to appear in David Bradley, Randy LaPolla, Boyd Michailovsky & Graham Thurgood (eds), Language Variation: Papers on variation and change in the Sinosphere and in the Indosphere in honour of James A. Matisoff. Pacific Linguistics. Canberra: ANU.

Suffix-runs and counters in Kiranti time-ordinals

Boyd Michailovsky

CNRS/LACITO, Villejuif, France

1. Introduction

Kiranti languages are notable for rich sets of time-ordinals, that is, single words for, e.g. tomorrow, the day after tomorrow, this year, last year, etc.,[1] which allow speakers to put off resorting to phrasal expressions rather longer than in English. The record is held by words like Kulung *nɔkthum* '6 days hence' and Yamphu *cuknin* '6 years ago', although the latter contains independently attested morphemes '6' and 'year'.

Analysis of the Kiranti time-ordinals reveals that they and their component elements are more variable and difficult to reconstruct across languages than words in other parts of the vocabulary. There are several likely explanations for this: the words (at least those expressing times closest to the present) are very common, and, as might be expected in such a structured domain, they are under heavy paradigm pressure, a difficulty which Matisoff (1997) confronted in his exhaustive study of Tibeto-Burman numerals.

To facilitate analysis, I will first present the time-ordinals in tables that bring out relationships across Kiranti, and then in tables that bring out intra-language connections between time-ordinals and numerals, between day-ordinals and year-ordinals, and between past and future domains in each language. The main mechanisms that structure this semantic area are identified as 'runs' of affixes (Matisoff 1997)—and 'counters', some of them related to the numerals, which mark off successive ordinals at increasing distance from the present.

2. Comparative tables

A tentative subgrouping is proposed at the outset for ease of reference. Starting at the western edge of the range, the languages from Bahing through Khaling will be referred to as Central and Western Kiranti (CWK), and from Kulung through Limbu as Southern (SK) and Eastern (EK) Kiranti. The languages are as follows:

WK: Hayu, Bahing, Sunwar, Thulung, Wambule;

CK: Dumi, Khaling;

SK: Kulung, Camling, Bantawa;

EK: Athpare, Belhare, Yamphu, Limbu.

[1] The notations D+1, D+2, Y0, Y-1, etc., will be used in the tables below.

Table 1: Kiranti day-ordinals[2]

	WK					CK	
D:	Hayu	Sunwar	Bahing	Thulung	Wambule	Dumi	Khaling
– 4			lekkhabɔl	blunem	thāthāccum		aalangkane
– 3			sukkhabɔl	sunem	thāccum	attha:mkuna	aasaamkane
– 2	nitibuk	sāber na:kti	nikhabɔl, sani	neonem	sāɖi	atina	aathaasne
– 1	tĩdzoŋ	'sina:kti	sã:ti	basta	sāiso	asina	aamiski
0	tırı	mulā:kti	ana	anep	tyāso	amn̄i-	änöl
+1	nukun	'di:sā	dilla	dika	diskānā	a'selma	disä
+2	niha	'nit-na:kti	ni:ti	nahaɖɖa	nusso	na:mn̄i-	'näm
+3	tshumma	sã:bo-na:kti		suhaɖɖa	sukbu	s̄i-ndinna	'samne
+4	blimma			bluhaɖɖa	plyākku	l̄i-kdinna	'lanne
+5							
+6							

Table 2: Kiranti year-ordinals

	WK					CK	
Y:	Hayu	Sunwar	Bahing	Thulung	Wambule	Dumi	Khaling
– 6							
– 5							
– 4				bluna			
– 3	blikthoŋ			suna	mumunthot		aalaakto
– 2	tshukthoŋ	sāb-thoce	niwa	nɔna	munthot		aajhaakto
– 1	niŋanoŋ	'sāy-thoce	santho	mamtha	numthot	a'dzəŋkhini	äjhämnu
0	tĩ:thoŋ	mulā-thoce	anamɔltse	ɔthɔtse	tyāthot	tom khoʔo	ätem
+1	niŋahe	māykta	thotse, ma:ta	pali	nāthot	namma	naamaa
+2	tshukthoŋhe	ni:yu	niwa	nɔu	nussothot	tsimma	chumaa
+3	blikthoŋhe			su	sukbuthot		domaa
+4				blu	plyākkuthot		

[2] Sources of data are as follows: Hayu, Bahing Michailovsky n.d.; Sunwar, Hale 1973; Thulung, Lahaussois 2002 (revised; see table 13); Wambule, Opgenort 2002; Dumi, van Driem 1993; Khaling, Toba 1975; Kulung, Tolsma n.d.;.Camling, Ebert 1997; Bantawa, Michailovsky n.d., Rai 1985; Athpare, Ebert 1997; Yamphu, Rutgers 1998; Belhare, Bickel n.d., 1997; Limbu, Michailovsky 2002, Kainla 2002.

Transcription is as in the original sources: *y* represents IPA [j] in all languages; *c* and *j* represent pre-palatal affricates distinguished from alveolar *ts*, *dz* only in Sunwar and Hayu; elsewhere they represent either prepalatal or alveolar affricates; apostrophe represents high tone in Sunwar, Thulung, and Khaling; it represents stress in Dumi; *ā* represents IPA [a] in Sunwar and Wambule; *ä* represents [æ], *ö* represents [ø], *aa* represents [a], *a* represents [ɔ] and *ng* represents [ŋ] in Khaling; *ṅ* represents [ŋ] in Wambule; *ï* represents [ɯ] in Bantawa.

Table 1 (cont.)

	SK			EK			
D:	Kulung	Camling	Bantawa	Athpare	Yamphu	Belhare	Limbu
– 4							
– 3			acchosa	aumbu	khombreʔŋa	aũbu	khɛmyaːn
– 2	keska		asen	achumbu	simbreʔŋa	a'chumbu	siŋyaːn
– 1	espa	ase(ma)	akhumaŋ	asen	aseʔŋa	asen	asɛn
0	ese	ale	ai	hatle	ayu	hamba	ain
+1	desa	sela(ma)	maŋkolen	handeŋ	wagiyasiŋʔaram	waremba	taːndik
+2	chindi	suspaləi	chintolen	chindeŋ	siŋʔa	chinumba	ɛtchindaːn
+3	dɔkthum	yaspaləi	suyaŋkolen	khaŋdeŋ	khoŋsum	onumba	ɛkkhɛmdaːn
+4	khetthum			atupdeŋ	roksum	khonumba	ɛˀudaːn
+5	watthum				æksum		
+6	nɔkthum				cuksum		

Table 2 (cont.)

	SK			EK			
Y:	Kulung	Camling	Bantawa	Athpare	Yamphu	Belhare	Limbu
– 6					cukniŋ		
– 5					naknіŋ		
– 4					rombaniŋ	khommetniŋ	
– 3				aumbuniŋ	khombaniŋ	ommetniŋ	khɛmliŋ
– 2	metɔŋka		acchimbatnïŋ	himiniŋ	simbaniŋ	chimmetniŋ	sumliŋ
– 1	temniŋka	namnuŋ	anemnïŋ	namniŋ	nemniŋ	namniŋ	metliŋ
0	ini	alpanuŋ	aidoŋ	naniŋ	aniŋ	nania	aillamba ɛnniŋ
+1	nammɔ	nammo, waruŋ	namnaŋ	haŋdemaŋ	namma	nɛmma	ɛtnimma
+2	chimɔ		chinmaŋ	chindemaŋ	simma	chimma	ɛtchimma
+3	dɔmɔ			khaŋdemaŋ	khomma	omma	
+4	khemɔ			atupdemaŋ	romma	khomma	

Hayu, the westernmost language, is somewhat marginal; it was placed outside of the East Himalayish (our Kiranti) subgroup by Shafer (1955). Limbu data, unless otherwise specified, is from the Mewa Khola dialect (Michailovsky 2002).

3. Single-language tables

In the following tables, day and year ordinals, past and future, are listed in four parallel columns for each language. This facilitates the identification of counters, which appear across rows, and of affix runs, which appear in columns. The numerals (if not borrowed from Nepali) are shown for reference in each table. Prefixes identified as belonging to runs are separated from following elements by a closing square bracket. Suffixes appearing in suffix-runs are marked off by an opening square bracket and listed in the last row of the column.

Table 3 illustrates this arrangement for Limbu. In each domain in Limbu there is a suffix-run: the suffixes in question are listed in the last row of the table. The two suffixes used in day-ordinals and the past years suffix are semantically motivated (see §4). The prefix *ɛt* forms a run in the future domains. This prefix also appears in locative postpositions, for example in *ɛtthaŋ* 'up at/on/in', *ɛtyo* 'down(hill) at', etc. A suffix-run is also found in the numerals: all Limbu numerals from 2 to 9 bear the plural/collective suffix *si*.

Table 3: Limbu time-ordinals

i=	number	D+i	D-i	Y+i	Y-i
0		*ain*		*aillamba, ɛn[niŋ*	
1	*thik*	*ta:ndik*	*asɛn*	*ɛt]nim[ma*	*met[liŋ*
			mi:pma[a]		*mi:t[liŋ*[a]
2	*nɛtchi*	*ɛt]chin[da:n*	*siŋ[ya:n*	*ɛt]chim[ma*	*sum[liŋ*
					~ sil[liŋ[a]
3	*sumsi*	*ɛk]khɛm[da:n*	*khɛm[ya:n*	—	*khɛm[liŋ*
4	*lisi*	*ɛˀ]u[da:n*	—	—	—
suffixes:		*ta:n*	*ya:n*	*ma*	*liŋ*

[a] Panchthar dialect.

Looking across the rows in Table 3, **sin* and **khɛm* can be identified as counters, that is, as elements whose function is ordinal rather than representing any specifically temporal meaning such as 'day' or 'year'. The form and distribution of these elements will be discussed in §6 below.

Time-ordinals in the remaining EK and SK languages are constructed on similar principles to those in Limbu and share some of the same elements. The data are presented in entirety in Tables 4-16.

Table 4: Belhare time-ordinals

i=	number	D+i	D-i	Y+i	Y-i
0		*ha[mba*		*nania*	
1	*i*	*ware[mba*	*a]sen*	*nɛm[ma*	*nam[niŋ*
2	*sik*	*chin[umba*	*a]'chum[bu*	*chim[ma*	*chim[metniŋ*
3	*sum*	*on[umba*	*a]ũ[bu*	*om[ma*	*om[metniŋ*
4	—	*khon[umba*	—	*khom[ma*	*khom[metniŋ*
suffixes:		*umba*	*bu*	*ma*	*metniŋ, niŋ*

Table 5: Yamphu time-ordinals

i =	number	D+i	D-i	Y+i	Y-i
0		*ayu*		*a[niŋ*	
1	*ikko*	*wagiyasiŋʔaram*	*ase[ʔŋa*	*nam[ma*	*nem[niŋ*
2	*nitci*	*siŋʔa*[a]	*sim[breʔŋa*	*sim[ma*	*sim[baniŋ*
3	*sumji*	*khoŋ[sum*	*khom[breʔŋa*	*khom[ma*	*khom[baniŋ*
4	*riʔum*	*rok[sum*	—	*rom[ma*	*rom[baniŋ*
5	*ŋaʔum*	*æk[sum*	—	—	*nak[niŋ*
6	*cuʔum*	*cuk[sum*[a]	—	—	*cuk[niŋ*
suffixes:		*sum*	*breʔŋa, ʔŋa*	*ma*	*baniŋ, niŋ*

[a] Tentatively corrected from Rutgers 1999 ‘6 days ago’.

Table 6: Athpare time-ordinals

i=	number	D+i	D-i	Y+i	Y-i
0		*hatle*		*naniŋ*	
1	*thik*	*han[deŋ*	*a]sen*	*haŋ[demaŋ*	*nam[niŋ*
2	*i-*	*chin[deŋ*	*a]chum[bu*	*chin[demaŋ* ~ *achim[maŋ*	*himi[niŋ*
3	*sum-*	*khaŋ[deŋ*	*a]um[bu*	*khaŋ[demaŋ*	*aumbu[niŋ*
4	—	*atup[deŋ*	—	*atup[demaŋ*	—
suffixes:		*deŋ*	*bu*	*demaŋ, maŋ*	*niŋ*

Table 7: Bantawa time-ordinals

i=	number	D+i	D-i	Y+i	Y-i
0		*ai*		*aidoŋ*	
1	*iktat*	*maŋ[kolen*	*a]khumaŋ*	*nam[maŋ*	*a]nem[nïŋ*
2	*hïa*	*chin[tolen*	*a]sen*	*chin[maŋ*	*a]cchimbat[nïŋ*
3	*sumka*	*suyaŋ[kolen*	*a]cchosa*	—	—
suffixes:		*(C)olen*	—	*maŋ*	*nïŋ*

Table 8: Camling time-ordinals

i=	number	D+i	D-i	Y+i	Y-i
0		*ale*		*alpa[nuŋ*	
1	*i-*	*sela, selama*	*ase, asema*	*nam[mo*	*nam[nuŋ*
2	*haka-*	*sus[paləi*	—	—	—
3	*sum-/sim-*	*yas[paləi*	—	—	—
suffixes:		*paləi*		*mo*	*nuŋ*

Table 9: Kulung time-ordinals

i=	D+i	D-i	Y+i	Y-i
0	*ese*		*ini*	
1	*i-*	*desa*	*espa*	*nam[mɔ*	*temniŋ[ka*
2	*nitci*	*chindi*	*keska*	*chi[mɔ*	*metɔŋ[ka*
3	*supci*	*dɔk[thum*		*dɔ[mɔ*	
4	*li:ci*	*khet[thum*		*khe[mɔ*	
5	*ŋaci*	*wat[thum*		—	
6	*tukci*	*nɔk[thum*		—	
suffixes:	*thum*		*mɔ*	*ka*

Table 10: Khaling time-ordinals

i =	number	D+i	D-i	Y+i	Y-i
0		*änöl*		*ätem*	
1	*'tu, tak-*	*disä*	*aa]miski*	*naa[maa*	*äjhämu*
2	*'saak*	*'näm*	*aa]thaas[ne*	*chu[maa*	*aa]jhaak[to*
3	*'suk*	*'sam[ne*	*aa]saam[kane*	*do[maa*	*aa]laak[to*
4	*bhäl*	*'lan[ne*	*aa]lang[kane*	—	—
suffixes:		*ne*	*kane*	*maa*	*to*

Table 11: Dumi time-ordinals

i =	number	D+i	D-i	Y+i	Y-i
0		*amn~~i~~-*		*tom kho?o*	
1	*t~~i~~k*	*a'sɐlma*	*a]si[na*	*nam[ma*	*a'dzəŋkhini*
2	*sak*	*na:mn~~i~~-*	*a]ti[na*	*tsim[ma*	—
3	*suk*	*s~~i~~m[dinna*	*a]ttha:mku[na*	—	—
4	*bal~~i~~k*	*l~~i~~k[dinna*	—	—	—
suffixes:		*dinna*[a]	*na*	*ma*	

[a] ?Cf. Nepali *din* 'day'.

Table 12: Wambule time-ordinals

i =	number	D+i	D-i	Y+i	Y-i
0		*tyāso*		*tyā[thoce*[a]	
1	*kwāl*	*diskānā*	*sāiso*	*nā[thoce*[a]	*num[thoce*[a]
2	*nisi*	*nusso, nusswām*	*sāɖi*	*nusso[thoce*[a]	*mun[thot*
3	—	*sukbu*	*thāccum*	*sukbu[thoce*[a]	*mumun[thot*
4	—	*plyākku*	*thāthāccum*	*plyākku[thoce*[a]	—
suffixes:				*thoce, thot*	*thoce, thot*

[a] Also *-thot.*

Table 13: Thulung time-ordinals (Lahaussois 2002[a])

i =	number	D+i	D-i	Y+i	Y-i
0		*anep, ane*		*ɔthɔtse*	
1	*ko*	*dika*	*basta*	*pali*[b]	*mamtha*
2	*nɔ*[c]	*na[haɖɖa*	*neo[nem*	*nɔu*	*nɔ[na*
3	—[d]	*su[haɖɖa*	*su[nem*	*su*	*su(na)*
4	—[e]	*blu[haɖɖa*	*blu[nem*	*blu*	*blu(na)*
suffix:		*haɖɖa*	*nem*[f]		*na*

[a] The day-ordinals have been revised slightly by Lahaussois (p.c. 21.11.2002).
[b] Nepali *pāli* 'time, turn, year'.
[c] Allen 1975: *nə* '2'.
[d] Allen 1975: *'su ~ sium* '3'.
[e] Allen 1975: *blə* '4'.
[f] 'day'.

Table 14: Bahing time-ordinals

i =	number	D+i	D-i	Y+i	Y-i
0		*ana*		*anamɔltse*	
1	*koŋ*	*dilla*	*sãːti*	*thotse, maːta*	*santho*
2	*niksi*	*niːti*	*ni[khabɔl, sani*	*niwa*	*niwa*
3	*sam*	—	*suk[khabɔl*	—	—
4	*le*	—	*lek[khabɔl*	—	—
suffix:			*khabɔl*		

Table 15: Sunwar time-ordinals

i =	number	D+i	D-i	Y+i	Y-i
0		*mu[lā:kti*		*mulā-thoce*	
1	*kā:*	*'disā*	*'si[na:kti*	*māykta*	*'sāy-[thoce*
2	*'ni:ksyi*	*'nit-[na:kti*	*sāber [na:kti*	*ni:yu*	*sāb-[thoce*
3	*'sã̄:*	*sã:bo-[na:k*			
suffixes:		*na:kti*	*na:kti*		*thoce*

Table 16: Hayu time-ordinals

i =	number	D+i	D-i	Y+i	Y-i
0		*tɪrɪ*		*tĩ:[thoŋ*	
1	*koŋ*	*nukun*	*tĩdzoŋ*	*niŋa[he*	*niŋanoŋ*[a]
2	*nak-*	*niha*	*nitibʊk*[b]	*tshukthoŋ[he*	*tshuk[thoŋ*
3	*tshuk*	*tshum[ma*	—	*blikthoŋ[he*	*blik[thoŋ*
4	*bli-*	*blim[ma*	—	—	—
suffixes:		*ma*		*he*[c]*, thoŋhe*	*thoŋ*

[a] The suffixed element *noŋ* is a locative suffix 'at'.
[b] Hodgson (1880:232) cites *buk* as a quantifier for days. ?Cf. Athpare, Belhare suffixed *bu.*
[c] Locative suffix 'in'.

4. Lexical elements in time-ordinals

Lexical elements in time-ordinals are of two types, (1) independently attested elements with (usually) time-related meanings and (2) other elements occurring in time-ordinals in more than one of the languages and whose meaning can be inferred. Discussion of affixes appearing in single languages and of counters, whether or not related to numerals, is deferred to §5 and §6 below.

4.1 ***Kiranti words for 'day', 'now', 'today'***

The Proto-Kiranti (PK) etymon **len* 'day' is best attested in SK and EK: Thulung *lem* 'day [bound quantifier]'; Kulung *lei* 'day'; *le:pa* 'afternoon'; Camling *lẽi, lei, lãi* 'day', *kholəi* 'day, daylight' (cf. *khosai* 'night'); Bantawa *len* 'day', *kholen* 'day'; Athpare *lemba* 'day, light'; Yamphu *lemda* 'afternoon'; Belhare *lemba* 'daytime'; Limbu *lɛn* 'day [bound quantifier]', *lɛndik* '(by) day' (vs *sɛndik* '(by) night'). Van Driem (1987) suggests the presence of **len* in Dumi *lemma* 'daydream' (Cf. also STC #82 *maŋ* 'dream', PK **maŋ*

'spirit' and PK **senmaŋ* 'dream', the latter a compound with 'night'). In reflexes of PK **len* and of the etymon 'night' (below), final *n* is often dropped, particularly in SK and CK, leaving a *Vi* diphthong. Reflexes appear in Athpare *hatle* and Camling *ale* 'today', and in suffix-runs in SK future day ordinals: *(C)olen* in Bantawa ('D+1', 'D+2', 'D+3') and *paləi* in Camling ('D+2', 'D+3').

WK **ti* 'day, daytime' appears sporadically: in Hayu *tɪɾɪ* 'today' and future days, in Bahing *ni:ti* 'day after tomorrow ['second day']' and *sã:ti* 'yesterday ['(last) night-day']' (vs *santho* 'last year'), in Sunwar, and probably in Wambule (*sāḍi* 'day before yesterday' ?< **san-ti* cf. Opgenort 2002:9) and Kulung (*chindi* 'day before yesterday'). It is opposed to an element meaning 'evening, night' in Sunwar: *nā:kti* 'daytime, afternoon' vs *'nā:kdo* 'evening'; *'sinā:kti* 'yesterday' vs *sinā:kdo* 'last night'. Cf. also Bahing *namti* 'daytime', a compound with PK **nam* 'sun' (Benedict 1972:148n).

In looking for reflexes of PTB **niy* (STC #81) we find candidates as suffixes in day-ordinals in Dumi (*nɨ*), Khaling (*ne*) and Bahing (*ni*).

PK *han* ~ *an* 'now': Bahing *ana* 'today', Khaling *än*, Kulung *hən*, Bantawa *han*, Athpare *hatle* 'today, now' (compound with 'day'), Yamphu *hago*, Limbu *allɔ* (phonologically **an-lɔ*). Athpare *handeŋ* 'tomorrow' probably reflects this etymon.

Probably related are Limbu *ain*, Bantawa *ai* Belhare *hamba* and Yamphu *ayu* 'today'. 'Today' appears in Bantawa *aidoŋ* 'this year' (compound with 'year'), Limbu *aillamba* (**ain-lamba*) and Bahing *anamoltse* 'this year' .

Khaling *änöl* 'today' is composed of *än* 'now' and *nöl* 'day, afternoon'. Camling *ale* 'today' is composed of **len* 'day' with a prefixed *a* (cf. *aso* 'now'); *alpanuŋ* 'this year' can be analysed as *al(e)* 'today' + *pa* '[nominalizer/modifier]' + *nuŋ* 'year'. (See Ebert 1997:10 on *i* ~ *u* variation in Camling.)

The Wambule words for 'today' and 'this year' contain an element *tyā*, identified by Opgenort (2002) as a bound morpheme meaning 'now'; cf. *tyāṅo* 'from now'.

For Thulung *anep* 'today' and *ɔthɔtse* 'this year', cf. Thulung *a-* 'this', *nem* 'day', *thɔtse* 'year [bound form]'.

4.2 ***'Night', 'yesterday'***

PK **sen* 'night': Thulung *sintha*, Dumi *si:na*, Khaling *sene*, Kulung *se:pa*; Camling *khosai*; Yamphu *senda*; Belhare *semba*; Limbu *sɛndik*. (Note the parallels with words for 'day' containing reflexes of **len*.) The most widespread word for 'yesterday', PK **(a)sen* is clearly

related to ‘night’, a widely observed semantic connection. This is best seen in EK: Limbu *asɛn* (Phedap *anchɛn*) ‘yesterday’, Belhare *asen*, Yamphu *ase?ŋa*, Athpare *asen*. Cf. also Dumi *asina*, Wambule *sāiso* [analysed as ‘past’-‘day’ by Opgenort 2002]—this last, like some other WK forms seems to reflect **san*. In Bahing, this etymon appears in both *sã:ti* ‘yesterday’ and *santho* ‘last year’ (cf. Sunwar *'sina:kti*, *'sāy-thoce*). Bantawa *asen* and Camling *ase* have been pushed back to ‘D–3’ and ‘D–2’.

Limbu has a specific word *mi:t* ‘yesterday’, which appears in Panchthar dialect *mi:pma* ‘yesterday’ and *mi:tliŋ* ~ *mi?liŋ* (Mewa Khola *metliŋ*) ‘last year’.

4.3 ***‘Tomorrow’***

CWK **dis* ~ **disa* appears to be a specific CWK etymon meaning ‘tomorrow’, attested in Sunwar, Bahing, Thulung, Wambule, Kaling and Kulung. It is probably borrowed into Kulung since (1) otherwise initial *t* would be expected and (2) it is not found elsewhere in SK or in EK. This element (or at least **diC*-) also appears in Khaling *dicchä* and Kulung *detcha* ‘morning’ (?also borrowed), a common ‘tomorrow’ etymology. The element *ka* in Thulung *dīka* is a general adverbial suffix whose use with other time-ordinals is optional.

In Dumi, we find a different etymon, *sel* ‘tomorrow’, shared with Camling.

Yamphu and Belhare have a common element beginning with *wa*. Cf. Chhingtangya *warangda*, Lohorong *wengda*, Lambichhong *waring* ‘tomorrow’ (Hodgson 1880:186,206).

Limbu *ta:ndik* ‘tomorrow’ contains the Limbu element *ta:n* ‘morning, day’—used as a suffix in Limbu D+2 and following—and a suffix *dik*, which also appears in *sɛndik* ‘(by) night’ and *lɛndik* ‘(by) day’; cf. Yamphu *sendak*, *lendak*. The suffix *dik* is related to the general Limbu adverbializing suffix *rik*/*lik*. Cf. Limbu *ta:nchoppa* ‘morning star’.

4.4 ***‘Year’***

The element *niŋ* ‘year’ (*liŋ* in Limbu, an irregular correspondence) (STC #368) appears as a bound form throughout SK and EK in words for ‘this year’ and for past years.

Athpare *naniŋ* and Belhare *nania* ‘this year’ contain a proximal demonstrative *na* ‘this’; Limbu *ɛnniŋ* has the same structure.

Words for future years bear suffixes reconstructible as **maŋ* (SK, Athpare, also CK) or **ma* (EK), whose etymology is unknown.

PK ?**toŋ* 'year'[3] has reflexes in all branches of Kiranti, usually as bound forms (this can not be determined in all of the sources): Hayu *thoŋ* 'year'; Sunwar *thoce* [?bound form], Bahing *tho* [bound form]; Thulung *thɔ*; Wambule *thot ~ thoce* [bound form], Khaling *tho* 'year', *to* [suffix in past-year-ordinals]; Kulung *dɔŋ* [bound quantifier]; ?Camling *camduŋ* 'season'; Bantawa *doŋ* 'year'; Limbu *tɔŋ* [bound quantifier], *tɔŋbe* 'year'. This element appears in many time-ordinals, in suffix-runs and in Bantawa *aidoŋ* 'this year ['today-year']' and in Kulung *metɔŋka* 'year before last'. The initial *t* in Kulung*metɔŋka* suggests **met-doŋ*, ?cf. Limbu *met* 'yesterday'.

4.5 ***Next year, last year; past-future contacts***

An etymon *nam ~ nɛm ~ nem ~ nim* appears in almost all CK, SK and EK words for 'next year', with a suffix *maŋ ~ ma ~ mak*, usually beginning a suffix-run. Limbu *ɛtnimma* is prefixed, beginning a prefix-run, and the vowel has been influenced by the following item in the run, *ɛtchimma* 'Y+2'. In many of the languages, elements similar to *nam* (etc.), appear in words for 'Y-2' as well. The original meaning of *nam* (etc.) is not clear. The fact that it usually permutes with **sim ~ chim* in the adjacent item meaning 'Y+2' or 'Y-2' might suggest that it is a counter. But it only occurs in the year domain. It may have originally meant 'next year' and become extended in some languages to 'Y±1', like the famous Hindi words *kal* 'D±1' and *parsõ* 'D±2'. The languages in which it appears in both 'last year' and 'next year' are Yamphu, Belhare, Bantawa and Camling; in all there is a difference of suffix, and in all but the last a difference of vowel between the two forms.

Bahing *niwa* 'Y±2' is a past/future term, probably containing the numeral '2'.

Hayu *niŋa* appears in both *niŋanoŋ* 'Y-1' and *niŋahe* 'Y+1', with different locative suffixes. Similarly, Hayu has *tshukthoŋ* 'Y-2', *tshukthoŋhe* 'Y+2'; *blikthoŋ* 'Y-3', *blikthoŋhe* 'Y+3'; the Y+ ordinals differentiated from the past by the addition of a locative suffix. The elements *ni*, *tshuk*, and *blik* suggest the numerals '2', '3' and '4', but *niŋa* may rather reflect SK and EK *niŋ* 'year'.

Bahing *maːta* and Sunwar *māykta* 'next year' suggest a common Bahing-Sunwar ancestor **matta*, not attested elsewhere.

Athpare *handemaŋ* 'next year' is formed on *handeŋ* 'tomorrow'.

[3] The reconstruction is questionable because the manner-series correspondence is irregular. The regular correspondences are CWK *t ~ SK *d ~ EK *th and CWK *d ~ SK and EK *t (Michailovsky 1994). CWK aspiration is secondary. Note that this etymon is missing in EK except for Limbu, and that there is no evidence for a final in CWK except in Hayu.

Table 17: Suffix-runs in day-ordinals

suffix	language	in day-ordinals	note
taːn	Limbu	D+2, D+3, D+4	'morning'
yaːn	Limbu	D–2, D–3	'day'
mbu	Athpare, Belhare	D–2, D–3.	
(V)mba	Belhare	D0, D+1, D+2, D+3, D+4	
(breʔ)ŋa	Yamphu	D–1, D–2, D–3	
sum	Yamphu	D+3, D+4, D+5	
deŋ	Athpare	D+1, D+2, D+3, D+4	?cf. CWK ?**de* 'tomorrow' cf. *demaŋ* in Athpare. Y+ ordinals
(C)olen	Bantawa	D+1, D+2, D+3	cf. *len* 'day'
paləi	Camling	D+2, D+3	cf. *ləi* 'day'
thum	Kulung	D+3, D+4, D+5, D+6	
kane	Khaling	D–3, D–4	cf. Dumi *kuna* 'D–3'
ne	Khaling	(D–2), D+2, D+3	cf. Khaling *kane*, Thulung *nem*
dinna	Dumi	D+3, D+4	cf. Khaling *ne*; ?Nepali *din* 'day'
Cu	Wambule	D+3, D+4	(?)
so	Wambule	D0, D–1, D+2	(not a continuous run)
nem	Thulung	D–2, D–3, D–4	cf. *nem* 'day'; cf. Khaling *ne*
haqɖa	Thulung	D+2, D+3	
khabɔl	Bahing	D–2, D–3, D–4	
ma	Hayu	D+3, D+4	

5. **Affixes and affix-runs**

Time ordinals often have the form of compounds in which the second element is shared with neigboring ordinals belonging to the same series, whether of days or years. The sources of a few of these elements, with independently attested meanings 'day' or 'year', can be found in the previous section. But, as Matisoff has pointed out, affix-runs are partly or even wholly phonologically motivated, to facilitate rhythmic recitation, independently of the semantic origin of the affixed elements. In the case of time-ordinals, it may happen that the final element in the word for, say, D+i, is extended to D+(i+1) and following items and acquires an association with 'day' or 'year' that it did not have originally.

We have also encountered a few prefixes, usually prefixed *a*. Runs of prefixes in the past days domain often start from 'today'.

Year-ordinals often contain recognizable morphemes for 'year', precisely to distinguish them from related day ordinals. But suffix-runs in day-ordinals are highly variable and generally limited to single languages. These are listed in Table 17. Most have no independently attested meaning.

6. **'Counters'**

By 'counters' I mean elements whose meaning is primarily ordinal, even if limited to the temporal domain, rather than associated with specific temporal concepts like 'day', 'yesterday', etc. In practice, the distinction is not necessarily clear-cut.

The status of 'counter' is clearest in elements which are etymologically numerals and which are used for both days and years, past and present. Such elements are found in Western Kiranti. In Eastern and Southern Kiranti we find elements of similar distribution which are probably not etymologically numerals.

The element *nim* in Limbu 'next year' has been discussed in §4.5 above. Elements *nam*/*nem* appear for 'Y±1' throughout EK and SK except in Athpare, where 'next year' is based on 'tomorrow', in Limbu, where 'last year' is based on 'yesterday', and in Kulung 'Y-1'. They do not appear to be counters.

The Limbu counter **sin* was mentioned in presenting Table 3 above. Final *n* is reconstructed internally because the finals *m* and *ŋ* do not usually assimilate. Limbu *ch* only occurs as an allophone of *s* after *t* or *n* (here after the *t* of the prefix *ɛt*). Panchthar dialect *sillin* 'Y-2' can only reflect **sin+lin* phonologically. Probably **sin* is the original Limbu form, replaced by *sum* '3' in the Phadap and Mewa Khola dialect terms for 'Y-2'. It is possible that **sin* (in fact, EK **chin* — see below) somehow reflects **sum* '3', but this hypothesis is rejected here in view of the phonological difference and of the fact that the following counter, *khɛm* is not related to any known numeral '4'.

The counter **chin* is well represented elsewhere in EK and in SK at the i=2 level. It has the vowel *u* before the suffix *bu* in Athpare and Belhare, and the final *m* before suffix-initial bilabials. EK and SK initial **ch* (corresponding to PK **c*) regularly has the reflex *s* in Limbu and Yamphu, merging with reflexes of PK *s: compare, for example, the reflexes of PK **cap* 'to write': Dumi *tsəpt-*, Kulung *chap-*, Camling *chapd-*, Bantawa *chapt-*, Athpare *chept-*, Yamphu *sap-*, Belhare *chap-*, Limbu *sapt-*.

EK and Kulung have counters at higher levels (i>2), but these differ between languages. Still, at the i=3 or i=4 level all four EK languages have a counter *khVN*, and three of them also have a counter beginning with *o* or *u*. These counters, beginning with i=2 and ignoring some phonetic variation, are shown in Table 18. Separate counters for past (–) and future (+) are listed for Athpare. Kulung has counters only in future time-ordinals. Bantawa and Camling are omitted as lacking counter-series.

Table 18: Kulung and EK counters

i=	Kulung+	Athpare+	Athpare–	Yamphu	Belhare	Limbu
2	*chin*	*chin*	*chin*	*siŋ*	*chin*	*sin*
3	*dɔk*	*khaŋ*	*um*	*khoŋ*	*on*	*khɛm*
4	*khet*	*atup*	—	*rok*	*khon*	*u*
5	*wat*	—	—	*(n)ak*	—	—
6	*nɔk*	—	—	*cuk*	—	—

The counters of Table 18 show few resemblances to Kiranti or TB numerals. An exception is Yamphu *cuksum* '6 days hence' and *cukniŋ* '6 years ago', which clearly contain Yamphu *cuk* '6', itself a reflex of EK **tuk* '6' (cf. STC #411, completed by Matisoff 1997:81). Note that Yamphu regularly affricates EK **t* before *i*, and sometimes before *u*, e.g. Yamphu *cupt*-, Athpare *tup*-, Limbu *tum*- 'to meet'. The preceding Yamphu counters, *ro(C)* and *nak* ~ *æk* are probably influenced by the Yamphu numbers *ri?* '4' (PK **bli*, EK **li*) and *ŋak*- '5' (cf. *nakpoŋ* '50'). Yamphu *r* is the regular reflex of PK initial **l*; cf Yamphu *ram* 'road', *ruŋma* 'liver', etc.

In the western languages (CWK), Khaling and Dumi resemble SK in the future years paradigm (e.g. Khaling *naamaa* 'Y+1', *chumaa* 'Y+2', *domaa* 'Y+3'; cf. Kulung *namɔ*, *chimɔ*, *dɔmɔ*). The correspondences *ch* ~ *ch* and *d* ~ *d* between Kulung and CK point to borrowing, probably by CK.

Other counters in CWK are generally related to numerals. The Kiranti numerals 2, 3, and 4 often have *k* finals, an oddity from a Tibeto-Burman point of view, and these appear in some of the counters. In comparing reflexes of PK **ni(C)* '2' and **sum* '3' it should be noted that Khaling *a* and Thulung *ɔ* (*ə* in Allen 1975) often reflect PK close vowels.

Reflexes of PK **ni(C)* '2' are found as counters in WK time-ordinals: *nus* appears in Wambule 'D+2' and 'Y+2', *na* ~ *neo* ~ *nɔ* in Thulung (all time-ordinals at the i=2 level), *ni* in

Bahing, *nit* in Sunwar (future only), *ni* in Hayu (i=2 for days, ?i=1 for years—but Hayu *niŋa* may be related to SK and EK *niŋ* 'year'). The peculiar CK etymon **sak* '2' does not seem to figure as a counter in CK or elsewhere. Dumi *na·mn̶i̶-* and Khaling *'näm* appear to be specialized words for 'D+2' rather than to reflect a counter '2'.

Khaling and Dumi *samne* and *si̶mdinna* 'D+3' and Khaling *aasaamkane* 'D-3' reflect PK **sam* ~ **sum* '3', while Wambule *sukbu* 'D+3', Bahing *sukkhabɔl* 'D-3' and probably Thulung *su-* (in all time-ordinals for i=±3) reflect **suk* (cf. also Hayu *tshuk-* '3'). It is interesting that some of the languages have final *k* in the numeral but final *m* in the counter (Khaling, Dumi, Hayu 'D+3'), while Bahing has the opposite.

CK 'D±4' reflects PK **bli* '4', with variable final consonants. Reflexes with final *k* appear in Wambule (i=+4), Bahing ('D-4'), and Hayu ('Y±3'). Dumi *li̶kdinna* 'D+4' clearly contains Dumi *bali̶k* '4', minus the dimidiated *b* prefix, which appears in Wambule *plyākku* (in 'D+4', 'Y+4'). The vowel of Thulung *blu* (<'4') appears to show the influence of the preceding *su* (<'3'). It is interesting that PK '3' and '4' are represented in Thulung and Wambule time-ordinals, although the corresponding numerals have been lost.

Wambule uses reduplication rather than counters to advance from 'Y-2' to 'Y-3' and from 'D-3' to 'D-4'. Reduplication is not used elsewhere in Kiranti time-ordinals.

The CWK counters are summarized in Table 19. Sunwar is omitted, as the relevant words are simply numeral expressions.

Table 19: Numeral-related counters in CWK

i=	Hayu	Bahing	Thulung	Wambule (+)	Dumi (D+)	Khaling (D)
2	*ni*	*ni*	*nɔ*	*nus*		
3	*tshum* (D+3) ~*tshuk* (Y-2)	*suk*	*su*	*suk*	*si̶m*	*'sam*
4	*blik* (Y±3) ~*bli* (D+4)	*lek*	*blu*	*plyāk*	*li̶k*	*'lan*

7. **Conclusion**

Time-ordinals are a well-defined semantic area, like numerals, with perhaps less extensibility, but with more dimensions, at least as compared to the positive integers. This multi-dimensionality gives scope for exchange of morphemic material along different axes—between past and future, or from days to years—in addition to the possibility, shared with the

numbers, of 'runs' along a single axis. These multiple possibilities have given rise to wide variation among closely related languages.

Perhaps the most striking aspect of the Kiranti time-ordinals is the great variety of morphemes that have been either borrowed or created to fill out the domain. Of course, a certain number of etyma, like 'day' and 'night', appear repeatedly, but it is remarkable that over a dozen otherwise unattested morphemes, as far as we know, have been created and used to form suffix-runs, each in a single language. These are concentrated in the day-ordinals.

The 'counters' are remarkable both for their similarities to numerals and for their differences from them. In West Kiranti, the counters are clearly related to ordinary inherited numerals. In the East this does not appear to be the case, except at higher levels in Yamphu. It is interesting that inherited numeral morphemes can be preserved in time-ordinals when they have been eliminated by borrowings in the numeral domain (e.g. in Wambule and Thulung). This would seem to reflect the pressure of commerce on the numerals. Even Kiranti numerals composed of Tibeto-Burman raw material may show evidence of such pressure, perhaps from Tibetan; time ordinals may furnish clues to an earlier state, altered by the many analogic processes that are at work in this domain.

The study of Kiranti time-ordinals confirms what Matisoff (1977) has shown by his study of the Tibeto-Burman numerals: the richness and complexity of what might seem, *a priori*, to be a straightforward semantic domain.

References

Allen, Nicholas. 1975. *Sketch of Thulung Grammar*. Cornell University East Asian Papers No. 6. Ithaca: Cornell University.

Benedict, Paul K. 1972. *Sino-Tibetan: a conspectus.* (contributing editor James A. Matisoff). Cambridge: Cambridge University Press. [Proto Tibeto-Burman (PTB) reconstructions from this source are cited as 'STC #xxx' in the text.]

Bickel, Balthasar. 1997. Time reckoning in Belhare. ms.

_____ 1998. Belhare vocabulary. ms.

Driem, George van. 1987. *A Grammar of Limbu*. Berlin: Mouton de Gruyter. [Phedap dialect]

_____ 1993. *A Grammar of Dumi*. Berlin: Mouton de Gruyter.

Ebert, Karen. 1997. *A grammar of Athpare*. München, Newcastle: Lincom Europa.

_____ 2000. *Camling texts and glossary*. München, Newcastle: Lincom Europa

Hale, Austin. 1973. *Clause, Sentence, and Discourse Patterns in Selected Languages of Nepal*. 4. Word Lists. Norman, OK: S.I.L. [The Sunwar data cited is by Dora Bieri and Marlene Schulze.]

Hodgson, Brian Houghton. 1880. *Miscellaneous essays relating to Indian subjects*. London. Trübner.

Kainla, Bairagi, ed. 2059 V.S. [2002]. *Limbu-Nepali-English Dictionary*. Kathmandu: Royal Nepal Academy.

Lahaussois, Aimée. 2002. *Aspects of the grammar of Thulung Rai: an endangered Himalayan language*. Berkeley. University of California Ph. D. thesis.

Matisoff, James. A. 1997. *Sino-Tibetan numeral systems: prefixes, protoforms and problems*. *Pacific Linguistics* series B-114. Canberra:Australian National University

Michailovsky, Boyd. 1975. Notes on the Kiranti verb. *LTBA* 2/2:183-218.

_____ 1994 Manner vs place of articulation in the Kiranti initial stops. Kitamura, H. et al., eds. *Current Issues in Sino-Tibetan linguistics*. Osaka:National Museum of Ethnology. pp. 766-772, 781.

_____ 2002. *Limbu-English Dictionary of the Mewa Khola Dialect*. Kathmandu. Mandala Book Point.

_____ n.d. Bahing, Bantawa, Hayu vocabularies. mss.

Opgenort, Jean-Robert. 2002. *The Wāmbule Language*. University of Leiden. Ph.D. thesis.

Rai, Novel Kishor. 1985. *A Descriptive Study of Bantawa*. Deccan College. Pune. Ph.D. thesis.

Rutgers, Roland. 1998. *Yamphu*. Leiden. CNWS.

Shafer, Robert. 1955. Classification of the Sino-Tibetan languages. *Word* 11.1:94-111.

Toba, Sueyoshi and Ingrid Toba. 1975. *A Khaling-English English-Khaling Glossary*. Kirtipur, Nepal: S.I.L.

Tolsma, Gerard. n.d. [?1999] Kulung dictionary. http://www.starling.rinet.ru.