</i> Σ <i>ei</i>

Table 6: Intransitive person-number indices in Mara

There are only 6 distinct categories, although 5 morphemes are present, including the apparently otiose non-1st PL *ei*. This form is indubitably a Kuki-Chin innovation. The plural *ma-* is presumably cognate to similar forms in Kiranti (cp. Camling PL *-um* and 3PL *mi-* above) and Jinghpaw (DeLancey 2015). The other indices all have likely PTH etymologies, but not as verb agreement prefixes; in Section 4 we will see that the preverbal paradigm is a Kuki-Chin innovation.

If the intransitive paradigm is relatively simple, the transitive paradigm is impressively complex, rivaling those of Situ and Camling:

O A	1SG	1PL	2SG	2PL	3SG	3PL
1SG			<i>ei cha</i> Σ	<i>ei cha</i> Σ <i>ei</i>	<i>ei</i> Σ	<i>ei</i> Σ <i>ei</i>
1PL			<i>ei-ma cha</i> Σ		<i>ei-ma</i> Σ	
2SG	<i>ei na</i> Σ <i>chi</i>	<i>ma-nia na</i> Σ			<i>na</i> Σ	<i>na</i> Σ <i>ei</i>
2PL	<i>ei na</i> Σ <i>ei chi</i>	<i>ma-nia na-ma</i> Σ			<i>na-ma</i> Σ <i>ei</i>	<i>na-ma</i> Σ
3SG	<i>ei na</i> Σ	<i>ma-nia a</i> Σ	<i>a cha</i> Σ	<i>a cha</i> Σ <i>ei</i>	<i>a</i> Σ	<i>a</i> Σ <i>ei</i>
3PL	<i>ei na</i> Σ <i>ei</i>	<i>ma-nia a-ma</i> Σ	<i>a-ma cha</i> Σ <i>ei</i>	<i>a-ma cha</i> Σ	<i>a-ma</i> Σ <i>ei</i>	<i>a-ma</i> Σ

Table 7: Transitive person-number indexation in Mara

This is for the most part a subject-indexation system, but 1st person indexation is hierarchical. Overall 9 morphemes distinguish 26 distinct forms, almost the same numerical complexity as Camling.

2.4 Conservative and Innovative Complexity

From simple inspection of the agreement indices in the three languages discussed above it is immediately obvious that the paradigms of Situ and Camling are cognate, while that of Mara has some other origin. Most of the complexity in rGyalrongic and Kiranti is inherited from PTH. I will not detail the reconstruction of the PTH paradigm here (see Bauman 1975, DeLancey 2010, 2014b, van Driem 1993, and cp. LaPolla 2013). It is enough to note here the obvious comparability of the forms which we have seen:

Situ			Camling	
-ŋ	1SG	=	-uŋa	1SG
t-	2	=	ta-	2
-n	2O	=	-na	1→2
-w	3O	=	-u-	3O
-dʒ	dual	=	-ci	dual
-j	1PL	=	-i	1PL.INC
-jn	2PL	=	-ni	2PL

Table 8: Agreement indices in Situ (rGyalrongic) and Camling (Kiranti)

It is clear from these correspondences, as well as paradigmatic correspondences such as hierarchical distribution of 1st and 2nd person indices and special 2nd person marking in 1→2, that these paradigms must be cognate. As there is no evidence that Kiranti and rGyalrong share any common ancestor more recent than PTH,³ we see here evidence of considerable stability.

The remaining morphemes show no correspondence. Situ *wu-* ~ *-o-* inverse is probably reconstructible for PTH (Jacques 2012), although the Kiranti evidence is equivocal. Camling *pa-* 3→1/INC, 3NS→3 seems to be a very recent (Ebert 1991). The Camling number suffixes *-ka* 1PL.EXC and *-m-* 3PL.OBJ are at least of Proto-Kiranti origin; they are not well attested outside of Kiranti, but both occur in Jinghpaw (DeLancey 2015), which suggests that they may be ancient. The other rGyalrong prefixes are of Proto-rGyalrong (but apparently not Proto-rGyalrongic) age: *-a-* 1→2 is an old passive and *k-* 2→1 an impersonal (Jacques to appear), both reanalyzed to provide special marking for the local categories (DeLancey to appear). Thus each language has innovated a certain amount of additional complexity, at both the branch and the individual language level. But it is also likely that some complexity in the proto-language has left no trace in the attested languages. Overall there seems to have been little or no net alteration in overall complexity, by simple numerical or any other measure, in between PTH and Proto-Kiranti or Proto-rGyalrongic.

The Mara paradigm, in contrast, shows no similarity to Situ or Camling, except probably the plural *ma-*, which must have some connection to the similar plural forms in Camling. The 2nd person forms *cha-* and *-chi* are partially cognate to the 2nd person *t-* prefix of Situ and Camling; they are inherited from the otherwise lost agreement word paradigm, and ultimately reflect an auxiliary conjugated for 2nd person, probably something like **t-yak* (DeLancey 2015). The others reflect ancient pronominal roots – *na-* ‘2S/A’ < #*na* ‘2SG’, *ei* ‘1’ < #*i* ‘1INC’ – which also occur in the other paradigms, but as suffixes rather than proclitics. The origin of *na-* ‘1O’ is not certain, but it occurs in other subbranches of Kuki-Chin (Section 4.3), and thus may be of PKC provenance. The entire preverbal paradigm represents an elaboration of a PKC innovation, composed of formal elements inherited from PTH (*ma-*), Proto-Central TH (*chi*), and PKC (*ei-*, *na-*, *na-*, *-ei*) paradigms, with the beginnings of hierarchical distribution a Mara-specific innovation.

Thus while Situ and Camling present us with a picture of complexity maintained for millennia, Mara has lost the complexity which its ancestor once shared with the other branches,

³ LaPolla (2013) uses an unconventional approach to subgrouping to claim that these forms themselves are the evidence for a lower-level clade. As there is no lexical, phonological, or other evidence for this proposed subgroup, if one does not accept his novel method of subgrouping, the argument is circular.

and created an entirely new but comparably complex paradigm. Sections 3 and 4 will outline the changes which brought this about.

3. Morphological Restructuring: Agreement Words

In Jinghpaw, the Nocte, Tutsa and Tangsa languages within Northern Naga (NN), and the Northeast and Northwest branches of Kuki-Chin, we find a typologically odd development of the verbal indexation system. In these languages indexation is never marked on the verb stem, but is part of an AGREEMENT WORD which directly follows the finite verb. I have discussed the history of this phenomenon elsewhere (DeLancey 2013c, d, 2014b, c, 2015). These new paradigms derive from conjugated auxiliaries, and most of their morphology is derived from the PTH paradigm. This shift is neither simplification nor complexification, but maintenance of complexity through major morphophonological restructuring.

In these languages argument indexation is marked in one or more mono- or disyllabic words phonologically independent of the verb stem. There is a set of forms which index person only, as in exx. (1)-(6) from Nocte, a Northern Naga language, and Tedim, from the Northeast branch of Kuki-Chin (unpublished Nocte data from the late Alfons Weidert, Tedim from Henderson 1965):

Nocte

(1) *ηaa ka λη*
 I go 1SG
 ‘I go.’

(2) *nλη ka ɔ*
 you go 2SG
 ‘You go.’

Tedim

(3) *pài ìη*
 I 1SG
 ‘I go.’

(4) *pài tɛʔ*
 go 2
 ‘You.sg go.’

Complex agreement words consist of person and number indices attached to or in construction with a TAM or other verbal operator:

Tedim

(5) *pài ní-η*
 go FUT-1SG
 ‘I will go.’

- (6) *pài ní tɛ?*
 you FUT 2
 ‘You will go.’

These forms can be shown to have originated as inflected auxiliaries (DeLancey 2013c, 2014b), but are not synchronically recognizable as such.

In many of these languages the new paradigms are still relatively complex. Following Bickel and Nichols (2007, 2013), we can consider the verb stem and the agreement word(s) to constitute a syntactic unit, a single grammatical word. These are synthetic constructions, even if not phonologically fused, so, at least from the perspective of paradigmatic morphology, the agreement word structure is not intrinsically either more or less complex than the more familiar bound morphology which we saw in Section 2.

In all of the units where we find the agreement word system we see instances of catastrophic simplification: languages which have completely lost the agreement word structure. This is true in several dialects of Jinghpaw, and of Konyak, Chang, Phom, Wancho and others in Northern Naga. (The more complex story of Kuki-Chin will be sketched in Section 4). In some cases, especially Jinghpaw, this is easily attributable to intense language contact. In others the history of this shift remains to be elucidated. Among the languages which have retained indexation paradigms, Jinghpaw and many Northern Naga languages retain hierarchical indexation; some Northern Naga languages and all Kuki-Chin languages so far reported have shifted to primarily subject indexation. Some of the Northern Naga languages which retain hierarchical indexation have developed new inverse constructions (Boro 2012, DeLancey to appear). So these languages have held on to a system of hierarchical indexation even through whatever morphophonological upheaval led to their present unusual morphosyntactic structure. (It may be that this peculiar phenomenon is connected to a shift from trochaic to iambic prosodic structure in these languages, see DeLancey 2014c).

4. Archaic and Innovative Complexity in Kuki-Chin

In the Kuki-Chin branch we can watch the history of the replacement of an agreement word paradigm presumably originally much like those of Northern Naga or Jinghpaw by an innovative subject-indexation paradigm based on proclitic possessive pronominals (a neglected dimension of morphological complexity in TH; see H. Sun 1984). Agreement word paradigms are a prominent feature of the NE and NW branches. They occur vestigially in non-finite clauses in some of the Southern languages, but in the Central and Maraic subbranches they have disappeared, except for a relict 2nd person form which has been incorporated into the new paradigm.

Since PKC the preverbal paradigm has been elaborated in most of the subbranches and individual languages. Many languages have added new dual and plural indices, and most have innovated some means of indexing an SAP object argument along with the A. Since the agreement word paradigm has evident Proto-Trans-Himalayan roots (DeLancey 2013c, d, e), the preverbal paradigm is clearly cognate across the branch, and both paradigms occur in some languages, we must reconstruct both to Proto-Kuki-Chin.

4.1 Paradigm Replacement

The entire branch has developed an innovative agreement system, with the possessive proclitics indexing subject (i.e. S/A). A comparison of the indices, which in many languages are proclitics rather than prefixes, across the subbranches is sufficient to show that the paradigms are fundamentally cognate and thus all date back to PKC (forms from Kongkham 2010, N. S. Singh 2006, Arden 2010, Reichle 1981, So-Hartmann 2009):

		1SG	1PL.EXC	1PL.INC	2SG	2PL	3SG	3PL
NWKC	Moyon	kə-	ken-	in-	nə-	nen-		
NEKC	Paite	kə-	kə- Σ -u	i-	nə-	nə- Σ -u	ə-	ə- Σ -u
Maraic	Mara	ei	ei-ma		na	na-ma	a-	a-ma
CKC	Bawm	ka-	ka-n-		na-	na-n-		
SC	Daai	kah	kah nih	nih	nah	nah nih	ah	ah nih

Table 9: Possessive/subject proclitics in Northwest, Northeast, Southern, Central and Maraic branches of Kuki-Chin

We can reconstruct two full paradigms for PKC, although the preverbal paradigm was certainly more fluid than implied by this table:

	inherited	innovative
1SG	Σ <i>in</i>	<i>ka-Σ</i>
2SG	Σ <i>te?</i>	<i>na-Σ</i>
3SG	--	<i>a-Σ</i>
1PE	Σ <i>u-η</i>	<i>ka-Σ u</i>
1PI	Σ <i>ha-η</i>	<i>i-Σ</i>
2PL	Σ <i>u te?</i>	<i>na-Σ u</i>
3PL	Σ <i>u</i>	<i>a-Σ u</i>

Table 10: Reconstructed postverbal and preverbal indices in Kuki-Chin

In Northeast KC the two paradigms mark distinct registers: the preverbal paradigm occurs in more formal or “narrative” speech, the postverbal represents colloquial register (Stern 1963, Henderson 1965, Sarangtem 2010). In Northwest KC languages they are usually in complementary distribution, often with the prefixes used on transitive verbs in affirmative clauses, and the agreement words in intransitive and all negative constructions. In Mara and the Central branch, the old paradigm has disappeared, and the new forms are used in all contexts, with one exception, a 2nd person index inherited from the old paradigm. In Mizo this is *cê*, cognate with Tedim *te?* in Table 8 and Mara *cha* and *chi* (Section 2.3):

S	O	1SG	2SG	3SG
	A			
<i>ka-Σ</i>	1SG		<i>ka-Σ <i>cê</i></i>	<i>ka-Σ</i>
<i>i-Σ</i>	2SG	<i>mi-Σ (<i>cê</i>)</i>		<i>i-Σ</i>
<i>a-Σ</i>	3SG	<i>mi-Σ</i>	<i>a-Σ <i>cê</i></i>	<i>a-Σ</i>

Table 11: Agreement indices with singular arguments in Mizo

Otherwise the two paradigms share no morphological material except the innovative Kuki-Chin plural *#u*.

4.2 Complexification: Extra Number Agreement

Kuki-Chin languages have several different plural constructions, including inherited *#m-* and several Kuki-Chin innovations: *-nV-* added to the person prefix and two different plural elements, *#u* and *#ei*, occurring following the verb. All seem to be of PKC provenance, but it is not clear which if any of them were part of the PKC paradigm. The *-nV-* was probably part of the original paradigm, but this is not yet certain. Postverbal *#ei*, is originally a plural word used with nouns; *#u* is a Kuki-Chin innovation of undetermined origin. Both follow the verb, but occur in some languages with the preverbal as well as the postverbal conjugation.

Many languages use more than one of these, together or in some kind of complementary distribution. In Mara we saw postverbal *ei* redundantly with 2nd and 3rd (but not 1st) person subjects, although plurality is also marked preverbally by *-ma ~ -mo* (Section 2.3). In Moyon (NW Kuki-Chin), which like other Northwest Kuki-Chin languages indexes plural subject with preverbal *-n*, postverbal *e < #ei* indexes plural objects (Kongkham 2010: 113-4):

(7) *ki lerik kə-pa-na*
 I book 1-read-ASP
 ‘I am reading a book.’

(8) *ki lerik-e kha kə-pa-na-e*
 I book-PL DEM 1-read-ASP-PL
 ‘I am reading those books.’

The Southern Chin languages have innovated a dual category in the preverbal conjugation. Compare number indexation in two closely related Southern KC languages:

	Hyow	Cho
1SG	<i>kV</i>	<i>ka</i>
1DU.EXC	<i>ki-hni</i>	<i>ka-ni</i>
1PL.EXC	<i>ki-ni</i>	<i>ka-mi</i>
1DU.INC	<i>ni-</i>	<i>ni</i>
1PL.INC		<i>mi</i>
2SG	<i>nV</i>	<i>na</i>
2DU	<i>hni-hni</i>	<i>na-ni</i>
2PL	<i>ni-ni</i>	<i>na-mi</i>

Table 12: Dual and plural preverbal forms in Southern Chin

Dual *hni* (<‘two’) is a Southern KC innovation. The Hyow plural *ni* reflects the plural marker in the original PKC prefixal paradigm, and Cho *mi* appears to have been substituted for it to avoid homophony with the new dual form.

Several other languages have unique plural and/or dual forms, always postverbal. Typically the plural is one of the forms which we have already seen, and the dual is new:

	DUAL	PLURAL
Thadou (NE KC)	<i>hlòn</i>	<i>ũ</i>
Hakha Lai (Central)	<i>hnaa</i>	
Cho (Southern)	<i>gawi</i>	<i>gui</i>
Daai Intr (Southern)	<i>xooi</i>	<i>e</i>
Daai Tr (Southern)	<i>ni</i>	<i>u</i>
Matu (Southern)	<i>hih</i>	<i>u</i>

Table 13: Innovative postverbal dual and plural forms

Overall we see a persistent tendency to innovate and strengthen the indexation of number.

4.3 More complexification: SAP Object Indexation

Most of the KC languages have also innovated some way of indexing 1st and 2nd person objects, either distinctly or as a single category. Bawm (Central) has double indexation, using the same indices. (The added object marker *-n-* in the 2O forms has possible cognates in some other languages; it is not clear how old this construction might be):

A	O	1SG	2SG	3SG/INTR
1SG			<i>ka-nan</i>	<i>ka</i>
2SG	<i>na-ka</i>			<i>na</i>
3SG	<i>a-ka</i>	<i>a-nan</i>		<i>a</i>

Table 14: Transitive agreement with singular arguments in Bawm

We see a similar strategy in Mara (Table 7), but with a special form, co-opted from the old agreement word paradigm, used for the 2O index.

Several languages have reanalyzed an original cislocative construction as an SAP object index. The form *hoŋ-*, originally a verb ‘come’, occurs in most of the branch as a cislocative prefix on motion verbs. In Sizang (NE KC) it is also an SAP object marker:

- (9) *naŋ-má: k-oŋ né: tû: hî:*
 I 1-CIS eat will FIN
 ‘I will eat you.’ (Stern 1984: 48)

- (10) *hoŋ sá:t thê:i lê*
 CIS beat ever INTERROGATIVE
 ‘Do [they] ever beat you?’ (Stern 1984: 52)

- (11) *hoŋ sá:t lé: ká-pe:ŋ táł dõŋ ká-ta:i tû:*
 CIS beat if 1-leg break until 1-flee FUTURE
 ‘If [they] beat me I’ll run till my legs break.’ (Stern 1984: 56)

- (12) *na-sí:a hoŋ ně:k sâk sǐ:a zia: sǐ:a hî:*
 2-tax CIS eat₂ APPL the.very that the.very be
 ‘That’s the very one that ate your tax.’ (Stern 1984: 49)

The distribution of *(h)on-* in the transitive paradigm is:

	O	1SG	2SG	3SG/INTR
A				
1SG			<i>k-on</i>	<i>ka</i>
2SG	<i>n-on</i>			<i>na</i>
3SG	<i>hon-</i>			<i>a</i>

Table 15: Transitive agreement indices with singular arguments in Sizang

For one more example of innovative SAP object indexation, consider the paradigm of Hyow (Southern KC; Peterson 2003):

	O	1SG	2SG	3SG/INTR
A				
1SG			<i>ki-ni</i>	<i>kV-</i>
2SG		<i>(khrɔŋ-)nV-</i> <i>(khrɔŋ-)ni-</i>		<i>nV-</i>
3SG	<i>?V- / khrɔŋ-</i>		<i>ni-</i>	--

Table 16: Agreement indices with singular arguments in Hyow

Hyow shows incipient hierarchical patterning in the use of 2nd person *ni-* in the 3→2 form, and the double indexation in 1→2. The source of 1O *khrɔŋ-* is undetermined; analogy with similar developments in other languages suggests that it might have originated as some kind of impersonal construction. The point relevant to this paper is simply that it is there, that is, that Hyow has, independently of any of its cousins, innovated a new 1O marker of its own.

4.4 Summary: Simplification and Complexification in Kuki-Chin

If we look only at the innovative preverbal paradigm, we see a consistent pattern across the branch. We can reconstruct a PKC paradigm which distinguished singular and plural and inclusive/exclusive, and probably indexed only subject (i.e. S and A) arguments. Since the divergence of PKC, most of the daughter languages have abandoned the inclusive/exclusive distinction, but otherwise have elaborated this paradigm, adding dual forms, extra plural marking, and, most interestingly, a wide range of strategies for indexing SAP objects in addition to basic subject indexation.

If we compare the other branches with the NW and NE languages which preserve the original agreement word paradigm, we see drastic loss – what is a full paradigm in the northern languages is gone in Central and Maraic, leaving only one or two relict forms which have been incorporated into the new paradigm. Thus superficially we see what looks like a snapshot of a cyclic pattern, with old complexity abandoned and new complexity arising in its place. In fact, however, the story cannot be quite so simple. Since we must reconstruct both paradigms for PKC, and the older paradigm remains vibrant and productive in some modern subbranches, the actual story must be that the loss of the old paradigm and the elaboration of the new occurred over the same span of time. That is, the history of KC indexation morphology is not really cyclic, in that there was never a non-complex stage in the cycle. Instead the languages seem to have

maintained a general level of complexity over time. Rather than a picture of loss and reconstitution, we have a history of complexity gradually reassigned from the older paradigm to the newer.

5. Conclusions

TH languages show strikingly different morphosyntactic profiles. One domain where we see dramatic variation is in systems of argument indexation in the verb, which range from nothing to extremely complex paradigms. I have argued elsewhere that extreme decomplexification can often be attributed to intense language contact. In this paper I have shown examples of both stable complexity which has been conserved since the proto-language, and innovative complexity which has developed in a relatively short time. Both patterns are geographically restricted, occurring only in branches spoken in isolated mountain situations.

While the loss of complexity in TH seems to be generally, probably always, associated with contact involving bilingualism, neither maintenance nor innovation of complexity seem to be related to contact. Conservative branches such as rGyalrongic and Kiranti are not in contact with one another; in fact both are surrounded by Sinitic and Tibetic languages with no argument indexation at all. The innovation of complexity in Kuki-Chin certainly cannot have been inspired by contact with any other language, as none of the neighbors of KC have anything of the sort.

Thus we can conclude that, under at least some conditions, this kind of complexity can be stable over extended periods. Moreover, the Kuki-Chin case suggests that there may be positive tendencies toward complexity which in the history of KC have countered competing tendencies toward decomplexification.

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