

# ACTA LINGUISTICA HAFNIENSIA

founded in 1939 by Viggo Brøndal and Louis Hjelmslev

## EDITORS

Søren Egerod · Michael Fortescue · Jørgen Rischel  
Jens Elmegård Rasmussen (secretary)

## EDITORIAL ADDRESS

Department of Linguistics, University of Copenhagen, Njalsgade 96,  
DK-2300. Copenhagen S, Denmark.

## SUBSCRIPTIONS

C. A. Reitzels Forlag, Nørregade 20, DK-1165. Copenhagen K,  
Denmark.

SEE INSIDE BACK COVER FOR INFORMATION TO CONTRIBUTORS.

## AN EXPLORATION OF PROTO-KIRANTI VERBAL MORPHOLOGY

by

GEORGE VAN DRIEM

Rijksuniversiteit Leiden

### § 1. Introduction

Verbs in Kiranti languages are not segmentable in the same straightforward way as in agglutinating languages such as Turkish. The presence of fused or *portemanteau* morphemes and allomorphy, often conditioned by co-occurrence with other morphemes in the same affixal string and often involving zero allomorphs, renders a thorough morphemic analysis of the verb in any given language a *desideratum* in the study of the affixal morphology of the proto-language. On the basis of a morphemic analysis of the verbal affixes of five Kiranti languages, I shall explore the flectional morphology of Proto-Kiranti.

In order to establish the form and the semantic content of the Proto-Kiranti morpheme reflected by, say, the Dumi first plural suffix <-k>, the Limbu exclusive suffix <-ge>, the Kulung exclusive morpheme <-ka>, the Hayu first plural and first plural preterit morphemes, <-ke> and <-ki>, and the Thulung exclusive suffix <-ki>, both a comparison must be made to determine the way the proto-meaning has been re-analysed in the respective daughter languages, and the semantic common denominator which emerges from this comparison should also ideally form part of an organic morpheme inventory in the proto-language. Reconnaissance of the verbal morphology of a number of Kiranti languages will lead to a provisional inventory of affixes of the Proto-Kiranti system.

It is the author's contention that the order of affixes in Kiranti verbs is not random but reflects an earlier element order in Proto-Kiranti. Therefore, the concept of affixal *slot*, the functional position of a morpheme in an affixal string of an inflected verb form, will play a central role in the synchronic

analysis of Kiranti verb forms as well as in the subsequent diachronic comparison of these forms.

The historical element order reflected in modernday forms may be that of adverbial clitic pronouns in Proto-Kiranti or, if one concurs with the author's current view of Proto-Kiranti, of flectional morphemes in the Kiranti proto-language. The latter view is not entirely incompatible with the former. It is easy to visualize a transparent pre-Kiranti agglutinating stage which later gave rise to the intricate flectional character of Proto-Kiranti verbal morphology. Such an agglutinating stage may, in turn, have evolved from a situation in which pronominal clitics preceded and followed the verb in a fixed order.

The author's current view, however, is that the flectional character of Kiranti might very well be ancient. Scott de Lancey (1989) provides cogent arguments to demonstrate that Proto-Tibeto-Burman had a flectional character, based on a wide range of comparative data, not only from Kiranti languages, but from other branches of Tibeto-Burman as well.

An agent is defined as the most agentive actant of a transitive verb, and a patient as the less agentive actant of a transitive verb. A subject is defined as the actant of an intransitive or reflexive verb. The abbreviations used in this article are summed up in the following list:

1	first person	A	agent
2	second person	S	subject
3	third person	P	patient
s	singular	→	indicates the
d	dual		direction of a
p	plural		transitive re-
ns	non-singular		lationship
i	inclusive	PT	preterit
e	exclusive	NPT	nonpreterit
MS	marked scenario (in Dumi only) <sup>1</sup>	pf sf	prefixal slot suffixal slot

1. The marked scenario morpheme <a-> in Dumi divides all verbal scenarios into two categories, the unmarked and the marked scenario. Transitive forms unmarked by the marked scenario prefix <a-> in Dumi are 1→2, 1→3 and 3→3 forms. Transitive forms marked by the prefix are 2→1, 3→1, 3→2 and 2→3 forms. Intransitive and reflexive forms with a second person subject are marked.

## § 2. The Limbu and Dumi verb

The overview of Limbu verbal affixes provided below is based on the analysis of Limbu verbal morphology in Van Driem (1987). The overview of Dumi verbal affixes is based on the analysis of Dumi verbal morphology in Van Driem (1988 & forthcoming). I shall only recapitulate the relevant data here. Limbu and Dumi are the only two of the five languages to be discussed that have verbal prefixes. In Limbu, three prefixal and eleven suffixal slots can be identified to either side of the verb root. The slots, their functions and their non-zero filler morphemes in a Limbu simplex verb form are as follows.

pf1: person slot	<a->	1
	<kε->	2
pf2: non-dual agent/subject	<mε->	nsAS
pf3: negation	<mε-, n-, mεn->	NEG
sf1: reflexive and 1→2	<-siŋ, -nε>	REF
	<-nε>	1→2
sf2: tense	<-ε>	PT
sf3: dual agent	<-s/-tch>	dA
sf4: patient slot	<-u>	3P
	<-si/-tchi>	dPS
	<-i>	pPS
	<-?ε>	1sPS/NPT
		1s→3/NPT
	<-aŋ>	1sPS/PT
	<-paŋ>	1s→3/PT
sf5: agent singularity	<-ŋ>	1sA
sf6: negation	<-n>	NEG
sf7: non-singular agent number	<-tchi>	nsA
	<-m>	pA
	<-m?na>	1peAS/PT
sf8: patient number	<-si>	nsP
sf9: agent marker copy	<-ŋ>	1sA
	<-m>	pA
sf10: exclusive	<-ge>	e
sf11: negation	<-nεn, -n>	NEG

To account for the affixal morphology of Dumi simplicia, two prefixal and eight suffixal slots must be posited. The following table presents an overview of the slots, their functions and their non-zero fillers:

pf1: person slot	<ham->	3pS
	<a->	MS
pf2: preterit negative slot	<mə->	NEG
sf1: reflexive slot	<-nši>	REF
sf2: first person slot	<-n>	1s→2
	<-k>	1p
	<-ŋ>	1s
sf3: copy slot	<-ši>	REF
	<-n>	1s→2
	<-ši>	d23
	<-i>	e
	<-i>	i
sf4: tense	<-t>	NPT
	<∅>	PT
sf5: person slot	<-ə>	1s
	<-u>	1s→3/PT
	<-i>	i
	<-i>	e
	<-a>	23S
	<-i>	3sP/PT
sf6: number slot	<-i>	d
	<-a>	s23
	<-ši>	d23
sf7: negation	<-ini>	p23
	<-nə>	NEG

### § 3. A morphemic analysis of the Hayu verb

My analysis of Hayu affixal morphology is based on the data for both the transitive, intransitive and reflexive paradigms provided by Boyd Michailovsky (1981). The endings of the Hayu applicative paradigm are left out of consideration. The morphemic analysis of the *non-zero* morphemes provided here is similar to the segmentation of conjugated forms provided by Michailovsky himself. There are substantive differences in a number of details, however. Boyd Michailovsky kindly checked the analysis I provide here and made valuable observations, which I have gratefully included. For the reflexive morpheme, see Michailovsky (1981: 124-126). In addition to the reflexive morpheme, there are fourteen overt affixal morphemes and five func-

tional positions in the Hayu inflectional paradigm. The overt morphemes of the Hayu verbal paradigm are the following:

1. Preterit <-N> (PT): the suffix <-N> signals preterit tense in forms in which it is immediately followed by a nasal-initial morpheme, and in preterit forms in which it is the only overt morpheme, viz. 3s→2s, 3d→2s, and in 2s and 3s intransitive forms.
2. First plural preterit <-ki> (1p/PT): The suffix <-ki> is a *portemanteau* expressing both a first plural actant and preterit tense. It occurs in all preterit forms with a first plural actant. However, it is optional in forms with a first plural subject or patient, and obligatory in forms with a first plural agent. Michailovsky associates the morpheme <-ki> with <-ko>, which I analyse below as the third patient preterit morpheme. Michailovsky believes that the use of <-ki> in the intransitive paradigm could be the result of influence from the transitive paradigm.
3. Third person patient preterit <-ko> (3P/PT): The suffix <-ko> is a *portemanteau* simultaneously signaling a third person patient and preterit time. It occurs in 1s→3, 2s→3 and 3→3 forms. The suffix <-ko> has a regular allomorph <-kə> in 1s→3 forms before the 1s→3 *portemanteau* <-ŋ>.
4. The 1s→3 *portemanteau* <-ŋ ~ -N ~ -soŋ> (1s→3): the 1s→3 *portemanteau* signals a transitive relationship between a first singular agent and a third person patient. There are three allomorphs, the distribution of which is described by Michailovsky (1981: 115) as follows: the allomorph <-ŋ> occurs after a vowel, the allomorph <-N> after a plosive and the allomorph <-soŋ> after a nasal.
5. The 1s→2 *portemanteau* <-no> (1s→2): the suffix <-no> signals a transitive relationship between a first singular agent and a second person patient.
6. The first singular patient/subject preterit morpheme <-soŋ> (1sPS/PT): The suffix <-soŋ> is a *portemanteau* which signals preterit tense and a first singular subject, in intransitive forms, or first singular patient, in transitive forms.
7. The first singular patient/subject nonpreterit morpheme <-ŋə> (1sPS/NPT): The suffix <-ŋə> is a *portemanteau* which signals nonpreterit tense and a first singular subject, in intransitive forms, or first singular patient, in transitive forms. It is the nonpreterit counterpart of the preceding morpheme.
8. The dual morpheme <-tše> (d): The suffix <-tše> signals a dual actant in all transitive and intransitive forms which agree with a dual actant. The suffix has a regular allomorph <-tshi> before the dual nonpreterit

morpheme <-k> and the 1nsPT *portemanteau* <-ŋ>, and a regular allomorph <-tsh> before the exclusive morpheme <-o>. In Michailovsky's analysis, the basic form of this morpheme is provided as <-tsh>.

9. The third plural actant morpheme <-me> (3p): The suffix <-me> signals a third plural actant in intransitive forms and in 3p→1s, 3p→2s, 1s→3p, 2s→3p and (3→3)<sup>P</sup> forms.
10. The second plural morpheme <-ne> (2p): The suffix <-ne> signals a second plural actant in intransitive forms and in 2p→1s, 2p→3, 1s→2p and 3→2p forms.
11. The first plural actant morpheme <-ke> (1p): The suffix <-ke> denotes a first plural actant in all first plural forms. It has a regular allomorph <-k> before the exclusive morpheme <-o>. In Michailovsky's analysis, the basic form of this morpheme is provided as <-k>.
12. The exclusive morpheme <-o> (e): The suffix <-o> signals exclusive in all forms with a non-singular exclusive actant.
13. The non-singular nonpreterit morpheme <-k> (ns/NPT): The suffix <-k> signals nonpreterit time in intransitive forms with a dual or first plural exclusive actant, in transitive forms with a first dual or first plural exclusive actant and in 2d→3, 3→2d and (3→3)<sup>d</sup> forms.
14. The first non-singular preterit morpheme <-ŋ> (1ns/PT): The *portemanteau* <-ŋ> signals preterit tense in forms with a first person non-singular actant.

In addition to these fourteen overt morphemes, there are seven zero morphs in Hayu. The preterit (PT) is zero in 2d→3 and 3→2d forms. The nonpreterit (NPT) is zero in all nonpreterit forms except where the nonpreterit notion is expressed by a nonpreterit *portemanteau*, viz. ns/NPT <-k> and 1sPS/NPT <-ŋo>. Both the preterit and nonpreterit zero morphs are sf1 fillers. Singular of a second or third person actant (s23) is zero in 1s→2s, 2s→1s, 3s→2s, 2s→3s, 3d→2s, 2s→3d, 1s→3s, 3s→1s, 3s→3s, and in 2s and 3s intransitive forms. First person (1) is zero in transitive and intransitive nonpreterit first dual inclusive forms. Second person (2) is zero in 2→1, 2s→3, 3→2s, 3→2d, 2d→3, and in 2s and 2d intransitive forms. Third person (3) is zero in 3→1, 3→2, 2d→3, 2p→3, (3→3)<sup>d</sup>, (3→3)<sup>P</sup>, and in 3s and 3d intransitive forms. The 1, 2, 3 and s23 zero morphs are fillers of the person and number slot, sf3. The inclusive (i) zero morph is a sf4 filler. Inclusive (i) is zero in all inclusive forms.

The following is an overview of Hayu non-zero verbal affixes, the slots they fill and the function of these slots.

sf1: tense/reflexive	<-na ~ -ntse ~ -ntsi>	REF
	<-N>	PT
	<-ki>	1p/PT
	<-ka>	3P/PT
sf2: first person singular	<-ŋ ~ -N ~ -soŋ>	1s→3
	<-no>	1s→2
	<-soŋ>	1sPS/PT
	<-ŋo>	1sPS/NPT
sf3: person and number slot	<-tshə>	d
	<-me>	3p
	<-ne>	2p
	<-ke>	1p
sf4: exclusive	<-o>	e
sf5: other tensed <i>portemanteaux</i>	<-k>	ns/NPT
	<-ŋ>	1ns/PT

#### 4. A morphemic analysis of the Kulung verb

The following analysis of Kulung verbal affixes is based on the endings of the Kulung nonpreterit transitive paradigm provided by Holzhausen (1973). Holzhausen (1973) does not indicate how the preterit/nonpreterit distinction is made in the Kulung verb. The following analysis is therefore based only on the preterit transitive paradigm. There are twelve overt affixal morphemes in Kulung transitive verb forms and six functional positions in the suffixal string of a Kulung transitive verb. The non-zero morphemes of the Kulung nonpreterit transitive paradigm are as follows:

1. the second singular patient morpheme <-e> (2sP): The suffix <-e> marks a second singular patient in all forms with a second singular patient.
2. the 2→3s *portemanteau* <-a> (2→3s): The suffix <-a> marks a transitive relationship between a second person agent and a third singular patient. It has a regular zero allomorph in 2s→3s forms before the vocalic 3P suffix <-u>. Here the regularity of *vocalis ante vocalem corripitur* can be observed, as it is in the affixal morphology of the verb in other Kiranti languages (cf. Van Driem 1987, 1988 & forthcoming).
3. The 1s→2 *portemanteau* <-an> (1s→2): The suffix <-an> marks a transitive relationship between a first singular agent and a second person patient. The 1s→2 morpheme has a regular allomorph <-n> after the 2sP morpheme <-e>, viz. in 1s→2s forms.

4. The first singular patient morpheme <-o> (1sP): The suffix <-o> signals a first singular patient in all forms with a first singular patient.
5. first and second person dual morpheme <-ci> (12d): The suffix <-ci> signals duality of a first or second person actant. It has a regular allomorph <-c> before the vocalic 3P suffix <-u>, viz. in 1d→3 and 2d→3 forms.
6. The second person plural morpheme <-ni> (2p): The suffix <-ni> signals a second plural actant in 2p→1s, 1→2p, 2p→3 and 3→3p forms. It has a regular allomorph <-n> before the vocalic 3P suffix <-u>, viz. in 2p→3 forms.
7. The first plural patient morpheme <-ya> (1pP): The suffix <-ya> signals a first plural patient in all forms with a first plural patient.
8. The third person patient morpheme <-o ~ -ə ~ -u ~ Ø> (3P): The third person patient morpheme has a zero allomorph in 3p→3s forms. Elsewhere it appears as one of three possible vocalic allomorphs, all of which appear to reflect an underlying form consisting of some back vowel. In 1s→3 and 3s→3s forms, the 3P suffix is realized as its allomorph <-o>. In 2s→3 and 3→3p forms, the 3P suffix is realized as its allomorph <-ə>. The 3P morpheme has an allomorph <-u> in 1d→3, 2d→3p and 2p→3 forms. The third person patient suffix does not occur in 2d→3s forms where a third person patient is expressed by the 2→3s *portemanteau* <-a>. It does occur, however, in 2p→3s forms following the second plural morpheme <-n>, although third person patient is also signaled in the same suffixal string by both the 2→3s <-a> and the 2p→3 <-m> *portemanteaux*.
9. The 1p→3 *portemanteau* <-am> (1p→3): The suffix <-am> signals a transitive relationship between a first plural agent and a third person patient.
10. The 2p→3 *portemanteau* <-m> (2p→3): The suffix <-m> signals a transitive relationship between a second plural actant and a third person patient.
11. The third person plural morpheme <-ci> (3p): The suffix <-ci> signals plurality of a third person actant. This morpheme occurs in 3p→3s, 3→3p, 2s→3p and 1s→3p forms.
12. The exclusive morpheme <-ka> (e): The suffix <-ka> marks a non-singular exclusive actant in all forms with a non-singular exclusive actant. The 1d→2 and 1p→2 forms lack this suffix, but these forms are not distinct from 3→2 forms. In Kulung, forms with a second person patient are the same, unless the agent is first singular.

sf1: second person slot	<-e>	2sP
	<-a>	2→3s
sf2: first singular slot	<-an>	1s→2
	<-o>	1sP
sf3: first and second person slot	<-ci>	12d
	<-ni>	2p
	<-ya>	1pP
sf4: third patient slot	<-o ~ -ə ~ -u>	3P
sf5: third person slot	<-am>	1p→3
	<-m>	2p→3
	<-ci>	3p
sf6: exclusive slot	<-ka>	e

### § 5. A morphemic analysis of the Thulung verb

My analysis of Thulung verbal affixes is based on data from Allen (1975) as presented in Caughley (1982: 229). Allen (1975) itself was not available to the author. Thulung 1s→2d and 1s→2p forms are left out of consideration. There are fifteen overt affixal morphemes in Thulung transitive verbs and eight functional positions in the suffixal string of a Thulung transitive verb. The non-zero affixes of the Thulung transitive paradigm are the following:

1. The first singular patient <-ŋi> (1sP): The suffix <-ŋi> signals a first singular patient in all forms with such an actant.
2. The inclusive patient morpheme <-sa> (iP): The suffix <-sa> signals a first person inclusive patient in all forms with such an actant.
3. The second plural morpheme <-ni> (2p): The suffix <-ni> signals a second plural actant in all transitive forms which overtly express a second plural actant, viz. 2p→1s, 1→2p, 2p→3 and 3→2p forms. The 23→1de and 23→1pe forms in Thulung do not formally distinguish between a second and a third person agent.
4. The second person morpheme <-na> (2): The suffix <-na> signals a second person actant in all forms in which a second person actant is not expressed by the second plural morpheme <-ni>, viz. 1de→2s, 1pe→2s, 1de→2d, 1pe→2d, 3→2s, 3→2d and 2s→3 forms. This morpheme is lacking in 2→1 and 2d→3 forms. Because second person involvement is unmarked in the latter, the 2s→1s and 2d→1s forms are homophonous with 3s→1s and 3d→1s forms respectively, and the 2d→3 forms are identical to 1di→3 forms.
5. The 1s→2 *portemanteau* <-nini> (1s→2): The suffix <-nini> marks a transi-

tive relationship between a first singular agent and a second person patient. Note that 1s→2d and 1s→2p forms have been left out consideration in the present article.

6. The 3p→3 *portemanteau* <-mi> (3p→3): The suffix <-mi> signals a transitive relationship between a third plural agent and a third person patient. This morpheme is homophonous to the plural morpheme <-mi>, which occurs in another position in the suffixal string and signals plurality of first, second and third person actants.
7. The preterit morpheme <-ti> (PT): The preterit morpheme is expressed as its basic morph <-ti> when it immediately follows the verb stem, viz. in 2→1pe and 3→1pe forms. It is expressed as its regular allomorph <-t> when it immediately follows the verb stem but immediately precedes either the 1e→3/NPT <-u> or 1e→3/PT <-o> *portemanteau*, viz. in 1s→3 and 1pe→3 forms. The preterit morpheme has a regular allomorph <-ri> after the 1sP and the 3p→3 morphemes, <-ŋi> and <-mi>, viz. in 2→1s, 3→1s and 3p→3 forms. The preterit suffix has a regular allomorph <-ra> following the inclusive patient morpheme <-sa>, viz. in 3→1i forms. The preterit suffix has an allomorph <-t> after the 1pi→3 and 3s→3 *portemanteaux*, <-i> and <-iu>, viz. in 1pi→3 and 3s→3 forms.
8. The dual morpheme <-ci> (d): The dual morpheme marks duality of actant, viz. in 1di→3, 1de→2, 1de→3, 3s→1di, 2→1de, 3→1de, 3d→1di, 3d→2s, 3d→1pi/NPT, 3d→3, 3p→3d/NPT, 2d→1s, 3d→1s, 2d→3, 1pe→2d and 3→2d forms. It has a regular allomorph <-c> before the 1e→3/NPT <-u> and 1e→3/PT <-o> *portemanteaux*, viz. in 1de→3 forms. The dual morpheme <-ci> is homophonous with the third dual patient morpheme, which occupies another functional position in the suffixal string.
9. The exclusive morpheme <-ki> (e): The suffix <-ki> signals a non-singular exclusive actant in all forms with such an actant. The suffix does not occur in 1ns→2 forms which are, in point of fact, not distinct from 3→2 forms.
10. The 1e→3/NPT *portemanteau* <-u> (1e→3/NPT): The suffix <-u> signals a transitive relationship between a singular or non-singular exclusive agent and a third person patient in nonpreterit time. This *portemanteau* suffix occurs as an anticipatory copy morpheme in suffixal slot 5 after the dual morpheme <-c> and before the exclusive morpheme <-k> in 1de→3 forms.
11. The 1e→3/PT *portemanteau* <-o> (1e→3/PT): The suffix <-o> signals a transitive relationship between a singular or non-singular exclusive agent

and a third person patient in preterit time. This *portemanteau* suffix occurs as an anticipatory copy in suffixal slot 5 after the dual morpheme <-c> or preterit morpheme <-t> and before the exclusive morpheme <-k>, in 1de→3 and 1pe→3 forms.

12. The 3s→3 *portemanteau* <-iu> (3s→3): The *portemanteau* suffix <-iu> signals a transitive relationship between a third singular agent and a third person patient.
13. The 1pi→3 *portemanteau* <-i> (1pi→3): The *portemanteau* suffix <-i> signals a transitive relationship between a first plural inclusive agent and a third person patient.
14. The plural morpheme <-mi> (p): The suffix <-mi> signals plurality of actant. It signals plurality of a third person actant in 1s→3p, 1pe→3p, 2p→3p, 3→3p, 3p→1s, 3p→1s, 3p→1di, 3p→1de, 3p→2 and 3p→3 forms. In nonpreterit 2→1pe and 3→1pe forms, <-mi> signals plurality of a first plural exclusive actant. In 1de→2p, 1pe→2p and 3→2p forms, the suffix <-mi> signals the plurality of a second person actant.
15. The third dual patient morpheme <-ci> (3dP): The suffix <-ci> signals a third dual patient in 1pi→3d, 2s→3d, 2p→3d and 3s→3d forms. It is homophonous with the dual suffix <-ci> but occurs in another functional position in the suffixal string and pertains only to a third person actant.

sf1: first and second person	<-ŋi>	1sP
	<-sa>	iP
	<-ni>	2p
	<-na>	2
	<-nini>	1s→2
sf2: third plural agent	<-mi>	3p→3
sf3: tense	<-ti ~ -t ~ -ri ~ -ra ~ -l>	PT
sf4: dual	<-ci>	d
sf5: anticipatory copy slot	<-u>	1e→3/NPT
	<-o>	1e→3/PT
sf6: exclusive	<-ki>	e
sf7: third patient <i>portemanteaux</i>	<-u>	1e→3/NPT
	<-o>	1e→3/PT
	<-iu>	3s→3
	<-i>	1pi→3
sf8: number slot	<-mi>	p
	<-ci>	3dP

No independent account of zero morphs in Kulung and Thulung has been provided because of the incompleteness of the Kulung and Thulung data available to the author.

### § 6. A comparison of the morphemes and functional positions in the affixal string of the Kiranti verb

One of the first things to strike the eye when comparing the affixal morphemes of the five Kiranti languages presented here is that there appear to be two distinct dual slots and two distinct plural slots. Limbu, Kulung and Thulung all have at least two dual or generalized<sup>2</sup> dual morphemes. In all three languages the two dual morphemes are homophonous, but they occupy different positions in the suffixal string.

Limbu	dPS	<-si, -tchi>	sf4
	nsP	<-si>	sf8
Kulung	12d	<-ci>	sf3
	3p	<-ci>	sf5
Thulung	d	<-ci>	sf4
	3dP	<-ci>	sf8

Note the similarity in function between the dual morphemes occurring first in the suffixal string: The Limbu dPS <-si> and Kulung 12d <-ci> morphemes both signal the duality of a *first* or *second* person actant, and the Thulung dual morpheme signals duality of actant in all three persons. However, the Limbu nsP <-si>, Kulung 3p <-ci> and Thulung 3dP <-ci> morphemes mark the non-singularity, plurality and duality respectively of a *third* person actant. Limbu and Kulung are similar in that the Limbu nsP <-si> and the Kulung 3p <-ci> morpheme are both generalized dual morphemes which have acquired a non-singular meaning other than dual, and in that both their first dual morphemes signal duality of a first and second person actant.

Limbu also has two other dual morphemes, the dual agent morpheme <-s, -tsh> in sf3, which signals a dual first person, second person or third person

2. A generalized dual morpheme is an affix which derives from an older dual morpheme or dual etymon but which has expanded its meaning to include the notion of plurality or that of non-singularity (Van Driem 1987: 31-32, 57). Another possibility is that two distinct but formally similar proto-affixes became re-analysed as positional allomorphs of a single morpheme.

dual agent, and the non-singular agent morpheme <-tchi>, which signals a non-singular first person agent in 1ns→2 forms.

Hayu has only one dual morpheme <-tsh> in its sf3, but Dumí has two dual morphemes, albeit in the same suffixal slot, sf6. One Dumí dual morpheme <-i> marks the duality of a first person in transitive forms and of any dual actant in intransitive forms. The Dumí d23 morpheme <-ši> marks the duality of second and third person actants in transitive verbs forms. This dichotomy of function in Dumí dual morphemes probably reflects the same two Kiranti dual slot functions as the Limbu, Kulung and Thulung data, viz. a *first* and *second* person dual slot early on in the suffixal string and a *third* person dual slot following it in the suffixal string.

A similar situation is reflected for the plural morpheme. a Kiranti *third* person plural morpheme \*<me> is reflected by the Limbu nsAS prefix <me->, which only marks third person actants, the Dumí 3pS prefix <ham->, the Hayu 3p suffix <-me> and the Thulung 3p→3 suffix <-mi>. These morphemes occur as prefixes in the languages which have verbal prefixes, Limbu and Dumí, and as suffixes early on in the suffixal string in Hayu and Thulung.

Limbu	nsAS	<me->	pf2
	pA	<-m>	sf7
	1peAS/PT	<-m?na>	sf7
Dumí	3pS	<ham->	pf1
Hayu	3p	<-me>	sf3
Kulung	1p→3	<-am>	sf5
	2p→3	<-m>	sf5
Thulung	3p→3	<-mi>	sf2
	p	<-mi>	sf8

A Kiranti *first* and *second* plural affix \*<-m> is reflected by the Limbu pA suffix <-m>, which only marks first and second person actants, the Limbu 1peAS/PT *portemanteau* morpheme <-m?na>, the Kulung 1p→3 and 2p→3 morphemes, <-am> and <-m>, and probably also the Thulung suffix <-mi> in sf8. The Thulung plural suffix <-mi> in sf8 is distinct from the homophonous 3p→3 *portemanteau* in sf2 in that it marks the plurality of actants in all three persons, but even this sf6 filler morpheme more often than not pertains to a third person actant.

The morphemes reflecting a Kiranti *first* and *second* person plural marker also reflect a functional position or proto-slot toward the end of the suffixal string, whereas the morphemes reflecting a Kiranti *third* person plural marker

occur early on in the suffixal string, as in Hayu and Thulung, or occur as prefixes, as in Limbu and Dumi.

Another slot-bound function which appears to be reflected for Proto-Kiranti is the *mise en scène* of a 1s→2 transitive relationship. In all five languages the nasal *portemanteau* marking the transitive relationship between a first singular agent and a second person patient occupies a suffixal slot adjacent to or close to the stem.

Limbu	1s→2	<-nɛ>	sf1
Dumi	1s→2	<-n>	sf2
Hayu	1s→2	<-no>	sf2
Kulung	1s→2	<-an>	sf2
Thulung	1s→2	<-nini>	sf1

Even closer to the stem, or in the same slot as the 1s→2 *portemanteau*, is the reflexive morpheme. The three languages for which I have data on the reflexive paradigm, Limbu, Dumi and Hayu, suggest a functional position for the reflexive morpheme in Proto-Kiranti immediately adjacent to the stem.

Limbu	REF	<-siŋ, -nɛ>	sf1
Dumi	REF	<-nši, -ši>	sf1
Hayu	REF	<-na ~ -ntse ~ -ntsi>	sf1

In Proto-Kiranti, the functional position for the first person appears to have lain further from the stem than either the reflexive or 1s→2 morphemes, although still not anywhere near the remote posterior of the suffixal string.

The Kiranti first singular morpheme is reflected by a velar nasal, occasionally associated with an open central or back vowel, in all five daughter languages except Kulung, where first singular patient is indicated by the morpheme <-o>. The only common semantic denominator between the first singular morphemes listed below is first singular involvement. Certain of these morphemes signal first singular agent. Others signal first singular patient/subject, first singular patient or all three.

Limbu	1sPS/PT	<-aŋ>	sf4
	1s→3/PT	<-paŋ>	sf4
	1sA	<-ŋ>	sf5
Dumi	first 1s	<-ŋ>	sf2
	second 1s	<-ə>	sf5

Hayu	1s→3	<-ŋ ~ -N ~ -soŋ>	sf2
	1sPS/NPT	<-ŋo>	sf2
	1sPS/PT	<soŋ>	sf2
Kulung	1sP	<-o>	sf2
Thulung	1sP	<-ŋi>	sf1

Note that both Hayu and Limbu contain *portemanteaux* marking a transitive relationship between a first singular agent and a third person patient. We shall return to this point below. This brings us to the following morpheme.

The Proto-Kiranti third person patient morpheme \*<-u> is reflected in all five languages, except perhaps Hayu.

Limbu	3p	<-u>	sf4
Dumi	1s→3/PT	<-u>	sf5
	3sP/PT	<-i>	sf5
Hayu	3P/PT	<-ko>	sf1
Kulung	3P	<-o ~ -ə ~ -u>	sf4
Thulung	1e→3/NPT	<-u>	sf7
	1e→3/PT	<-o>	sf7
	3s→3	<-iu>	sf7

The Hayu suffix <-ko> is a tensed *portemanteau*, and occurs in the tense slot, sf1. However, the velar initial of this Hayu morpheme may be a re-analysed tense indicator, by analogy to the /k/ in the 1p/PT morpheme <-ki>, also a sf1 filler. In this case, the back vowel /o/ may reflect the same third person patient morpheme reflected elsewhere, in which case the element /o/ in the *portemanteau* may have been drawn from a suffixal slot posterior to sf1.

The functional position for the Proto-Kiranti third patient morpheme \*<-u> appears to have been adjacent to the first singular morpheme in the suffixal string of the proto-language. Note that the Thulung *portemanteaux*, 1e→3/NPT <-u> and 1e→3/PT <-o>, both occur as anticipatory copies in sf5, a position anterior to sf7. Whether the Proto-Kiranti third patient morpheme occupied a more or less posterior position in the suffixal string of the proto-language than the first singular morpheme is difficult to ascertain on the basis of only these five daughter languages. The Limbu and Hayu material, for instance, would suggest that the 3P morpheme preceded the 1s morpheme in the Proto-Kiranti suffixal string, whereas the Dumi, Kulung and Thulung data would suggest the opposite.

Recall that both Hayu and Limbu contain *portemanteau* reflexes of the

Kiranti first singular morpheme which mark a transitive relationship between a first singular agent and a third person patient. Now note that both Dumí and Thulung contain *portemanteau* reflexes of the Kiranti third patient morpheme which mark a transitive relationship between a first singular or first (*singular* and non-singular) exclusive agent and a third person patient. Both these *portemanteau* phenomena corroborate the view that the first singular and third patient morphemes must have been adjacent in Proto-Kiranti, so that fused or re-analysed morphs could arise with the combined semantic content of both morphemes.

In Thulung any transitive relationship between a first (singular or non-singular) exclusive agent and a third person patient is expressed by reflexes of the Kiranti third patient morpheme \*<-u>, whereas the Thulung first singular morpheme <-*ŋi*> expresses patient involvement. Although the Thulung first singular patient morpheme <-*ŋi*> and the reflexes of the Kiranti third patient morpheme \*<-u> have become totally dissociated in the modern Thulung paradigm, the *portemanteau* reflexes of the proto-morpheme \*<-u> (viz. 1e→3/NPT <-u>, 1e→3/PT <-o> and 3s→3 <-iu>) suggest that the first singular and third patient morphemes were in close proximity to each other at some earlier stage of the language, and that re-analysis of the Kiranti third patient morpheme \*<-u> preceded its dissociation from the first singular morpheme in Thulung.

If we turn our attention to the other four daughter languages, we see that the velar nasal element of the first singular reflexes is often associated with some open central or back vowel (Limbu /a/, Dumí /ə/, Hayu /o/ or /o/), and that in Kulung the velar nasal has even been lost and only the vowel, /o/, retained. In Limbu and Hayu, where the associated vowels, /a/ and /o, o/, precede the velar nasal /ŋ/, we find that the third patient reflex also *precedes* the first singular reflex in the suffixal string. In Dumí, where the vowel, /ə/, associated with the first singular follows the first singular velar nasal /ŋ/, and in Kulung, where only the vowel /o/ has been retained, the third patient reflexes *follow* the first singular reflex in the suffixal string.

If the open central or back vowels associated with the first singular in these four languages were to be of Kiranti or Tibeto-Burman provenience, it seems unlikely that they would have survived juxtaposition to the vocalic third patient morpheme \*<-u> for so long. It seems probable therefore that the open central and back vowels associated with the first singular in Limbu, Dumí, Hayu and Kulung are artefacts of the long-term coexistence of the first singular morpheme with the third patient morpheme \*<-u> in the history of Kiranti, artefacts which resulted from reanalysis and re-segmentation, prob-

ably in accordance with the rigours of language-specific phonotactic constraints in each of the daughter languages.<sup>3</sup> Stripped of its associated vowels, this leaves us with a Proto-Kiranti first singular morpheme reconstructible as \*<-*ŋ*>.

We have reconstructed the Kiranti third patient morpheme as \*<-u>. In Thulung, however, we find a 3s→3 *portemanteau* <-iu> and, in Dumí, a third singular patient morpheme <-i>. Furthermore, the Dumí 1s→3/PT *portemanteau* <-u> is copied as /i/ in preterit 1s→3d and 1s→3p forms. Although this could suggest that the original Kiranti third patient morpheme might have been a spread back vowel, it is more likely that Dumí and Thulung reflect the fact that the Kiranti third patient morpheme \*<-u> was subject to vowel harmonic influence at some point in the development of these languages. In both Dumí and Thulung, the Kiranti third patient morpheme \*<-u> *follows* the first singular morpheme \*<-*ŋ*>. I believe that this left the third patient morpheme \*<-u> prone to vowel harmonic influence from the morpheme to which we shall now turn.

Another morpheme which appears to occupy a central position in the Proto-Kiranti suffixal string is the Kiranti second plural morpheme \*<-ni>. It has undergone re-analysis in Dumí only, where it has been generalized to mark plurality of third person actants as well. Perhaps the opposite occurred with the Dumí d23 morpheme <-*ši*> which may originally have been the dual morpheme for third person actants (vide supra).

Dumí	p23	<- <i>ini</i> >	sf6
Hayu	2p	<- <i>ne</i> >	sf3
Kulung	2p	<- <i>ni</i> >	sf3
Thulung	2p	<- <i>ni</i> >	sf1

Except for the Thulung slot, the data suggest a suffixal slot for the Kiranti second plural morpheme which is posterior to the third patient morpheme.

Both anterior and posterior in the suffixal string is the Kiranti proto-morpheme reflected below. There is a striking correlation between the anterior position of the velar plosive morpheme in Dumí and Hayu and its semantic character as a marker of the first person plural, on one hand, and between the posterior position in the suffixal string of the reflex in Limbu,

3. It seems that the vowel in the Limbu 1pAS/PT and Kulung 1p→3 *portemanteaux*, <-*m?na*> and <-*am*>, may also have originated this way.

Kulung and Thulung and its semantic role as a marker of the exclusive. This is an indication that the function of a position in the linear sequence of an affixal string may be as conservative as a segmental morpheme, for here a shift in position appears to be correlated with a shift in meaning.

Limbu	e	<-ge>	sf10
Dumi	lp	<-k>	sf2
Hayu	lp	<-ke>	sf3
	lp/PT	<-ki>	sf1
Kulung	e	<-ka>	sf6
Thulung	e	<-ki>	sf6

An independent exclusive morpheme is reflected by the Dumi exclusive morpheme <-i>, which has a regular allomorph <-a>, the Hayu exclusive morpheme <-o> and the Kulung first plural patient morpheme <-ya>.

Limbu	l	<a->	pf1
	lsPS/NPT	<-?ε>	sf4
Dumi	e	<-i>/<-a>	sf5
Hayu	e	<-o>	sf4
Kulung	lpP	<-ya>	sf3

On the basis of this data, I tentatively propose a first plural morpheme \*<-k> and, in a more posterior position in the Kiranti suffixal string, an exclusive morpheme \*<-ya>. Limbu exclusive <-ge> would, in this view, be a reanalysis of a fused morph \*<-k> + \*<-ya>, more accurately reflected in the *Pācthare* dialect form <-gya> (cf. Van Driem 1987: 28). In Kulung and Thulung \*<-k + -ya> was re-analysed in the same way as in Limbu, whereas Hayu and Dumi preserved both proto-morphemes, \*<-k> and \*<-ya>, as distinct entities. Limbu and Kulung also contain independent reflexes of the Kiranti exclusive morpheme \*<-ya>.

A Kiranti inclusive morpheme \*<-i> is reflected by the Limbu plural patient/subject morpheme <-i>, which pertains only to first and second person actants, the Dumi inclusive morpheme <-i> and the Thulung 1pi→3 *portemanteau* <-i>.

Limbu	pPS	<-i>	sf4
Dumi	i	<-i>	sf5
Thulung	1pi→3	<-i>	sf7

In Dumi the inclusive <-i> follows the first plural morpheme <-k>, and in Limbu the plural patient/subject morpheme <-i> precedes the exclusive morpheme <-ge>. In Thulung the 1pi→3 *portemanteau* <-i> and the exclusive <-ki> do not co-occur.

The Dumi 23S and s23 morphemes, <-a> and <-a>, may be related to the Kulung 2sP and 2→3s morphemes, <-e> and <-a>. The semantic common denominator would be second person. That the Dumi 23S and s23 morphemes synchronically pertain to third person actants as well should be viewed in light of the fact that Dumi tends to lump second and third person together, whereas comparative evidence indicates that Proto-Kiranti lumped first and second person together (cf. the Dumi d23 <-šī> and p23 <-ini> morphemes above).<sup>4</sup> If the Dumi marked scenario prefix <a-> is in any way related, it would represent a marked case of semantic metastasis. De Lancey has suggested that the Dumi marked scenario prefix has a parallel in the generalized prefixed morphemes of Rawang, Trung and Lakher and is, like these prefixes, probably of Tibeto-Burman provenience (1989: 331-332).

Dumi	MS	<a->	pf1
	23S	<-a>	sf5
	s23	<-a>	sf6
Kulung	2sP	<-e>	sf1
	2→3s	<-a>	sf1
Thulung	2	<-na>	sf1

Possibly related to the Dumi and Kulung forms is the Thulung second person suffix <-na>. This Thulung form is strongly reminiscent of the various 1s→2 *portemanteaux* in the five languages under discussion (above). However, it should be noted that the Thulung second person morpheme <-na> is distinct from the 1s→2 morpheme <-nini> in the same language, and that the same holds for the Kulung second singular patient morpheme <-e> vis-à-vis the Kulung 1s→2 *portemanteau* <-an>.

A tentative proposal to account for both the 1s→2 and second singular

4. The affixes of Limbu inflected forms group first and second person and third dual affixes together as against all other affixes pertaining to third person actants and the 1pe/PT *portemanteau* (Van Driem 1987: 70). The grouping of third dual with first and second person and of first plural exclusive in the preterit with third person are clearly innovations based on re-analysis. Limbu too reflects a historical opposition in Kiranti between first and second person affixes vis-à-vis third person affixes.



- Driem, G. van 1987. *A Grammar of Limbu* (Mouton Grammar Library 4), Berlin: Mouton de Gruyter.
- 1988. "The Verbal Morphology of Dumi Rai Simplicia", *Linguistics of the Tibeto-Burman Area* 11 (1), 134-207.
- MS. *A Grammar of Dumi* (forthcoming).
- Holzhausen, A. 1973. "Kulunge Rai Clause Types", *Nepal Studies in Linguistics I*, Kirtipur: Summer Institute of Linguistics and the Institute of Nepal and Asian Studies, 15-26.
- Michailovsky, B. 1981. *Grammaire de la langue Hayu*, Berkeley: Ph.D. thesis, University of California.