

A NEW ANALYSIS OF THE LIMBU VERB

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1. THE LIMBU VERB

Limbu is a Kiranti language native to eastern Nepal and the western fringe of Sikkim. The author devoted the fourth chapter of his 1987 grammar of the Phedāppe dialect of Limbu to a morphological analysis of the Limbu simplex verb (van Driem 1987). Simplicia are non-periphrastic finite indicative verb forms, from which the various Limbu periphrastic tense forms, gerunds, participles, adhortative and optative forms are derived. Limbu distinguishes eleven pronominal categories: first, second and third person, singular, dual and plural number, and an inclusive–exclusive distinction in the first person dual and plural. The Limbu transitive verb shows agreement with both *agent* (transitive subject) and *patient* (transitive object or beneficiary), and the transitive paradigm distinguishes 44 different forms, as shown in Tables 2 and 3. Limbu intransitive and reflexive verbs agree with the *subject* (intransitive or reflexive subject), and the intransitive and reflexive paradigm distinguishes eleven different forms, as shown in Table 1.

After I had completed the manuscript for the Limbu grammar in the summer of 1986, Professor Emeritus Carl Ebeling of the University of Amsterdam and Caucasologist Rieks Smeets of Leiden University suggested that alternative analyses of Limbu conjugational morphology were possible, some of which might require positing fewer slots or functional positions. Since I was eager to start my work on the Dumi language in the late summer of 1986, I did not give the matter high priority at the time. In subsequent comparative work on conjugational morphology in Kiranti and other Tibeto-Burman languages, I proposed morphological analyses for the conjugations of other languages, none of which, as it turned out, presumed as many suffixal slots as my Limbu analysis. Even the morphological analysis of the older Bahing paradigm, the transitive conjugation of which distinguished as many as 64 of the 75 theoretically possible forms, presumed fewer slots than the Limbu analysis. As time went on, my dissatisfaction with the 1987 analysis grew, and I began to assign the students of my Limbu course at Leiden University the task of revising my 1987 morphological analysis, an exercise which proved both instructive and entertaining. Recently, Ebert (1991, 1992) presented papers, which included diagrams of morphemic analyses of Limbu, Chamling and Athpare simplicia. The complete Chamling and Athpare data have not been made available, but her Limbu diagram represents an insufficient analysis. Because of the relevance of Limbu conjugational morphology to the comparative study of Tibeto-Burman verbal flexion, therefore, I felt it was high time to present a new morphological analysis of verbal agreement in the Limbu simplex.

TABLE 1: LIMBU AFFIRMATIVE AND NEGATIVE INTRANSITIVE
AND REFLEXIVE SIMPLEX CONJUGATIONS IN THE
NON-PRETERITE AND PRETERITE TENSES

(In each box the negative form is listed below the corresponding affirmative form.)

INTRANSITIVE
REFLEXIVE

	NPT	PT		NPT	PT
1SG	Σ -ʔe me- Σ -ʔen	Σ -aŋ me- Σ -aŋnen	1SG	Σ -siŋʔe me- Σ -siŋʔen	Σ -siŋaŋ me- Σ -siŋaŋnen
1DU.INC	a- Σ -si an- Σ -sin	a- Σ -etchi an- Σ -etchin	1DL.INC	a- Σ -netchi an- Σ -netchin	a- Σ -netchi an- Σ -netchin
1DU.EXC	Σ -sige me- Σ -sigen	Σ -etchige me- Σ -etchigen	1DU.EXC	Σ -netchige me- Σ -netchigen	Σ -netchige me- Σ -netchigen
1PL.INC	a- Σ an- Σ -nen	a- Σ -e an- Σ -en	1PL.INC	a- Σ -siŋ an- Σ -siŋnen	a- Σ -siŋe an- Σ -siŋen
1PL.EXC	Σ -ige me- Σ -igen	Σ -mʔna men- Σ -mʔna	1PL.EXC	Σ -siŋige me- Σ -siŋigen	Σ -siŋŋʔna men- Σ -siŋŋʔna
2SG	ke- Σ ken- Σ -nen	ke- Σ -e ken- Σ -en	2SG	ke- Σ -siŋ ken- Σ -siŋnen	ke- Σ -siŋe ken- Σ -siŋen
2DU	ke- Σ -si ken- Σ -sin	ke- Σ -etchi ken- Σ -etchin	2DU	ke- Σ -netchi ken- Σ -netchin	ke- Σ -netchi ken- Σ -netchin
2PL	ke- Σ -i ken- Σ -in	ke- Σ -i ken- Σ -in	2PL	ke- Σ -siŋi ken- Σ -siŋin	ke- Σ -siŋi ken- Σ -siŋin
3SG	Σ me- Σ -nen	Σ -e me- Σ -en	3SG	Σ -siŋ me- Σ -siŋnen	Σ -siŋe me- Σ -siŋen
3DU	Σ -si me- Σ -sin	Σ -etchi me- Σ -etchin	3DU	Σ -netchi me- Σ -netchin	Σ -netchi me- Σ -netchin
3PL	me- Σ men- Σ -nen	me- Σ -e men- Σ -en	3PL	me- Σ -siŋ men- Σ -siŋnen	me- Σ -siŋe men- Σ -siŋen

In the following, I shall use the words 'old' and 'new' to refer respectively to the morphemes, morpheme labels and slots of the 1987 analysis and of the new analysis proposed here. New slots are proposed, and some old slots have been abolished. Certain morpheme labels have been made more precise. Zero morphemes have been reassessed, and the problem of negation is discussed. Implications of the new analysis for the diachronic view of conjugational morphology in Kiranti and in Tibeto-Burman are discussed.

Abbreviations used in this paper are:

1, 2, 3	first, second, third person	PL	plural
AG	agent of a transitive verb	PT	preterite
DU	dual	REF	reflexive
EXC	exclusive	S	subject of an intransitive or reflexive verb
INC	inclusive	SF	suffixal slot
NDU	non-dual	SG	singular
NEG	negative	→	indicates the direction of a transitive relationship
NPT	non-preterite	Σ	verb stem
NSG	non-singular or		
PAT	patient of a transitive verb		
PF	prefixal slot		

2. THE PREFIXAL CHAIN EXPANDED

A flaw in the old analysis is that the old prefixal slot PF1 could be occupied by two morphemes, viz. any combination of the first person prefix *a-*, the second person prefix *kε-* and an old third person zero morpheme \emptyset . Slots are functional positions in the affixal string of a verb, each of which can be occupied by a definable set of morphemes. The morphemes sharing a position in a string define the function of that position. There appears to be a general tendency for semantically related morphemes to occupy the same slot. Slots are language-specific and analysis-dependent and represent the non-random sequential ordering of morphemes in conjugated verb forms: To have more than one morpheme occupying a slot defeats the purpose of having slots in the first place and necessitates making statements about the relative position of two morphemes within a single slot, something which is not ascertainable in those cases in which one of these is a zero morph. Conversely, attempts at slot reduction may not be allowed to supersede the goal of formulating a maximally explanatory analysis.

The first person prefix *a-* always precedes the second person prefix *kε-* and therefore must be analysed as occupying an anterior slot. This prefix indicates first person in forms in which first person involvement is not indicated by some portmanteau. It now seems a bit overwrought to have posited a zero allomorph of this morpheme in forms containing the exclusive suffix *-ge ~ -be* (see Sprigg 1989). It is reasonable to say that the meaning of the exclusive suffix comprises the sense of first person involvement in addition to exclusion of the person or persons addressed. Michailovsky (1989:472) proposes to analyse the prefix *a-* as a first person non-singular inclusive morpheme despite its occurrence in 2→1 forms in which Michailovsky maintains that the opposition between inclusive and exclusive is effectively 'neutralised'. I cannot concur with this view, as the prefix clearly functions as a marker of first person, not only in 2→1 forms, but also in non-finite forms such as the supine.

The second person prefix *kε-* indexes second person in forms in which second person involvement is not indexed by some portmanteau. The old third person zero morpheme may be abolished by a more precise labelling of two other morphemes in old prefixal slot PF2: The old non-singular agent/subject morpheme *mε- ~ m-* specifically marks the involvement of a *third person* non-singular agent or subject, and should therefore be relabelled as (3NSG.AG.S). Its abbreviated allomorph *m-* occurs between a preceding prefix and the root

TABLE 2: LIMBU AFFIRMATIVE TRANSITIVE SIMPLEX CONJUGATION IN THE NON-PRETERITE AND PRETERITE TENSES

(In each box the preterite form is listed below the corresponding non-preterite form.)

p a t i e n t

	1SG	1DU.INC	1DU.EXC	1PL.INC	1PL.EXC	2SG	2DU	2PL	3SG	3D	3PL
a	1SG					Σ -ne Σ -ne	Σ -netchiq Σ -netchiq	Σ -niq Σ -niq	Σ -uq Σ -uq	Σ -upsiq Σ -upsiq	
	1DU.INC								a- Σ -su a- Σ -etchu	a- Σ -susi a- Σ -etchusi	
	1DU.EXC						Σ -natchige Σ -natchige		Σ -suge Σ -etchuge	Σ -susi Σ -etchusi	
g	1PL.INC								a- Σ -um a- Σ -um	a- Σ -umsim a- Σ -umsim	
	1PL.EXC						Σ -natchige Σ -natchige		Σ -umbe Σ -m'na	Σ -umsimbe Σ -m'nasi	
e	2SG								ke- Σ -u ke- Σ -u	ke- Σ -usi ke- Σ -usi	
	2DU								ke- Σ -su ke- Σ -etchu	ke- Σ -susi ke- Σ -etchusi	
n	2PL								ke- Σ -um ke- Σ -um	ke- Σ -umsim ke- Σ -umsim	
	3SG					ke- Σ ke- Σ -e	ke- Σ -si ke- Σ -etchi	ke- Σ -i ke- Σ -i	Σ -u Σ -u	Σ -usi Σ -usi	
t	3DU					kem- Σ kem- Σ -e	kem- Σ -si kem- Σ -etchi	kem- Σ -i kem- Σ -i	Σ -su Σ -etchu	Σ -susi Σ -etchusi	
	3PL								me- Σ -u me- Σ -u	me- Σ -usi me- Σ -usi	

of the verb, but the full form occurs between a preceding prefix and a following negative morpheme. The old singular agent/subject zero morph must be retained but more precisely labelled as the specific marker of a *third person* singular agent or subject (3SG.AG.S). These considerations necessitate positing more prefixal slots for person in the Limbu verb than in the old analysis, that is a first person slot (PF1), a second person slot (PF2) and a third person slot (PF3), replacing older slots PF1 and PF2.

LIMBU PERSON AND NUMBER AGREEMENT PREFIXES

PF1	PF2	PF3
		<i>mε- ~ m-</i>
<i>a-</i>	<i>kε-</i>	3NSG.AG.S
1	2	
		∅
		3SG.AG.S

3. THE PROBLEM OF NEGATION

An analysis of negation in Limbu simplicia would have to account for the fact that the prefix *mεn-* occurs in negative preterite forms with a first person singular or first person plural exclusive agent or subject and the lack of an overt negative suffix in such forms. In all other negative simplicia, there are at least two negative and no more than three overt negative affixes, of which one is a prefix.

ANALYSIS A		ANALYSIS B	ANALYSIS C
PF4	PF5	PF4	PF4
		<i>mε- ~ n-</i>	
<i>mε-</i>	<i>n-</i>	NEG	<i>mε- ~ n- ~ mεn-</i>
NEG	NEG		NEG
		<i>mεn-</i>	
		1SG.AG.S/1PL.EXC.AG.S/PT.NEG	

Analysis B posits a distinct negative morpheme *mεn-* in forms with a first person singular or first person plural exclusive agent or subject, bearing the clumsy morpheme label (1SG.AG.S/1PL.EXC.AG.S/PT.NEG). The sequence *mεn-* in such forms is homophonous with the morpheme sequence *mε- + n-* (3NSG.AG.S + NEG) in negative forms with a non-singular third person agent or subject, although this does not lead to homophony anywhere in the paradigm. Analysis A, on the other hand, would explain the sequence *mεn-* in negative preterite forms with a first person singular or first person plural exclusive agent or subject as the co-occurrence of two negative morphemes in adjacent slots, viz. *mε- + n-* (NEG + NEG). An advantage of analysis A is that this co-occurrence could be seen as a motivated phenomenon, in keeping with the regularity consistently observed elsewhere throughout the simplex paradigm that all negative forms are marked by at least two negative morphemes. In all other forms, one negative prefix is consistently seen to occur with one or two negative suffixes. The occurrence of two prefixed negative morphemes in negative preterite forms with a first person singular or first person plural exclusive agent or subject can be interpreted as being attributable to the fact that the negative suffix is 'blocked' by the negative preterite

TABLE 3: LIMBU NEGATIVE TRANSITIVE SIMPLEX CONJUGATION IN THE NON-PRETERITE AND PRETERITE TENSES
(In each box the preterite form is listed below the corresponding non-preterite form.)

p a t i e n t											
	ISG	IDU.INC	IDU.EXC	1PL.INC	1PL.EXC	2SG	2DU	2PL	3SG	3DU	3PL
a	ISG					me- Σ -nen me- Σ -nen	me- Σ -netchipnen me- Σ -netchipnen	me- Σ -nighnen me- Σ -nighnen	me- Σ - γ en men- Σ -baŋ	me- Σ -enchin men- Σ -bajsiŋ	
	IDU.INC								an- Σ -sun an- Σ -etchun	an- Σ -sunchin an- Σ -etchunchin	
g	IDU.EXC						me- Σ -netchigen me- Σ -netchigen		me- Σ -sugen me- Σ -etchugen	me- Σ -susigen me- Σ -etchusigen	
	1PL.INC								an- Σ -umnen an- Σ -umnen	an- Σ -umsininen an- Σ -umsiminen	
l	1PL.EXC						me- Σ -netchigen me- Σ -netchigen		me- Σ -umben men- Σ -m γ na	me- Σ -umsiben men- Σ -m γ nasi	
	2SG								ken- Σ -un ken- Σ -un	ken- Σ -unchin ken- Σ -unchin	
n	2DU								ken- Σ -sun ken- Σ -etchun	ken- Σ -sunchin ken- Σ -etchunchin	
	2PL								ken- Σ -umnen ken- Σ -umnen	ken- Σ -umsininen ken- Σ -umsiminen	
t	3SG	me- Σ - γ en me- Σ -apnen	an- Σ -sin an- Σ -etchin	me- Σ -sigen me- Σ -etchigen	an- Σ -nen an- Σ -en	ken- Σ -nen ken- Σ -en	ken- Σ -sin ken- Σ -etchin	ken- Σ -in ken- Σ -in	me- Σ -un me- Σ -un	me- Σ -unchin me- Σ -unchin	
	3DU						kemen- Σ -sin kemen- Σ -etchin	kemen- Σ -in kemen- Σ -in	me- Σ -sun me- Σ -etchun	me- Σ -sunchin me- Σ -etchunchin	
t	3PL	men- Σ - γ en men- Σ -apnen	amen- Σ -sin amen- Σ -etchin	men- Σ -sigen men- Σ -etchigen	amen- Σ -nen amen- Σ -en	kemen- Σ -nen kemen- Σ -en	kemen- Σ -sin kemen- Σ -etchin	kemen- Σ -in kemen- Σ -in	men- Σ -un men- Σ -un	men- Σ -unchin men- Σ -unchin	

first person singular morpheme *-paŋ* or the preterite first person plural exclusive agent/subject morpheme *-mʔna*, although it is not clear what factor could be responsible for blocking the slot of the negative suffix.

A question arising from analysis A is that of allomorphy. In the original analysis, the negative prefix is analysed as *mɛ-* ~ *n-*, whereby the allomorph *mɛ-* occurs whenever the negative prefix is the first overt morpheme in a verb, and the allomorph *n-* occurs when it is not. In analysis A, allomorphy could be dispensed with, but there seems to be no other reason for analysing the negative prefix in *mɛ-hip-ʔɛ-n* 'I shan't hit him' as being an altogether different morpheme from that in *kɛ-n-hipt-u-n* 'you won't hit him'. Likewise, it seems neither motivated nor plausible to assign the negative morpheme *mɛ-* of prefixal slot PF4, assumed in analysis A, to some slot anterior to our current PF1 which would be 'blocked' by the occurrence of one of the overt prefixes *a-* (1), *kɛ-* (2) or *mɛ-* ~ *m-* (3NSG.AG.S). Rather, it is simpler to assume two formally identical negative prefixes NEG₁ and NEG₂, exhibiting the same pattern of allomorphy *mɛ-* ~ *n-* described in the original analysis, although the second negative morpheme only actually occurs in the form of its allomorph *n-* because it invariably co-occurs with the first negative morpheme. The occurrence of the second negative prefix in prefixal slot PF5 is taken to be conditioned by the lack of a second negative morpheme in the suffixal string of the verb. This situation occurs only in negative preterite forms with a first person singular or first person plural exclusive agent or subject where the negative suffix is 'blocked' by the negative preterite first person singular suffix *-paŋ* or the preterite first person plural exclusive agent/subject suffix *-mʔna*.

These competing analyses cannot be meaningfully assessed without consideration of the suffixal negative morphemes. With the exception of preterite forms with a first person singular or first person plural exclusive agent or subject, simplicia are negated by simultaneous prefixation and suffixation of negative morphemes. The obligatory prefixed morpheme was termed the first negative morpheme, and the suffix the second negative morpheme. The second negative morpheme *-nen* ~ *-n* (NEG₂) is located in the last position in the suffixal string, which, in the new analysis, is suffixal slot SF10. Negated non-preterite 1SG→3NSG forms also obligatorily take a third negative morpheme, which is a suffix *-n* (NEG₃) located in new suffixal slot SF6, for example *mɛ-ni-ʔɛ-n-chi-n* 'I don't see them'. The third negative morpheme also occurs facultatively in 1DU.INC→3NSG, 2SG→3NSG, 2DU→3NSG, 3SG→3NSG and 3DU→3NSG forms. Because the negative prefixal sequence *mɛn-* contains two nasal segments and because this sequence occurs only in those negative simplicia in which no negative suffix occurs, viz. preterite forms with a first person singular or first person plural exclusive agent or subject, it appeared intuitively satisfying to assume, as I did in the original analysis, that a Limbu simplex is negated by at least two negative morphemes. However, an analysis of the sequence *mɛn-* as both allomorphs of the negative prefix *mɛ-* ~ *n-* co-occurring in succession within a single slot is unsatisfactory because two morphemes ought not to occur in a single slot. Alternatively, the sequence *mɛn-* may be analysed as a special allomorph of this negative prefix occurring in negative preterite forms with a first person singular or first person plural exclusive agent or subject. This is analysis C.

Finally, it would appear to be more expedient to abandon the unsophisticated idea of several negative morphemes in Limbu simplicia and to adopt the concept of a single 'discontinuous morpheme' for the negative in simplicia, which is how I analysed the Limbu active participle *kɛ-...-pa*, Limbu negative active participle *mɛn-...-mna* and Limbu negative

perfect gerund *mən*...-ʔe; although it somehow did not occur to me to analyse the negative in simplex verbs in these terms. I have recently adopted Hagège's term 'simulfix' for this phenomenon, in particular with respect to the non-singular second person actant number simulfix *-a...-ni* in Lohorung (van Driem, forthcoming). The older Kiranti active participial ending *khə*...-*kpa* reflected in the petrified Dumi forms *khənikpa* (*ni-ni* 'be good') 'good, comely, beautiful' and *khəyikpa* (*i-ni* 'be bad') 'horrid, ugly, foul, bad' is also such a discontinuous morpheme or simulfix (van Driem 1993b). A simulfix consists of two or more elements which are affixed simultaneously at different locations in the affixal string. Hagège (1986:26) also considered the neologisms *diffixe*, *ambifixe* and *transfixe* for this phenomenon, which he described for the Austronesian language Palau spoken in the archipelago of the same name in the Pacific Ocean between 134°05'E and 134°45'E and between 6°55'N and 8°15'N, but he prefers and adopts the term *simulfixe*. The case for analysing negation in Limbu simplicia as a case of simulfixation is compelling. This analysis would entail positing a single polylocational negative morpheme consisting of minimally one and maximally three elements in a well-defined pattern of paradigmatic distribution. The labels (NEG₁), (NEG₂) and (NEG₃) will be retained to indicate the elements of the Limbu negative simulfix. The analysis proposed therefore superficially resembles the old analysis and analysis C above, although it is substantially different from either of these. The new analysis posits a single negative simulfix with one to three affixal manifestations, the occurrence of which is paradigmatically determined and one of which is always a prefix. The new model for the prefixal string of the Limbu simplex should therefore look like this:

THE LIMBU PREFIXAL STRING

PF1	PF2	PF3	PF4
		<i>mε</i> ~ <i>m</i> -	
<i>a</i> -	<i>kε</i> -	3NSG.AG.S	<i>mε</i> ~ <i>n</i> ~ <i>mən</i> -
1	2		NEG ₁
		∅	
		3SG.AG.S	

4. THE REFLEXIVE AND ALLOMORPHY

The old reflexive morpheme *-siŋ* ~ *-nε* ~ *-n* was interpreted as having an allomorph *-nε* ~ *-n* in dual forms and an allomorph *-siŋ* in singular and plural forms. In reflexive forms, the dual reflexive allomorphs *-nε* ~ *-n* always occur as part of the sequence *-netchi*, whereby the element *-tchi* is identified as the allomorph *-tchi* of the dual patient/subject morpheme *-si* ~ *-tchi* in suffixal slot SF3. The allomorph *-tchi* occurs regularly following the preterite morpheme *-ε*, the dual reflexive allomorph *-nε* ~ *-n* and the 1→2 portmanteau *-nε* ~ *-n*. The dual reflexive preterite sequence *-n-ε-tchi* is homophonous with the corresponding non-preterite sequence *-nε-∅-tchi*. In fact, consistently throughout the paradigm, cases of preterite/non-preterite homophony are satisfactorily accounted for by adjacency of a vocalic morpheme to the preterite morpheme *-ε*, which elides. The dual reflexive allomorphs *-nε* ~ *-n* are homophonous with the 1→2 portmanteau *-nε* ~ *-n*, which occurs in the 1SG→2SG ending *-nε*, the 1SG→2DU ending *-netchiŋ*, the 1SG→2PL ending *-niŋ* and the 1NSG→2 ending *-netchige*. These endings also exhibit preterite/non-preterite homophony, and attempts

to segment sequences like the dual reflexive ending *-netchi* as *-net* + *-chi* have not proved to be illuminating.

There seems to be no semantic common denominator on the basis of which the dual reflexive allomorphs *-nε ~ -n* and the 1→2 portmanteau *-nε ~ -n* could be analysed as a single morpheme, and so they were analysed as distinct entities in the 1987 analysis. The reflexive allomorph *-nε ~ -n* is restricted to dual reflexive forms, and the portmanteau *-nε ~ -n* indexes the transitive relationship between a first person agent and a second person patient. Subsequent comparative study seems to have vindicated this synchronic analysis. Whereas the dual reflexive allomorphs *-nε ~ -n* appear to be cognate with the Tibeto-Burman root for 'two' **g-ni-s*, also reflected in the Limbu regular numeral *netchi* 'two' (cf. *sumsi* 'three', *lisi* 'four', *nasi* 'five', all with the non-singular or 'generalised dual' suffix *-si*) and the collective numeral *nepphu* 'two' (cf. *sumbhu* 'three', *libhu* 'four', with the collective suffix *-phu*), the 1→2 portmanteau *-nε ~ -n* has cognates in the Dumi 1SG→2 suffix *-n*, the Hayu 1SG→2 suffix *-no*, the Kulung 1SG→2 suffix *-an*, the Thulung 1SG→2 suffix *-nini*, the Bahing 1SG→2 suffix *-na* and the Jinghpaw 1→2 suffix *-nte*⁷¹ ~ *-te*⁷¹, all pointing to the existence of some 1SG→2 proto-morpheme at the Proto Tibeto-Burman level, which has tentatively been reconstructed as **-nya*.

ANALYSIS D		ANALYSIS E
SF1		SF1
<i>-siŋ ~ -nε ~ -n</i>	-	<i>-siŋ</i>
REF		NDU.REF
<i>-nε ~ -n</i>		<i>-nε ~ -n</i>
1→2		DU.REF
		o
		<i>-nε ~ -n</i>
		1→2

The reflexive morph *-nε ~ -n* may be analysed as a specific dual reflexive morpheme contrasting with a reflexive morpheme with non-dual meaning *-siŋ*, as in analysis E. Alternatively, the reflexive morph *-nε ~ -n* may be analysed as an allomorph of the reflexive morpheme in dual forms alongside an allomorph *-siŋ* indexing the reflexive in non-dual forms restricted to dual forms, as in analysis D. The latter analysis in terms of allomorphy is more satisfactory because it assumes a single morpheme *-siŋ ~ -nε ~ -n* with a single meaning and a well-defined pattern of allomorphy. This reflexive morpheme does not index actant number because this meaning is indexed by other morphemes in the affixal string. Analysis E may reflect the distinct provenance of the two morphs, although such a diachronic criterion, even if correct, need not be of decisive synchronic importance.

5. THE DUAL MORPHEME

The second suffixal slot SF2 is the tense slot. Non-preterite time is marked by zero, and preterite time is marked by the suffix *-ε ~ Ø* with a zero allomorph before another vowel.

The non-preterite zero suffix does not occur in forms in which tense is indexed by the non-preterite first person singular patient/subject morpheme $-\epsilon$.

The old dual agent morpheme $-s \sim -tch$, the sole occupant of old suffixal slot SF3, immediately precedes and invariably co-occurs with the third person patient morpheme $-u$. Old suffixal slot SF3 could be eliminated by analysing the sequence $-s + -u$, or $-tch \sim -u$ after the preterite morpheme $-\epsilon$, as a DU \rightarrow 3 portmanteau morpheme $-su \sim -tchu$, indexing the transitive relationship between a dual agent and a third person patient and occupying the same position in the suffixal string as the third person patient morpheme $-u$. The sole advantage to approach G, however, is that it would eliminate a slot from the analysis. The drawback to analysis G is that the new portmanteau morpheme is too easily segmented into its two component parts identified in the original analysis F. The element $-u$ in the proposed DU \rightarrow 3 portmanteau $-su \sim -tchu$ is clearly the third person patient morpheme $-u$, and the element $-s \sim -tch$ clearly indexes dual number of agent. Analysis F, therefore, does not just represent a diachronic dissection of some fused morpheme.

ANALYSIS F			ANALYSIS G	
SF2	SF3	SF4	SF2	SF3
$-\epsilon \sim \emptyset$		$-u$	$-\epsilon \sim \emptyset$	$-u$
PT		3PAT	PT	3PAT
	$-s \sim -tch$			$-su \sim -tchu$
	DU.AG			DU \rightarrow 3
\emptyset		$-si \sim -tchi$	\emptyset	
NPT		DU.PAT.S	NPT	$-si \sim -tchi$
				DU.PAT.S

The old dual agent morpheme $-s \sim -tch$ indexes dual number of the agent in 1DU.EXC \rightarrow 3, 1DU.EXC \rightarrow 3, 2DU \rightarrow 3 and 3DU \rightarrow 3 forms. The old dual patient/subject morpheme $-si \sim -tchi$ indexes dual number of patient in 1SG \rightarrow 2DU, 3 \rightarrow 2DU, 3 \rightarrow 1DU.INC and 3 \rightarrow 1DU.EXC forms, and dual number of subject in all intransitive dual forms. The old dual agent morpheme $-s \sim -tch$ and the old dual patient/subject morpheme $-si \sim -tchi$ can be analysed as a single entity, viz. a dual morpheme $-si$ in suffixal slot SF3, with the regular allomorphs $-s \sim -tch$ before the third person patient morpheme $-u$, and the regular allomorphs $-tch \sim -tchi$ after the preterite morpheme $-\epsilon \sim \emptyset$, the 1 \rightarrow 2 portmanteau $-ne \sim -n$ and the reflexive suffix $-si\eta \sim -ne \sim -n$. This is analysis H.

ANALYSIS H		
SF2	SF3	SF4
$-\epsilon \sim \emptyset$		
PT	$-si \sim -s \sim$	$-u$
	$-tchi \sim -tch$	3PAT
\emptyset	DU	
NPT		

6. FIRST PERSON SINGULAR MORPHEMES

The morpheme *-paŋ* remains puzzling, as was explained in my Limbu grammar. In modern Phedāppe Limbu, the suffix *-paŋ* is obligatory in negative preterite 1SG→3 forms, for example *mɛ-bi-baŋ-si-ŋ* 'I didn't give it to them' (1SG→3NSG.PT) – cf. *mɛ-bi-ʔɛ-n-chi-n* 'I shan't give it to them' (1SG→3NSG.NPT), but the suffix *-paŋ* is optional in intransitive negative preterite forms with a first person singular subject. This leads to doublets such as *yaʔ-mɛn-lak-paŋ* 'I did not partake in the rice harvest dance' and *yaʔ-mɛ-raŋkt-aŋ-nɛn* with the same basic meaning. Where such doublets exist, difference in form expresses difference in meaning, and I have recently come to understand the semantic distinction between such negative preterite forms with a first singular subject. Moreover, the fact that the suffix *-paŋ* is optional in intransitive forms but obligatory in transitive forms leads to the conjecture that this morpheme was originally limited to the transitive paradigm and was absorbed into the intransitive paradigm secondarily. The difference in meaning between negative preterite doublets with a first singular subject strongly supports this conjecture.

Negative preterite first singular intransitive forms in *-paŋ* co-exist with the 'regular' intransitive forms. The intransitive forms *kerəŋ* 'I have arrived' and *khiriʔraŋ* 'I am (i.e. have become) tired'¹ are negated either as *megeraŋnɛn* 'I haven't arrived' and *mekhiʔraŋnɛn* 'I am not tired' or as *mɛŋgeppaŋ* and *mɛŋkhippaŋ*, respectively. The difference in meaning, as explained by my old friend Nārāyaṇ Prasād Pañyāṅgu of Tamphulā village (pers. comm., Kathmandu, June 1993) is that the 'regular' first singular intransitive affixation in *mɛ-Σ-aŋ-nɛn* is simply the negative alternative to its affirmative preterite counterpart in *-aŋ*, for example *Keraŋgi: megeraŋnɛniʔ* 'Have I arrived or haven't I?'. The use of the suffix *-paŋ* in negative intransitive forms, however, adds a semantic dimension to the utterance. The added implication is that something has not happened that was supposed to happen or was expected to happen. For example, as an answer to a question one can either respond with *medhaŋaŋnɛn* 'I didn't come up', the regular intransitive negative of *thaŋaŋ* 'I have come up', or with the more abrupt *mɛndhaŋbaŋ*. The latter form with the originally transitive suffix *-paŋ* can be construed as rude because the implication is: 'I was supposed to have come up, but I just didn't'. The regular intransitive form *medhaŋaŋnɛn* on the other hand is a simple negation and is therefore more polite, that is 'I didn't come up' or, by implication, 'I couldn't come up'.² It appears that the meaning of the forms in *-paŋ* has something to do with the greater volitionality or agency of this originally transitive suffix. In combination with the lexical meaning of certain verbs the form in *-paŋ* is the more obvious choice, for example *mɛnchibaŋ* 'I'm not dead, I didn't die', suitable when the speaker has just survived a life-threatening situation or when the speaker, presumed dead, turns out not to have died. This is why the form *mɛsyəŋnɛn* 'I'm not dead' is an odd, albeit acceptable, utterance in modern Limbu, for it is as if the speaker is making the remark out of the blue, and, in fact, there are reportedly few conceivable situations in which *mɛsyəŋnɛn* would be a relevant utterance.

1 The stems of the Limbu verb *khiiʔmaʔ* 'to get tired' are given incorrectly in the glossary of the Limbu grammar. They should be *khiiʔr ~ khiiʔ*.

2 Nep. 'āunu sakinā' jasto alikati bhāv huncha.

Historically, then, the label of the morpheme *-paŋ* would have to have been (1SG→3.PT), whereas it has acquired the modern meaning (1SG.AG.S.PT) whilst retaining some of its original sense of agency or deliberacy associated with transitivity. This enables us to identify the element /p/ in *-paŋ*, originally (1SG→3.PT), with the Bahing anticipatory 2/3SG→3 copy morpheme *-p*, which occurs in the preterite forms of open-stem verbs before the Bahing preterite tense morpheme *-ta*. This is the first cognate element to be identified in a Kiranti language for any of the Bahing anticipatory copy phenomena. The original meaning of the suffix *-paŋ* (1SG→3.PT) explains the special sense in which it entered the intransitive paradigm, for example *me-dhaŋ-aŋ-nen* 'I didn't come up' versus *men-dhaŋ-baŋ* 'I didn't do it, viz. come up', yet this explanation is diachronic. Synchronically, the preterite first person singular agent/subject portmanteau *-paŋ* could then best be reassigned to new suffixal slot SF4, which groups this originally agentive affix together with other agent morphemes in a single slot and may more faithfully reflect historical reality.

Analysis I, however, assumes an alternative approach to the four first person singular morphemes identified in the old analysis, viz. the non-preterite first person singular patient/subject morpheme *-ʔe*, the preterite first person singular patient/subject suffix *-aŋ*, the first person singular agent morpheme *-ŋ* and the preterite first person singular agent/subject portmanteau *-paŋ*. A tenseless first person singular morpheme *-aŋ ~ -ŋ* is posited, which exhibits the regular allophone *-ŋ* after the third person patient suffix *-u*. Conversely, the regular zero allomorph of the preterite suffix *-e ~ Ø* occurs before the vowel-initial suffix *-aŋ ~ -ŋ* (1SG). This analysis unites the old suffixes *-aŋ* (1SG.PAT.S.PT) and *-ŋ* (1SG.AG). Similarly, the portmanteau *-paŋ* can be segmented into an element *-p* and the newly posited first person singular morpheme *-aŋ ~ -ŋ*. The element *-p* may be identified as a preterite third person patient morpheme, which would tally with its semantically motivated occurrence in negated first person intransitive forms, whereby third person patient agreement is with the logical proposition denoted by the verb and not enacted by the first person singular agent, as in the example *men-dhaŋ-baŋ* 'I didn't do it, viz. come up'.

Historically, the preterite third person patient suffix *-p* reflects the labial character of the Proto Kiranti third person patient morpheme **-u* and the plosive character of the initial /t/ of the Proto Kiranti preterite suffix **-tə*. It is unclear what historical relationship exists between the Limbu preterite third person patient morpheme *-p* and the Bahing anticipatory 2SG/3SG→3 morpheme *-p*, but the occurrence of the several Bahing anticipatory copy morphemes is likewise connected with preterite tense, indexed by the suffix *-ta* in Bahing.

The old non-preterite first person singular patient/subject suffix *-ʔe* is relabelled as a non-preterite first person singular morpheme, rather than as a patient/subject morpheme, in accordance with its occurrence in negative 1SG→3 forms. In the old analysis, the occurrence of the suffix in these forms was attributed to the reduced transitivity of a negated situation. Now, a zero morph of the third person patient suffix may be assumed to occur in non-preterite negative 1SG→3 forms before the non-preterite first person singular suffix *-ʔe* (1SG.NPT) and in preterite 1PL.EXC→3 forms before the preterite first person plural exclusive agent/subject portmanteau *-mʔna*.

ANALYSIS I

SF3	SF4	SF5
	<i>-u ~ Ø</i>	<i>-ʔε</i>
<i>-si ~ -s ~</i>	3PAT	1SG.NPT
<i>-tchi ~ -tch</i>		
DU	<i>-p</i>	<i>-aŋ ~ -ŋ</i>
	3PAT.PT	1SG

7. THE SUFFIXAL STRING COMPACTED

The old non-singular agent number morpheme *-tchi* in old suffixal slot SF7 occurs only in the 1NSG→2 form and was posited to account for the element *-tchi* in the 1NSG→2 ending *-netchige*. The fact that the 1→2 portmanteau *-nε ~ -n* can be semantically and formally identified within the ending argues against defining the sequence *-netchi* as a 1NSG→2 portmanteau co-occurring with the exclusive suffix *-ge ~ -be*. Moreover, positing such a portmanteau would necessitate adopting some independent *ad hoc* way of accounting for the otherwise regular preterite/non-preterite homophony in the 1NSG→2 form. The transitive paradigm does not distinguish a dual from a plural third person patient, and non-singular number of a third person patient is indexed by the third person non-singular patient morpheme *-si* in old suffixal slot SF8. However, there are no formal or positional reasons not to identify the old non-singular agent morpheme *-tchi* in 1NSG.EXC→2 forms with the old third person non-singular patient morpheme *-si*. A single non-singular number morpheme *-si ~ -tchi* can therefore be posited, with the regular allomorph *-tchi* after either the preterite tense suffix *-ε* or the 1→2 portmanteau *-nε*. The old singular patient number zero morph *Ø* should likewise be analysed as a singular number morpheme. This redefined zero morph not only indexes singular number of a third person patient but also of a second person patient or subject.

The plural agent suffix *-m* must be assigned to new suffixal slot SF5 because the suffix follows the third person patient morpheme *-u* and precedes the non-singular morpheme *-si ~ -tchi* in suffixal slot SF7. The portmanteau *-mʔna*, which indexes a first person plural exclusive subject or agent in preterite time, must also be assigned to a position in the suffixal string before the non-singular morpheme *-si ~ -tchi* in suffixal slot SF7. The portmanteau *-mʔna* can best be assigned to the same suffixal position as the plural agent suffix *-m* to which it appears to be semantically and formally related.

The plural patient/subject morpheme *-i ~ Ø* indexes plural number of a first or second person patient in 3→1PL.INC, 3→1PL.EXC, 1SG→2PL and 3→2PL forms, and plural number of first or second person subject in intransitive forms. The zero allomorph of this morpheme occurs in indicative forms with a first person plural inclusive patient (viz. 3→1PL.INC forms) and in intransitive forms with a first person plural inclusive subject. However, the full allomorph *-i* of the morpheme occurs in intransitive adhortative forms with a first person plural inclusive subject. Attempts to identify the patient/subject morpheme *-i ~ Ø* with the element */-i/* in the dual morpheme *-si ~ -s ~ -tchi ~ -tch* are not productive. The suffix *-i ~ Ø* must be assigned to a position following the tense slot SF2 and before the copy morpheme slot, new suffixal slot SF8. Semantic arguments could be

advanced for assigning the morpheme *-i ~ Ø* to either suffixal slot SF3 or to suffixal slot SF5, but in view of the heterogeneous functions of suffixal slot SF5, it seems reasonable to assign the plural patient/subject suffix *-i ~ Ø* to this position.

A zero morph *Ø* was posited in the old analysis to index singular number of a first person agent in 1SG→2SG forms and singular number of a second person agent. This zero morph is retained in the new analysis and assigned to new suffixal slot SF5. Elsewhere in the paradigm, singular number of a first person actant is indexed independently by the first person singular morpheme *-aŋ ~ -ŋ* or the non-preterite first person singular morpheme *-ʔε*. Singular number of a third person agent or subject is indicated by a zero morph *Ø* in new prefixal slot PF3. Singular number of a third person patient, second person subject and second person patient is indicated by the singular zero morph *Ø* in new suffixal slot SF7. The new analysis therefore posits three zero morphs indexing singular number, whereas only two singular zero morphs would, in principle, be necessary to account for actant number marking in, for example, 1SG→2SG and 2SG→3SG forms. However, the distribution of the three zero morphs (viz. *Ø* (3SG.Ag.S) in PF3, *Ø* (SG.AG) in SF5 and *Ø* (SG) in SF7) more accurately reflects the split ergative structure of the Limbu paradigm, whereby patient and subject roles are opposed to agent role in the first and second person, and agent and subject roles are opposed to patient role in the third person and, curiously, in the preterite of first person plural exclusive forms. The posited pattern of singular number zero morphs relies less upon what Michailovsky (1989:472) calls "choix arbitraires" in the analysis of the Limbu verb than would positing two zero morphs to account for all forms, but follows instead from symmetries inherent to the Limbu affixal agreement pattern.

INITIAL PORTION OF THE LIMBU SUFFIXAL STRING
(suffixal slots SF1 to SF5)

SF1	SF2	SF3	SF4	SF5
				<i>-ʔε</i> 1SG.NPT
				<i>-aŋ ~ -ŋ</i> 1SG
<i>-siŋ ~ -nε ~ -n</i> REF	<i>-ε ~ Ø</i> PT	<i>-si ~ -s ~</i> <i>-tchi ~ -tch</i>	<i>-u ~ Ø</i> 3PAT	<i>-m</i> PL.AG
<i>-nε ~ -n</i> 1→2	<i>Ø</i> NPT	DU	<i>-p</i> 3PAT.PT	<i>-mʔna</i> 1PL.EXC.AG.S.PT
				<i>Ø</i> SG.AG

Because, in the new analysis, the plural agent morpheme *-m* and the preterite first person plural agent/subject portmanteau *-mʔna* have been assigned to suffixal slot SF5, and because the old non-singular agent morpheme *-tchi* has been eliminated from the analysis as an

independent morpheme, old suffixal slot SF7 has been abolished. The copy slot, new suffixal slot SF8, now contains copies only of morphemes occurring in new suffixal slot SF5 rather than copies of morphemes occurring in either of two suffixal slots, as in the old analysis.

The remaining suffixal slots are unproblematic. The position of the third element of the negative simulfix *-n* is posited as immediately preceding the slot containing the non-singular number morpheme *-si*, with which it invariably co-occurs. The first person singular copy morpheme *-ŋ* and the plural agent copy morpheme *-m* occur together in suffixal slot SF8. Whereas the plural agent copy morpheme *-m* echoes the homophonous agentive morpheme in suffixal slot SF8, the first person singular copy morpheme *-ŋ* reiterates the notion of first singular agent indexed by either the first singular morpheme *-ŋ* in suffixal slot SF5 or the 1→2 portmanteau *-ne ~ -n* in suffixal slot SF1. In suffixal slot SF9, the exclusive suffix *-ge ~ -be* indexes first person involvement and the exclusion of second person, and the inclusion of second person in first person forms is indexed by a zero morph \emptyset .

FINAL PORTION OF THE LIMBU SUFFIXAL STRING
(suffixal slots SF6 to SF10)

SF6	SF7	SF8	SF9	SF10
	<i>-si</i>	<i>-ŋ</i>	<i>-ge ~ -be</i>	
	NSG	1SG	EXC	
<i>-n</i>				<i>-nen ~ -n</i>
NEG ₃	\emptyset	<i>-m</i>	\emptyset	NEG ₂
	SG	PL.AG	INC	

8. CONCLUSIONS

The model of Limbu conjugational morphology has been refined. Both the number of suffixes and the number of suffixal slots have been reduced. Conversely, the number of prefixal positions identified in the analysis has increased. Morphemes have been redefined or more accurately formulated. One zero morpheme has been eliminated, and the distribution of zero morphs indexing singular actant number appears to more satisfactorily reflect the psychological reality of Limbu conjugational morphology. Negation in the Limbu simplex has been analysed as a discontinuous morpheme, for which we adopt Hagège's term 'simulfix'.

The choice between the two alternative negative preterite first person singular simplicia in the intransitive paradigm has been shown to be semantically motivated. The difference in meaning enables us to retrace the diachronic development which led to the existence of alternative negative preterite first person singular forms in the intransitive paradigm.

The number of dual morphemes has been reduced from two to one, and the number of generalised dual morphemes, that is non-singular morphemes derived from older dual **-si*, has likewise been reduced from two to one. The dual morpheme occurs amidst the initial suffixes, and the generalised dual morpheme occurs in the final portion of the string, so that the expansion of the original dual meaning to encompass the notion of non-singularity is a

phenomenon associated with the final portion of the suffixal string. This corroborates the idea that this 'generalisation' of the meaning was a secondary development observed in more recent accretions.

There are two diachronic implications of this new analysis of the Limbu verb. The first of these is that it is more plausible to posit a single dual morpheme in the initial portion of the suffixal string of the Proto Kiranti verb, as in the first and second models developed for the common ancestral verbal agreement system (viz. van Driem 1990, 1992). However, this protomorpheme **-ci* would have to be glossed simply as a dual morpheme, rather than a morpheme-indexing dual number of specifically first and second person actants. The two homophonous dual morphemes posited in the third model of the Proto Kiranti verb (viz. van Driem 1991) do not reflect distinct entities in Proto Kiranti, but subsequent developments in Bahing and Limbu resulting from the split ergative nature underlying Kiranti conjugational morphology, whereby first and second person actants are encoded in the verb according to an ergative pattern, and third person actants are encoded according to an accusative pattern.

The second diachronic implication of this new analysis is the greater verisimilitude of the simpler, first model of the Proto Kiranti verb in terms of the way it posits a single first person singular morpheme **-ŋ* in the same suffixal position as the third person patient protomorpheme **-u*, that is immediately after the position of the dual protomorpheme **-ci*. Whereas the Hayu and Limbu data reflect an old sequence **-u-ŋ*, Thulung and Dumi reflect an older element order **-ŋ-u*, and the conjugations of some Kiranti languages provide no indication for the relative position of these protomorphemes. In the second and third models of the Proto Kiranti verb, two additional tensed first person singular protomorphemes were posited in a position immediately anterior to the dual protomorpheme **-ci*, viz. the preterite first person singular protomorpheme **-aŋ* and its non-preterite counterpart **-ŋa*. These too seem to be artificial constructs not corresponding to distinct entities in the Proto Kiranti verbal agreement system, but reflecting subsequent developments in some Kiranti languages whereby a first person singular protomorpheme, perhaps best reconstructed as **-ŋa ~ -ŋ*, when immediately preceded by the preterite tense protomorpheme **-tɛ*, gave rise in some languages to a reanalysis of adjacent segments in terms of a preterite tense first person singular morpheme **-aŋ*.

The third model of the Proto Kiranti verb (van Driem 1991:354) should therefore be modified as follows: (1) The tensed first person singular morphemes **-aŋ* (1SG.PT) and **-ŋa* (1SG.NPT) may be eliminated, and (2) instead of the two dual morphemes preceding the third person patient protomorpheme **-u*, a single dual protomorpheme **-ci* should be posited at this location. Data will have to be continuously reassessed if we are to trace the evolution of Tibeto-Burman conjugational systems and to discern just which phenomena are regional developments. In Tibeto-Burman languages beyond the Kiranti, there is little evidence for an older element order **-u-ŋ* (3PAT-1SG), which is reflected in the Limbu and the Hayu verb, and the many reflexes of the Proto Tibeto-Burman first person singular morpheme **-ŋ ~ -aŋ* outside of the Himalayas suggest that this morpheme occupied an anterior position following the verb in the Proto Tibeto-Burman verbal agreement system. Yet it is still too early to say just which first person singular agreement phenomena in Kiranti are the results of secondary developments. A Tibeto-Burman dual protomorpheme **-si* in a position anterior to the third person patient protomorpheme **-u* is well reflected outside the Himalayas, yet the hypothetical Tibeto-Burman dual patient protomorpheme **-si* in the final portion of the suffixal string was posited primarily on the basis of Kiranti data (van Driem

1993a). This, together with the fact that the Kiranti evidence itself suggests that the posterior reflex is a later accretion, casts doubt on the existence of the latter suffix at the Tibeto-Burman level and implies that this detail in the model for Proto Tibeto-Burman verbal agreement should be revised accordingly.

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