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BAHING AND THE PROTO-KIRANTI VERB [1]

By GEORGE VAN DRIEM

Data on the Bahing verbal agreement system were collected in the first half of the nineteenth century and in the second half of the twentieth century. The current periphrastic model of the Proto-Kiranti verb is evaluated in the light of a morphemic analysis of the Bahing conjugation. This re-assessment leads to a refinement of the model of the Proto-Kiranti verb.

1. *Bahing*

Bahing is a Kiranti (Nepali: *Kirāntī, Kirãtī*) language spoken in Okhaldhuṅgā district of eastern Nepal, first studied by Hodgson (1857, 1858) and more than a century afterwards by Michailovsky (1975). The Kiranti languages are spoken in the eastern Himalayan region of Nepal known as the Kiranti (Nepali: *Kirãt*). The Kirant is traditionally divided into three areas: *Pallo Kirãt* or 'Far Kirant', *Mājh Kirãt* or 'Middle Kirant' and *Vallo Kirãt* or 'Near Kirant'.

The *Pallo Kirãt* comprises the greater part of Nepal's Kośī and Mecī Zones and constitutes the area known as Limbuvān, the tribal homeland of the Limbus and other tribes speaking Eastern Kiranti languages, viz. *Āṭhpahariyā, Belhariyā,* Chintang, Lambichong, *Sām*, Lohorung and Yakkha. The *Mājh Kirãt* is the home of various Rai tribes (Nepali: *Rāī*), viz. Bahing, Bantawa, Chamling, Chukwa, Dimali, Dumi, Dungmali, Khaling, Khesang, Kohi, Kulung, Mewahang, Nachering, Puma, Sangpang, Thulung and Tilung. Furthest west and nearest to the Kathmandu Valley, the *Vallo Kirãt* includes the tribal homelands of the Chaurasia, Hayu, Jerung and Sunwar.

The conjugations of Kiranti verbs are characterized by person and number agreement with one or two actants. In the Kiranti context, an *agent* is defined as the most agentive actant with which a transitive verb agrees for person and number. A *patient* is defined as the less agentive actant with which a transitive verb shows person and number agreement, and a *subject* is the actant with which an intransitive or reflexive verb agrees. Furthermore, singular number is one; dual is two; non-singular is two or more; plural number is three or more.

In the following, Hodgson's original transcription is maintained when citing Hodgson's data, and Michailovsky's transcription is observed when presenting Michailovsky's data. The differences between the two systems are minimal. It should be kept in mind that where Hodgson (1857, 1858) uses the letter *y* for a palatal glide, the digraph *gn* for a velar nasal before a vowel and the digraph *ng* for a velar nasal following a vowel, Michailovsky (1975) uses the current international phonetic symbols *j* and *ŋ*. In general, Hodgson's older transcription is relatively straightforward. However, it is not entirely clear which sound or sounds are represented in Hodgson's transcription by *sch* (*vide infra*), although on the basis of his transcriptions elsewhere, I would judge it to represent an [s] followed by a voiceless palatal occlusive of some kind.

[1] *Abbreviations*

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

Hodgson's use of *accent aigu* in the Bahing material, and in many of his other publications as well, appears to me to be erratic. I believe that the *accent aigu* in the Bahing material is of no significance whatsoever, and although I have recorded it faithfully in those forms in which Hodgson employs it, it has not been taken into consideration in the following discussion.

Forms from other Kiranti languages are given as they appear in the sources. In accordance with widespread convention, morphemes and allomorphs are given between pointed brackets, phonemes between slanted brackets, and allophones and phonetic transcriptions between square brackets. In tables 1 to 3, square brackets are also used to indicate copy morphemes.

Like most other Kiranti languages, Bahing distinguishes eleven pronominal categories. The eleven Bahing personal pronouns as they appear in Hodgson (1858: 393–6) are: *go* 'I', *gósi* 'we' (dual inclusive), *gósúkú* 'we' (dual exclusive), *gó-i* 'we' (plural inclusive), *goku* 'we' (plural exclusive), *ga* 'you' (singular), *gasi* 'you' (dual), *gani* 'you' (plural), *harem* 'he/she', *harem dausi* 'they' (dual), and *harem dau* 'they' (plural). The third person pronouns have distinct proximal forms, viz. *yam* 'he/she', *yam dausi* 'they' (dual), and *yam dau* 'they' (plural), and distal forms, viz. *myam/myem* 'he/she', *myam/myem dausi* 'they' (dual), and *myam/myem dau* 'they' (plural).

Table 1: *Bahing (Hodgson, 1858)*

	intransitive endings	reflexive endings
1 s.	Σ-*gna*	Σ-*signa*
	Σ-*ti*	Σ-*sti*
1 d.i.	Σ-*sa*	Σ-*scha*
	Σ-*tasa*	Σ-*stasa*
1 d.e.	Σ-*suku*	Σ-*schuku*
	Σ-*tasuku*	Σ-*stasuku*
1 pl.i.	Σ-*ya*	Σ-*siya*
	Σ-[*n*]*tayo*	Σ-*stayo*
1 pl.e.	Σ-*ka*	Σ-*sika*
	Σ-[*k*]*tako*	Σ-*stako*
2 s.	Σ-*e*	Σ-*se*
	Σ-*te*	Σ-*ste*
2 d.	Σ-*si*	Σ-*schi*
	Σ-*tasi*	Σ-*stasi*
2 pl.	Σ-*ni*	Σ-*sini*
	Σ-*tani*	Σ-*stani*
3 s.	Σ	Σ-*se*
	Σ-*ta*	Σ-*sta*
3 d.	Σ-*se*	Σ-*sche*
	Σ-*tasa*	Σ-*stasa*
3 pl.	Σ-*me*	Σ-*sime*
	Σ-[*m*]*tame*	Σ-*stame*

The intransitive endings of the Bahing verb in table 1 are taken from the complete paradigm of the open stem verb <*pi*> 'to come' as provided by Hodgson (1858: 425). An epenthetic glide /*y*/ occurs in the non-preterite second person singular between the vocalic suffix and the open stem, but does not appear in the corresponding forms of closed stem verbs in Hodgson's material. The endings of the reflexive paradigm in the table are given as they appear in the reflexive conjugation of the verb <*já*> 'to eat' (Hodgson, 1858: 413). In each compartment in tables 1 to 3 the non-preterite endings of the verb are given first and the preterite endings beneath them.

The endings for the Bahing transitive conjugation, shown diagramatically in table 2, are based on the paradigms which Hodgson (1958: 407–25) provides for the verbs <*já*> 'to eat' and <*bréti ~ brét*> 'to summon'. Hodgson specifies the root of the verb 'to summon' as <*bré*>, but it is evident from the elaborate paradigm he provides that the stem of this verb must be specified as <*brét*> in the preterite and <*bréti*> in the non-preterite. The final /*i*/ of the non-preterite stem elides before a vowel, viz. before the 1 s.→3 s./NPT *portemanteau* morpheme <*-u*>, the second singular patient/subject morpheme <*-e*>, the 3 s.→3 *portemanteau* morpheme <*-a*> and the first singular patient/subject morpheme <*-i*>.

In Hodgson's conjugation of the verb <*já*> 'to eat', the epenthetic glide /*y*/ appears between the open stem and the second singular patient/subject morpheme <*-e*> and the first singular patient/subject morpheme <*-i*>, and the epenthetic glide /*w*/ before the 3 s.→3 morpheme <*-a*>. Lastly, the ending <*-tasi*> in the preterite 2 d.→1 s. form of <*já*> 'to eat' (1858: 420) is evidently a misprint; the preterite 2 d.→1 s. ending appears correctly as <*-tisi*> in the conjugation of <*bréti ~ brét*> 'to summon' (Hodgson 1858: 424).

In table 2, with the exception of the endings <*-ú*> and <*-úmi*> in 1 s.→3 forms, all vowels marked with an *accent aigu* are taken as they appear in Hodgson's paradigm of the open stem verb <*já*> 'to eat'. None of these same vowels in the endings are marked with *accent aigu* in Hodgson's transitive paradigm of <*bréti ~ brét*> 'to summon' except for the endings <*-ú*> and <*-úmi*> in 1 s→3 forms.

A morphemic analysis of Bahing conjugational endings enables us to isolate semantically and formally defined units which can be compared with inflectional morphemes of the already analysed Limbu, Dumi, Hayu, Kulung, Thulung and Lohorung verbal systems. An overview of the agreement suffixes and suffixal slots of the Bahing verb in the early nineteenth century is presented in the following chart.

sf. 1	sf. 2	sf. 3	sf. 4	sf. 5	sf. 6	sf. 7	sf.8
<*-n*> 1 s.→2	<*-ta*> PT	<*-gna*> 1 s.S/NPT	<*-si*> d.PS	<*-ya*> 1 pl.i.AS	<*-ni*> 2 pl.	<*-si*> d.A	<*-si*> 3 d.
<*-p*> 23 s.→3		<*-i*> 1 s.PS	<*-sa*> 1 d.i.	<*-ka ~ -ko ~ -ku*> 1 e.AS			<*-mi*> 3 pl./1pl.e.
<*-n*> 1 pl.i.AS		<*-u ~ -gna*> 1 s.→3/NPT	<*-su*> 1 d.e.				
<*-k*> 1 pl.e.		<*-ong*> 1 s.→3/PT		<*-ki*> 1 e.P			
<*-n*> 2 pl.⇋3		<*-na*> 1 s.→2					
<*-m*> 3 pl.→3/3 pl.S		<*-a*> 3 s.→3					
<*-si*> REF		<*-i ~ -eu*> 2 s.→3					
		<*-e*> 2 s.PS					
		<*-so*> 1 i.P					
		<*-se*> 3 d.→3/3 d.S					
		<*-me*> 3 pl.→3/3 pl.S					

Table 2: *Endings of the Bahing transitive paradigm (Hodgson, 1858)*

AGENT	PATIENT: 1 s.	1 d.i.	1 d.e.	1 pl.i.	1 pl.e.	2 s.	2 d.	2 pl.	3 s.	3 d.	3 pl.
1 s.						Σ-*ná* Σ-*[n]tana*	Σ-*nási* Σ-*[n]tanasi*	Σ-*náni* Σ-*[n]tanani*	Σ-*gna/Σ-ú* Σ-*tong*	Σ-*gnasi/Σ-usi* Σ-*tóngsi*	Σ-*gnami/Σ-úmi* Σ-*tóngmi*
A 1 d.i.									Σ-*sa* Σ-*tásá*	Σ-*sasi* Σ-*tásási*	Σ-*sami* Σ-*tásámi*
1 d.e.						Σ-*esi* Σ-*tesi*	Σ-*sisi* Σ-*tasisi*	Σ-*nisi* Σ-*tanisi*	Σ-*suku* Σ-*tásúku*	Σ-*sukusi* Σ-*tásúkúsi*	Σ-*sukumi* Σ-*tásúkúmi*
G 1 pl.i.									Σ-*ya* Σ-*[n]táyo*	Σ-*yasi* Σ-*[n]táyosi*	Σ-*yami* Σ-*[n]táyómi*
1 pl.e.						Σ-*emi* Σ-*temi*	Σ-*simi* Σ-*tasimi*	Σ-*nimi* Σ-*tanimi*	Σ-*ka* Σ-*[k]táko*	Σ-*kasi* Σ-*[k]tákósi*	Σ-*kami* Σ-*[k]tákómi*
E 2 s.	Σ-*i* Σ-*ti*		Σ-*siki* Σ-*tasiki*		Σ-*ki* Σ-*[k]taki*				Σ-*i* Σ-*[p]teu*	Σ-*isi* Σ-*[p]teusi*	Σ-*imi* Σ-*[p]teumi*
2 d.	Σ-*isi* Σ-*tisi*		Σ-*sikisi* Σ-*tasikisi*		Σ-*kisi* Σ-*[k]takisi*				Σ-*si* Σ-*tási*	Σ-*sisi* Σ-*tásisi*	Σ-*simi* Σ-*tásimi*
N 2 pl.	Σ-*ini* Σ-*tini*		Σ-*sikini* Σ-*tasikini*		Σ-*kini* Σ-*[k]takini*				Σ-*ni* Σ-*[n]táni*	Σ-*nisi* Σ-*[n]tánisi*	Σ-*nimi* Σ-*[n]tánimi*
3 s.	Σ-*i* Σ-*ti*	Σ-*so* Σ-*taso*	Σ-*siki* Σ-*tasiki*	Σ-*so* Σ-*taso*	Σ-*ki* Σ-*[k]taki*	Σ-*e* Σ-*te*	Σ-*si* Σ-*tasi*	Σ-*ni* Σ-*[n]tani*	Σ-*a* Σ-*[p]ta*	Σ-*asi* Σ-*[p]tasi*	Σ-*ami* Σ-*[p]tami*
T 3 d.	Σ-*isi* Σ-*tisi*	Σ-*sosi* Σ-*tasosi*	Σ-*sikisi* Σ-*tasikisi*	Σ-*sosi* Σ-*tasosi*	Σ-*kisi* Σ-*[k]takisi*	Σ-*esi* Σ-*tesi*	Σ-*sisi* Σ-*tasisi*	Σ-*nisi* Σ-*[n]tanisi*	Σ-*se* Σ-*tase*	Σ-*sesi* Σ-*tásesi*	Σ-*semi* Σ-*tásemi*
3 pl.	Σ-*imi* Σ-*timi*	Σ-*somi* Σ-*tasomi*	Σ-*sikimi* Σ-*tasikimi*	Σ-*somi* Σ-*tasomi*	Σ-*kimi* Σ-*[k]takimi*	Σ-*emi* Σ-*temi*	Σ-*simi* Σ-*tasimi*	Σ-*nimi* Σ-*[n]tanimi*	Σ-*me* Σ-*[m]tame*	Σ-*emesi* Σ-*[m]tamesi*	Σ-*memi* Σ-*[m]tamemi*

Table 3: *Endings of the Bahing transitive paradigm (Michailovsky, 1975)*

AGENT	PATIENT 1 s.	1 d.i.	1 d.e.	1 pl.i.	1 pl.e.	2 s.	2 d.	2 pl.	3 s.	3 d.	3 pl.
1 s.						Σ-*na* Σ-[*n*]*tana*	Σ-*nasi* Σ-[*n*]*tanasi*	Σ-*nani* Σ-[*n*]*tanasi*	Σ-*ŋa*/Σ-*u* Σ-*tɔŋ*	Σ-*ŋasi*/Σ-*usi* Σ-*tɔŋsi*	Σ-*ŋami*/Σ-*umi* Σ-*tɔŋmi*
A 1 d.i.									Σ-*sa* Σ-*tasa*	Σ-*sasi* Σ-*tasa*	Σ-*sami* Σ-*tasa*
1 d.e.						? Σ-*si* Σ-*tasu*			Σ-*su* Σ-*tasu*	Σ-*susi* Σ-*tasu*	Σ-*sumi* Σ-*tasu*
G 1 pl.i.									Σ-*ja* Σ-[*N*]*taja*	Σ-*jasi* Σ-[*N*]*taja*	Σ-*ja*(*mi*) Σ-[*N*]*taja*
1 pl.e.						Σ-*ka* Σ-[*k*]*takø*			Σ-*ka* Σ-[*k*]*takø*	Σ-*kasi* Σ-[*k*]*takø*	Σ-*ka*(*mi*) Σ-[*k*]*takø*
E 2 s.	Σ-*i* Σ-*ti*		Σ-*si* Σ-*tasi*		Σ-*ki* Σ-[*k*]*taki*				Σ-*i* Σ-[*p*]*ti*	Σ-*isi* Σ-[*p*]*tisi*	Σ-*imi* Σ-[*p*]*timi*
2 d.	Σ-*isi* Σ-*tisi*								Σ-*si* Σ-*tasi*	Σ-*si*(*si*) Σ-*tasi*	Σ-*simi* Σ-*tasimi*
N 2 p.	Σ-*ini* Σ-*tini*		Σ-*sikini* Σ-*tasi*(*kini*)		Σ-*ki* Σ-[*k*]*takini*				Σ-*ni* Σ-[*n*]*tani*	Σ-*ni*(*si*) Σ-[*n*]*tani*	Σ-*ni*(*mi*) Σ-[*n*]*tani*
3 s.	Σ-*i* Σ-*ti*					Σ-*e* Σ-*te*		Σ-*ni* Σ-[*n*]*tani*	Σ-*a* Σ-[*p*]*ta*	Σ-*asi* Σ-[*p*]*tasi*	Σ-*ami* Σ-[*p*]*tami*
T 3 d.	Σ-*isi* Σ-*tisi*	Σ-*so* Σ-*taso*	Σ-*si* Σ-*tasi*	Σ-*so* Σ-*taso*	Σ-*ki* Σ-[*k*]*taki*	Σ-*esi* Σ-*tesi*	Σ-*si* Σ-*tasi*	Σ-*nisi* Σ-[*n*]*tani*(*si*)	Σ-*se* Σ-*tase*		
3 pl.	Σ-*imi* Σ-*timi*					Σ-*emi* Σ-*temi*	Σ-*si*(*mi*) Σ-*tasi*	Σ-*ni*(*mi*) Σ-[*n*]*tani*(*mi*)	Σ-*me* Σ-[*m*]*tame*		

Segmentation of the Bahing conjugational endings into morphemes requires positing eight distinct functional positions or slots in the affixal string of a Bahing verb. Suffixal slot 1 is the functional position for the reflexive morpheme and for anticipatory copy morphemes. Suffixal slot 2 is the tense slot. Person markers and *portemanteau* morphemes occur in suffixal slot 3. Suffixal slot 4 is for dual morphemes. Non-singular first person role markers occur in suffixal slot 5. Suffixal slot 6 is the functional position of the second plural morpheme, suffixal slot 7 the position of the dual agent morpheme and suffixal slot 8 of the third person number morphemes.

Morphemes specify person, number and syntactic role, viz. subject of an intransitive verb, agent and patient of a transitive verb. Certain morphemes specify agent and subject as opposed to patient, reflecting an accusative pattern, e.g. the first plural inclusive agent/subject marker <*-ya*>, its anticipatory copy <*-n*> and the first exclusive agent/subject morpheme <*-ka* ~ *-ko* ~ *-ku*> vs. the first person inclusive patient morpheme <*-so*> and the first person exclusive patient morpheme <*-ki*>. Other morphemes specify patient and subject as opposed to agent, reflecting an ergative pattern, e.g. the first singular patient/subject morpheme <*-i*>, the second singular patient/subject morpheme <*-e*> and the dual patient/subject morpheme <*-si*> vs. the dual agent morpheme <*-si*>.

The first suffixal slot precedes the tense marker and contains the reflexive suffix <*-si*> and copy morphemes. The endings of the reflexive paradigm contain the Bahing reflexive suffix <*-si*>, which has a regular allomorph <*-s*> before /*s*/, /*t*/ or a vowel. The sequence /*ss*/ is realized in a way which Hodgson chose to transcribe as *sch*. When stripped of the reflexive suffix <*-si* ~ *-s*>, the reflexive endings are the same as those of the intransitive paradigm except for the third person non-singular preterite forms where we would expect simply <*-si*> instead of <*-se*>. The vowel in the ending may be the result of analogy in view of the endings <*-se*> and <*me*> found in the non-preterite intransitive third person dual and plural respectively.

All other morphemes occurring before the tense slot are anticipatory copies of overt morphemes occurring after the tense morpheme in the same affixal string. Hodgson called these copy morphemes ' devious ', evidently because they occur only before the preterite morpheme <*-ta*> in the preterite of open-stem verbs. All copy morphemes in the tables of Bahing conjugational endings are shown between square brackets. Each such morpheme will be discussed in conjunction with the morpheme of which it is an anticipatory copy.

The second suffixal slot in the Bahing affixal string is the tense slot, uniquely occupied by the preterite tense morpheme <*-ta*>. The suffix <*-ta*> marks preterite time in all preterite tense verb forms. The preterite morpheme <*-ta*> has a regular allomorph <*-t*> preceding any vowel-initial suffix. Non-preterite tense is unmarked.

The third suffixal slot in the Bahing verb houses a plethora of person agreement markers, including *portemanteau* morphemes. Half of these are first person singular markers or first singular *portemanteau* morphemes.

The suffix <*-gna*> marks a first person singular subject of an intransitive verb in non-preterite time. The suffix <*-i*> marks a first singular patient or subject. The first singular patient/subject morpheme <*-i*> does not occur in non-preterite forms of intransitive verbs where it replaced by the non-preterite first singular subject *portemanteau* <*-gna*> just mentioned. The 1 s.→3/NPT *portemanteau* morpheme <*-u* ~ *-gna*> marks a transitive relationship between a first singular agent and a third person patient in non-preterite time. The distribution of the two allomorphs of this *portemanteau* is regular, <*-u*>

occurring after a closed-stem and <*-ŋa*> after an open-stem verb. The 1 s.→3/PT *portemanteau* morpheme <*-ong*> marks a transitive relationship in preterite time between a first singular agent and a third person patient, and the 1 s.→2 *portemanteau* morpheme <*-na*> marks a transitive relationship between a first singular agent and a second person patient.

There is a copy morpheme <*-n*> which occurs as an anticipatory copy of the 1 s.→2 *portemanteau* <*-na*>. Like all copy morphemes in the Bahing verb, the suffix <*-n*> occurs in the preterite forms of open-stem verbs in the suffixal slot 1 before the preterite tense morpheme <*-ta*>.

Other fillers of the third suffixal slot include the *portemanteau* suffix <*-a*>, which marks a transitive relationship between a third singular agent and a third person patient. This suffix has a regular zero allomorph following a nasal stem final. The *portemanteau* suffix <*-i*> marks a transitive relationship between a second singular agent and a third person patient and has a regular allomorph <*-eu*> in the preterite.

Both the 2 s.→3 <*-i* ~ *-eu*> and 3 s.→3 <*-a*> *portemanteau* morphemes have an anticipatory copy morpheme <*-p*> 23 s.→3, which occurs in the preterite forms of open-stem verbs in suffixal slot 1 before the preterite tense morpheme <*-ta*>.

Another suffixal slot 3 filler is the suffix <*-e*>, which denotes a second person patient or subject. This morpheme does not occur in 1 s.→2s. forms where involvement of a second person actant is indicated by the *portemanteau* morpheme 1 s.→2 <*-na*>.

The suffix <*-so*> is a *portemanteau* morpheme marking first person inclusive patient. If the sibilant element in this suffix is cognate with that of the various Bahing dual markers, then the *portemanteau* <*-so*> presents a case of what I have previously termed a 'generalized dual morpheme' where the meaning of an original dual marker is re-analysed in the course of its historical development to denote non-singular meaning (van Driem, 1987: 31–2).

The *portemanteau* <*-se*> marks either involvement of third dual actant in an intransitive verb or indicates a transitive relationship between a third dual agent and a third person patient. Similarly, the suffix <*-me*> marks third plural subject in an intransitive verb or indicates a transitive relationship between a third person patient. There is a suffix <*-m*> which occurs as a regular anticipatory copy of the 3 pl.→3/3 pl.S *portemanteau* in the preterite forms of open-stem verbs before the preterite tense morpheme <*-ta*>.

Suffixal slot 4 houses three distinct dual morphemes: the dual patient/subject morpheme, <*-si*> (d.PS), the first dual inclusive morpheme <*-sa*> (1 d.i.) and the first dual exclusive morpheme <*-su*> 1 d.e.). The *portemanteau* suffix <*-sa*> marks a first dual inclusive actant in all forms distinguishing first dual inclusive actant, and the suffix <*-su*> marks first dual exclusive actant. The morpheme <*-si*> (d.PS) marks dual number of a first person patient in 2→1 and 3→1 forms, of a second person patient in 1→2 and 3→2 forms, and of a second dual subject in intransitive forms. In the affixal string of a Bahing verb, this dual patient/subject suffix <*-si*> is seen to occupy a position anterior to both the second plural suffix <*-ni*> and the first person non-singular role markers to which we shall now turn.

The fifth functional positon in the Bahing affixal string is reserved for first person non-singular role markers. The suffix <*-ya*> marks involvement of a first plural inclusive agent or subject and has a regular allomorph <*-yo*> after the preterite suffix <*-ta*>. This suffix <*-ya*> (1 pl. i.AS) has an anticipatory copy <*-n*>, which occurs regularly in the preterite forms of open stem verbs before the preterite tense morpheme <*-ta*>.

The suffix <*-ka*> (1 e.AS) indexes involvement of a first person exclusive agent or subject. This morpheme has a regular allomorph <*-ko*> when it immediately follows the preterite suffix <*-ta*> and a regular allomorph <*-ku*> when it follows the first dual exclusive suffix <*-su*>.

The suffix <*-ki*> (1 e.P) marks involvement of a first person exclusive patient. There is a suffix <*-k*> (1 pl.e.) which occurs as the anticipatory copy of the first exclusive role marker morphemes <*-ka*> (1 e.AS) and <*-ki*> (1 e.P) in *plural* preterite forms of open-stem verbs before the preterite tense morpheme <*-ta*>.

The sixth functional position in a Bahing affixal string is that of the second person plural marker <*-ni*>. There is a suffix <*-n*> which occurs as an anticipatory copy of the second plural morpheme <*-ni*> in the preterite 2→3 and 3→2 forms of open-stem verbs before the preterite tense morpheme <*-ta*>.

The seventh functional position in the Bahing verb is that of the dual agent morpheme <*-si*>, which marks dual number of an agent in all three persons. The dual agent suffix <*-si*> occurs in 1→2, 2→1, 2→3, 3→1 and 3→2 forms; it does not occur in 3→3 forms where a third dual agent is expressed by the 3 d.→3/3 d.S *portemanteau* morpheme <*-se*>.

The dual agent suffix <*-si*> follows the second plural morpheme <*-ni*> in a suffixal string and must therefore be analysed as distinct from, though cognate with, the dual patient/subject marker <*-si*> which occupies a more anterior position in the affixal string. Strictly, there is no formal criterion for determining whether the dual morpheme <*-si*> in second dual intransitive forms should be identified as the anterior dual patient/subject morpheme <*-si*> (d.PS) or as the posterior dual agent morpheme <*-si*> (d.A), but there is adequate comparative evidence to motivate identifying it as the former.

The eighth and last slot in a Bahing affixal string is occupied by third person number markers. The dual patient <*-si*> marks dual number of a third person patient. Like the homophonous dual agent suffix <*-si*>, the dual patient marker <*-si*> occurs posterior to the second plural morpheme <*-ni*> in a suffixal string. Unlike the dual agent suffix, the dual patient morpheme <*-si*> indexes patient number and not agent number, and it indexes dual number of third person actants only.

The other occupant of suffixal slot 8 is the morpheme <*-mi*>, which marks (*a*) plural number of a third person actant wherever third plural number is not expressed by the 3 pl.→3/3 pl.S *portemanteau* morpheme <*-me*>, and (*b*) plural number of a first exclusive actant in 1→2 forms.

The preceding morphemic analysis of the Bahing verb is based on the data collected in the first half of the nineteenth century by Brian Houghton Hodson (1800–94). Hodgson was Assistant Resident at the British Residency in Kathmandu from 1825 to 1833 and afterwards became full British Resident in Nepal from 1833 to 1843.

In early 1973, Martine Mazaudon and Boyd Michailovsky conducted fieldwork on the Bahing language as spoken in Biguṭār village *pañcāyat* in Okhalḍhuṅgā district in eastern Nepal. Their study of the modern Bahing verb (Michailovsky, 1975) reveals a less elaborate agreement paradigm than the Bahing conjugations which Hodgson recorded more than a century before. The degenerated agreement paradigm found in modern Bahing is attributable to a process of grammatical attrition accelerated by the growing trend towards bilingualism and the ever-increasing threat of language death in the Kiranti homeland. This gradual but inexorable process gaining pace throughout the Himalayan region is, particularly in the eastern Himalayas, connected with

relentless Indo-Aryan expansion. I have devoted a separate article to the impact of this expansion on the indigenous peoples of eastern Nepal and to the dynamics of the changes it precipitates (van Driem, forthcoming (*b*)).

In table 3 of the transitive endings of the late twentieth century Bahing conjugation, parentheses indicate what are apparently optional portions of the ending, and square brackets indicate copy morphemes. Despite the far-reaching simplification observable in the modern Bahing conjugation, the greater part of the morphemic analysis outlined above is applicable, both in terms of the individual suffixes as well as in the details of distribution and allomorphy, to the modern Bahing paradigm presented by Michailovsky. Therefore, the scope of the following discussion will be limited to the differences between the early nineteenth century and late twentieth century Bahing verbal paradigms. The following chart provides a synopsis of suffixal slots and slot fillers of the indicative verb in modern Bahing:

sf. 1	sf. 2	sf. 3	sf. 4	sf. 5	sf. 6	sf. 7	sf.8
<-*n*> 1 s.→2	<-*ta*> PT	<-*ŋa*> 1 s.S/NPT	<-*si*> d.PS	<-*ja*> 1 pl.i.AS	<-*ni*> 2 pl.	<-*si*> d.A	<-*si*> 3d.
<-*p*> 23 s.→3		<-*i* ~ -*ji*> 1 s.PS	<-*sa*> 1 d.i.AS	<-*ka* ~ -*kø*> 1 pl.e.AS			<-*mi*> 3 pl.
<-*N*> 1 pl.e.AS		<-*u* ~ -*ŋa*> 1 s.→3/NPT	<-*su*> 1 d.e.AS				
<-*k*> 1 pl.e.		<-*ɔŋ*> 1 s.→3/PT		<-*ki*> 1 e.			
<-*n*> 2 pl.⇋3		<-*na*> 1 s.→2					
<-*m*> 3 pl.→3/3 pl.S		<-*a* ~ Ø> 3 s.→3					
<-*si*> REF		<-*i*> 2 s.→3					
		<-*e*> 2 s.PS					
		<-*so*> 1 i.P					
		<-*se*> 3 d.→3/3 d.S					
		<-*me*> 3 pl.→3/3 pl.S					

As pointed out above, Michailovsky (1975) uses the modern international phonetic symbols *j* and *ŋ* where Hodgson uses *y* and the digraphs *gn* or *ng* respectively. Michailovsky's use of modern symbols and his succinct phonological description of modern Bahing provide us with enlightening information on the quality of Bahing vowels. For example, the 1 s.→3/PT morpheme, transcribed by Hodgson, as <-*ong*>, is transcribed by Michailovsky as <-*ɔŋ*>.

The first singular patient/subject suffix <-*i*> also occurs as <-*i*> in the modern Bahing paradigms. In Michailovsky's material, as in Hodgson's, this morpheme is observed to have the allomorph <-*ji*>, with an epenthetic glide, after an open or nasal final stem.

In the modern Bahing paradigms, the 3 s.→3 *portemanteau* <-*a*> has a regular zero allomorph following a nasal stem final.

The 2 s.→3 *portemanteau* <-*i* ~ -*eu*> and the first plural inclusive agent/subject morpheme <-*ya* ~ -*yo*> (Michailovsky: <-*ja*>) do not show tense-

motivated allomorphy in the modern Bahing conjugations, lacking the preterite allomorphs <*-eu*> and <*-yo*> respectively. In Michailovsky's material, the anticipatory copy morpheme <*-n*> of the first plural inclusive agent/subject morpheme <*-ja*> undergoes *sandhi* with a preceding stem final /k/, /p/ or /t/ to give /ŋ/, /m/ and zero respectively.

The distribution and meaning of certain morphemes have been modified in the modern Bahing conjugation. The early nineteenth century first exclusive agent/subject suffix <*-ka*> only occurs in the plural in modern Bahing, so that the modern Bahing suffix <*-ka*> must be defined as a first *plural* exclusive agent/subject morpheme. The modern Bahing suffix <*-ka*>, like the corresponding early nineteenth century suffix <*-ka*>, has a regular allomorph following the preterite suffix <*-ta*>. Whereas the preterite allomorph of the early nineteenth century Bahing first exclusive agent/subject suffix <*-ka*> is given by Hodgson as <*-ko*>, the preterite allomorph of the modern Bahing first plural exclusive agent/subject suffix is <*-kø*>.

As a result of the disappearance of the original first exclusive agent/subject suffix <*-ka*> from the dual forms in modern Bahing, the original first dual exclusive morpheme <*-su*> must be redefined as a first dual exclusive agent/subject morpheme, which in modern Bahing has also spread into the 1 d.→2 forms. The uncertain ending <*-si*>, which Michailovsky (1975: 193) records for non-preterite 1 d.→2 forms and which he qualifies as '?? responses very varied', is left out of consideration in the present analysis. By analogy, the suffix <*-sa*> in modern Bahing forms is best redefined as a first dual inclusive agent/subject morpheme.

The other first person exclusive suffix <*-ki*> has retained its function as a patient role marker in modern Bahing, but has all but disappeared from the dual, surviving only in 2 p.→1 d.e. forms.

The distinct 1 p.→2 forms of early nineteenth century Bahing have been replaced in modern Bahing by the original 1 p.e.→3 s. form. As a result, the original plural marker <*-mi*> of third and first exclusive actants in modern Bahing marks the plural of a third person actant only. Furthermore, the third plural morpheme <*-mi*> has vanished from forms with a first non-singular patient, first dual agent or third non-singular agent. In forms with a first plural agent, second plural agent or second dual patient, the suffix <*-mi*> has become optional in the non-preterite and vanished in the preterite. The modern third plural morpheme <*-mi*> has become entirely optional in 3 pl.→2 pl. forms.

The dual patient morpheme <*-si*>, which marks dual patient number of a third person actant, has disappeared in late twentieth century Bahing in the preterite of all forms with a non-singular agent, and occurs only optionally in non-preterite forms with a non-singular second person agent. Because the dual patient morpheme <*-si*> follows the second plural slot in the affixal string, this suffix must still be analysed as a distinct morpheme from the dual patient/subject suffix <*-si*>, which marks dual number of a first and second person patient or subject and precedes the second plural slot in a Bahing affixal string. The dual patient/subject suffix <*-si*> has been lost in modern Bahing only in 1 ns.→2 forms.

The dual agent morpheme <*-si*>, which in modern Bahing marks dual number of a second or third person agent, has been retained in forms with a first or second singular patient and in 2 d.→3 forms; it is retained as an optional morpheme in preterite 3 d.→2 pl. forms. The dual agent morpheme <*-si*>, like the dual patient morpheme <*-si*>, occupies a functional positon posterior to the second plural slot but is distinct from the dual patient morpheme with which it co-occurs in non-preterite 2d.→3d. forms.

The morphonological interaction between suffixes and stem finals in Bahing is left largely undiscussed here, as this is a topic treated extensively by Michailovsky (1975: 187–204) and Hodgson (1858: 402–7). However, it is relevant to our later comparison to make the following observations. Whereas the stem final <*t*> elides before any consonant-initial suffix and is realized as /*d*/ and /*t*/ before vocalic suffixes in the indicative and imperative respectively, the stem final <*t*> is realized as /*n*/ before the second person singular patient/subject suffix <*-e*>, e.g. *brene* 'you^{s} will cry out', *lane* 'he will take you^{s}' (Michailovsky, 1975: 189–90), *sáne* 'he'll kill you^{s}' (Hodgson, 1858: 405).

Similarly, the stem finals <*p*> and <*k*> in Michailovsky's material are realized as /*p*/ and /*k*/ before a voiceless consonant, as /*m*/ and /*ŋ*/ before a voiced continuant such as /*j*/ and /*n*/, and as /*b*/ and /*g*/ before a vowel. However, before the second singular patient/subject morpheme <*-e*>, although this is a vocalic suffix, the stem finals <*p*> and <*k*> are also found to undergo nasalization and are realized as /*m*/ and /*ŋ*/ respectively. These phenomena would support the idea that the Bahing second singular patient/subject <*-e*> derives from an older form *<*-ne*>.

The re-analysis resulting in the simplification of the modern Bahing paradigm has had no ramifications for the semantic value of the vowels in first non-singular endings. Whereas, the vowels /*a*/, /*u*/ or /*ø*/ are found in the agent/subject role markers <*-sa*> (1 d.i.AS), <*-su*> (1 d.e.AS), <*-ja*> (1 pl. i.AS) and <*-ka* ~ *-kø*> (1 pl.e.AS), the front vowel /*i*/ is found in the dual patient/subject morpheme <*-si*> and the first exclusive patient morpheme <*-ki*>. However, the existence of a first inclusive patient morpheme <*-so*> with a back vowel and the insegmentability of the first plural inclusive agent/subject morpheme <*-ja*> render unprofitable any attempt to ascribe a role marking value to the vowels of the modern Bahing endings.

2. *Proto-Kiranti*

In previous comparisons of Kiranti verbal agreement systems (van Driem, 1990(*a*), 1991(*b*)), the conjugations of Kiranti verbs were observed to reflect a split-ergative system whereby third person actants are indexed in the verb differently than are first and second person actants. Kiranti verbal markers denoting involvement of a third person actant reflect a so-called accusative system, in that independent sets of morphemes denote a third person patient versus third person agent or subject. Morphemes indexing the involvement of a first or second person actant, on the other hand, reflect a so-called ergative system, in that independent sets of morphemes denote first or second person agent versus first or second person patient or subject. Furthermore, number of actant was seen to be indexed in the verb by different but apparently cognate morphemes for third person versus first and second person actants. Contrary to what LaPolla (1989: 5) contends, Hayu shows ergativity not only in its case marking system but also in the way it indexes a first singular actant in the verb (Michailovsky, 1988: 111–3, van Driem 1990(*a*), 1991(*b*).

The contrast with the Limbu case system, where first and second person pronouns take no ergative suffix, is more apparent than real. The fact is that all historical personal pronouns in Limbu take no ergative suffix, including the third person pronouns *khunɛʔ* 'he/she' and *khunchi* 'they'. Only the third person pronouns *khɛŋ* 'he/she/it' and *khɛŋhaʔ* 'they' as well as the proximal pronouns *kɔŋ* 'he/she/it (nearby)' and *kɔŋhaʔ* 'they (nearby)', which are etymologically and synchronically demonstratives, do take case endings, as do common and proper nouns, interrogative pronouns and other nominal constructions with the exception of personal pronouns. There may be a genuine contrast between the Kiranti and rGya-roñ systems of actant marking in the

verb, however. Whereas Kiranti first and second person intransitive forms tend to show similarity to 3 s.→1 and 3 s.→2 forms, rGya-roñ first and second person intransitive forms show similarity to the transitive 1→3 and 2→3 forms.

As the morphological analysis of Bahing verbal agreement suffixes demonstrates, the Bahing verb does not strongly reflect the split-ergative pattern seen in the verbal marking of some other Kiranti languages, whereby the marking of first and second person follows an ergative pattern and the marking of third person actants in the verb follows an accusative pattern. It is perhaps relevant in this context to point out the high degree of fusion attained in the Bahing conjugation reflected by the disproportionately large number of *portemanteau* suffixes.

Previous comparisons of the conjugational morphology of the Limbu, Hayu, Dumi, Kulung, Thulung and Lohorung verb led to the development of the following model of the Proto-Kiranti verb (van Driem, 1991(*b*)):

					-ŋa					*-k*		
					1 s./NPT					1 pl.		
			-k									
			NPT		*-aŋ*			*-n*		*-ni*	*-ya*	
me-		*-nši*			1 s./PT	*-ci*		1 s.A		2 pl.	e.	
3 pl.A	STEM	REF	+ AUX_1			12 d.			+ AUX_2			
			-(T)ɛ		*-na*			*-u*		*-m*	*-i*	
			PT		2			3P		12 pl.A	i.	
					-nya					*-ci*		
					1 s.→2					3 d.P		

The following study is an attempt to assess to what extent the Bahing data require modification of the above model.

The modern reflexes of the Kiranti third plural agent morpheme *<*me-*> are prefixes in those languages which have prefixes. In languages which lack prefixes, other than a prefix of negation, the reflex of the Kiranti third person agent morpheme is a suffix in an anterior position in the suffixal string. This suggests an anterior position in the affixal string. Note that the Limbu non-singular agent/subject prefix <*mɛ-*> marks the non-singularity of third person actants only.

Limbu	ns.AS	<*mɛ-*>	pf.2
Dumi	3 pl.S	<*ham-*>	pf.1
Hayu	3 pl.	<*-me*>	sf.3
Thulung	3 pl.→3	<*-mi*>	sf.2
Lohorung	3 pl.	<*-mi*>	sf.3
Bahing	3 pl.AS	<*-m*>	sf.1
	3 pl.→3/3 pl.S	<*-me*>	sf.3

Plural number of a first or second person agent is marked by an apparently cognate suffix *<*-m*> situated at a more posterior position in the suffixal string. Note that the Limbu plural agent suffix <*-m*> marks the plural of first and second person actants only.

Limbu	1 pl.e.AS/PT	<*-m?na*>	sf.7
	pl.A	<*-m*>	sf.7
Kulung	1 pl.→3	<*-am*>	sf.5
	2 pl.→3	<*-m*>	sf.5
Thulung	pl.	<*-mi*>	sf.8
Lohorung	1 pl.e.AS	<*-m*>	sf.5
	2 pl→3	<*-m*>	sf.5
Bahing	3 pl./1pl.e.	<*-mi*>	sf.3

Generally, the coding of actants in the verb of most Kiranti languages reflects an ergative (viz. agent vs. patient/subject) system for first and second person actants and an accusative (viz. patient vs. agent/subject) system for third person actants. In Limbu, however, involvement of a first plural exclusive actant in the preterite, as indexed by the 1 pl.e.AS/PT *portemanteau* morpheme <*-m²na*>, opposes agent/subject marking to patient marking, whereas a third dual actant is indexed according to an ergative system. In Bahing, the role marker morphemes for non-singular first person actants <*-ki*> (1 e.P) and <*-ka*> (1 e.AS) also suggest an accusative marking system for first person exclusive actants, and the Bahing suffix <*-mi*> indexes plural number for both third person and first exclusive actants. These Limbu and Bahing phenomena suggest that a first plural exclusive actant was indexed according to an accusative rather than an ergative marking system at some stage in the development of Kiranti verbal agreement system. The significance of the apparent ergative marking system for third dual actants in Limbu will be discussed below.

The modern suffixes marking the dual of first and second person actants occupy an anterior position in the suffixal string. These reflexes of the Proto-Kiranti first and second person dual marker *<*-ci*> follow tense morphemes but precede the reflexes of the Proto-Kiranti first singular agent suffix *<*-ŋ*> and the Proto-Kiranti third person patient suffix *<*-u*>.

Limbu	d.PS	<*-si, -tchi*>	sf.4
Kulung	12 d.	<*-ci*>	sf.3
Thulung	d.	<*-ci*>	sf.4
Lohorung	d.	<*-ci*>	sf.3
Bahing	d.PS	<*-si*>	sf.4
	1 d.i.	<*-sa*>	sf.4
	1 d.e.	<*-su*>	sf.4

The vocalism in the Bahing first dual inclusive <*-sa*> and first dual exclusive <*-su*> morphemes may be explained by the possibility that these morphemes are perhaps much evolved, fused reflexes of the Proto-Kiranti first and second person dual marker *<*-ci*> and the Proto-Kiranti inclusive *<*-i*> and exclusive suffix *<*-ya*> respectively (*vide infra*).

The Bahing first person inclusive patient suffix <*-so*> has a cognate in the Thulung first person inclusive patient suffix <*-sa*>. These two suffixes probably represent a local development in Bahing and Thulung and historically probably reflect generalized dual morphemes.

Thulung	1 i.P	<*-sa*>	sf.1
Bahing	1 i.P	<*-so*>	sf.3

The reflexes of the Proto-Kiranti dual marker for third person actants *<*-ci*>, although apparently cognate to the first and second person dual marker, are posterior in the suffixal string, invariably following the modern reflexes of the Proto-Kiranti first singular agent suffix *<*-ŋ*> and the Proto-Kiranti third person patient suffix *<*-u*>.

Limbu	ns.P	<*-si*>	sf.8
Kulung	3pl.	<*-ci*>	sf.5
Thulung	3d.P	<*-ci*>	sf.8
Lohorung	ns.P	<*-ci*>	sf.6
Bahing	d.P	<*-si*>	sf.8

Just as the relative position of morphemes in Proto-Kiranti is somewhat obscured by the fusion which has led to so many *portemanteau* morphemes in Bahing, the significance of the apparent ergative marking system for third dual actants in Limbu is probably very limited. Significant is the fact that both Limbu and Bahing appear to reflect a third dual morpheme in addition to the anterior Proto-Kiranti first and second person dual marker *<*-ci*> and posterior Proto-Kiranti third person dual marker, viz. an anterior Proto-Kiranti dual agent marker *<*-ci*> or *<*-si*>.

Limbu	d.A	<*-s*>	sf.3
Bahing	3 d.→3/3 d.S	<*-se*>	sf.3
Bahing	d.A	<*-si*>	sf.7

In those languages in which a reflexive morpheme is attested, these reflexes of the Proto-Kiranti reflexive suffix *<*-nši*> are suffixed immediately to the stem, anterior to any overt tense morphemes.

Limbu	REF	<*-siŋ, -nɛ*>	sf.1
Dumi	REF	<*-nsi, -si*>	sf.1
Hayu	REF	<*-na ~ -ntse ~ -ntsi*>	sf.1
Bahing	REF	<*-si*>	sf.1

With the exception of reflexive morphemes, tense suffixes are the most anterior of all suffixes, attached directly to the verb stem. The Proto-Kiranti preterite morpheme *<*-tɛ*> is reflected by the modern tense markers listed below. The existence of a dental element in the proto-morpheme, tentatively suggested in previous comparisons, is strongly supported by the Bahing reflex.

Limbu	PT	<*-ɛ*>	sf.2
Hayu	PT	<*-N*>	sf.1
	3 P/PT	<*ko*>	sf.1
Thulung	PT	<*-ti ~ -t ~ -ri ~ -ra ~ -l*>	sf.3
	1 e.→3/NPT	<*-u*>	sf.7
	1 e.→3/PT	<*-o*>	sf.7
Lohorung	PT	<*-a*>	sf.1
Bahing	PT	<*-ta*>	sf.2

The Hayu third person patient preterite *portemanteau* morpheme consists of a segment /*k*/, which reflects the proto-morpheme of the preterite tense *<*-tɛ*>, and a back vowel /*o*/, which is an unambiguous reflex of the Proto-Kiranti third person patient morpheme *<*-u*>, discussed below. The Hayu segment /*k*/ appears to derive from Proto-Kiranti */*t*/.

The Proto-Kiranti non-preterite morpheme *<*-k*> is reflected by the modern markers of non-preterite tense listed below. The Dumi non-preterite morpheme <*-t*> appears to derive from Proto-Kiranti non-preterite <*-k*> through restoration via an intermediate glottal stop stage. This development is well attested in Dumi: syllable-final /*p*/, /*t*/ and /*k*/ are generally pronounced with glottal reinforcement in Kiranti languages, and both comparative evidence and internal reconstruction within Dumi indicate diachronic mutations from any one of these plosives to another through restoration via an intermediate glottal stop stage (van Driem 1991(*a*), section 2.2).

Limbu	1 s.PS/NPT	<*-ʔɛ*>	sf.4
Dumi	NPT	<*-t*>	sf.4
Hayu	ns./NPT	<*-k*>	sf.5
Lohorung	NPT	<*-k*>	sf.1

If the Limbu suffix of the imperious future <-ʔ>, occurring in the final affixal position of a Limbu simplex verb, i.e. suffixal slot 12, reflects the same Proto-Kiranti non-preterite suffix *<-*k*> as the above morphemes, then this would indicate that the Proto-Kiranti morpheme *<-*k*> also occurred as a final suffix to the second Proto-Kiranti auxiliary. Alternatively, the imperious future could be a relatively late development peculiar to Limbu.

The reflexes of the Proto-Kiranti 1 s.→2 *portemanteau* morpheme *<-*nya*> are listed below. These suffixes mark the transitive relationship between a first singular agent and a second person patient, and the Proto-Kiranti *portemanteau* morpheme *<-*nya*> may be related to the Proto-Kiranti *portemanteau* morpheme *<-*nya*> may be related to the Proto-Kiranti second person morpheme *<-*na*>, discussed below. Note that these reflexes in Limbu, Dumi and Thulung are anterior to the tense morphemes. The reflex is posterior to the tense morphemes in Hayu. The scanty Kulung data provide no information on tense, and Lohorung has not preserved a reflex of Proto-Kiranti *<-*nya*>:

Limbu	1 s.→2	<-*nɛ*>	sf.1
Dumi	1 s.→2	<-*n*>	sf.2
Hayu	1 s.→2	<-*no*>	sf.2
Kulung	1 s.→2	<-*an*>	sf.2
Thulung	1 s.→2	<-*nini*>	sf.1
Bahing	1 s.→2/copy	<-*n*>	sf.1
	1 s.→2	<-*na*>	sf.3

On the basis of semantic criteria, the 1 s.→2 proto-morpheme *<-*nya*> has tentatively been assigned the same position in the model of the Proto-Kiranti verb as other first singular and second person affixes.

Most first-singular morphemes in modern Kiranti languages consist of the velar nasal /*ŋ*/ with some associated vowel preceding or following the nasal. In 1988 in Sweden, I argued that this associated vowel appeared to result from the re-analysis of the sequences *<-*u*-*ŋ*> or *<-*ŋ*-*u*>, consisting of the Proto-Kiranti markers of the first singular *<-*ŋ*> and of third-person patient *<-*u*> (van Driem 1990(*a*)). It appeared that in Limbu and Hayu, where the vowel associated with the velar nasal in first singular morphemes *preceded* the nasal consonant, the third patient morphemes, Limbu <-*u*> and Hayu <-*ko*>, also preceded the first singular morphemes. Conversely, in Dumi and Thulung where the vowel associated with the velar nasal in first singular morphemes *followed* the nasal consonant, the third patient morphemes, too, were posterior to the first singular morphemes in the affixal string. The vowel of first singular morphemes therefore appeared to be a remnant of the Proto-Kiranti third person patient suffix *<-*u*> after re-analysis had led to re-segmentation of the morpheme sequences *<-*u*-*ŋ*>and *<-*ŋ*-*u*> in the daughter languages.

Afterwards, the newly described verbal conjugation of Lohorung provided a fuller picture, shedding light on the first singular affixes in the other languages already described. In 1989 in Hawai'i, I attempted to show how the Lohorung data, in conjunction with the previous analysed data, suggested three separate first singular morphemes, differentiated for tense and syntactic function and apparently re-constructible to the Proto-Kiranti level (van Driem 1991(*b*)). The modern affixes reflect two tensed first singular morphemes. One of these proto-morphemes marked a first singular patient or subject in non-preterite time *<-*ŋa*>. In Bahing, the post-vocalic allomorph <*ŋa*> of the tensed 1 s.→3/NPT *portemanteau* reflects the Kiranti first singular actant non-preterite

proto-morpheme *<-ŋa>, whereas the post-consonantal allomorph <-u> reflects the Kiranti third patient morpheme *<-u>.

Limbu	1 s.PS/NPT	<-ʔɛ>	sf.4
Dumi	1 s.	<-ŋ>	sf.2
	1 s.	<-ə>	sf.5
Hayu	1 s.PS/NPT	<-ŋo>	sf.2
Kulung	1 s.P	<-o>	sf.2
Thulung	1 s.P	<-ŋi>	sf.1
Lohorung	1 s.	<-ŋa>	sf.2
Bahing	1 s.S/NPT	<-gna>	sf.3
	1 s.→3/NPT	<-u ~ -gna>	sf.3

The other tensed proto-morpheme marked a first singular patient or subject in the preterite *<-aŋ>.

Limbu	1 s.PS/PT	<-aŋ>	sf.4
	1 s.→3/PT	<-paŋ>	sf.4
Hayu	1 s.PS/PT	<-sɷŋ>	sf.2
Lohorung	1 s.PS/PT	<-iŋ>	sf.2
Bahing	1 s.PS	<-i>	sf.3

The modern reflexes of both tensed first singular proto-morphemes, *<-ŋa> and *<-aŋ>, are anterior to the reflexes of the first and second person dual marker *<-ci> in the affixal string. Another set of suffixes reflect a distinct Proto-Kiranti morpheme indexing first singular agent *<-ŋ> and are situated posterior to the reflexes of the first and second person dual marker *<-ci> in an affixal string in every language under comparison except Bahing. In Bahing, where numerous affixes have fused into *portemanteau* morphemes, there is no formal criterion to motivate assigning them synchronically to different functional positions in the affixal string.

Limbu	1 s.A	<-ŋ>	sf.5
Hayu	1 s.→3	<-ŋ ~ -N ~ -sɷŋ>	sf.3
Lohorung	1 s.A	<-n>	sf.5
Bahing	1 s.→3/PT	<-ong>	sf.3

The reflexes of the latter proto-morpheme *<-ŋ> are generally associated with the reflexes of the Proto-Kiranti third person patient morpheme *<-u> in 1→3 forms. The Limbu, Hayu and Lohorung conjugations suggest that first singular agent proto-morpheme *<-ŋ> followed the third person patient proto-morpheme *<-u> in the affixal string, whereas the Dumi and Thulung forms suggest the reverse. Since the modern reflexes of the first singular agent proto-morpheme *<-ŋ> and the third person patient proto-morpheme *<-u> are closely associated and since both sets of reflexes are posterior in all attested forms to the reflexes of the Proto-Kiranti first and second person dual morpheme *<-ci> but are anterior to the reflexes of the Proto-Kiranti first plural morpheme *<-k>, second plural morpheme *<-ni>, the first and second person plural agent morpheme <-m> and third person dual morpheme <-ci>, I assign the Proto-Kiranti third person patient morpheme *<-u> to the same position in my model of the Proto-Kiranti verb as the first singular agent suffix *<-ŋ>.

Limbu	3 pl.	<*-u*>	sf.4
Dumi	1 s.→3/PT	<*-u*>	sf.5
	3 s.P/PT	<*-i*>	sf.5
Hayu	3P/PT	<*-ko*>	sf.1
Kulung	3P	<*-o* ~ *-ə* ~ *-u*>	sf.4
Thulung	1 e.→3/NPT	<*-u*>	sf.7
	1 e.→3/PT	<*-o*>	sf.7
	3 s.→3	<*-iu*>	sf.7
Lohorung	3P	<*-u*>	sf.4
Bahing	23 s.→3	<*-p*>	sf.1
	1 s.→3/NPT	<*-u* ~ *-gna*>	sf.3
	1 s.→3/PT	<*-ong*>	sf.3
	3 s.→3	<*-a*>	sf.3
	2 s.→3	<*-i* ~ *-eu*>	sf.3

The post-consonantal allomorph of the Bahing non-preterite 1 s.→3 morpheme <*-u*> and the back vowels of the Bahing preterite 1 s.→3 morpheme <*-ong*>, the preterite allomorph of the 2 s.→3 morpheme <*-eu*> and the 3 s.→3 *portemanteau* reflect the Proto-Kiranti third patient suffix *<*-u*>, whereas the Bahing anticipatory 23 s.→3 copy morpheme <*-p*> preserves the labial character of the proto-morpheme *<*-u*>.

The reflexes of the Proto-Kiranti second person morpheme *<*-na*> are anterior to the reflexes of the Proto-Kiranti first and second person dual suffix *<*-ci*>, and apparently Proto-Kiranti *<*-na*> occupied the same functional position in the ancient affixal string as the Proto-Kiranti first singular patient/subject non-preterite *portemanteau* *<*-ŋa*> and the first singular patient/subject preterite *portemanteau* *<*-aŋ*>. Reflexes of Proto-Kiranti *<*-na*> are:

Dumi	23 S	<*-a*>	sf.5
	s. 23	<*-a*>	sf.6
Kulung	2 s.P	<*-e*>	sf.1
	2→3 s.	<*-a*>	sf.1
Thulung	2	<*-na*>	sf.1
Lohorung	2	<*-na*>	sf.7
Bahing	2 s.PS	<*-e*>	sf.3

The morphophonological interaction between verb stem finals and the Bahing second singular patient/subject suffix <*-e*>, discussed in the previous section, provide internal evidence for assuming that this Bahing suffix derives from an older form *<*-ne*>.

It will be intriguing when increasing comparative data enable us to determine with some degree of confidence whether the Dumi marked scenario prefix <*a-*> is related to the above set of reflexes or whether this Dumi prefix, together with the Limbu first person prefix <*a-*>, reflects some ancient person or deictic marker which in at least one instance became re-analysed as a scenario marker. The historical-comparative significance of the Dumi marked scenario prefix is discussed in the wider Tibeto-Burman context in the sequel to this article (van Driem, 1991(*c*), in press). More valuable information will be provided once a morphemic analysis of the Chamling verb can shed light on the semantic role of the prefix <*ta-*> in that language.

Posterior to both the reflexes of the Proto-Kiranti first singular agent suffix

*<-ŋ> and third person patient morpheme *<-u> are four sets of suffixes: the reflexes of Proto-Kiranti first and second person plural agent *<-m> and third person dual *<-ci>, discussed above, and the reflexes of the Proto-Kiranti first person plural morpheme *<-k> and of Proto-Kiranti second person plural *<-ni>. The first plural proto-morpheme *<-k> is reflected in all languages under comparison.

Limbu	e.	<-ge>	sf.10
Dumi	1 pl.	<-k>	sf.2
Hayu	1 pl.	<-ke>	sf.3
	1 pl./PT	<-ki>	sf.1
Kulung	e.	<-ka>	sf.6
Thulung	e.	<ki>	sf.6
Lohorung	e.	<-ka>	sf.8
Bahing	1 pl.e./copy	<-k>	sf.1
	1 e.AS	<-ka ~ -ko ~ -ku>	sf.5
	1 e.P	<-ki>	sf.5

Some reflex of the second plural proto-morpheme *<-ni> is lacking in Limbu only.

Dumi	pl.23	<-ini>	sf.6
Hayu	2 pl.	<-ne>	sf.3
Kulung	2 pl.	<-ni>	sf.3
Thulung	2 pl.	<-ni>	sf.1
Lohorung	2 pl.	<-ni>	sf.7
Bahing	2 pl.⇌3/copy	<-n>	sf.1
	2pl.	<-ni>	sf.6

Posterior to these four sets of reflexes of the proto-morphemes first plural *<-k>, second plural *<-ni>, first or second plural agent *<-m> and third dual *<-ci>, we encounter reflexes of the Proto-Kiranti inclusive suffix *<-i> and of the Proto-Kiranti exclusive morpheme *<-ya>. Note that the Limbu plural patient/subject suffix <-i> marks the plural of first and second person actants only.

Limbu	pl.PS	<-i>	sf.4
Dumi	i.	<-i>	sf.5
Thulung	1 pl.i.→3	<-i>	sf.7
Lohorung	1 pl.PS	<-i>	sf.3
Bahing	1 pl.i.AS	<-n>	sf.1
	1 pl.i.AS	<-ya>	sf.5

The Limbu first person prefix <a->, mentioned above in connexion with the Dumi marked scenario prefix <a->, might be a re-analysis of the Proto-Kiranti exclusive morpheme *<-ya> reflected in the following set of suffixes.

Limbu	1 s.PS/NPT, 1 s.→3/NPT	<-ʔɛ>	sf.4
Dumi	e.	<-i>/<-a>	sf.5
Hayu	e.	<-o>	sf.4
Kulung	1 pl.P	<-ya>	sf.3
Lohorung	e.	<-ka>	sf.8

The Limbu exclusive suffix <*-ge*>, retained in certain dialects as <*-gya*>, may reflect both the Proto-Kiranti first plural suffix *<*-k*> and the exclusive morpheme *<*-ya*>.

A synthesis of the correspondences attested in the conjugational morphology of the modern Kiranti languages under comparison is provided in the following model of the Proto-Kiranti verb. The Bahing evidence, in conjunction with the Limbu evidence, has let to positing an additional dual proto-morpheme *<*-ci*> marking dual agent for all three persons and dual subject in the case of third person actants. Although the Proto-Kiranti dual agent morpheme *<*-ci*> is assigned to the same position as the homophonous and cognate dual patient/subject morpheme *<*-ci*>, they are reconstructed as separate entities because the modern evidence suggests that they were distinct entities in the periphrastic model of the Proto-Kiranti verb, fusing in some modern Kiranti languages, yet remaining distinct in other daughter languages. The Bahing evidence has also provided support for the dental initial of the preterite proto-morpheme *<*tɛ*> posited on the basis of previous comparison and for the nasal initial of the second singular proto-morpheme *<*-na*>.

					-ŋa					*-k*		
					1 s./NPT					1 pl.		
				-k								
				NPT	*-aŋ*	*-ci*	*-ŋ*			*-ni*	*-ya*	
me-		*-nši*		+ AUX$_1$	1 s./PT	12 d.PS	1 s.A		+ AUX$_2$	2 pl.	e.	
3 pl.A	STEM	REF		*-tɛ*	*-na*	*-ci*	*-u*			*-m*	*-i*	
				PT	2	dA(S)	3P			12 pl.A	i.	
					-nya					*-ci*		
					1 s.→2					3 d.P		

The two hypothetical auxiliaries in the model correspond to different positions in the suffixal string. The first auxiliary coincides with the tense morphemes and is reconstructed as a tensed auxiliary verb. The second auxiliary corresponds with a pivotal position in the suffixal string. In the attested modern languages, segmentation of inflected verb forms, however problematical in certain parts, is rather facile at the position reflected by the second hypothetical auxiliary. The reflexes of the Proto-Kiranti first singular agent *<*-ŋ*> and third person patient *<*-u*> morphemes and all affixes anterior to these can always be easily and unambiguously segmented from the set of all posterior morphemes. Furthermore, the distribution of negative morphemes in negated verb forms, often involving two or three negative morphemes in a single inflected form, appears to suggest the previous auxiliaries in these positions.

The development from the ancestral periphrastic system to the modern Kiranti inflectional systems may find a near parallel in modern French, where a verb from such as *ʒtledi* 'I said [it to] you' may be analysed as consisting of a verb stem <*di*> 'to say' with a number of prefixed actant markers: <*ʒ-*> first person singular agent prefix, <*t-*> second person singular object or recipient prefix, <*l-*> third singular object prefix, <*e-*> first singular preterite *porte-manteau* morpheme. Probably because actant marking in the inflected form is so highy specific, use of the first person pronoun is optional and, when used, yields an emphatic reading, e.g. *mwa ʒtledi* 'I was the one who said it to you'. The grammaticalization of clitic pronouns, in both their *cāsūs oblīquī* and their *cāsus rēctus* forms, may have led to the conjugations we observe in modern Kiranti languages (van Driem 1991(*b*)). The following chart, reproduced from Lehmann (1985: 309), illustrates the steps by which this process of grammaticalization progresses:

lexically empty noun	>	free personal pronoun	>	clitic personal pronoun	>	agglutinative personal affix	>	fusional personal affix

The term grammaticalization was coined by Meillet in 1912 (quoted by Lehmann, 1985: 303) in the meaning 'attribution du caractère grammatical à un mot jadis autonome'. The development from right to left shown above is in the order of decreasing autonomy of the linguistic sign, culminating in 'personal agreement, mainly between the verb and its actants' (Lehmann, 1985: 309). The relatively large number of fused, unsegmentable *portemanteau* morphemes in Bahing reflect an advanced state of grammaticalization.

Lehmann explains the unidirectional development towards grammaticalization in terms of the tendency of speakers to maximize expressiveness utilizing the limited repertoire of semantically apt devices available at any particular stage in the evolution of a language. Lehmann (1985: 315) observes: 'The converse movement almost never occurs. It would presuppose a constant desire for understatement, a general predilection for litotes. Human speakers are apparently not like this.' Rather, language change is propelled by creativity on the part of the speaker who 'reserves himself the possibility of applying available grammatical rules today in a different way than yesterday' (Lehmann, 1985: 316).

Lehmann demonstrates that typological arguments provide inadequate explanations for language change on the ground that 'typological inconsistency does not make a language any less functional' and 'provides no reason whatsoever for a change away from such a state'. In fact, as Lehmann points out, 'countless languages abide for centuries in [typologically] inconsistent states' (1985: 313). The fact that the results of a grammaticalization process appear to be so clearly reflected in modern Kiranti conjugation does not therefore necessarily imply that these verbal agreement systems are recent or merely local developments.

Conjugations of Kiranti languages, when systematically compared with similar conjugations in Tibeto-Burman languages beyond the Kirant, may be shown to be retentions of an archaic Tibeto-Burman verbal agreement system. Just as the destabilizing influence of bilingualism and Indo-Aryan expansion in modern Nepal have led to the attrition of the Bahing verbal agreement system, so too it is likely that circumstances peculiar to the long history of the linguistic communities of the Kiranti peoples may account for the highly conservative nature of the conjugational systems observed in these languages. This forms the topic of my article 'The Proto-Tibeto-Burman verbal agreement system' (forthcoming (*a*)).

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