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Bulletin of the School of Oriental and African Studies, University of London, Volume 56, Issue 2 (1993), 292-334.

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Bulletin of the School of Oriental and African Studies, University of London
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Wed Feb 12 10:32:02 2003

THE PROTO-TIBETO-BURMAN VERBAL AGREEMENT SYSTEM[1]

By GEORGE VAN DRIEM
Rijksuniversiteit te Leiden

1. *Introduction*

Since the appearance of Stuart N. Wolfenden's monumental *Outlines of Tibeto-Burman linguistic morphology* in 1929, attention has increasingly focused not only on derivational processes in Tibeto-Burman, but also on the flexional morphology of conjugations and declensions. The first systematic comparison of Tibeto-Burman conjugational and pronominal morphology was James John Bauman's elaborate *Pronouns and pronominal morphology in Tibeto-Burman* in 1975. Bauman put to rest any lingering doubts that the conjugations of Tibeto-Burman languages could be attributed to an Austro-Asiatic substrate, and he adduced a vast body of data demonstrating the nativeness and antiquity of conjugational morphology in Tibeto-Burman. Verbal agreement in Tibeto-Burman has traditionally been known by Hodgson's term ' pronominalization ', based on the assumption that conjugational affixes ultimately derive from ancient independent pronouns. Bauman demonstrated that the conjugational systems of Tibeto-Burman languages, and therefore any ancient pronominal system they may reflect, are more conservative than the independent pronominal systems attested in individual languages. Based on a comparison of these conjugations, Bauman (1975: 195, 237, 247) proposed the prototypical Tibeto-Burman agreement system shown in tables 1 and 2.

Table 1: *Prototype of the intransitive verbal agreement system* (Bauman 1975)

1s.	*-ŋa*	1d./2d.	*-si*
2s.	*-na*	1pl./2pl.	*-i*

In a series of articles, I have developed a model of the Proto-Kiranti verb based on a comparison of morphemically analysed verbal agreement systems of individual Kiranti languages (van Driem 1990a, 1992, 1991b). The present study aims to assess the historical status of conjugations observed in Kiranti languages in the broader Tibeto-Burman context by investigating the conjugations of Tibeto-Burman languages beyond the Kirant.

[1] Abbreviations used in this article are:

1	first person	A	agent
2	second person	S	subjet
3	third person	P	patient
s.	singular	→, ↔	indicate the direction of
d.	dual		a transitive relationship
pl.	plural		
ns.	non-singular		
i.	inclusive	PT	preterite
e.	exclusive	NPT	non-preterite
pf.	prefixal slot	REF	reflexive
sf.	suffixal slot	AUX	auxiliary
Σ	verb stem		

The conventional linguistic system of transliteration of Russian has been used in this paper.

Table 2: *Prototype of the transitive verbal agreement system with singular patient* (Bauman 1975)

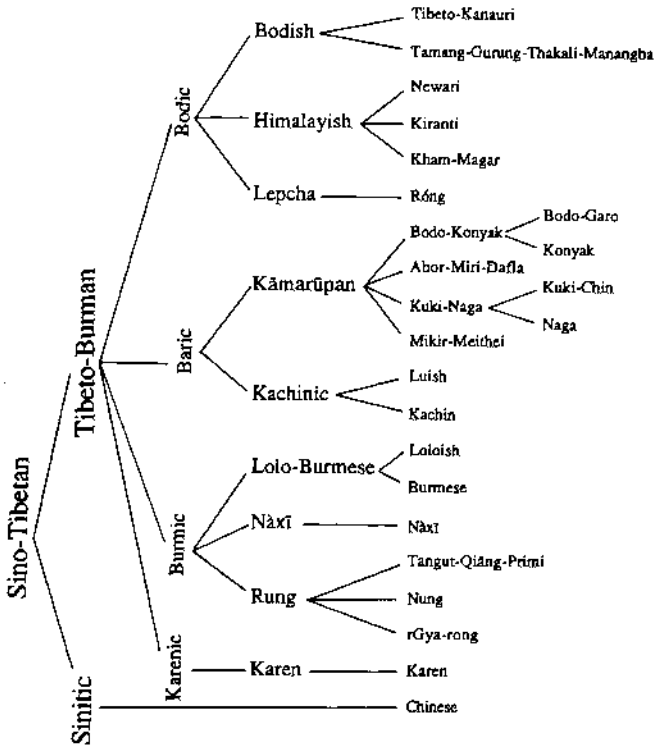
		patient 1s.	2s.	3s.
	1s.		*-na*	*-ŋa*
	1d.		*-naši*	*-ši*
a	1pl.		*-nai*	*-i*
g	2s.	*-ŋa*		*-na*
e	2d.	*-ŋaši*		*-ši*
n	2pl.	*-ŋani*		*-ni*
t	3s.	*-ŋa*	*-na*	*-u*
	3d.	*-ŋaši*	*-naši*	*-ši*
	3pl.	*-ŋai*	*-nani*	*-mi*

A number of verbal agreement systems under comparison belong to Xīfān languages.[2] Xīfān is a Chinese term meaning ' Western Barbarian ', traditionally used to denote the Qiāng, Primi, Tangut and occasionally also the Nung languages. It has often been pointed out that the Xīfān languages constitute a genetic grouping within Tibeto-Burman or that various languages traditionally known as Xīfān languages appear to be genetically close (e.g., Sūn, 1962: 561, 1991; Lù, 1980: 58). Recently Thurgood (1984) has included rGya-roñ and introduced the name ' Rung ' to cover the traditional Xīfān languages augmented by rGya-roñ.

The conjugations of the Xīfān languages rGya-roñ, Tangut, Rǎwang, Nùsū, Trung, Qiāng and Primi and the conjugations of Jinghpaw, Nocte, Lakher and Kham will be morphemically analysed and compared with the reconstructed Proto-Kiranti verbal agreement system. As in the previous comparisons of Kiranti conjugations, the order of morphemes in the affixal string of inflected Tibeto-Burman verb forms is not taken to be haphazard but to reflect an ancient element order in the proto-language. On the basis of systematic comparison of the agreement morphemes and their relative position in the verb, a model of the Proto-Tibeto-Burman verbal agreement system is here proposed which vindicates the prototypes developed by Bauman in his great pioneering work and establishes a framework, different from Bauman's, for the further study of the evolution of conjugational processes in

[2] I thank Jeroen Maarten Wiedenhof for making Chinese sources accessible to me.

Table 3: *The Sino-Tibetan language family*



Tibeto-Burman. It should also be noted that Bauman's reconstruction is to some extent based on different languages than those which form the basis of the present comparison.

It would be quite facile to argue that morphological comparison on such a grand scale is premature as long as regular sound correspondences have not been established for the languages under comparison. The state of the art in Sino-Tibetan linguistics, in fact, to use the words of James Matisoff (1991), is simply that 'we still do not know the sound laws or *Lautgesetze* of these various languages', and we know from Indo-European that the conjugational desinences of Russian, Sardinian and Nepali could be productively compared even if not enough were yet known about the historical phonology to establish, for example, the cognacy of *zn* in Russian *znat'* 'to know', the *j* of Nepali *jānnu* 'to know' and the *nn* of Sardinian *connoschere* 'to know'. When the historical phonology of Sino-Tibetan is better understood, affixes presumed to be cognate in this study may be demonstrated to derive from different elements, and likewise, affixes may prove to be cognate which are not treated as such in this comparison. In this way, the model advanced here provides a testable theory and a constellation of carefully motivated conjectures, which future research in Tibeto-Burman phonological diachrony may corroborate, revise or disprove.

Although the notion of slots in the context of the Tibeto-Burman verb has been elaborated in the previous articles in this series (van Driem 1990a, 1992, 1991b), it seems opportune here to clarify in what way slots are relevant to diachrony. Slots are functional positions in the affixal string of a verb, each

of which can be occupied by a definable set of morphemes. As a synchronic descriptive device slots are language-specific and analysis-dependent; they represent the non-random sequential order of morphemes in conjugated verb forms. There appears to be a general tendency for semantically related morphemes to occupy the same slot. The function of a slot in any given language is determined by how proto-morphemes have come to be re-analysed and ordered in that language. That is, the morphemes sharing a given position in a string define the function of that position, not the other way around. Therefore, slots are not compared in order to reconstruct ' proto-slots '. Rather, the use of slots as a synchronic descriptive device facilitates systematic comparison of the relative positions of cognate verbal morphemes. The sequential arrangement of such affixes reflects an older element order in the proto-language. Obviously, if proto-morphemes occupied fixed positions with respect to each other and the verb stem, such positions could be called ' proto-slots ', yet this term could be misleading inasmuch as it might be taken to suggest entities in the proto-language reconstructible on the basis of slots in attested languages.

2. *rGya-roñ*

rGya-roñ is a Xīfān language spoken in western Sìchuān and neighbouring portions of Tibet. Jīn Péng (1957, 1958) wrote a phonology and morphology of the rGya-roñ dialect of Suōmò,[1] and Nagano (1984) provided a description of the lCog-rtse dialect. Tables 4 to 6 have been distilled from the material published by these authors. Tables 4 to 5 show the conjugational affixes of the verb in the Suōmò and lCog-rtse dialects respectively, and table 6 shows how the verbal agreement indices of the Suōmò dialect correspond to those of the lCog-rtse dialect.

Table 4: *The affixes of the rGya-roñ transitive paradigm, Suōmò dialect*

		patient						
		1s.	1d.	1pl.	2s.	2d.	2pl.	3
	1s.				*ta-*	*ta-*	*ta-*	*-ŋ*
a	1d.				*-n*	*-ntʃ'*	*-ɲ*	*-tʃ'*
g	1pl.							*-i*
e	2s.	*kəu-*	*kəu-*	*kəu-*				*tə- -u*
n	2d.	*-ŋ*	*-tʃ'*	*-i*				*tə- -ntʃ'*
t	2pl.							*tə- -ɲ*
	3s.	*wu-*	*wu-*	*wu-*	*təu-*	*təu-*	*təu-*	*-u*
	3ns.	*-ŋ*	*-tʃ'*	*-i*	*-n*	*-ntʃ'*	*-ɲ*	*wu-*

[1] The symbol *ɲ*, used in Chinese sources (Jīn Péng, 1957, 1958; Sūn, 1981) to represent a palatal nasal, is replaced in this article by the corresponding International Phonetic Alphabet symbol [ɲ].

Table 5: *The Affixes of the rGya-roñ intransitive paradigm, Suōmò dialect*

1s.	*∑-ŋ*
1d.	*∑-tʃ'*
1pl.	*∑-i*
2s.	*tə-∑-n*
2d.	*tə-∑-ntʃ'*
2pl.	*tə-∑-ɲ*
3s.	*∑*
3d.	*kə-∑*
3pl.	*kə-∑*

Table 6

	Suōmò dialect	*lCog-rtse dialect*
1 → 2s.	*ta-∑-n*	*ta-∑-n*
1 → 2d.	*ta-∑-ntʃ'*	*ta-∑-Nch*
1 → 2pl.	*ta-∑-ɲ*	*ta-∑-ny*
1s. → 3	*∑-ŋ*	*∑-ng*
1d. → 3	*∑-tʃ'*	*∑-ch*
1pl. → 3	*∑-i*	*∑-y*
2 → 1s.	*kəu-∑-ŋ*	*kəw-∑-ng*
2 → 1d.	*kəu-∑-tʃ'*	*kəw-∑-ch*
2 → 1pl.	*kəu-∑-i*	*kəw-∑-y*
2s. → 3	*tə-∑-u*	*tə-∑-u(w)/-n*
2d. → 3	*tə-∑-ntʃ'*	*tə-∑-Nch*
2pl. → 3	*tə-∑-ɲ*	*tə-∑-ny*
3 → 1s.	*wu-∑-ŋ*	*wu-∑-ng*
3 → 1d.	*wu-∑-tʃ'*	*wu-∑-ch*
3 → 1pl.	*wu-∑-i*	*wu-∑-y*
3 → 2s.	*təu-∑-n*	*təw-∑-n*
3 → 2d.	*təu-∑-ntʃ'*	*təw-∑-Nch*
3 → 2pl.	*təu-∑-ɲ*	*təw-∑-ny*
3s. → 3	*∑-u*	*∑-w*
3ns. → 3	*wu-∑*	*wu-∑*

The rGya-roñ verbal agreement indices in relation to the functional positions or slots in the affixal string of a rGya-roñ verb are set out in tables 7 and 8. Both tables are based on the morphemic analysis of the Suōmò and the lCog-rtse conjugations which I have provided elsewhere (van Driem, 1992).

Table 7: *rGya-roñ person and number morphemes, Suōmò dialect*

pf.1	pf.2	sf.1	sf.2
person or scenario marker	agent marker	person or *portemanteau* morpheme	number marker
<*ta-*>	<*wu-*>	<*-ŋ*>	<*-tʃ'*>
1 → 2	3A	1s.	d.
<*kəu-*>		<*-n*>	<*-i*>
2 → 1		2	pl.
<*tə-*>		<*-u*>	
2		2s./3s. → 3	
<*kə-*>		<*-ɲ*>	
3ns.S		2pl.	

Table 8: *rGya-roń person and number morphemes, lCog-rtse dialect*

pf.1	pf.2	sf.1	sf.2
scenario marker	agent marker	person or *portemanteau* morpheme	number marker
<*ta-*> 1 → 2	<*wu-*> 3A	<*-ng*> 1s.	<*-ch*> d.
<*kəw-*> 2 → 1		<*-n*> 2	<*-y*> pl.
<*tə-*> 2 ↔ 3		<*-w*> 2s./3s. → 3	

3. *Tangut*

Tangut is the extinct Tibeto-Burman language of the Buddhist kingdom of Xīxià which was destroyed in 1227 by the Mongol warlord Genghis Ḳhan (*c.* 1162–1227). The Tangut kingdom was located in portions of what today is Inner Mongolia and in vast regions of the modern Chinese provinces of Gānsù, Shǎnxī and Níngxià. The morphology of the Tangut language first become understood with the appearance in 1985 of Keping's prodigious work *Tangutskaja morfologija.*

Table 9: *Tangut verbal agreement suffixes* (van Driem 1991c)



ŋa[2] first singular

na[2] second singular

ni[2] first or second plural

Table 10: *Tangut transitive verbal paradigm* (van Driem 1991c)

		patient		
		1	2	3
a	1s.		*-na*[2]	*-ŋa*[2]
g	1pl.			*-ni*[2]
e	2s.			*-na*[2]
n	2pl.	*-ŋa*[2]		*-ni*[2]
t	3s.		*-na*[2]	—
	3pl.			

The Tangut transitive verb shows agreement with a single actant. This actant is the patient unless the patient is marked by zero. An intransitive verb agrees with its subject. Third person involvement is marked by zero in the Tangut verb.

Although views have been aired to the effect that Tangut verbal agreement is a local innovation, no cogent arguments have yet been presented against the antiquity of the Tangut conjugation (cf. van Driem, 1991c, *pace* Benedict, 1991: 138).

4. *Răwang*

The Nung in Burma are a Tibeto-Burman tribe, known as Răwang, estimated in 1921 to have numbered about 8,000 people living in the Nmai (Burmese: *Me Hkà*) river valley between 27°30'N and 26°40'N, to the west of the Gāolígōng range. Nung is reported by Barnard to have four tones, left unmarked in his orthography. Barnard uses the symbol *è* to denote the ' open sound as *ai* in fair ', as opposed to *e*, which he uses to represent the ' short sound of *e* as in ten '. Finally, the digraph *aw* has the value ' of *aw* as in law ', and other symbols have the values one might expect (cf. Barnard, 1934: 1–2).

In his study of the Răwang verb, Barnard (1934: 25–32) provides the present, past imperfect, future imperfect, potential mood and exhortative conjugations of the transitive verb <*zí*> ' to give '. Each of these paradigms, when stripped of mood and tense affixes, contains the person and number agreement affixes shown in table 11.

Table 11: *Person and number agreement affixes of the Răwang transitive paradigm*

		patient				
		1s.	1pl.	2s.	2pl.	3
agent	1s.			Σ-*ng*	Σ-*ning*	Σ-*ng-u*
	1d.			Σ-*shi*		Σ-*saw*
	1pl.			Σ-*i*		Σ-*i*
	2s.	*è*-Σ-*ng-a*				*è*-Σ-*u*
	2d.					*è*-Σ-*saw*
	2pl.		*è*-Σ-*sha*			*è*-Σ-*ning*
	3	*è*-Σ-*ng*	*è*-Σ-*i*	*è*-Σ	*è*-Σ-*ning*	Σ-*u*

On the basis of the paradigm of the verb <*di*> ' to go ' and Barnard's (1934: 15–21) many example sentences incorporating inflected forms of intransitive verbs, the endings of the Răwang intransitive conjugation can be deduced to be as follows:

Table 12: *Răwang intransitive paradigm*

1s.	Σ-*ng*
1d.	Σ-*shi*
1pl.	Σ-*i*
2s.	*è*-Σ
2d.	*è*-Σ-*shi*
2pl.	*è*-Σ-*ning*
3	—

Note that the verb <*ngut(n)*> ' to be able to ' in Barnard's examples invariably conjugates as a transitive verb. When the verbal complement of <*ngut(n)*> ' to be able to ' is an intransitive verb, <*ngut(n)*> conjugates as if there were a third person patient.

A morphemic analysis of the Răwang conjugational affixes yields nine distinct morphemes. The prefix <*è-*> is the marked scenario prefix, identical in distribution to the Dumi marked scenario prefix <*a-*>. LaPolla (1989: 5) provides a well formulated and apt characterization of this prefix as occurring ' only and in every case where a speech act participant [i.e. first or second person actant] is involved . . . , but the speaker [i.e. first person actant] is *not* the agent [or subject] '.

The Răwang verbal suffix <*-ng*> marks first singular actant, the suffix <*-ning*> marks second plural actant, and the suffix <*-i*> marks first plural actant. These three suffixes occur in all forms which distinguish said actants. The suffix <*-saw*> is a *portemanteau* morpheme marking a transitive relationship between a dual agent and a third person patient. The Răwang verbal suffix <*-shi*> marks dual actant in forms distinguishing dual actant except where dual actant is indicated by the d. → 3 suffix <*-saw*>.

The suffix <*-u*> marks third person patient. The Răwang third patient morpheme <*-u*> does not occur in 2pl. → 3 forms, which are unmarked as to the direction of the transitive relationship, or in 1pl. → 2/3 forms which are unmarked for person of patient. Nor does the third person patient suffix <*-u*> occur in 1d. → 3 and 2d. → 3 forms where the d. → 3 *portemanteau* morpheme <*-saw*> marks the involvement of a third person patient. Historically, the d. → 3 morpheme <*-saw*> appears to be the result of the fusion of an earlier dual morpheme *<*-s*> and the third person patient morpheme preserved in modern Răwang <*-u*>.

The Răwang verbal suffix <*-a*> marks second singular actant and occurs only in 2s. → 1s. forms which would otherwise be homophonous to 3 → 1s. forms. The 2 → 1 *portemanteau* morpheme <*-sha*> indexes the transitive relationship between a second person agent and a first person patient.

Table 13: *Răwang verbal affixes and slots*

pf.1	<*è-*>	marked scenario
sf.1	<*-ng*>	1s.
	<*-i*>	1pl.
	<*-ning*>	2pl.
	<*-saw*>	d. → 3
	<*-shi*>	d.
sf.2	<*-u*>	3P
	<*-a*>	2s.

5. *Nùsū*

The Nung living in China are called Nùsū by the Chinese and speak several related but distinct languages. The Nùsū live to the east, i.e. on the Chinese side, of the Gāolígòng range along the upper course of the Salween and the Mekong. A group of ethnic Nùsū is reported as far north as Càiyú. Ethnic Nùsū in Fúgòng District speak a language which the speakers call *Anuŋ*, with the tone contours 3–1 and 5–5 on the first and second syllable respectively. Ethnic Nùsū of Lúshuǐ and Lánping Districts speak a language which the speakers call *Zauzou*, with the tone contours 5–5 and 3–3 on the first and second syllable respectively.

The ethnic Nùsū of Bìjiāng District call themselves *Nu*^{3}*su*^{3}, and 8,000 of these ethnic Nùsū actually speak the language. There is a northern, a central and a southern dialect. The study by Sūn and Liú (1986) is based on the central dialect as spoken in the village of Zhīzhīluó in Bìjiāng District of the Nùjiāng Lìsù Autonomous Prefecture in Yúnnán. Central Nùsū has four distinctive tones with the contours 5–3 (marked in this article as Nùsū tone 1), contour 4–4 (tone 2), contour 2–4 (tone 3) and contour 2–1 (tone 4). A description of Nùsū allotones is to be found in Sūn and Liú (1986: 11).

In Nùsū, there is a suffix <-*tɕi*^{4}> which marks non-singular number of a verbal actant (Sūn and Liú 1986: 52–55). There is also a reciprocal suffix <-*tɕi*^{4}> reported in Nùsū (Sūn and Liú 1986: 57).

6. *Trung*

The Trung (Chinese: *Dúlóng*) live to the west of Gāolígòng range in the north-western corner of Yúnnán province, in the Salween (Chinese: *Nù Jiāng*) and Mekong (Chinese: *Láncāng Jiāng*) river valleys within the Dúlóng-Nù Gòngshān Autonomous District of the Nùjiāng Lìsù Autonomous Prefecture. The Trung speaking area extends up as far as Càiyú (called *dza*^{2}*i*^{1} in Trung) in the north and into Burma's Kachin State. In 1977, there were slightly more than 3,700 speakers of Trung in China. Bilingualism is reported to be widespread amongst the Trung, many Trung speaking Chinese or either of the languages of the neighbouring Lisu or Nù. The Trung call themselves *tuɹ*^{2}*nuŋ*^{3}.

The conjugational affixes of the Trung verb are given in the table below on the basis of Sūn (1979, 1983). In this article, superscript 1 indicates Trung high level tone, superscript 2 indicates low falling tone, and superscript 3 marks a high falling tone. The Trung data are based on the dialect of the village Lónglā of the Dúlónghé People's Commune.

Sūn (1979) describes the affixes of the Trung intransitive conjugation. Third person actant and third person number are unmarked in the Trung intransitive conjugation. The ending of first singular forms is <-*ŋ*^{1}>. In verbs with closed stems, the ending <-*ŋ*^{1}> fuses with the final plosive to give the corresponding homorganic nasal followed by a glottal stop. The first singular suffix <-*ŋ*^{1}> has a zero allomorph after open stems containing a diphthong. This zero allomorph shortens the preceding diphthong. Second person is indicated by the prefix <*nɯ*^{2}-> which has an allomorph <*na*^{1}-> before a polysyllabic verb stem. The first dual exclusive and the second dual are marked by the dual ending <-*ɕɯ*^{2}> in intransitive forms (Sūn 1979: 296–7), whereas, on the basis of example sentences, it appears that the first dual inclusive takes the ending <-*ɕiŋ*^{2}> (Sūn 1983: 18). First plural actant is marked by the suffix <-*i*> which has a zero allomorph after open stems ending in /i/. Second plural actant is marked by the suffix <-*n*> which, like the first singular suffix <-*ŋ*^{1}>, fuses with the final plosive of closed verb stems to give the corresponding homorganic nasal followed by a glottal stop.

Table 14: *Person and number agreement affixes of the Trung transitive paradigm*

		patient						
		1s.	1d.	1pl.	2s.	2d.	2pl.	3
agent	1s.				Σ-*ŋ*			
	1d.				?			Σ-*ɕɯ²ŋ*
	1pl.				?			Σ-*i*
	2s.							*nɯ²*-Σ
	2d.	*nɯ²*-	*nɯ²*-	*nɯ²*-				*nɯ²*-Σ-*ɕɯ²*
	2pl.	Σ-*ŋ*	Σ-*ɕɯ²*	Σ-*i*				*nɯ²*-Σ-*n*
	3				*nɯ²*-Σ	*nɯ²*-Σ-*ɕɯ²*	*nɯ²*-Σ-*n*	Σ

The affixes of the Trung transitive paradigm listed in table 14 are based on Sūn (1983). When the Trung transitive affixes are compared with those of the Trung intransitive conjugation, it appears that the prefix <*nɯ²*-> is a marked scenario prefix as defined above. At our present state of knowledge, however, I would not yet venture to contend that the Trung <*nɯ²*->, Răwang <*è*-> and Dumi <*a*-> prefixes are necessarily cognate. Khaling, a Kiranti language spoken by approximately 12,000 people in Solu Khumbu and Khoṭāṅ districts in eastern Nepal's Sagarmāthā zone, is probably the most closely related language to Dumi within the Kiranti branch of Tibeto-Burman, and the Khaling prefix <*i*->, although evidently cognate to the Dumi marked scenario morpheme <*a*->,[4] marks 2 → 1, 3 → 1 and 3 → 2 transitive scenarios but not 2 → 3 transitive scenarios (Toba, 1989: 204).

This difference in function in two so closely related languages supports the idea that the Dumi scenario marker and similar affixes elsewhere could be the result of the re-analysis of person morphemes in keeping with a tendency to dichotomize the transitive paradigm into two sets of transitive scenarios like *direct*, *tárgyas* or *centrifugal* versus *inverse*, *tárgyatlan* or *centripetal* scenarios (van Driem, 1992), whether this be a classic *direct* versus *inverse* dichotomy as observed by Hockett (1966: 65) in the Algonquian language Potawatomi or the type of dichotomy observed in Dumi, Răwang and Trung whereby scenarios involving a first or second person actant, but *not* a first person agent or subject, are distinguished from all other scenarios.

The agreement affixes of the Trung verb are given in table 15, and Trung personal pronouns are listed in table 16. The example sentences provided by Sūn (1983) do not reveal whether there are distinct 1d. → 2 or 1p. → 2 forms in Trung, nor does there appear to be distinct inclusive plural and exclusive plural forms in the Trung conjugation. It is unclear whether the first person dual pronoun *ɪŋ¹ne¹* listed by Sūn (1979: 296) is an inclusive or an exclusive

[4] Alternation between initial /a/ and /i/ is attested in pronouns and, to some extent, in verbal agreement prefixes in Kiranti languages.

form, although, judging from the first plural pronouns provided, *ĭŋ¹ne¹* would appear to be an exclusive pronoun. If there exists a separate dual inclusive pronoun **ɹaŋ¹ne¹* it is not listed.

Table 15: *Trung verbal affixes and slots*

pf.1.	<*nɯ²-* ~ *na¹->*	marked scenario
sf.1	<*-ŋ*>	1s.AS
	<*-ɕiŋ²*>	1d.i.
	<*-i*>	1pl.
	<*-n*>	2pl.
	<*-ɕɯ²*>	d.

Table 16: *Trung personal pronouns*

1s.	*ŋa³*	2s.	*na³*	3s.	*ăŋ³*
1d.	*ĭŋ¹ ne¹*	2d.	*nɯ¹ ne¹*	3d.	*āŋ¹ ne¹*
1pl.i.	*ɹaŋ¹*	2pl.	*nɯ¹ nīŋ¹*	3pl.	*āŋ¹ nīŋ¹*
1pl.e.	*ĭŋ¹*				

As pointed out elsewhere (van Driem, 1991c), the semantics of the syntactic role of patient in Tibeto-Burman requires a closer look. The following example sentences provided by Sūn (1983: 20) show that the grammatical patient in Trung is semantically similar to the patient category observed in Tangut (van Driem, 1991c). English utterances like ' Don't fall asleep on me! ' or ' He walked out on me ' are semantically comparable.

(1) *Tɕăm¹ɹa² ɹɯ²na³.*
' The child is resting.'

(2) *ŋa³ tɕām¹ɹa² na¹ɹɯ²naŋ³.*
' My child is resting [on me].' (3 → 1s.)

(3) *Na³ tɕām¹ɹa² na¹ɹɯ ²na³.*
' Your child is resting [on you].' (3 → 2s.)

(4) *ĭk³ tɕām¹ɹa² na¹ɹɯ²nai³.*
' Our child is resting [on us].' (3 → 1pl.)

7. *Qiāng*

The Qiāng languages are spoken by approximately 103,000 people in north-central Sìchuān, north-west of Chéngdū, wedged between Tibetan speaking territory to the west and the Chinese speaking territory to the east. Historically the Qiāng have had intercourse with the Chinese since the second millennium B.C. and are mentioned as early as in Shāng dynasty oracle-bone incriptions by a pictogram representing a shepherd with sheep.

The Qiāng are enumerated amongst the five barbarian nations who overran China in the fourth century A.D. The ancient Qiāng homeland before this period was said to have lain in present-day Gānsù and Qīnghǎi. The Qiāng were later driven off in a westward direction and dispersed during the restoration under the Suí (A.D. 581–618) and Táng (A.D. 618–907) dynasties. The modern Qiāng descend from that branch of the original Qiāng nation which, during its westward migration, settled along the upper course of the Mín Jiāng in present-day Sìchuān province.

Qiāng is represented by two mutually unintelligible languages, each comprising several dialects. The dialect spoken of the village of Máwō is taken as the representative of Northern Qiāng, and the dialect of Táopíng is taken as the representative of Southern Qiāng. The Qiāng of Táopíng call their language *zɟ²mə¹* in their own tongue (Sūn, 1981: 95), but they call themselves *xma⁵*, *ma⁵*, *ʐme⁵* or *rma* in their various dialects (Sūn, 1962: 561). The Táopíng dialect is a tone language with six distinctive tones, and the Máwō dialect lacks distinctive tone.

The six tones of the Táopíng dialect have the contours 5–5, 3–1, 5–1, 1–3, 3–3 and 2–4–1 (Sūn, 1981: 20). In this article, the Táopíng tones are indicated by superscripts numbered from one to six in the order given. The personal pronouns of the Táopíng dialect are *ŋa¹* 'I', *tʃuŋ⁴tʃɟ⁵* 'we' (dual inclusive), *tsuə²thya¹* 'we' (plural inclusive), *qaŋ⁴tʃɟ⁵* 'we' (dual exclusive) *qa²thya¹* 'we' (plural exclusive), *no¹* 'you' (singular), *kuəŋ⁴tʃɟ⁵* 'you' (dual), *kuə²thya¹* 'you' (plural), *tsa¹lə¹* 'he, she' (proximal), *tha¹lə¹* 'he, she' (remote), than¹*tʃɟ¹* 'they' (dual), *tha¹xua¹* 'they' (plural). The singular third person pronouns *tsa¹lə¹* 'he, she' (proximal) and *tha¹lə¹* 'he, she' (remote) consist of a demonstrative pronoun and the human quantifier suffix *lə¹*. The first singular pronoun *ŋa¹* 'I' has a distinct oblique form *qa¹* 'me' (*cāsus oblīquus*) and a possessive form *qa¹qo¹* 'my', and the second singular pronoun *no¹* 'you' has an oblique form *kuə¹* 'you' and possessive form *ko¹* 'your' (Sūn, 1981: 77–8).

On the basis of the paradigm tables provided by Sūn (1981: 99–102, 123), the verbal agreement suffixes of the Táopíng dialect of Qiāng can be given as in table 17. It is evident from example sentences containing transitive finites with a first or second person patient (Sūn 1981: 79, 82, 127, 142, 150, 153) that in the Táopíng dialect intransitive verbs show agreement with the subject, and transitive verbs agree with the agent only. These person and number agreement endings are a set of suffixes quite distinct from the rich inventory of directional prefixes found in Qiāng verbs (Sūn, 1962: 566–7).

Table 17: *Endings of the Qiāng verb Táopíng dialect*

	future	*present*	*preterite*
1s.	$\sum a^{6}$	$\sum a^{2}$	$\sum^{6} sa^{2}$
1pl.	$\sum u^{6} ə ɹ^{2}$	$\sum^{2} ə ɹ^{2}$	$\sum^{6} sɹ^{2}$
2s.	$\sum u^{6} nə^{2}$	$\sum^{2} nə^{2}$	$\sum^{6} so^{2}$
2pl.	$\sum u^{6} sɟ^{2} nə^{2}$	$\sum^{2} sɟ^{2} nə^{2}$	$\sum^{6} sɟ^{2} nə^{2}$
3	$\sum u^{6}$	$\sum^{2}$	$\sum^{6} t^{2}$

Sūn does not list separate dual endings in his paradigm tables, but on the basis of example sentences he provides with dual actant, it becomes clear that the first plural endings in the above table are actually first dual *and* plural *exclusive* endings, and that first dual and plural *inclusive* actants are indexed by the verbal agreement suffix <-*ʂɟ²*> (Sūn, 1962: 566; 1981: 77, 86, 104, 168). Second dual actant appears to be indexed by the suffix <-*tsɟ¹*> (Sūn, 1981: 117), and a third dual actant is marked simply as a third person actant (Sūn, 1981: 86).

The Southern Qiāng agreement affixes, shown in table 17, affect the tone of the verb stem. Although Sūn does not treat this topic exhaustively, he does provide paradigms for open stem verbs carrying tones 1, 2, 5 and 6 (Sūn, 1962; 565; 1981: 99–102, 123) on the basis of which we may deduce that the tone of the stem becomes low falling (tone 2) in the present tense. Verb stems

with mid level tone (tone 5) or circumflex tone (tone 6) have dipping tone (tone 6) in the preterite and future tenses, as shown in the table of endings. However, stems with high level tone (tone 1) become high falling (tone 3) in the future tense and low falling (tone 2) in third person preterite forms but retain high level tone (tone 1) in other preterite forms. Stems with low falling tone (tone 2) become low rising (tone 4) in the future tense and in third person preterite forms and mid level (tone 5) in other preterite forms.

Recapitulating, the preterite suffix <-s^2 ~ Ø^2> causes the verb to adopt the low falling tone (tone 2). The preterite morpheme has a zero allomorph before the second plural suffix <-$sɟ^2nə^2$>, and the preterite morpheme does not occur in third person forms, in which preterite tense is expressed by the third person preterite *portemanteau* <-i^2>. Future tense is indexed by the future tense marker <-u^6 ~ Ø>, which has a zero allomorph before the first singular suffix <-a^6>. The future tense suffix causes the verb to adopt the circumflex tone (tone 6) or high falling tone (tone 3), unless the inherent tone of the stem is falling (tones 2 or 3), in which case the stem adopts a rising tone (tone 4). Both the preterite suffix <-s^6 ~ Ø^2> and the future tense marker <-u^6 ~ Ø> occupy the first suffixal slot in a Táopíng Qiāng verb form. The very fact that the flexional indices affixed to the verb change the tone of the verb stem itself in regular ways suggests that these affixal processes antedate tonogenesis in the language. Segmental features of these endings were lost or modified and left traces as paradigmatic tonal alternation of the verb stem.

The second suffixal slot in the Táopíng Qiāng verb can be occupied by any of the seven person and number agreement suffixes. In the Táopíng dialect of Qiāng, an intransitive verb agrees with the subject, and a transitive verb agrees with the agent. First singular actant is indexed by the morpheme <-a^6>. First inclusive actant is indexed by the suffix <-$ɟ^2$>. First exclusive actant is indexed by the suffix <-$ə\jmath^2$ ~ -i> with the allophone <-i> following the past tense suffix <-s^2>. Second singular actant is indexed by the morpheme <-$nə^2$ ~ -o> with the allophone <-o> after the past tense suffix <-s^2>. Second dual actant is indexed by the suffix <-$tsɟ^5$>, and second plural actant is indexed by the suffix <-$sɟ^2$-$nə^2$>.

Third person actant is generally unmarked. However, in the preterite there is a third person past *portemanteau* <-i^2>. Before this suffix, the verb stem adopts a low circumflex tone (tone 6) or low falling (tone 2), unless the inherent tone of the stem is falling (tones 2 or 3), in which case the tone of the verb stem is converted into a rising tone (tone 4). In other past tense forms, low circumflex tone (tone 6) and high level tone (tone 1) remain unchanged; a mid level tone (tone 5) stem becomes low circumflex (tone 6), and a low falling tone (tone 2) becomes mid level (tone 5). A synopsis of Táopíng Qiāng agreement morphemes is given in table 18.

Table 18: *Qiāng agreement morphemes Táopíng dialect*

sf.1	*tense*	<-s^2 ~ Ø^2>	*preterite*
		<-u^6 ~ Ø>	*future*
sf.2	*person and number*	<-a^6>	1s.
		<-$ɟ^2$>	1i.
		<-$ə\jmath^2$ ~ -i>	1e.
		<-$nə^2$ ~ -o>	2s.
		<-$tsɟ^5$>	2d.
		<-$sɟ^2$ -$nə^2$>	2pl.
		<-i^2>	3/PT

The Máwō dialect has a more elaborate transitive agreement paradigm than the Táopíng dialect. Sūn (1981: 189–92) provides the following partial transitive paradigms of the open stem verb <*dzə*> ' eat ' and of the verb <*zitas*> ' strike, hit '.

Table 19: *Endings of the Qiāng transitive paradigm Máwō dialect*

<*dzə*> ' to eat '

	future	*present*	*preterite*
1s. → 3	*dz-a:*	*dz-a*	*da-dz-a*
1pl. → 3	*dz-a:ɹ*	*dzə-ɹ*	*da-dzə-ɹ*
2s. → 3	*dz-a:n*	*dzə-n*	*da-dzə-n*
2pl. → 3	*dzə-tɕa:n*	*dzə-tɕin*	*da-dzə-tɕin*
3s. → 3	*dz-a:ji*	*dzə-ji*	*da-dzə-ji*
3pl.→ 3	*dzə-tɕa:ji*	*dzə-tɕiji*	*da-dzə-tɕiji*

<*zitas*> ' to strike '

3 → 1s.	*zitas-a:*	*zitas-a*	*de-zitas-a*
3 → 1pl.	*zitas-a:ɹ*	*zitas-aɹ*	*de-zitas-aɹ*
3 → 2s.	*zitas-a:ɲi*	*zitas-aɲi*	*de-zitas-aɲi*
3 → 2pl.	*zitas-atɕa:ɲi*	*zitas-atɕiɲi*	*de-zitas-atɕiɲi*
3 → 3s.	*zitas-a:ji*	*zitas-aji*	*de-zitas-aji*
3 → 3pl.	*zitas-atɕa:ji*	*zitas-atɕiji*	*de-zitas-atɕiji*

These incomplete transitive paradigms suggest that the Máwō verb exhibits a larger repertoire of agreement affixes than the Táopíng dialect. A morphemic analysis of the Máwō verb based on a complete set of transitive and intransitive verbal paradigms remains a *desideratum*.

Sūn (1981: 192) shows that the verb forms *zitasa:ɲi* (3 → 2s.) and *zitasatɕa:ɲi* (3 → 2pl.) are the finites occuring in the Máwō Qiāng sentences ' he shall strike your (singular) younger brother ' and ' he shall strike your (plural) younger brother ' respectively. These examples demonstrate that the transitive verb in the Máwō dialect shows preferential patient agreement with a malefacted first and second person actant rather than with the ' most affected actant ' or undergoer.

8. *Primi*

Primi (Chinese: *Pǔmǐ*) is spoken by approximately 40,000 people living in scattered communities throughout north-west Yúnnán and south-west Sìchuān. The autonym is *p'ʐə̃ ²mi²*. There are at least two distinct dialects of Primi. The present discussion of Primi verbal agreement is based on the dialect spoken in the Qīnghuā People's Commune of the Héxī subdistrict in Lánpíng district in Yúnnán province, as described by Lù (1980). Primi is reported to have two distinctive tones: tone 1 has the contour 5–5 and tone 2 has contour 1–3. The Primi personal pronouns are given in table 20.

Table 20: *Primi personal pronouns*

1s.	*ɛ¹*	2s.	*nɛ²*	3s.	*tə¹gɯ¹*
1d.i.	*ɛ̃¹zə̃¹*				
1d.e.	*ɛ¹zə̃¹*	2d.	*nɛ²zə̃¹*	3d.	*tə¹zə̃¹*
1pl.i.	*ɛ̃¹ʐə¹*				
1pl.e.	*ɛ¹ʐə¹*	2pl.	*nɛ²ʐə¹*	3pl.	*tɛ¹ʐə¹*

In addition to the dual ending <-*zɑ̃*^{l}> and the plural ending <-*ʐə*^{l}>, Lù provides pronominal forms with the collective ending <-*by*^{l}>. Primi possessive pronouns are formed through suffixation of the genitive ending <-*a*>, and ergative forms are formed through suffixation of the agentive ending <-*iɛ*> which Lù describes as facultative. Before the genitive ending, the form of the first person singular pronoun is <*ɛ*^{l}*n*->. The root of first inclusive pronouns is <*ɛ̃*^{l}>, and the exclusive root is <*ɛ*^{l}>. The second person root is <*nɛ*^{2}>, and the third person root is <*tə*^{l}>.

Table 21: *Conjugation of the Primi verb* <*ʂy*^{l}> ' *buy* '

	future	present	preterite
1s.	*ʂy*^{l}*-fe*^{l}	*ʂy*^{l}*-ʐõ*^{l}	*də*^{2}*-ʂo*^{l}*-sɑ̃*^{l}
2s.	*ʂy*^{l}*-fo*^{l}	*ʂy*^{l}*-ʐu*^{l}	*də*^{2}*-ʂuə̃*^{l}*-si*^{l}
1pl./2pl.	*ʂy*^{l}*-fẽ*^{l}	*ʂy*^{l}*-ʐuə̃*^{l}	*də*^{2}*-ʂuə̃*^{l}*-si*^{l}
3	*ʂy*^{l}*-qa*^{l}	*ʂy*^{l}*-ʐɯɯ*^{l}	*də*^{2}*-ʂua*^{l}*-si*^{l}

Future tense is marked by the suffix <-*f*> in the first and second person and by its allomorph <-*q*> in the third person. Present tense is marked by the present tense suffix <-*ʐ*>. Preterite tense is marked by the prefix <*də*^{2}-> and the suffix <-*si*^{l}>, which has an allomorph <*sɑ̃*^{l}> in the first person singular. First person singular is marked by the suffixes <-*e*^{l}>, <-*õ*^{l}> and <-*o*^{l}> in the future, present and preterite respectively. Second person singular is marked by the suffixes <-*o*^{l}>, <-*u*^{l}> and <-*uə̃*^{l}> in the future, present and preterite respectively. First and second person plural is marked by <-*ẽ*^{l}> in the future and <-*uə̃*^{l}> in the present and preterite. Third person is marked by <-*a*^{l}>, <-*ɯɯ*^{l}> and <-*ua*^{l}> in the future, present and preterite respectively. The preterite morphemes are uncertain because the morphemes listed appear either to have resulted from fusion of suffixes with the verb stem vowel <-*y*> or to constitute apophonic changes in the stem vowel conditioned by lost suffixes once co-occuring with the preterite suffix <-*si*^{l}>.

Table 22: *Primi agreement suffixes*

1s.	-*e*^{l} ~ -*õ*^{l} ~ -*o*^{l}
2s.	-*o*^{l} ~ -*u*^{l} ~ -*uə̃*^{l}
1pl., 2pl.	-*ẽ*^{l} ~ -*uə̃*^{l}
3	-*a*^{l} ~ *ɯɯ*^{l} ~ *ua*^{l}

Lù (1980: 65–7) also discusses Primi directional prefixes which constitute a set of markers distinct from the tense, person and number affixes listed here. The special endings of the singular imperative in Primi is <-*u*> and of the plural imperative <-*uə̃*>. The special conjugation of the equational verb ' to be ' is given below in table 23.

Table 23: *Primi equational ' to be '*

1s.	*ʤə*^{2}
2s.	*dɯɯ*^{2}
1pl., 2pl.	*dɪ*^{2}
3	*də*^{2}

9. *Jinghpaw*

In the 1950s, the National Minority Languages Research Institute of the Academia Sinica conducted a study of the Jinghpaw (Chinese: *Jīngpō*) or Kachin (Burmese: *Ka-hkyañ*) language, as spoken in Ēnkūn in the Liánshān district of Yúnnán province. The results of this study were published anonymously in 1959. The autonym is recorded as *tʃiŋ¹pho?¹*. Three tones are described, indicated by superscripts, 1, 2 and 3, with the contours 3–1, 5–5 and 3–3 respectively. Descriptions of allotones and tone sandhi phenomena are also provided (Anonymous, 1959: 5–7). The transcription of the anonymous authors is followed, except that for the palatalized counterparts of the phonemes *m*, *ŋ*, *kh* etc. the symbols *my*, *ny*, *hky* etc. of standard Jinghpaw orthography are employed in accordance with the table of correspondences provided by the authors (1959: 174–5), in preference to the ornate symbols adopted by the authors. The symbol [̰] beneath a vowel indicates fortis vowels, apparently characterized by some laryngealized or pharyngealized phonation type. The 'short' diacritic in the combination *ă* indicates a 'weak', perhaps staccato or schwa-like, version of the vowel *a* (Anonymous, 1959; 4–5).

The Ēnkūn Jinghpaw personal pronouns are listed in table 24. Although separate dual pronouns are provided in all three persons, no example sentences with a dual actant are provided in the study, and it remains unclear whether there are distinct dual agreement endings in the verb. The pronouns of Kachin spoken in Burma provided by Hertz (1911: 8), listed here in table 25, are similar to the Ēnkūn Jinghpaw pronouns. Hertz's use of the 'short' diacritic in the combination *ă* may indicate a schwa [ə] or similar vowel, although this is not explained.

Table 24: *Ēnkūn Jinghpaw personal pronouns* (Anonymous 1959: 25)

	agent	*patient/possessive*
1s.	*ŋai*^{3}	*nye?*^{2}
1d.	*an*^{2}/*jan*^{2}	
1pl.	*an*^{2} *the*^{2}	
2s.	*naŋ*^{3}	*na?*^{2}
2d.	*nan* ^{2}	
2pl.	*nan*^{2} *the*^{3}	
3s.	*hkyi*^{3}	*hkyi?*^{2}
3d.	*hkyan*^{2}	
3pl.	*hkyi?*^{2}*the*^{3}	

Table 25: *Burmese Jinghpaw personal pronouns* (Hertz 1911: 8)

1s.	*ngai*
1d.	*an, yān*
1pl.	*anhte, anhteng* (also: *i,ihte, ihteng*)
2s.	*nang*
2d.	*nān*
2pl.	*nănhte, nānhteng* (also: *nihte, nihteng*)
3s.	*shi*
3d.	*khăn* (also: *shān*)
3pl.	*khănte, khănteng* (also: *shănhte, shănhteng*)

The person and number agreement suffixes of the Ēnkūn Jinghpaw verb are presented by the anonymous authors of the Chinese study in numerous tables, usually in conjunction with verb-final mood particles such as *kha*^{3} (incredulity on the part of the speaker), *ka?*^{1} (urging assent from or coaxing the listener), the exclamatory particle *toŋ*^{3}, the interrogative particles *ni*^{1} and *tạ*^{1} or the auxiliary verb *ai*^{3}. Table 26 presents the person and number suffixes of the Ēnkūn Jinghpaw transitive paradigm. In each compartment of the diagram, the endings of the imperfective aspect are listed above the corresponding endings for the perfective aspect.

Table 26: *Person and number agreement affixes of the Jinghpaw transitive paradigm* Anonymous (1959)

		patient					
		1s.	1pl.	2s.	2pl.	3s.	3pl
agent	1			*-te?*^{1} *-sǎ*^{2}*te?*^{2}/ *-sin*^{2}*te?*^{2}	*-mǎ*^{1}*te?*^{1} *-mǎ*^{2}*sǎ*^{2}*te?*^{2}/ *-mǎ*^{2}*sin*^{2}*te?*^{2}	*-we?*^{1} *-se?*^{2}	*-mǎ*^{1}*we?*^{1} *-mǎ*^{2}*se?*^{2}
	2s.	*-ni?*^{1} *-ni?*^{2}				*-nu?*^{1} *-nu?*^{2}	
	2pl.		*-myi?*^{1}/ *-mǎ*^{1}*ni?*^{1} *-mǎ*^{2}*ni?*^{2}				*-mu?*^{1} *-mǎ*^{2}*nu?*^{2}
	3s.	*-ni?*^{1} *-ni?*^{2}		*-nit*^{1} *-nit*^{2}		*-nu?*^{1} *-nu?*^{2}	
	3pl.		*-myi?*^{1}/ *-mǎ*^{1} *ni?*^{1} *-mǎ*^{2}*ni?*^{2}		*-mǎ*^{1}*nit*^{1} *-mǎ*^{2}*nit*^{2}		*-mu?*^{1} *-mǎ*^{2}*nu?*^{2}

The Ēnkūn Jinghpaw endings in table 26 correspond to those described for Kachin dialects spoken in Burma by Puzickij (1968, 1970). Example sentences containing transitive verbs show that first plural agent forms are identical to the corresponding forms with first singular agent (Anonymous, 1959: 53–5, 70, 114). In one of the example sentences, the ending of a 3s. → 3pl. is identical to that of the 3s. → 3s. forms (Anonymous, 1959: 41), whereas 3s. → 3pl. forms are identical to 3pl. → 3 forms elsewhere. In one example sentence (Anonymous, 1959: 69), the 2s. → 3pl. ending is identical to that of 2s. → 3s. forms, whereas elsewhere (Anonymous, 1959: 72, 78, 83) 2s. → 3pl. forms are identical to 2pl. → 3 forms.

Table 27 presents the endings of the Ēnkūn Jinghpaw intransitive paradigm which occur in combination with the verb-final auxiliary *ai*^{3} (Anonymous, 1959: 37). The first singular suffix observed here is also described by Needham (1889: 26).

Table 27: *Ēnkūn Jinghpaw intransitive endings with the auxiliary ai*^{3}

	imperfective aspect	*perfective aspect*
1s.	*-n*^{1}*ŋ*	*-sǎ*^{3}*ŋ*
1pl.	*-ka?*^{1}	*sǎ*^{3}*ka?*^{2}
2s.	*-n*^{1}*t*	*-sin*^{3}*t*
2pl.	*-mǎ*^{1}*t*	*-mǎ*^{1}*sin*^{3}*t*
3s.	—	*-s-*
3pl.	*-ma?*^{1}	*-mǎ*^{1}*s*

A slightly different set of intransitive endings is used preceding the consonant-initial verb-final particles, interrogative *ni*^{1} and *tɥ*^{1}, the exclamatory particle *toŋ*^{3} and the verb-final particle *kha*^{3}, which expresses incredulity on the part of the speaker (Anonymous, 1959: 66–7, 75–6, 81).

Table 28: *Ēnkūn Jinghpaw intransitive endings with consonant-initial particles*

	imperfective aspect	*perfective aspect*
1s.	*-a*^{1}	*-sa?*^{2}
1pl.	*-ka?*^{1}	*-sǎ*^{3}*ka?*^{2}
2s.	*-n*^{1}	*-sin*^{2}
2pl.	*-mǎ*^{1}	*-mǎ*^{1}*sin*^{2}
3s.	*-a?*^{1}	*-sa?*^{2}
3pl.	*-ma?*^{1}	*-mǎ*^{2}*sa?*^{2}

Table 29 sets out person and number suffixes in the future tense of verbs of motion which express movement toward the speaker or speech situation.

Table 29: *Ēnkūn Jinghpaw future endings (verbs of motion) with incorporated auxiliary of approaching motion*

	imperfective aspect	*perfective aspect*
1s.	*-ʒiŋ*^{1}*ŋ*	
1pl.	*-ʒǎ*^{1}*ka?*^{1}	
2s.	*-ʒin*^{1}*t/-ʒit*^{1}	*-ʒit*^{1}
2pl.	*-mǎ*^{1}*ʒiŋ*^{1}*t/-mǎ*^{1}*ʒit*^{1}	*-mǎ*^{1}*ʒit*^{1}
3s.	*-ʒa?*^{1}	*-ʒu?*^{1}
3pl.	*-mǎ?*^{1} *-ʒa?*^{1}	*-mǎ*^{1}*ʒu?*^{1}

The above affixes are attested in combination with the auxiliary *ai*^{3}, the interrogative particles *ni*^{1} and *tɥ*^{1}, the exclamatory particle *toŋ*^{3}, the particle of incredulity *kha*^{3} and the coercive or coaxing particle *ka?*^{1} (Anonymous, 1959: 44–5, 61–2, 74-5, 80, 84). When stripped of the incorporated auxiliary <-*ʒǎ*^{1}- ~ -*ʒ*->, expressing approaching motion, the remaining person and number suffixes appear to combine the two sets of intransitive endings shown above.

Table 30: *Ēnkūn Jinghpaw future endings* (*verbs of motion*)

	imperfective aspect	*perfective aspect*
1s.	*-iŋ¹ŋ*	
1pl.	*-ka?¹*	
2s.	*-in¹t/-it¹*	*-it¹*
2pl.	*-mă¹-in¹t/-mă¹ -it¹*	*-mă¹ -it¹*
3s.	*-a?¹*	*-u?¹*
3pl.	*-mă?¹-a?¹*	*-mă¹-u?¹*

The endings of the imperative in the broad sense are listed in table 31. Strictly speaking, the first person forms are adhortative, and the third person forms are optative, and both first and third person forms may be followed by the particle *ka?¹*, requesting or pleading the assent of the person addressed. Table 32 lists special Jinghpaw imperative suffixes for verbs expressing departing movement or receding motion.

Table 31: *Ēnkūn Jinghpaw imperative endings*

	imperfective aspect	*perfective aspect*
1s.	*-n¹*	*-se?²*
1pl.	—	*-să²*
2s.	*-u?¹*	*-nu?²*
2pl.	*-mu?¹*	*-mă?²nu?²*
3s.	*-u?¹*	*-nu?²*
3pl.	*-mu?¹*	*-mă?²nu?²*

Table 32: *Ēnkūn Jinghpaw imperative endings* (*verbs of receding motion*)

	imperfective aspect	*perfective aspect*
2s.	*-sit¹/-sit²*	*-su?¹*
2pl.	*-mă¹sit¹/-mă²sit²*	*-mă¹su?¹*

There is also a Jinghpaw ending <*-la?¹*> which expresses continued activity or continued state in verbs with a second or third person actant. The ending <*-la?¹*> occurs both in the imperative and in subordinate clauses expressing an action or situation against which background an event in the main clause takes place. In subordinate clauses, the suffix <*-la?¹*> occurs with the auxiliary *-ai³*, and there is a perfective aspect form <*-la?¹s-*>. In the plural, the ending <*-la?¹s ~ -la?¹*> is preceded by the plural number suffix <*-mă¹*>.

Based on these data, the following morphological analysis of the Jinghpaw verb may be advanced. Although there are various slots in the Jinghpaw verb for auxiliaries and markers other than agreement indices, there are only two positions in the Jinghpaw affixal string in which person and number agreement markers occur. The first of these two slots precedes the aspect slot and is uniquely occupied by the plural actant suffix <*-m ~ -mă¹*> which marks plural number of any actant except in intransitive first person forms, where first plural number is indexed by the suffix <*-ka?¹*>.

The Jinghpaw perfective aspect morpheme <*-sa ~ -si ~ -s ~ Ø*> raises tone 1, the low falling tone, to tone 2, the high level tone. Before the allomorph <*-n¹t*> of the second person subject morpheme <*-n¹t ~ -n¹*>, however, the perfective aspect suffix changes tone 1 to tone 3, the mid level tone. The zero allomorph of the perfective aspect suffix occurs in all transitive forms

without a first person agent, but the zero allomorph too engenders tone change.

Following the aspect slot there are nine Jinghpaw agreement pronouns, four of which occur in intransitive forms and five of which mark actants in transitive scenarios. In intransitive verbs, a first singular subject is marked by the morpheme <*-nˡŋ ~ -aʔˡ*>, a first plural subject by the morpheme <*-kaʔˡ*>, a second person subject by the suffix <*-nˡt ~ -nˡ ~ -tˡ ~ Ø*> and a third person subject by the suffix <*Ø ~ -aʔˡ*>.

In transitive forms, a first person patient is indexed by the suffix <*-niʔˡ*>. The transitive relationship between a first person agent and a second person patient is indexed by the *portemanteau* morpheme <*-nteʔˡ ~ -teʔˡ*>. The transitive relationship between a first person agent and a third person patient is indexed by the *portemanteau* morpheme <*-weʔˡ ~ -eʔˡ*>.The *portemanteau* <*-nitˡ*> marks a transitive relationship between a third person agent and a second person patient. A third person patient is indexed by the suffix <*-nuʔˡ ~ -uʔˡ*>, except in 1 → 3 forms where third person patient involvement is indicated by the 1 → 3 *portemanteau* <*-weʔˡ ~ -eʔˡ*>. Table 33 gives a synopsis of Ēnkūn Jinghpaw agreement suffixes and the aspect marker.

Table 33: *Ēnkūn Jinghpaw indicative agreement endings*

sf1	number	<*-m ~ -mäˡ*>	plural actant
sf2	tense	<*-sa ~ -si ~ -s ~ Ø*> + tone 2	perfective aspect
sf3	person	<*-nˡŋ ~ -aʔˡ*>	first singular subject
		<*-kaʔˡ*>	first plural subject
		<*-nˡt ~ -nˡ ~ -tˡ ~ Ø*>	second person subject
		<*Ø ~ -aʔˡ*>	third person subject
		<*-niʔˡ*>	first person patient
		<*-nteʔˡ ~ -teʔˡ*>	1 → 2 portemanteau
		<*-weʔˡ ~ -eʔˡ*>	1 → 3 portemanteau
		<*-nitˡ*>	3 → 2 portemanteau
		<*-nuʔˡ ~ -uʔˡ*>	third person patient

The complex patterns of allomorphy in Jinghpaw verbal agreement suggest an elaborate, ancient conjugation which became subject to an increasingly decadent phonology, a widely attested diachronic development in Tibeto-Burman whereby syllable structure is restricted and simplified, consonant clusters and syllable finals and hitherto distinctive consonantal features, such as voicing, eliminated or reduced. All such developments are conducive to tonogenesis, both phonetically and in the functional terms of the retention of distinctiveness.

Hertz aimed to describe a simplified form of Kachin intended to be ' readily understood by all true Chingpaws ', generally omitting person and number agreement affixes. Yet Hertz indicates that ' the accidence of the verb are expressed by certain affixes and auxiliary verbs ' and provides the following examples (1911: i, 15–16), which indicate that the Burmese dialects he studied had also retained verbal flexion.

Ngai kălaw ngai.	I do.
Nang kălaw ndai.	Thou doest.
Shi kălaw ai.	He does.
Anhte kălaw ga ai.	We do.
Nanhte kălaw myit.	You do.
Shānhte kălaw ma ai.	They do.

Ngai kălaw ngut se ngai.	I have done.
Nang kălaw ngut se ndai.	Thou hast done.
Shi kălaw ngut se ai.	He has done.
Anhte kălaw ngut se ga ai.	We have done.
Nanhte kălaw ngut se ma/mănu ai.	You have done.
Shănhte kălaw ngut se ma/mănu ai.	They have done.

The following Ēnkūn Jinghpaw example sentences (Anonymous, 1959: 39, 38, 79, 80) show that patient agreement in Jinghpaw is with the beneficiary or the affected animate actant. The patient category in Jinghpaw is clearly semantically akin to the patient category in Trung discussed above and to the patient category in Tangut, to which I have devoted a separate article (van Driem, 1991c).

(5) *Hkyi*^{3} *naŋ*^{3} *e?*^{2} *ʃe?*^{1} *myit*^{1}*tum*^{2} *jaŋ*^{1} *ko*^{1} *lai*^{1}*ka*^{3} *ʃă*^{1}*kun*^{2} *na*^{3} *nit*^{1} *ai*^{3}.
' If he thinks of you^{s}, he'll bring the letter for you^{s} ' (3s. → 2s.).

(6) *Nye?*^{2} *a?*^{1} *lai*^{1}*ka*^{3} *then*^{1} *wa*^{1} *tɥ*^{2} *ni*^{1} *ai*^{3}.
' My book is damaged. [The book is damaged unto me.] ' (3s. → 1s.).

(7) *Nan*^{2}*the*^{3} *a?*^{1} *kă*^{1}*ʃa*^{1} *ma?*^{2}*khɹa*^{1} *tʃoŋ*^{1} *luŋ*^{3} *mă*^{1}*nit*^{1} *ai*^{3}
' Your$^{pl.}$ children all go to school [on you$^{pl.}$]. (3pl. → 2pl.)

(8) *Nye?*^{2} *a?*^{1} *u*^{1} *kă*^{1}*nu*^{1} *si*^{3} *mat*^{1} *ni?*^{2} *toŋ*^{3}!
' My hen will surely have died [on me]! ' (3s. → 1s.)

(9) *Nan*^{2}*the*^{3} *a?*^{1} *ŋa*^{3} *lɑm*^{2} *mat*^{1} *mă*^{2}*nit*^{2} *toŋ*^{3}!
' Your$^{pl.}$ cows must have walked off [on you$^{pl.}$]! ' (3pl. → 2pl.)

10. *Nocte*

Nocte is a Baric language spoken in the Indian state of Aruṇācal Pradeś. Table 34 diagrams a portion of the Nocte transitive paradigm based on person and agreement endings provided by Weidert (1985: 925–7).

Table 34: *Present and past affixes of Nocte transitive forms with singular patient*

		patient		
		1s.	2s.	3s.
agent	1s.		Σ-*ɛ*	Σ-*ʌŋ* Σ-*tʌk*
	1pl.		Σ-*ti?*	Σ-*ɛ* Σ-*ti?*
	2s.	Σ-*hʌŋ* Σ-*thʌŋ*		Σ-*ɔ?* Σ-*tɔ?*
	2pl.	Σ-*hɛ?* Σ-*thɛ?*		Σ-*ʌn* Σ-*tʌt*
	3	Σ-*hʌŋ* Σ-*thʌŋ*	Σ-*hɔ?* Σ-*thɔ?*	Σ-*a* Σ-*ta?*

Because the late Alfons Weidert only had the opportunity to publish a portion of the Nocte transitive paradigm and no intransitive paradigm, the following morphemic analysis is little more than a description of the distribution of the Nocte affixes. It is unlikely that a morphemic analysis of the complete paradigm would leave us with as many *portemanteau* morphemes.

The preterite suffix <-*t*> is the first suffix in the suffixal string, affixed immediately to the verb stem. It is unclear from Weidert's material whether orthographic *th* in the preterite endings <-*thɔʔ*> 3 → 2s., <-*thʌŋ*> 2s. → 1s./3 → 1s. and <-*thɛʔ*> 2pl. → 1s. represents an aspirate phoneme /t^{h}/ or a sequence of two phonemes, but this uncertainty need not be of any consequence to the present analysis.

The suffix <-*ʌŋ*> has a preterite allomorph <-*ʌk*> and indexes the transitive relationship between a first singular agent and a third singular patient. The suffix <-*ɔʔ*> indexes the transitive relationship between a second singular agent and a third singular patient. The ending <-*ʌn*> has a preterite allomorph <-*ʌt*> and indexes a transitive relationship between a second plural agent and a third singular patient. The suffix <-*a*> has a preterite allomorph <-*aʔ*> and indexes a transitive relationship between a third person agent and a third singular patient. Whereas the endings <-*ʌŋ* ~ -*ʌk*> 1s.→ 3s., <-*ɔʔ*> 2s.→ 3s. and <-*ʌn* ~ -*ʌt*> 2pl.→ 3s. appear to reflect the same third person patient morpheme *<-u> reconstructed for Proto-Kiranti, the 3 → 3s. ending <-*a* ~ -*aʔ*> may be the reflex of a separate third person subject morpheme.

The suffix <-*ɛ*> has an allomorph <-*iʔ*> in the preterite and marks forms with a first person agent and second singular patient and forms with a first plural agent and third singular patient. The ending <-*hɔʔ*> indexes the transitive relationship between a third person agent and a second singular patient.

The ending <-*hʌŋ*> indexes the transitive relationship between a second singular agent and a first singular patient or the transitive relationship between a third person agent and a first singular patient. The ending <-*hɛʔ*> indexes the transitive relationship between a second plural agent and a first singular patient.

Both the ending <-*hʌŋ*> in 2s. → 1s. and 3 → 1s. forms and the ending <-*ʌŋ* ~ -*ʌk*> in 1s. → 3s. forms reflect an older first singular morpheme *<-ŋ>. The ending <-*ʌn* ~ -*ʌt*> in 2pl. → 3s. forms appears to contain a reflex of a morpheme cognate to the second person plural morpheme *<-ni> reconstructed for Proto-Kiranti.

Table 35: *Nocte Endings*

sf.1 tense	<-*t*>	PT
sf.2 person and number	<-*ʌŋ* ~ -*ʌk*>	1s. → 3s.
	<-*ɔʔ*>	2s. → 3s.
	<-*ʌn* ~ -*ʌt*>	2pl. → 3s.
	<-*a* ~ -*aʔ*>	3 → 3s.
	<-*ɛ* ~ -*iʔ*>	1 → 2s./1pl. → 3s.
	<-*hɔʔ*>	3 → 2s.
	<-*hʌŋ*>	2s. → 1s./3 → 1s.
	<-*hɛʔ*>	2pl. → 1s.

11. *Lakher*

Lakher is a Kuki-Chin-Naga language. Savidge (1908: 23) lists the Lakher autonymn as *Tlaoshaipa*, but Lorrain (1951) lists *Mara* as the autonym and indicates that Lakher is the Lushai name for the Lakher. Lorrain estimated the number of Lakher speakers in 1949 at 20,000. The homeland of these ani-

mist head-hunters comprised the South Lushai Hills in Mizoram, the neighbouring Chin Hills of Burma and the North Arakan Yoma Mountain portion of the Arakan Hill tracts in Burma. Savidge (1908: 9–10), who worked at the Arthington Mission at Fort Lungleh, lists the Lakher personal pronouns as:

1s.	*keima*	1pl.	*keimang*
2s.	*nama*	2pl.	*namang, nama*
3s.	*anang*	3pl.	*amang*

Concerning the Lakher second person plural pronoun, Savidge remarks: '*Nama* in the plural is pronounced slightly differently from *nama* in the singular' (1908: 10). Lorrain (1951: 13) notes that the vowels in the second singular pronoun are 'long but not long enough to admit a circumflex as *nâmâ*', whereas the vowels of the second person plural pronoun are 'short but not short enough to admit of 'h' being placed after them as *nah mah*'. Lorrain (1951: 12–14) provides different forms for the first plural pronoun, *keima*, and the third person pronouns, *ano* and *amo*. These full forms of the pronoun can take the suffix <*-ta*> when they occur with a transitive verb and the suffix <*-na*> when they occur with an intransitive verb (Lorrain, 1951: 14).

Savidge (1908: 14–19) provides the following agreement prefixes of the Lakher intransitive verb and of the Lakher transitive verbs with a third person patient:

1s.	*i-*	1pl.	*ima-*
2s.	*na-*	2pl.	*nama-*
3s.	*a-*	3pl.	*ama-*

Lorrain (1951: 28) provides the same set of affixes, although because of a difference in the dialect studied or in the orthography employed Lorrain lists the first person prefixes as <*ei-*> and <*eima-*>.

Savidge (1908: 11, 26) provides two non-negated example sentences with a second person patient, where the prefix <*i-cha-*> occurs in a 1s. → 2s. form and the prefix <*a-cha-*> occurs in a 3s. → 2s. form. The incomplete transitive paradigm in table 36 is based on the example sentences provided by Lorrain (1951). Examples of forms with a first person plural patient are lacking altogether.

Table 36: *Person and number agreement affixes of the Lakher transitive paradigm based on Savidge (1908) and Lorrain (1951)*

		patient			
		1s.	2s.	2pl.	3
a	1s.		*ei-cha-*Σ	*ei-cha-*Σ*-ei*	*ei-*Σ
g	1pl.		?	?	*eima-*Σ
e	2s.	*ei-na-*Σ*-chi*			*na-*Σ
n	2pl.	?			*nama-*Σ
t	3s.	?	*a-cha-*Σ	*a-cha-*Σ*-ei*	*a-*Σ
	3pl.	?	?	?	*ama-*Σ

Weidert also provides an incomplete but rather different set of person and number agreement affixes for Lakher. Table 37 is based on the Lakher agreement affixes provided by Weidert (1985: 929).

Table 37: *Agreement affixes of Lakher transitive forms with singular patient based on Weidert (1985)*

		patient		
		1s.	2s.	3s.
a	1s.		*ēi-tsə̄-*∑	*ēi-*∑
g	1pl.		*ēi-mə́-tsə̄-*∑	*ēi-mə́-*∑
e	2s.	*ēi-nə̄-*∑*-tsī*		*nə̄-*∑
n	2pl.	*ēi-nə̄-*∑*-éi-tsī*		*nə̄-mə́-*∑
t	3s.	*ēi-nə̄-*∑	*ə̄-tsə̄-*∑	*ə̄-*∑
	3pl.	*ēi-nə̄-*∑*-éi*	*ə̄-mə́-tsə̄-*∑	*ə̄-mə́-*∑

The incomplete nature of the Lakher material limits the scope of any morphemic analysis, so that the restrictions mentioned above in the case of Nocte apply here as well. The Lakher affixes comprise five prefixes and two suffixes.

The prefix <*ēi-*> marks involvement of a first person actant in a transitive verbal scenario. The prefix <*nə̄-*> is a scenario marker morpheme marking 2 → 1, 3 → 1 and 2 → 3 forms. The prefix <*ə̄-*>, likewise a scenario marker morpheme, is attached to 3 → 3 and 3 → 2 forms. The prefix <*mə́-*> marks plural number of agent except in forms where plural agent number is indicated by the p → 1s. *portemanteau* suffix <*-éi*>. The prefix <*tsə̄-*> marks the involvement of a second person patient. The five prefixes appear to correspond to four prefixal slots.

In Weidert's material, the suffix <*-éi*> indexes the transitive relationship between a plural agent and a first person singular patient and, in Savidge's material, marks a second plural patient. Both sets of Lakher data are incomplete on this score. This suffix <*-éi*> must be identical to the suffix described by Lorrain (1951: 11) as occurring in verbs with a singular patient and plural agent or plural patient and singular agent, and therefore this suffix <*-éi*> should be analysed as a marker of plural number. The suffix <*-tsī*> indexes a transitive relationship between a second person agent and a first singular patient.

Table 38: *Lakher agreement affixes*

pf.1 first person	<*ēi-*>	1
pf.2 scenario markers	<*nə̄-*>	2 → 1, 3 → 1, 2 → 3
	<*ə̄-*>	3 → 3, 3 → 2
pf.3 agent number	<*mə́-*>	pl.A
pf.4 second patient	<*tsə̄-*>	2P
sf.1 plural number	<*-éi*>	Weidert: pl. → 1s. Savidge: 2pl.P
sf.2 first singular *portemanteau*	<*-tsī*>	2 → 1s.

12. *Kham*

The Kham or Kham Mager live in western Nepal where about 40,000 Kham speak a Tibeto-Burman language known in Nepali as *Khām Kurā*. The actual home of the Kham consists of some twenty isolated villages of Rukum District in Rāptī Zone, extending from around the upper course of the Sānī Bherī and its tributaries, including the area around Māikoṭ, to as far north as the headwaters of the Ṭhulī Bherī. The Kham are reported to practise transhumance, moving roughly between Ḍolpo and Ḍāṅ each year, through the districts of Bāgluṅ (Dhavalāgiri Zone), Rukum (Rāptī Zone) and Tibrikoṭ (Karnālī Zone).

Although the speakers of Kham call themselves Kham Magar (Nepali: *Khām Magar*), their langauge is only distantly related to Magar. Kham should not be confused with Khan (Nepali: *Khān*), the language of the so-called Mugali Tamang (Nepali: *Mugalī Tāmāṅ*), in Mugu District (Tibetan: *Mu-gum*) in western Nepal's Karnālī Zone, nor confused with the Tibetan dialect group *Khams* of eastern Tibet, southern Sìchuān and western Yúnnán.

Tables 39 and 40 are based on Watters's descriptions of the verbal conjugations of the Kham dialect spoken in the village of 'Taka' (1973: 96–102, 1991: 1). All forms in these tables are marked with the past tense marker <*-ke*>. The tense slot in a Kham verb form can be filled with any of several tense markers, viz. <*-ya*> future, <*-zya*> present, <*-ke*> past or <*-e*> terminate past.

The morpheme <*-ke*> is the sign of the past tense which in Kham, judging from Watters's description, is an inchoative past, semantically similar to the preterite in Limbu, Nepali and other languages spoken in the Himalayas in that it denotes a transition to a state and in that the choice of tense hinges about the moment of inception. In Kham, however, this inchoative past in <*-ke*> is opposed to what Watters calls the 'terminate past' with the tense suffix <*-e*>. The past tense morpheme <*-ke*> has a regular allomorph <*-ki*> before the third dual agent suffix <*-ni*>.

Table 39: *Kham person an number affixes*

	intransitive	*reflexive*
1s.	*nga-*∑*-ke*	*nga-*∑*-sike*
1d.	*gin-*∑*-ke*	*gin-*∑*-sike*
1pl.	*ge-*∑*-ke*	*ge-*∑*-sike*
2s.	*nə-*∑*-ke*	*nə-*∑*-sike*
2d.	*jin-*∑*-ke*	*jin-*∑*-sike*
2pl.	*je-*∑*-ke*	*je-*∑*-sike*
3s.	∑*-ke*	∑*-sike*
3d.	∑*-kini*	∑*-sikini*
3pl.	∑*-kerə*	∑*-sikerə*

Based on Kham inflected verb forms, there are eighteen person and number affixes in Kham in addition to markers of tense. These affixes occupy three discrete functional positions before the stem and two positions following the stem. Of the latter two functional positions, one precedes the tense slot, and one follows the tense slot.

Table 40: *Person an number agreement affixes of the Kham transitive paradigm based on Watters 1973*

		PATIENT 1s.	PATIENT 1d.	PATIENT 1pl.	PATIENT 2s.	PATIENT 2d.	PATIENT 2pl.	PATIENT 3s.	PATIENT 3d.	PATIENT 3pl.
	1s.				*nga-Σ-nike*	*nga-Σ-cinke*	*nga-Σ-cike*	*nga-Σ-ke*	*ngani-Σ-ke*	*ngara-Σ-ke*
	1d.				*gin-Σ-nike*	*gin-Σ-cinke*	*gin-Σ-cike*	*gin-Σ-ke*	*ginra-Σ-ke*	
A	1pl.				*ge-Σ-nike*	*ge-Σ-cike*		*ge-Σ-ke*	*gera-Σ-ke*	
G	2s.	*nə-Σ-nake*	*nə-Σ-sinke*	*nə-Σ-sike*				*nə-Σ-ke*	*nəni-Σ-ke*	*nəra-Σ-ke*
E	2d.	*jin-Σ-nake*	*jin-Σ-sike*					*jin-Σ-ke*	*jinra-Σ-ke*	
N	2pl.	*je-Σ-nake*		*je-Σ-sike*				*je-Σ-ke*	*jera-Σ-ke*	
T	3s.	*Σ-nakeo*	*Σ-sinkeo*	*Σ-sikeo*	*Σ-nikeo*	*Σ-cinkeo*	*Σ-cikeo*	*Σ-keo*	*ni-Σ-keo*	*ya-Σ-keo*
	3d.	*Σ-nakini*	*Σ-sinkerə*	*Σ-sikerə*	*Σ-nikini*	*Σ-cinkerə*	*Σ-cikerə*	*Σ-kini*	*yara-Σ-kini*	
	3pl.	*Σ-nakerə*			*Σ-nikerə*			*Σ-kerə*	*yara-Σ-kerə*	

The most anterior position in the affixal string of a Kham verb contains prefixes marking first and second person agent and subject, viz. the first singular agent/subject prefix <*nga-*>, the first dual agent/subject prefix <*gin-*>, the first plural agent/subject prefix <*ge-*>, the second singular agent/subject prefix <*nə-*>, the second dual agent/subject prefix <*jin-*>, and the second plural agent/subject prefix <*je-*>. The Kham transitive conjugation does not formally differentiate 2d. → 1pl. forms from 2pl. → 1ns. forms, and in these 2d. → 1pl./2pl. → 1ns. forms, the second plural agent/subject prefix <*je-*> marks *non-singular* number of a second person agent. This is only one of five instances in which a Kham plural morpheme marks *non-singular* actant number in transitive scenarios in which dual and plural number of actant are not formally differentiated.

The second prefixal slot immediately preceding the Kham verb stem contains either of the two third person patient morphemes, the prefix <*ni-*> marking third dual patient, or the prefix <*ya-*> marking third plural patient. The third dual patient prefix <*ni-*> occurs only in transitive forms with a singular agent. The third person plural patient prefix <*ya-*> marks plural number of a third person patient in forms with a singular agent, but marks non-singular number of a third person patient in transitive forms with a non-singular agent. The third plural patient prefix has an allomorph <*ra-*> in word-internal position. Both the third dual patient prefix <*ni-*> and the third plural patient prefix <*ya-*> mark the number of a third person non-singular *agent* in passive forms.

The *portemanteau* morpheme <*ra-*> marks the transitive relationship between a third person non-singular agent and a third person non-singular patient. This prefix <*ra-*> always co-occurs with either the third person plural prefix <*ya-*>, in transitive forms, or the third person dual prefix <*ni-*>, in transitive and passive forms, both of which precede it in the affixal string.

The reflexive conjugation is identical to the intransitive conjugation except for the reflexive suffix <*-si*> which occupies the first suffixal position after the stem, preceding the tense slot.

In addition to the reflexive morpheme <*-si*>, the first suffixal slot can be occupied by any one of the six morphemes indexing first and second person patient, viz. the first singular patient morpheme <*-na*>, the first dual patient morpheme <*-sin*>, the first plural patient morpheme <*-si*>, the second singular patient morpheme <*-ni*>, the second dual patient morpheme <*-cin*>, and the second plural patient morpheme <*-ci*>. The second plural patient suffix <*-ci*> marks non-singular number in 1pl. → 2ns. forms, in which dual and plural number of second person actant is not distinguished. The first plural patient morpheme <*-si*> marks non-singular number of a first person patient in 2ns. → 1 forms.

The most posterior functional position an the affixal string of a Kham verb can be occupied by the third person singular agent suffix <*-o*>, the third dual agent/subject <*-ni*> and the third plural agent/subject suffix <*-rə*>. The third plural agent/subject morpheme <*-rə*> marks non-singular number of a third person agent in transitive forms with a non-singular patient, in which dual and plural number of third person actant is not formally differentiated.

Table 41: *Kham verbal morphemes and slots*

pf.1	first and second person agent and subject	<*ŋga-*>	1s.AS
		<*gin-*>	1d.AS
		<*ge-*>	1pl.AS
		<*nə-*>	2s.AS
		<*jin-*>	2d.AS
		<*je-*>	2pl.AS
pf.2	third person patient	<*ni-*>	3d.P
		<*ya-*>	3pl.P
pf.3	third person *portemanteau*	<*ra-*>	3ns. → 3ns.
sf.1	first and second person patient and reflexive	<*-na*>	1s.P
		<*-sin*>	1d.P
		<*-si*>	1pl.P
		<*-ni*>	2s.P
		<*-cin*>	2d.P
		<*-ci*>	2pl.P
		<*-si*>	REF
sf.2	tense	<*-ke*>	past
		<*-e*>	terminate past
		<*-ya*>	future
		<*-zya*>	present
sf.3	third person agent and subject	<*-o*>	3s.A
		<*-ni*>	3d.AS
		<*-rə*>	3pl.AS

In addition to the intransitive, transitive and reflexive conjugations, Kham has a separate passive conjugation, in which first and second person patient is indexed by the first and second person patient morphemes in suffixal slot 1, and number of third person actant is indexed by the third person morphemes in prefixal slots 2 and 3 and the third singular agent suffix <*-o*>. The auxiliary of the passive <*-o*> occurs as a suffix in forms with a third non-singular agent, and as a prefix in forms with third singular agent.

Table 42: *Kham passive paradigm*

		agent		
		3s.	3d.	3pl.
	1s.	*o* Σ-*nao*	*ni*-Σ-*na o*	*ya*-Σ-*na o*
p	1d.	*o* Σ-*sino*	*ya*-Σ-*sin o*	
a	1pl.	*o* Σ-*sio*	*ya*-Σ-*si o*	
t	2s.	*o* Σ-*nio*	*ni*-Σ-*ni o*	*ya*-Σ-*ni o*
i	2d.	*o* Σ-*cino*	*ya*-Σ-*cin o*	
e	2pl.	*o* Σ-*cio*	*ya*-Σ-*ci o*	
n	3s.	*o* Σ-*o*	*ni*-Σ-*o*	*ya*-Σ *o*
t	3d.	*o ni*-Σ-*o*	*nira*-Σ *o*	*yara*-Σ *o*
	3pl.	*o ra*-Σ-*o*		

13. *The Proto-Tibeto-Burman conjugation*

Morphemic analysis of the inflected indicative verb forms have enabled the isolation of formally and semantically defined agreement markers in the Tibeto-Burman languages under investigation. The verbal agreement affixes of the Suōmò and lCog-rtse dialects of rGya-rôn, are given above in tables 7 and 8. The Tangut suffixes appear in Table 9. Răwang verbal agreement affixes are given in table 13, Trung affixes in table 15, the verbal agreement affixes of the Táoping dialect of Qiāng in table 18, the Primi verbal agreement suffixes in table 22, the Jinghpaw verbal affixes in table 33, Nocte affixes in table 35, the Lakher affixes in table 38, and the verbal agreement affixes of Kham in table 41. A synthesis of the correspondences to be discussed in this section is presented below in tables 43 and 44.

Table 43: *Tibeto-Burman conjugational suffixes*

			-a ~ *-ŋ* ~ *-ŋa*				*-ni*
			1s.				2pl.
					-u		
VERB	*-nši*	*-tɛ*	*-na*	*-si*	3P	*-si*	*-i*
STEM	REF	PT	2	d.A		d.P	1pl./2pl.
					-a		
			-nya		3		*-k*
			1s. → 2				1pl.

The reflexive suffix *<*-nši*>*: Both Kham and Nùsū have reflexes cognate to the Proto-Kiranti reflexive suffix *<-nši>, which suggests that the reflexive suffix could be reconstructible to the Proto-Tibeto-Burman level.

Kham	<-*si*>	REF	sf.1
Nùsū	<-*tɕi*^{4}>	reciprocal	sf.1

The preterite suffix *<-*tɛ*>: The Jinghpaw perfective aspect suffix, the Qiāng past tense suffix and the Nocte past tense suffix <-*t*> appear to reflect an ancient past tense marker cognate to the Proto-Kiranti preterite suffix *<-tɛ>, which, like the Proto-Kiranti tense suffix, occupies an anterior position in the suffixal string of the verb. Future research may be able to firmly establish whether the sibilant reflexes of Jinghpaw and Qiāng represent regular developments in these languages of the Proto-Tibeto-Burman tense marker in verb-internal position. More complex developments are attested in the development of Kiranti tense markers (van Driem, 1991b: 349).

Jinghpaw	<-*sa* ~ -*si* ~ -*s* ~ Ø>	perfective aspect	sf.2
Qiāng	<-*s*^{2} ~ Ø^{2}>	past tense	sf.1
Nocte	<-*t*>	past tense	sf.1

The 1s. → 2 portemanteau suffix *<-*nya*>: The Jinghpaw 1 → 2 *portemanteau* suffix has possibly retained a reflex of an ancient Tibeto-Burman 1s. → 2 morpheme. Such a morpheme is widely reflected in the Kiranti material and is reconstructed as Proto-Kiranti 1s. → 2 *<-nya>. If the Jinghpaw morpheme could be demonstrated to be cognate, this would indicate that there may have been some Tibeto-Burman proto-morpheme specifically indexing a transitive relationship between a first person singular agent and a second person patient.

Jinghpaw	<-*nte?*^{1} ~ -*te?*^{1}>	1 → 2	sf.3

The second person suffix *<-*na*>: The Tibeto-Burman second person morpheme *<-na> is amply reflected in the verbal agreement indices of the languages under investigation, but as a suffix. The Rǎwang reflex lacks a nasal element. The Jinghpaw 3 → 2 suffix <-*nit*^{1}> may prove to be a reflex of the second person plural proto-morpheme *<-ni> (vide infra) rather than the second person proto-morpheme *<-na>. The vocalism in the Kham reflexes appears to be tied up with the syntactic role of the indexed referent.

Suōmò rGya-roñ	<-*n*>	2	sf.1
lCog-rtse rGya-roñ	<-*n*>	2	sf.1
Tangut	<-*na*^{2}>	2s.	sf.1
Rǎwang	<-*a*>	2s.	sf.2
Qiāng	<-*nə*^{2} ~ -*o*>	2s.	sf.2
Primi	<-*o*^{1} ~ -*u*^{1} ~ -*uɔ̄*^{1}>	2s.	sf.1
Jinghpaw	<-*n*^{1}*t* ~ -*n*^{1} ~ -*t*^{1} ~ Ø>	2S	sf.3
	<-*nit*^{1}>	3 → 2	sf.3
Kham	<*nə*->	2s.AS	pf.1
	<-*ni*>	2s.P	sf.1

The first singular suffix *<-*ŋ* ~ -*ŋa*>: The Rǎwang, Tangut, Suōmò rGya-roñ, lCog-rtse rGya-roñ, Trung, Kham, Qiāng and Jinghpaw first singular suffixes evidently reflect the first singular proto-morpheme *<-ŋ ~ -ŋa> at an anterior position in the suffixial string.

Rǎwang	<-*ng*>	1s.	sf.1
Tangut	<-*ŋa*^{2}>	1s.	sf.1
Suōmò rGya-roñ	<-*ŋ*>	1s.	sf.1
lCog-rtse rGya-roñ	<-*ng*>	1s.	sf.1
Trung	<-*ŋ*>	1A	sf.1

Kham	<-*nga*>	1s.AS	sf.1
Qiāng	<-*a*^{6}>	1s.	sf.2
Jinghpaw	<-*n*^{1}*ŋ* ~ -*aʔ*^{1}>	1s.S	sf.3
Primi	<-*e*^{1} ~ -*õ*^{1} ~ -*o*^{1}>	1s.	sf.1

It is unclear whether the Qiāng first singular suffix <-*a*^{6}>, the Jinghpaw first singular allomorph <-*aʔ*^{1}> and the Primi first singular suffixes <-*e*^{1} ~ -*õ*^{1} ~ -*o*^{1}> warrant positing a distinct proto-allomorph *<-a>, also possibly reflected in the Limbu non-preterite first singular patient/subject suffix <-*ʔɛ*>. The allomorphy of the Jinghpaw first singular subject suffix <-*n*^{1}*ŋ* ~ -*aʔ*^{1}> are reminiscent of the formal variation between the Limbu first singular morphemes: <-*ʔɛ*> 1s.PS/NPT, <-*aŋ*> 1s.PS/PT and <-*ŋ*> 1s.A.

A similar dichotomy is observed in the marking of a first singular actant in the Nocte morphemes <-*hʌŋ*> 2s. → 1s./3 → 1s. vs. <-*hɛʔ*> 2pl. → 1s. The Nocte data are more complex, however. Whereas the Nocte 1 → 2s./1pl. → 3s. *portemanteau* <-*ɛ* ~ -*iʔ*> and the 2pl. → 1s. *portemanteau* <-*hɛʔ*> may represent reflexes of a first singular morpheme *<-a>, perhaps in coalescence with traces of other morphemes, the Nocte 1s. → 3s. <-*ʌŋ* ~ -*ʌk*> and 2s. → 1s./3 → 1s. <-*hʌŋ*> unambiguously reflect the fusion of the first singular proto-morpheme *<-ŋ ~ -ŋa> with the third person morpheme *<-u> (vide infra).

Nocte	<-*ʌŋ* ~ -*ʌk*>	1s. → 3s.	sf.2
	<-*ɛ* ~ -*iʔ*>	1 → 2s./1pl. → 3s.	sf.2
	<-*hʌŋ*>	2s. → 1s./3 → 1s.	sf.2
	<-*hɛʔ*>	2pl. → 1s.	sf.2

The dual agent suffix *<-*si*>: The Proto-Kiranti dual suffix *<-ci> has numerous cognate reflexes beyond the Kiranti language area. Most of these languages suggest a Tibeto-Burman dual suffix with the form *<-si>. Indeed, amongst the Kiranti languages, Limbu and Bāhing dual morphemes would also suggest a Tibeto-Burman dual proto-suffix with the form *<-si>, rather than *<-ci>.

The Rāwang suffix <-*saw*> d. → 3 is both a reflex of the Tibeto-Burman dual suffix *<-si> and the third person patient morpheme *<-u>. The Qiāng second plural suffix <-*sɟ*^{2}-*nə*^{2}> contains a reflex of the Proto-Tibeto-Burman dual suffix *<-si> and a reflex of the second plural proto-morpheme *<-ni>. Many of the reflexes are diachronically generalized dual morphemes, viz. reflexes of an original dual morpheme, the meaning of which has expanded to include the concept of plurality or non-singularity.

Suōmò rGya-roñ	<-*tʃ*^{h}>	d.	sf.2
lCog-rtse rGya-roñ	<-*ch*>	d.	sf.2
Rāwang	<-*saw*>	d. → 3	sf.1
	<-*shi*>	d.	sf.1
Trung	<-*ɕiŋ*^{2}>	1d.i.	sf.1
	<-*ɕur*^{2}>	d.	sf.1
Qiāng	<-*sɟ*^{2}>	1i.	sf.1
	<-*tsɟ*^{5}>	2d.	sf.1
	<-*sɟ*^{2} - *nə*^{2}>	2pl.	sf.1
Nùsū	<-*tɕi*^{4}>	ns.	sf.1

The third person patient suffix *<-*u*>: The third person morpheme is widely reflected in the data. However, in the languages under scrutiny here, unlike the Kiranti languages, the reflexes of the third person proto-morpheme *<-u>

have not universally come to denote a third person *patient*, nor are they all suffixed morphemes.

In rGya-roñ, the prefix <*wu-*> denotes third person agent, whereas the rGya-roñ *portemanteau* 2s./3s. → 3 suffix <*-u*> denotes the transitive relationship between a second person singular or third person singular agent and a third person patient. The third person proto-morpheme *<-u> has come to denote third person *patient* in both the modern Răwang and the modern Jinghpaw reflexes of the morpheme, whereas the Kham suffix <*-o*> denotes third singular *agent*. The Nocte 1s. → 3s., 2s.→ 3., 2pl. → 3s. and 3 → 3s. *portemanteau* suffixes, all of which share the common semantic denominator of third singular *patient*, each contain a vocalic element which appears to reflect the third person proto-morpheme *<-u>, whereas the Nocte 3 → 2s. and 2s. → 1s./3 → 1s. *portemanteau* suffixes contain a vocalic element which, if also a reflex of the third person proto-morpheme *<-u>, represents cases in which the proto-morpheme has come to denote a third person agent. The variety of low vowels observed in the Nocte reflexes results from the fact that these *portemanteau* morphemes each probably represent the fusion of at least two proto-morphemes, one of which, the third person proto-morpheme *<-u>, is clearly reflected in the timbre of the vowels. The Răwang suffix <*-saw*> d. → 3 is the fused reflex [sɔ] of the dual proto-morpheme *<-si> (presumably <*-s> before a vowel) and of the third person proto-morpheme <*-u>.

Suōmò rGya-roñ	<*wu-*>	3A	pf.2
	<*-u*>	2s./3s. → 3	sf.1
lCog-rtse rGya-roñ	<*wu-*>	3A.	pf.2
	<*-w*>	2s./3s. → 3	sf.1
Răwang	<*-saw*>	d. → 3	sf.1
	<*-u*>	3P	sf.2
Jinghpaw	<*-we?*^{1} ~ *-e?*^{1}>	1 → 3	sf.3
	<*-nu?*^{1} ~ *-u?*^{1}>	3P	sf.3
Nocte	<*-ʌŋ ~ -ʌk*>	1s. → 3s.	sf.2
	<*-ɔ?*>	2s. → 3s.	sf.2
	<*-ʌn ~ -ʌt*>	2pl. → 3s.	sf.2
	<*-a ~ -a?*>	3 → 3s.	sf.2
	<*-hɔ?*>	3 → 2s.	sf.2
	<*-hʌŋ*>	2s.→ 1s./3 → 1s.	sf.2
Kham	<*-o*>	3s.A	sf.3

It is possible that the future tense suffix of Táoping Qiāng <*-u*^{6} ~ Ø> and the suffix <*-u?*^{1}> observed in Jinghpaw imperative endings (table 31) and in the perfective aspect forms of Jinghpaw imperatives of verbs of receding motion (table 32) are reflexes of the same third person proto-morpheme *<-u> by way of an intermediate stage in which the morpheme denoted transitive scenario before undergoing a further restriction of meaning.

The third person suffix *<*-a*>: The following set of suffixed morphemes reflects some third person actant marker *<-a>. If the Qiāng third person preterite morpheme <*-i*^{2}> is indeed cognate with the other members of the set, the raising of the vowel could be the result of the influence of, or of a coalescence with, the proto-morpheme for preterite tense *<-tɛ> (vide supra). It is unclear whether this group of morphemes reflects a distinct third person proto-morpheme *<-a> or whether it merely constitutes a subset of the reflexes of the Proto-Tibeto-Burman third person actant morpheme *<u> listed above.

Qiāng	<-*i*^{2}>	3/PT	sf.2
Jinghpaw	<Ø ~ -*a?*^{1}>	3S	sf.3
Nocte	<-*a* ~ -*a?*>	3 → 3s.	sf.2
Primi	<-*a*^{1} ~ -*ɯɯ*^{1} ~ *ua*^{1}>	3	sf.1

The dual patient suffix *<-*si*>: In Kham dual number of agent and subject is indicated by prefixes, whereas dual number of patient is indicated by suffixes. The Kham first dual patient suffix <-*sin*>, first plural patient suffix <-*si*>, second dual patient suffix <-*cin*> and second plural patient suffix <-*ci*> all appear to reflect an original morpheme *<si>, which indexed—or had come to index—non-singular number of patient. Both by virtue of their relatively posterior in the affixal string and their shared semantic function of marking non-singular patient number, these Kham suffixes appear cognate to the widely attested Kiranti reflexes of an original dual patient proto-morpheme *<-si>, which later in most languages became generalized to index non-singular patient number.

Apparently, in Kham, after the generalization of the original dual morpheme to convey the meaning non-singular number, the distinction between dual and plural actant number was preserved in dual forms by affixation of a reflex of the Tibeto-Burman numeral *g-ni-s ' two ' (Benedict, 1972: 16). The fact that Kham is the only language in this study with such reflexes along with the relatively large repertoire of prefixes in Kham could indicate that much of Kham verbal agreement is innovative in character. The Kham verbal prefixes are in fact recently accreted forms of the free pronouns (cf. word lists in Hale, 1973), whereas the suffixes of the Kham conjugation are older. Kham reflexes of Tibeto-Burman *g-ni-s ' two ' are the third person dual affixes, the prefix <*ni-*> and the suffix <-*ni*>, and the nasal element <-*n*-> in the first and second person dual morphemes, given below in juxtaposition to the corresponding plural morphemes which lack this reflex.

Kham	<*ni-*>	3d.P	pf.2
	<-*ni*>	3d.AS	sf.3
	<*gin-*>	1d.AS	pf.1
	<*ge-*>	1pl.AS	pf.1
	<-*sin*>	1d.P	sf.1
	<-*si*>	1pl.P	sf.1
	<*jin-*>	2d.AS	pf.1
	<*je-*>	2pl.AS	pf.1
	<-*cin*>	2d.P	sf.1
	<-*ci*>	2pl.P	sf.1

The second person plural suffix *<-*ni*>: A distinct second person plural marker *<-ni> is also well reflected in the modern agreement systems. The Qiāng second plural suffix <-*sɟ*^{2}-*nə*^{2}> consists of both a reflex of the Proto-Tibeto-Burman dual suffix *<-si> (vide supra) and the second plural proto-morpheme *<-ni>. The vowel in the Nocte 2pl. → 3s. *portemanteau* <-*ʌn* ~ -*ʌt*> is a reflex of the third person patient proto-morpheme *<-u>, and it is only on the basis of their distribution in the paradigm that we identify the Nocte, Qiāng, Trung and Primi suffixes with the second person plural marker *<-ni> rather than the second person proto-morpheme *<-na> (vide supra). The Tangut, rGya-roṅ and Rāwang suffixes, on the other hand, are as unequivocally reflexes of the second person plural proto-morpheme *<-ni> as the many cognate affixes in Kiranti.

Suōmò rGya-roñ	<-*ɲ*>	2pl.	sf.1
Tangut	<-*ni*^{2}>	1pl./2pl.	sf.1
Rāwang	<-*ning*>	2pl.	sf.1
Trung	<-*n*>	2pl.	sf.1
Qiāng	<-*sɟ*^{2}-*nə*^{2}>	2pl.	sf.2
Primi	<-*ɛ̃* ~ -*uə̃*^{1}>	1pl./2pl.	sf.1
Nocte	<-*ʌn* ~ -*ʌt*>	2pl. → 3s.	sf.2

The plural first and second person suffix *<-*i*>: An ancient plural morpheme *<-i> is reflected by the following modern suffixes:

Suōmò rGya-roñ	<-*i*>	pl.	sf.2
lCog-rtse rGya-roñ	<-*y*>	pl.	sf.2
Rāwang	<-*i*>	1pl.	sf.1
Trung	<-*i*>	1pl.	sf.1
Qiāng	<-*əɹ*^{2} ~ -*i*>	1e.	sf.2
Lakher	<-*éi*>	Weidert: pl. → 1s. Savidge: 2pl.P	sf.1

The ancient plural morpheme *<-i> appears to have indexed plural number of a first or second person actant. The second person proto-morpheme *<-ni> (vide supra) could in fact be composed of the Tibeto-Burman second person morpheme *<-na> and this ancient plural marker *<-i>.

The first person plural suffix *<-*k*>: The widely attested Proto-Kiranti first person plural morpheme *<-*k*> has a cognate in Jinghpaw and perhaps also in the innovative verbal prefixes of Kham.

Jinghpaw	<-*kaʔ*^{1}>	1pl.S	sf.3
Kham	<*gin*->	1d.AS	pf.1
	<*ge*->	1pl.AS	pf.1

As pointed out above, the Kham agreement prefixes are recent accretions, and much of Kham verbal morphology might be innovative.

The various suffixes reflected in the material under comparison are not ordered in a random fashion. The rGya-roñ material supports a dual suffix *<-si>, marking agent number, in a position posterior to that of the first and second person suffixes, *<-ŋa> and *<-na>. The Rāwang data support a dual suffix *<-si>, marking agent number, in a position anterior to the third person suffix *<-u>. The Qiāng material suggests that the second plural proto-morpheme *<-ni> followed at least one of these dual suffixes. The Jinghpaw reflex of the first plural morpheme *<-k> occupies a rather posterior position in the suffixal string, although the Kham allofams occur as prefixes. Prefixation in Kham appears to be one of several innovative traits in the verbal morphology of the language; the many Kham reflexes of Tibeto-Burman *g-ni-s ' two ', for example, appear to be recent accretions acquired after generalization of the ancient dual morpheme had taken place. Where the meaning of the ancient dual morpheme has not been generalized to cover the notions of non-singularity or of plurality, it has preserved its original dual meaning. The material unambiguously suggests that the tense morpheme *<-tɛ> and the reflexive suffix *<-nši> occupied an anterior position in the suffixal string, an idea also strongly supported by the Kiranti material.

Table 44: *Tibeto-Burman conjugational prefixes*

kɛ		
2		
a-	*me-*	VERB
1	pA	STEM
ta- ~ na-		
marked scenario		

The second person prefix *<*kɛ-*>: On the other hand the Suōmò rGya-roñ 2 → 1 *portemanteau* prefix, the lCog-rtse rGya-roñ 2 → 1 *portemanteau*, the Limbu second person prefix and, more distantly, the innovative Kham second dual and second plural agent/subject prefixes appear to reflect an ancient second person prefix *<kɛ->. The relationship, if any, between these prefixes and the Suōmò rGya-roñ third person non-singular subject prefix <*kə-*> in intransitive forms is obscure.

Suōmò rGya-roñ	<*kəu-*>	2 → 1	pf.1
	<*kə-*>	3ns.S	pf.1
lCog-rtse rGya-roñ	<*kəw-*>	2 → 1	pf.1
Limbu	<*kɛ-*>	2	pf.1
Kham	<*jin-*>	2d.AS	pf.1
	<*je-*>	2pl.AS	pf.1

Whereas the recently accreted Kham prefixes second dual <*jin-*> and second plural <*je-*> agent/subject prefixes may be palatalized allofams of this ancient second person prefix *<kɛ->, the Kham suffixes second dual patient <*-cin*> and second plural patient <*-ci*> suffixes, in contradistinction to the Kham first dual <*-sin*> and first plural <*-si*> patient suffixes, may reflect the same palatalized second person marker, fused with the dual proto-morpheme *<-si> (vide infra). There is some evidence to support the idea that Kham /j/ in some cases results from palatization of older *k, e.g. Kham *'jeln.o* ' high, tall ', cf. Limbu *ke:nma?, -ke:nd-/-ke:n-* ' be tall, long '; Kham *'ji:h* ' blood ', cf. Limbu *ma:khi* ' blood ', whereby it is assumed that the last syllable in the Limbu form is the cognate etymon; Kham *bəhtanji* ' potato ', cf. Dumi *ki:* ' tuber, radish, potato ', whereby I assume the last syllable in the Kham form to be cognate. The Kham material is quite limited, however, and in many instances no palatalization seems to have occurred, e.g. Kham *'ki:* ' faeces ', cf. Dumi *khil* ' faeces ', Limbu *hi* ' faeces ', Kham *kəy-nya* ' bite ', cf. Dumi *ka:tni* ' bite '. Other possible palatalized reflexes of the second person morpheme are found in Lakher, one prefix and one suffix.

Lakher	<*tsə̄-*>	2P	pf.4
	<*-tsī*>	2 → 1s.	sf.2
Kham	<*-cin*>	2d.P	sf.1
	<*-ci*>	2pl.P	sf.1

Watters (1991) reports that the various Kham dialects, which differ markedly in their declensional and conjugational morphologies, ' cluster into three or four major groupings or branches, each mutually unintelligible with the rest '. In fact, ' [w]hat may be suffixing in one may be prefixing in another, and the morphemes themselves may have derived from entirely different etyma.' On the basis of the limited material made available to date, it remains unclear whether the variation in verbal morphology between Kham dialects also

involves the candidate allofamic reflexes for the second person proto-morpheme *<kɛ->, viz. the Kham second dual agent/subject prefix <*jin-*> and the second plural agent/subject prefix <*je-*>. Complete descriptions of the Kham dialects of 'Nisi', 'Gam', 'Shesi' and 'Mhai' and synchronic analyses of their verbal morphologies remain a *desideratum*.

The modern Yakkha reflex of the second person proto-morpheme *<kɛ-> is the second person suffix <*-ga*>, which, however, occupies an extremely posterior position in the suffixal string of a Yakkha verb (van Driem, forthcoming (b)). The anomalous position of the Yakkha reflex could suggest that the second person proto-morpheme *<kɛ-> is not of as great an antiquity as other prefixed morphemes.

The marked scenario prefix *<*ta- ~ na-*>: The rGya-roñ 1 → 2 *portemanteau* <*ta-*> in both the Suōmò and lCog-rtse dialects appears related to the Suōmò second person prefix <*tə-*> and the lCog-rtse rGya-roñ 2 ↔ 3 scenario marker <*tə-*>. These rGya-roñ prefixes appear to reflect an older rGya-roñ prefix *<ta->, marking some scenario involving a second person actant, and some vocalic prefix *<- ə> which followed it in the prefixal string. At our present state of knowledge it is still just speculation to posit a relationship between this hypothetical prefix *<-ə> and the third person proto-morpheme *<-a>, discussed above, reflexes of which occur as suffixes. The hypothetical prefix *<-ə> may be reflected in the Lakher 3 → 3/3 → 2 scenario marker prefix <ə̄->.

Suōmò rGya-roñ	<*ta-*>	1 → 2	pf.1
	<*tə-*>	2	pf.1
lCog-rtse rGya-roñ	<*ta-*>	1 → 2	pf.1
	<*tə-*>	2 ↔ 3	pf.1
Lakher	<ə̄->	3 → 3, 3 → 2	pf.2

The data of languages beyond the Kirant suggest that prefixation may be an ancient Tibeto-Burman morphological process, and that agreement prefixes in Limbu, Dumi and Khaling could represent the retention of an archaic trait. Yet the reservation expressed on the basis of the Yakkha material above concerning the antiquity of the second person proto-morpheme *<*kɛ-*> may be interpreted as indicating that prefixation itself is a more recent process than suffixation in the development of Tibeto-Burman verbal agreement systems.

The Trung prefix <*nɯ²- ~ na¹-*> and the Rāwang prefix <*è-*> are marked scenario markers with a paradigmatic distribution identical to that of the Dumi marked scenario prefix <*a-*>, viz. they occur in verbal scenarios involving a first or second person actant but *not* a first person agent or subject. As pointed out in section 6 above, the prefix <*i-*> in Khaling, which is probably the closest linguistic relative to Dumi, marks 2 → 1, 3 → 1 and 3 → 2 transitive scenarios but not 2 → 3 transitive scenarios. This supports the idea that morphemes like the Dumi marked scenario morpheme are readily re-analysed and may originate from re-analysed or generalized person morphemes.

This should not be confused with the phenomenon observed in the Phedāppe dialect of Limbu where 2 → 3 verb forms are marked by the first person prefix <*a-*> and the second person prefix <*kɛ-*>, e.g. *khɛnchi agɛmbi:nɛnni?* 'Won't you two give it to me/us?' but the first singular prefix <*a-*> is dropped if the indefinite pronoun *na:pmi* or *ya:pmi* 'one, someone, someone else' is used, in a sense comparable to that of the French pronoun *on*, as the patient preceding the verb, e.g. *khɛnchi na:pmi kɛmbi:nɛnni?* 'Won't you

two give it to me/us?'. The pronoun is also used independently in other contexts, e.g. *na:pmi-r-en* 'someone else's'. Grammatically speaking, Limbu finites in collocation with *na:pmi* ~ *ya:pmi* are 2 → 3 forms.

The first person prefix *<*a-*>: It appears that the agreement prefixes observed in the Tibeto-Burman languages under investigation reflect diverse proto-affixes which have undergone varying re-analyses. The Rǎwang and Dumi marked scenario prefix, the Lakher and Limbu first person prefixes and the Khaling 2 → 1/3 → 1/3 → 2 scenario marker may reflect a first person prefix *<a->.

Rǎwang	<*è-*>	marked scenario	pf.1
Lakher	<*ēi-*>	1	pf.1
Limbu	<*a-*>	1	pf.1
Dumi	<*a-*>	marked scenario	pf.1
Khaling [5]	<*i-*>	2 → 1, 3 → 1 3 → 2	pf.1

The Trung marked scenario prefix <*nɯ²- ~ na¹-*> and the Lakher 2 → 1/3 → 1/2 → 3 scenario marker <*nə̄-*> appear to be cognate and could reflect a prefixed form of an ancient second person morpheme *<na> (vide supra).

Trung	<*nɯ²- ~ na¹-*>	marked scenario	pf.1
Lakher	<*nə̄-*>	2 → 1, 3 → 1, 2 → 3	pf.2

It is unclear whether the Jinghpaw first person patient suffix <*-ni?¹*> and the Kham first person singular patient suffix <*-na*> are in any way related or reflect historically distinct morphemes.

Jinghpaw	<*-ni?¹*>	1P	sf.3
Kham	<*-na*>	1s.P	sf.1

The plural agent prefix *<*me-*>: Proto-Kiranti third person plural agent prefix *<me-> has a cognate reflex in the Lakher plural agent prefix <*mə́-*>, and the Proto-Kiranti first and second person plural number suffix has a cognate in the Jinghpaw plural number suffix <*-m ~ -mā¹*>.

Lakher	<*mə́-*>	pl.A	pf.3
Jinghpaw	<*-m ~ -mā¹*>	pl.	sf.1

Kham has several reflexes of a third plural morpheme which may reflect an isolated development.

Kham	<*ya-*>	3pl.P	pf.2
	<*ra-*>	3ns. → 3ns.	pf.3
	<*-rə*>	3pl.AS	sf.3

14. *The evolution of the Tibeto-Burman verb*

In contradistinction to the conjugational model proposed by Bauman shown in tables 1 and 2, the periphrastic model presented here reflects a fixed morphosyntactic order of elements which later, through a process of agglutination, developed into the agreement indices of a conjugational type. The fact that vestiges of the same periphrastic agreement system can be found in languages of so many disparate branches of the family suggests that a periphrastic verbal agreement system existed at the Proto-Tibeto-Burman level, and that the pronominalization observed in so many far-flung Tibeto-

[5] See preceding footnote.

Burman languages reflects this common periphrastic system. (Cf. table 3, which represents a conservative *Stammbaum* of the family, modified from Benedict, 1972 and DeLancey, 1987). Auxiliary verbs may have played a role in the periphrastic Proto-Tibeto-Burman verbal agreement system, as posited in the model for the Proto-Kiranti verb (van Driem, 1990a: 47, 1992: 72, 1991b: 354), and these auxiliaries might even account for some of the unexplained vocalism in the modern agreement indices.

As pointed out in the preceding section, the suspected reflexes of the third person morpheme *<-a> could be but a subset of the reflexes of the third person patient morpheme *<-u>.

The third person proto-morpheme *<-u> denotes a patientive actant in Rāwang, Jinghpaw and in all of the Kiranti languages studied. The agentive meaning of the modern Kham reflex could be one of that language's innovative traits. Nocte reflects both an agentive and a patientive meaning for this morpheme, but reflects the latter unambiguously and more prominently. The rGya-roñ prefixed reflex <*wu-*> is a third person agent marker, but the suffixed reflex marks third person patient. This rGya-roñ phenomenon may represent an artefact of a very old element order parallel to the modern English order, viz. ' he hits . . .' and '. . . hits him ', which has become obscured elsewhere where only the patientive, suffixal meaning has prevailed.

Turning to the prefixes, the plural agent morpheme *<me-> is reflected as a prefix in Lakher but as a suffix in Jinghpaw. Jinghpaw lacks prefixes, however, and it is noteworthy that the Jinghpaw reflex, the plural actant morpheme <*-m ~ -mā*^{1}>, is the only person and number morpheme to precede the tense reflex in a suffixal string anywhere in the data. This corroborates the view that prefixation in general is an older process than suffixation in Tibeto-Burman.

In Limbu and rGya-roñ, the reflexes of the second person prefix *<kɛ-> are prefixes, whereas in Lakher and Kham, the reflexes occur both as prefixes and as suffixes. In Lakher and Kham, however, the reflexes of the old second person morpheme *<kɛ-> have undergone palatalization at some point in the history of these languages, which does not by itself, however, provide unequivocal support for the idea that the prefixal status of the morpheme in rGya-roñ and Limbu is an archaic trait. The provenance of the Suōmò rGya-roñ third person non-singular subject prefix <*kə-*> in intransitive forms is uncertain.

The first person prefix *<a-> is reflected in Limbu, Dumi and Khaling and, beyond the Kirant, in Rāwang and Lakher.

The only unambiguous evidence for the prefix *<*ta-*> in the material presented here is to be found in rGya-roñ. However, preliminary reports indicate that this prefix is also preserved in Southern Kiranti languages like Bantawa, Puma and Chamling (Ebert, 1990, 1991). Although the data adduced are left unanalysed in her discussion, Chamling <*ta-*> and Bantawa <*tu-*>, for example, appear to be scenario markers in some way connected with the second person. The Trung marked scenario prefix <*nɯ*^{2}*- ~ na*^{1}*->* and the Lakher 2 → 1, 3 → 1, 2 → 3 prefix <*nə̄-*> may reflect either the prefixal usage of the second person morpheme *<na>, re-analysed as a scenario marker, or may be somehow tied to the scenario prefix *<ta-> reflected in rGya-roñ and Southern Kiranti.

Although much evidence for prefixation is to be found outside of the Kirant, the total repertoire of historically distinct morphemes is meagre. This circumstance is of great significance, suggesting ancient prefixed pronouns which lost their original meanings when new pronouns began to be suffixed

to the verb. This process can be vizualized when we imagine forms like modern French *Je l'ai donné /ʒledɔne/* ' I gave it ' giving rise to forms like *Je l'ai donné, moi /ʒledɔne-mwa/* ' *I* gave it ' and *Je l'ai donné, ça /ʒledɔne-sa/* ' I gave *it* '. The only evidence for the tentative element order in the Tibeto-Burman prefixal string shown in table 44 comes from Limbu and, to some extent, from rGya-roñ.

The system of Tibeto-Burman correspondences in tables 43 and 44 and the periphrastic model of the Proto-Kiranti verb (van Driem, 1991b) manifestly reflect the same ancient system of affixation. This demonstrates that the elaborate verbal agreement systems observed in Kiranti languages are not just a highly localized development restricted to the eastern Himalayas, but reflect a verbal conjugation of Proto-Tibeto-Burman provenance. The Proto-Tibeto-Burman system of verbal agreement has been preserved more faithfully in languages with less degenerate phonologies than in those which have undergone Draconian restrictions on syllable structure and polysyllabicity.

The fact that the Tibeto-Burman processes of prefixation are reflected widely beyond the Kirant signifies that these prefixes are extremely ancient, whereas at least a portion of the rich inventory of agreement suffixes in Kiranti may be innovations. This view provides an explanation for the copy morphemes widely attested in Kiranti, for the fact that prefixes are reflected beyond the Kirant as well as within the Kiranti-speaking region of the eastern Himalayas, and for the origin of marked scenario prefixes in Tibeto-Burman.

Nichols (1986) demonstrated that the two typological criteria of headedness and morphological marking of syntactic relations are structural parameters directly correlated with genetic relatedness. It is highly improbable that languages which are remote from each other on the typological spectrum, ranging from head-marking to dependent-marking morphosyntax, are genetically related. Those languages with little or no morphology, however, have no place within this spectrum at all. Because the elaborate verbal morphology of Tibeto-Burman appears to be demonstrably native, the loss of morphology in Chinese and some other Sino-Tibetan languages would have to be a secondary development. The loss of the common Tibeto-Burman morphological system is not observed in languages which, by virtue of either their geographically peripheral position (e.g. Tangut) or the sheer inaccessibility of their homelands (e.g. Kiranti in the rugged eastern Himalayas or rGya-roñ, Rāwang, Nùsū and Trung in the mountainous region along the upper courses of the Mekong, Salween, Brahmaputra and Yangtze) enjoyed relative stability as linguistic communities, being shielded off from mass migrations of populations which swept through the eastern and south-eastern parts of Asia.

Although Lehmann (1985: 316) claims that in language ' there is much change just for the sake of change ', it seems rather that *the stability of a linguistic community* has a lot to do with language change and the rate of language change. The fact that a literate modern-day Georgian can read sixth- and seventh-century Georgian gospels, albeit with some difficulty, is in striking contrast to the drastic metamorphoses which English has undergone since the Norman invasion. It is possible that *the stability of a linguistic community* is the unifying causative factor underlying the spatial linguistic norms for the retention of archaic traits described by Bàrtoli (1942, 1945), viz. *norma dell'area maggiore, norma dell'area meno esposta, norma dell'area seriore, norma dell'aree laterali*, in those cases in which these norms actually appear to apply. This idea is not new to comparative Indo-European linguistics: ' talen die geïsoleerd en in rust bestaan, veranderen weinig. Daarentegen heeft men

geconstateerd dat veranderingen vaak in korte tijd zeer ingrijpend zijn, en wel in tijden van maatschappelijke en politieke veranderingen. Het lijkt er dus op dat invloed van andere taalsystemen de belangrijkste factor voor klankverandering is' (Beekes, 1990: 99–100).

For eastern Asia we might visualize the following situation. The Austro-Asiatic (Mon-Khmer, Nicobarese, Munda) *Urheimat* lay in South Asia. The *Urheimat* of three other great linguistic stocks lay in eastern Asia. The *Urheimat* of Proto-Tibeto-Burman, a language which seems to have been characterized by complex syllable structure and elaborate morphology, may, as Matisoff (1973) speculates, have lain along the upper course of the Brahmaputra, Salween, Mekong and Yangtze. The Proto-Austronesian *Urheimat* lay in Formosa. Proto-Austronesian syllable structure was by contrast simple and subject to numerous constraints. The Altaic languages (Turkic, Mongolian, Manchu-Tungusic) lay between the upper course of the Yenisei and the Amur. Hypothetical *Völkerwanderungen* led to ancient contact situations which ultimately resulted in the linguistic situation observed today.

In his view, Japanese may be thought of as an Austronesian language in the mouths of an ancient Altaic population or an Altaic language in the mouths of ancient Austronesians. Benedict (1990) recently presented a large body of evidence in support of the theory that the bearers of the Yayoi culture, who introduced advanced technologies and rice-agriculture into Japan from the south in the first millennium B.C., spoke an Austronesian language. This language may have been adopted by an indigenous population to be identified with the older Jōmon culture. It is possible that Japanese is genetically Altaic, as Miller (1971) and Patrie (1982) maintain, but endowed with a vast Austronesian loan vocabularly, adopted after the advent of the bearers of the Yayoi culture, in the same way as English, although a Germanic language, acquired a vast Romance loan vocabulary after the Norman invasion.

Chinese may be thought of as an ancient Tibeto-Burman language in the mouths of an Altaic-speaking population. Benedict (1972: 197) suggests that the Shāng dynasty, which in the eleventh century B.C. was overthrown by Zhōu invaders from the west, represented a non-Sino-Tibetan population. The Tibeto-Burman language introduced by the Zhōu came to be written in the pictogrammatic script developed by the Shāng as the latter were linguistically assimilated to the Zhōu.

Thai and the other Kadai languages as well as the Miáo-Yáo (Hmong-Mien) family may, by contrast, represent what became of an ancient language possibly related to Austronesian in the mouths of Tibeto-Burmans.[6] Speculations such as that of Hagège and Haudricourt (1978: 163) that 'dans le monde chinois, on pourrait se demander s'il ne faut pas considérer le cantonais et le hakka comme les résultats de l'évolution du chinois, respectivement sur un substrat thaï et sur un substrat yao' pertain to the historically documented Chinese migrations to the south in a much later epoch than the events envisaged here.

The extreme contact situations assumed in this scenario resulted in far-reaching language simplification, whereby the fundamental linguistic phenomenon of tone provided the solution to the problem of the basic incompatibility of highly divergent linguistic types. Both tonogenesis and the loss of morphology are the natural result of such extreme linguistic simplification.

[6] Recently, Sagart (1990) has advanced the daring hypothesis that even Chinese is genetically related to Austronesian rather than, or more so than, to Tibeto-Burman.

The historical scenarios proposed here provide an explanation for the linguistic typology of eastern Asia as well as for the ancient loss of the common Tibeto-Burman conjugational system in languages such as Chinese.

The actual historical situation may have been more complicated than the scenarios outlined here. As long as most languages in the area have yet to be described and few reliable lower level reconstructions are available (e.g. Proto-Formosan, Proto-Hmong-Mien and Proto-Kadai are sorely needed, to name but a few), Sino-Tibetan and similar reconstructions will often tend to be like comparing Dutch *hebben* 'have' and *kop* 'head' with Latin *habēre* 'have' and *caput* 'head'. Meanwhile systematic comparison of morphological processes may afford the firmer soil upon which lower level and ultimately more reliable higher level reconstructions can be developed.

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