

The Category of Direction in Tibeto-Burman*

Scott DeLancey
University of Colorado

Recent descriptive and historical work on Tibeto-Burman has shown that personal indices on the verb in the "pronominalized" languages generally reflect not semantic roles or grammatical relations, as in more familiar languages, but a hierarchy of person in which first and second person are always indexed in preference to third. It is shown here that in PTB and in a few modern languages this hierarchy was also reflected in a direction marking system, in which a transitive verb is morphologically marked according as the patient is higher or lower on this hierarchy than the agent.

1. Tibeto-Burman verb agreement

In most of the Tibeto-Burman languages which manifest verb agreement (the so-called "pronominalized" languages) the agreement pattern is primarily governed by the person of the various arguments of the verb, rather than by their semantic or grammatical role. The most straightforward example of the typical pattern of agreement is the Tangut¹ system described by Kepping (to appear; cf. also Kepping 1975). First and second person arguments of the verb can be indexed in Tangut by postverbal *nga* '1st', *na* '2nd', and *ni* '1st or 2nd plural'; third person cannot be indexed. With intransitive verbs, of course, agreement can only be with the subject,² but with transitive verbs it may be with either agent or patient:

- 1) ni pha ngi-mbIn ndI-ſiei-na
you other wife choose-2nd
'You choose another wife!'
- 2) Mei Swen ma-na na khê-na
formerly you hate-2nd
'Mei Swen formerly hated you.'

- 3) nga-mi ^šie-u ^žie ^žwon-vje-ni
 we at first river guard-Plural
 'At first we guard the river (crossings).'
- 4) ndz^lwo ngI nga In lda kI-^žwon-nga
 someone I ACC hand grasp-1st
 'Someone grasped my hand.'³

In (1-4) we see that if there is only one first or second person argument, it governs agreement, regardless of its role. When there are two such arguments, agreement is with patient in preference to agent:

- 5) ni ti s^ləw-^žiei nga-mi ng^lu-na
 you don't worry we save-2nd
 'You don't worry, we'll save you.'
- 6a) ni tIn nga In ldlə thI-nga
 you if I ACC indēd chase-1st
- b) ku tha tsI v^lə-thI-na
 then her also chase-2nd
 'If indeed you are chasing me, then chase her too.'

(5) shows agreement with second person patient in preference to first person agent, while (6a) shows agreement with first person patient in preference to second person agent. (Note the contrast of (6a) with (6b), where agreement is with the second person agent when patient is third person.)

This pattern or some variation on it is characteristic of TB agreement systems; many other examples are discussed in Bauman (1975) and DeLancey (1980a). Bauman (1977) and DeLancey (1980a) have shown that this is the original TB agreement pattern, and that the subject-agreement patterns of the Kuki-Chin and Kanauri-Almora groups are secondary developments.⁴ This pattern of agreement is of considerable theoretical interest. Bauman (1975, 1977) points out the parallelism between an agreement hierarchy which ranks first and second person above third, but equal to one another, to the so-called "split ergative" pattern of case marking which has attracted considerable attention in recent linguistic literature (cf. Silverstein 1976, Comrie 1978, Dixon 1979). In the split ergative pattern, which is found in a number of the pronominalized TB languages, third person transitive agents are marked for ergative case, but first and second person agents receive no case marking. A Tibeto-Burman example of the pattern is Kham (Watters 1973):

- 7) nga: nxn-lay nga-poh-ni-ke
 I you-ACC 1A-hit-2P-Perfective
 'I hit you.'
- 8) nxn nga-lay nx-poh-na-ke
 you I-ACC 2A-hit-1P-Perfective
 'You hit me.'
- 9) nxn no-lay nx-poh-ke
 you he-ACC 2A-hit-Perfective
 'You hit him.'
- 10) no-e no-lay poh-ke-o
 he-ERG he-ACC hit-Perf-3A

(The affixes glossed 1A, 2P etc. are subject (A) and object (P) agreement markers. These reflect the person hierarchy discussed here in a rather unusual fashion; they are discussed in detail in DeLancey (1980a,b)). Here we have the typical split ergative pattern: the third person agent of (10) is marked for ergative case, but first and second person agents, as in (7-9), are not. Thus the split ergative pattern, like the Tangut and other TB agreement patterns, reflects a fundamental distinction between the participants in the speech act and third persons.

2. Direction systems in Tibeto-Burman

Also analogous to the TB agreement pattern is the morphological category which has been called direction by Algonquianists. Direction marking, best known from the Algonquian languages but also attested elsewhere in North America as well as in a few Siberian, Australian, and Dravidian languages, marks a transitive verb to indicate the relative place of its agent and patient on the person hierarchy. This category has not, as far as I know, been reported previously from TB, but it is to be found in Jyarong, Nocte (Namsangia) and probably Rawang, and with interesting variations in Chepang and some closely related languages.

2.1 Jyarong⁵

Note that the agreement pattern described for Tangut provides the hearer with very little information; the verb forms indicates whether or not there is a first or second person participant, but tells nothing about the role of the participant. In Jyarong we find a similar agreement pattern, but with an added set of affixes which do provide some information about the semantic roles of the two arguments of the verb. The paradigm of the transitive verb in unmarked aspect is (Jin et. al. 1958,⁶ cf. also Wen 1944):

1-2s	tə-a-V-n
1s-3	V-ŋ
2s-3	tə- V-u
3s-3	V-u
3d,p-3	u-V
3-2s	tə-u-V-n
3-1s	u-V-ŋ
2-1s	kə-u-V-ŋ

(1-2s indicates that the 1st person agent may be singular, dual or plural without affecting the verb form, but the number of the 2nd person patient will be reflected in the suffix). The -ŋ and -n suffixes are respectively 1st and 2nd person agreement markers, cognate with Tangut nga and na. Except for the peculiar 2s-3 form in -u, the distribution of these suffixes is identical to the Tangut pattern, with patient agreement in the 1-2 and 2-1 configurations, and agreement with 1st or 2nd person in any role elsewhere.

The prefixed morphemes tə- and kə- are historically as well as synchronically rather perplexing.⁷ They occur only, and one or the other of them always, when there is a 2nd person participant in the event (tə- is prefixed to intransitive verbs with 2nd person subjects). But if the meaning of the category is 2nd person participant, then we must explain the significance of the t/k alternation. In order to do so we must first consider the second slot prefixes -u- and -a-.

The -u- prefix occurs in the 3-1, 3-2, and 2-1 configurations -- all and (deferring for a moment discussion of the 3p-3 form) only those configurations in which the agent is lower than the patient on a 1 > 2 > 3 hierarchy. Its function must then be to mark these configurations as being such -- it is what Algonquianists call an inverse marker. Direction systems in the Algonquian languages characteristically distinguish four direction categories: inverse, in which agent is lower than patient on a person hierarchy, direct, in which agent is higher than patient, and two so-called local categories (Hockett 1966), 1st agent acting on 2nd patient, and 2nd patient acting on 1st patient. Note that, like the split ergative pattern, such a system sets off 1st and 2nd person against 3rd, as does the Tangut and, to an extent, the Jyarong agreement pattern. Thus the Tibeto-Burman languages, like the Algonquian, recognize 1st and 2nd person as a distinct category, which Bauman (1975) has labelled the Speech Participant Category, and which I have referred to elsewhere (DeLancey 1980a,b) as the Speech Act Participants (SAPs). This suggests that we might also expect a direction marking Tibeto-Burman language to distinguish the local categories from the direct and inverse categories. There is no obvious direct morpheme in the Jyarong paradigm, but the 1-2 category does have its own mark, the -a- prefix, which occupies the same slot as the inverse marker -u-.

I have argued at length elsewhere (DeLancey 1980a,b) that direction is a fundamentally deictic category, which always reflects a basic distinction between the SAPs (1st and 2nd person) and 3rd person, even where, as in Jyarong, it also reflects a ranking of 1st > 2nd. Thus neither of the two local categories, 1-2 and 2-1, is unambiguously direct or inverse. Jyarong distinguishes the 1-2 configuration with the -a- prefix, but marks 2-1 as inverse. Nevertheless the 2-1 category is distinguished from the other inverse configurations, in that only there do we find the /k/ form of the 2nd person replacing the regular /t/ form; this then is clearly the function of the t/k alternation. Thus Jyarong distinguishes all four direction categories: direct is unmarked, inverse marked with the -u- prefix, 1-2 marked with the -a- prefix, and 2-1 marked as inverse and additionally distinguished by the k- prefix. (A strikingly similar direction system, in which the 2-1 category is marked as inverse plus an additional affix, is found in the Algonquian language Blackfoot; see DeLancey 1980b).

We have yet to deal with one morpheme, the -u suffix, and with the peculiar occurrence of this suffix and the inverse prefix in the 3-3 configurations. The -u suffix at first glance appears to be a 3rd person agreement marker. If that is its function, however, then its absence in the 3s-3 configuration is inexplicable. The two 3-3 forms suggest that the two u morphemes are mutually exclusive, which in turn suggests the possibility that the -u suffix is in some way connected with the direction system. A cognate morpheme occurs in some other TB languages as a 3rd person marker, and Jyarong -u is probably in the process of acquiring that reading, but comparative evidence from Chepang and Rawang shows that it was originally a direction marker indicating the direct category (i.e. marking configurations in which agent outranks patient on the person hierarchy). This explains its non-cooccurrence with the -u- prefix in the 3-3 forms. Note that the distribution of these morphemes suggests that singular NPs rank higher on the person hierarchy than non-singulars, since 3-3 configurations with singular agents are marked as direct, while those with non-singular agents are marked as inverse. (The interrelationship of person and number in the person hierarchy is discussed in Silverstein 1976).

2.2 Chepang⁸

The Chepang verb paradigm is considerably more complex than that of either Tangut or Jyarong. The personal agreement markers on intransitives are 1st -ng, 2nd -te?, with 3rd unmarked. In transitive verbs person suffixes are distributed as follows (Caughley 1978):

1-2	-ne?-naang
1-3	-ng
2-3	-te?
3-2	-te?
3-1	-ng
2s-1s	-te?-ci
2d,p-1s	-te?-naang
2-1d,p	-te? -ng

The -ng is a 1st person marker, and the -naang apparently marks 2nd person agreement (the independent 2nd person singular pronoun is naang-te?). The -ci found in the 2s-1s form is historically a dual agreement marker; we will see the same solution to the problem of which SAP to agree with in the ambiguous 1-2 configuration in Nocte.

The resemblance of the -te? and -ne? suffixes to Jyarong tə- and kə- is obvious. One or the other is present in every configuration involving 2nd person. They differ from the Jyarong morphemes in being suffixed rather than prefixed, and in the fact that in Chepang it is the 1-2 rather than the 2-1 configuration which takes the marked alternant (-ne?). Note however that it is again a local configuration which is so marked. Note also that, as in Jyarong, the -te? is the only indication of 2nd person in the 2-3 form; in Chepang it has also taken over the 2nd person agreement function in the 3-2 and 2nd person intransitive forms.

The pronominal and -te?/-ne? suffixes combine in the Chepang paradigm with number agreement and with a peculiar pair of suffixes -u and -taa/-thaa. Caughley describes these latter as indicating the case role of the NP which governs agreement; we can see their distribution in the following makeshift paradigm:

1d-2	<u>-naang-c-u</u>	(<u>-c-</u> marks a dual participant)
1d-3	<u>-ng-c-u</u>	
2s-3	<u>-u</u>	
3-3	<u>-u</u> or <u>-thaa</u>	
3-2	--	
3-1	<u>-taa-ng</u>	
2s-1d	<u>-taa-ng-ca</u>	(<u>-ca</u> marks dual agreement)

-u occurs where agreement is with agent, and -taa where agreement is with patient. Their distribution in this paradigm constitutes a direction system, with -u the direct and -taa the inverse morpheme. Note that the 3-3 configuration can take either suffix, according as agent (with -u) or patient (with -thaa) is topic, even though there is no 3rd person agreement. Thus a characterization of these morphemes as direction markers is more adequate than Caughley's formulation. This functional use of direction marking in 3-3 configurations is typical of Algonquian direction systems.

There is one exceptional configuration in which the direction markers show a very odd distribution, which no doubt motivated Caughley's description. When agent is 2nd and patient 1st person, and both non-singular, the verb agrees in person with the 1st person patient, and in number with both patient and agent, and is marked with both -u and -taa:

2d-1d	-j- <u>u</u> - <u>taa</u> -ng-ca	(-j 2nd dual, -ca 1st dual)
2d-1p	-j- <u>u</u> - <u>taa</u> -ng-i	(-i 1st plural)
2p-1d	-s- <u>u</u> - <u>taa</u> -ng-ca	(-s 2nd plural)
2p-1p	-s- <u>u</u> - <u>taa</u> -ng-i	

The behavior of -u and -taa here is quite uncharacteristic of direction marking, but fits Caughley's analysis according to which they indicate which NP governs agreement. However, it is only in the 2-1 configuration that this occurs. In the 1-3 configuration person agreement is with 1st person, but number agreement is with whichever NP is higher in number; nevertheless only the -u suffix can occur here. Thus a form like 1d-3p -ng-s-u agrees in number with 3plural (-s) and in person with 1st (-ng) but has only the -u suffix. If we look again at the person agreement paradigm we see that there is considerable confusion in the 2-1 configurations; agreement is sometimes with 1st person (2-1d,p -ng), sometimes with 2nd (2d,p-1 -naang) and sometimes with both (2s-1s -ci). We can see that the direction system reflects the same ambiguity, which as I have pointed out is characteristic of the local (1-2 and 2-1) direction categories.

2.3 Rawang¹⁰

The Rawang conjugation described by Barnard (1934) is historically most interesting, although synchronically very difficult to interpret. It is probably best described synchronically as lacking a direction system, but strong traces of such a system remain.¹¹

Intransitive verbs agree with 1st or 2nd person subjects in three numbers:

	singular	dual	plural
1st	V-ng	V-shi	V-i
2nd	e-V	e-V-shi	e-V-ning

Intransitive verbs do not mark 3rd person agreement. The transitive paradigm is:

AGENT							
1	sing			V-ng	V-ning	V-ng-u	
	dual			V-shi		V-sa-u	
	pl			V-i			
	sing	e-V-ng-a				e-V-u	
2 dual	e-V-sh-a					e-V-sa-u	
pl						e-V-ning	
3		e-V-ng	e-V-i	e-V	e-V-ning	V-u	
PATIENT		singular	plural	singular	plural		
		1		2		3	

The only morphemes in the paradigm which are etymologically person agreement morphemes are 1st person -ng and 2nd plural -ning (< *nang-i); their distribution is similar to the patterns we have already seen. Noteworthy is the fact that both 1s-2s and 2s-1s show first person agreement; recall that in Chepang both show 2nd agreement, while in Jyarong and Tangut both show agreement with patient.

The obvious synchronic analysis of the -u suffix found in the last column is that it is a 3rd person patient marker. As such it is in several ways an oddity. In the first place, it is unusual to find, in a TB language, two personal agreement markers co-occurring in the same form, as here in the 1s-3 -ng-u; the few instances of such a pattern in the family (e.g. Kham and Lushai) are clearly secondary developments (cf. DeLancey 1980a). Likewise agreement morphemes which are specified as agent or patient markers are always secondary developments in TB (Bauman 1977, DeLancey 1980a). Moreover, 3rd person agreement in general is not prevalent in much of the family; note for example that Rawang has no 3rd person agreement with intransitive verbs.

The Rawang, Chepang and Jyarong -u suffixes are clearly cognate, and their divergent developments clarify their original function. The synchronic function of Rawang -u is clearly associated with 3rd person; there is no plausible way in which we could imagine it finding a place in the 2-1 or 1-2 configurations as Chepang -u has. However, it is easy to see how the Rawang distribution could have developed from a direct morpheme; the distri-

bution of such a morpheme in a functioning direction system would have been 1-3, 2-3, and perhaps some 3-3, as in Jyarong and Chepang. Even if 1-2 were marked as direct, as in Chepang, still most if not all the direct configurations have 3rd person patient, and loss or reanalysis of the rest of the direction system would almost inevitably lead to the reanalysis of a direct morpheme as a 3rd person patient marker.

There is evidence of an earlier direction marking system in the Rawang paradigm. Note the forms which occur in 2-1. If we interpret the otherwise inexplicable -sha suffix as (at least etymologically) -shi-a (i.e. 1st/2nd dual plus the -a morpheme found with 2s-1s) then we can identify a morpheme -a marking the local 2-1 configuration. This bears comparison with the Jyarong direction prefix a- which marks the local 1-2 category. We have already seen that 2-1, like 1-2, tends to be marked as a distinct category; witness the substitution of kə- for tə- in Jyarong, and the complex distribution of person, number, and direction markers in the various 2-1 configurations in Chepang. Thus Rawang -a can be nothing other than a direction marker, at least in its origin, and Rawang must therefore have once had a full direction marking system.

Further evidence for an earlier direction system is found in the distribution of the e- prefix in the transitive paradigm. This morpheme occurs with intransitive verbs as a 2nd person marker, and marks all transitive configurations involving 2nd person except 1-2. Its prefixal position and association with 2nd person are strikingly reminiscent of the Jyarong tə-/kə- prefixes. But Rawang e- does occur in one configuration not involving 2nd person, the extreme inverse 3-1. In fact, it occurs in all inverse configurations, but its occurrence in the intransitive paradigm and in the 2-3 transitive configuration prevent us from analyzing it as a simple inverse morpheme.

The synchronic significance of the e- prefix is unclear; it is not quite a 2nd person marker and not quite an inverse marker. This suggests either that it has two distinct etymological sources or that it has been partly reanalyzed in the course of a change in the verb marking system. We have not yet identified an inverse marker for the earlier Rawang direction system, but there must have been one; inverse is the semantically most marked direction category (DeLancey 1980b) and is the one category which is always morphologically marked in a direction system. However, I will argue below that Rawang e- must be considered to have been originally associated with 2nd person, rather than inverse marking. Assuming this conclusion for the time being, we must then posit a lost inverse morpheme in the Rawang paradigm.

Let us suppose an earlier direction system which marked inverse, direct (-u), and 2-1 (-a), leaving the 1-2 category marked not by a direction marker per se, but by an alternate form of the 2nd person e- prefix, as in Chepang. If we suppose on the evidence of modern -u and -a that direction markers were suffixed, then we have the following paradigm (where E- represents the alternate prefix associated with 1-2, and I the inverse marker;¹² agreement suffixes are omitted):

	<u>inferred system</u>	<u>modern Rawang</u>
1-2	E-V	V
1-3	V-u	V-u
2-3	e-V-u	e-V-u
3-2	e-V-I	e-V
3-1	V-I	e-V
2-1	e-V-a	e-V-a

To derive the modern system from this hypothesized one, we must suppose the complete loss of *E and *I, and the subsequent reanalysis of e- as an inverse marker, resulting in its occurrence in both of the environments of the lost *I. This reanalysis would have been facilitated by the fact that the loss of *E would have weakened the connection between the e- prefix and second person. The development is considerably more plausible if we suppose that the inverse marker was a prefixed vowel, as in Jyarong. Then the collapse of 3-2 *e-I-V and 3-1 *I-V could have a phonological explanation which would motivate both the disappearance of *I and the spread of e-, which would thus in effect have two etymological sources, *e- and *I-. Even without phonological merger of two vocalic prefixes, the reinterpretation of e- as an inverse marker would have been facilitated if e- and *I were the only prefixal morphemes in the paradigm.

I have found no evidence internal to the Rawang paradigm which supports this reconstruction, but there is comparative evidence for a direction marking system involving both prefixes and suffixes. Note that Jyarong must have had, and can be analyzed as still having, such a system, in which the inverse marker is prefixed u-, the 1-2 morpheme prefixed a-, and the direct marker a suffixed -u. We will see also in Nöcte a direction marking system in which inverse and direct morphemes occupy different morphological slots.

2.4 A preliminary comparison of direction systems

We now have evidence from one or more of the three languages discussed so far for the formal marking of four distinct direction categories: direct, 1-2, 2-1 and inverse. The attested markers are as follows (where T indicates an alternate 2nd person *te series morpheme,¹³ as Chepang -ne? in place of -te?, and ? that there is no direct evidence for any overt marking):

	Jyarong	Rawang	Chepang
DIRECT	-u	-u	-u
1-2	a-	T-	-T-u
2-1	T-u-	-a	?
INVERSE	u-	?	-taa

The place of Jyarong in the Tibeto-Burman family is not entirely clear (see DeLancey 1980a for some discussion), but there is no doubt that Rawang and Chepang belong to widely divergent branches of the family; thus the evidence which we have seen of direction marking in these three languages suggests the possibility that it is a feature of Proto-Tibeto-Burman. The structural similarity of the three systems lends weight to this hypothesis, but a convincing case must be based on the identification of cognate morphological material fulfilling the same function in the system in several languages.

The only form which can be considered established for the proto-system on the basis of the systems compared so far is the direct suffix -u: this is also well attested elsewhere in the family, usually as a 3rd person agreement marker. There is also some evidence to be found elsewhere for an original inverse **u*, but if this was part of the original system, then it has been subject to loss or replacement in a great many languages, as for example in Rawang and Chepang. Such instability would not be surprising if in the original system the direct and inverse markers were homophonous and distinguished only by position; the potential for confusion would be increased in a system in which both occurred post-verbally, distinguished only by their position with respect to other suffixes.

If we look again at Chepang, we can see that this is exactly what has happened. In all of the direct configurations, Chepang -u is the rightmost suffix, following person and number markers, as in 1d-3 -ng-c-u (1st-dual-u). The exceptional occurrence of -u in the 2-1 configurations, which prevents a satisfying synchronic analysis of it as a direct morpheme, is also morphologically exceptional in that the -u suffix precedes all other suffixes except the agent number marker, as in 2d-1d -j-u-taa-ng-ca (2nd dual-u-taa-1st-dual). Thus the -u which occurs in direct configurations and that which occurs in inverse configurations occupy different morphological slots, as do the inverse u- and direct -u in Jyarong. Evidently the -u which co-occurs with -taa in the 2-1 configurations in Chepang originated in the old inverse marker, and the modern Chepang -u morpheme represents the collapse and reanalysis of two originally distinct but homophonous morphemes. The -taa which now fills the role of inverse marker is then a secondary development, which took up the function of inverse marking as **u* lost it.

2.5 Nocte¹⁴

Nocte is the clearest remaining example of Tibeto-Burman direction marking for which I have data, although its historical relationship to the direction systems discussed so far is unclear. Verb agreement in Nocte follows the PTB pattern described in Section 1; the paradigm for a transitive verb in imperfective aspect is (Das Gupta 1971):

PATIENT		1		2		3	
		sg		pl			
AGENT	1			sg	pl		
	sg			-e	--	-ang	
	pl					-e	
	2	sg	pl			-o	
						-an	
	3	-ang	-e	-o	-an	-a	

We find here the familiar system of agreement with 1st or 2nd person in preference to 3rd, regardless of role. In the 2-1 configuration we find 1st person agreement, which is the usual pattern, but in the 1s-2s configuration agreement is 1st person plural, thus contriving to mark agreement with both SAPs without double pronominal agreement. This solution to the problem of an ambiguous local direction category is reminiscent of the dual marking in the 2s-1s configuration in Chepang. Note that we have here genuine 3rd person marking in the 3-3 configuration (and in 3rd person intransitives), an -a suffix which may bear comparison with the 3rd person pronominal *a identified by Wolfenden. Unlike the secondary (or in some cases spurious) 3rd person -u which we find elsewhere, this -a does not co-occur with the other pronominal suffixes, double pronominal marking being impossible in PTB and most daughter languages.

Nocte marks the inverse categories 2-1, 3-1, and 2-3 (but never 3-3, regardless of number) with an -h suffix between the verb and the agreement suffix, thus distinguishing forms like heitho-ang 'I teach him' and heitho-h-ang 'thou/he teach me'. This morpheme is realized as aspiration on the /t/ of the perfective suffix: ko-t-ak 'I gave him'; ko-th-ang 'he gave me'. A comparison of these last two forms shows that in the perfective paradigm the direct category is also marked. Intransitive verbs take devoiced agreement suffixes following the perfective and negative suffixes; with transitive verbs these occur only in direct configurations. Thus the transitive perfective paradigm is:

1-2	V-t-i
1-3	V-t-ak
2-3	V-t-o
3-3	V-ta
3-2	V-t-h-o
3-1	V-t-h-ang
2-1	V-t-h-ang

The final /k/ in the 1-3 form shows that the direct category was earlier marked by a suffix, probably *-s, which devoiced the original /ng/ which should mark 1st person agreement here. Probably the inverse marker was also originally *-s; Nocte /h/ < *s is attested by such cognates as Nocte hum. Jinghpaw sum 'house', Nocte ha 'earth, country', Tibetan sa 'ground, earth'. There is, moreover, as we will see directly, a Vayu -su suffix with a distribution very similar to that of Nocte -h, which I take to be cognate. Thus we find again in Nocte direct and inverse markers in different positions, with direct in the rightmost and inverse in the leftmost available slot. It is probable, though not yet proven, that in Nocte too the direct and inverse markers were homophonous.

2.6 Vayu¹⁵

The Vayu verb paradigm (from Hodgson 1857-8 and Michailovsky 1974) shows no sign of direction marking in non-past forms, but in the past forms we see the remnants of a direction system which bears comparison with that of Nocte. The paradigm for the transitive verb with singular arguments is:

1-2	-N-no ¹⁶
1-3	-kU-ng
2-3	-ko
3-3	-ko
3-2	-N
3-1	-sU-ng
2-1	-sU-ng

An adequate synchronic morphemic analysis will necessarily be complex (and will have to deal with complexities not hinted at here; cf. Michailovsky 1974), but it is clear that historically the -kU/-ko morpheme which Michailovsky identifies as "3d person object, past tense" (1974:14) is a direct morpheme (note its absence in the local 1-2 configuration) and the -sU is an inverse morpheme. The /U/ vowel common to both forms recalls the homophonous *u inverse and direct morphemes of Jyarong, and the -kU/-ko forms certainly do contain a reflex of direct *u, although the history of the inverse forms is less clear. The /k/ of the direct forms is undoubtedly secondary, and probably served originally to disambiguate the collapsing direct and

inverse markers. Of the greatest present interest is the /s/ of the inverse forms, which provides comparative evidence for the postulated origin in *s of Nocte inverse -h and attests to the antiquity of the Nocte form, and thus of the Nocte direction system.

2.7 Limbu¹⁷

Reflexes of what were originally direction morphemes are found sporadically in several of the 'pronominalized' languages (cf. in particular my discussion of Kham in DeLancey 1980a), but the last language which manifests any sign of a functioning system is Limbu (my discussion is based on the report in the Linguistic Survey of India; the rather confusing data there is tabulated in Bauman 1975.) The Limbu agreement markers on intransitive verbs are 1st person -aa (non-past), -ang (past), 2nd k'-, with 3rd not marked. The transitive paradigm with singular actors (ignoring for the time being the inclusive category) is:

	<u>non-past</u>	<u>past</u>
1-2		V-ne
1-3		V-tu-ng
2-3	k'-V-tu	
3-3	V-tu	
3-2	k'-V	k'-V-t-e
3-1	V-aa	V-t-ang
2-1	k'-V-aa	k'-V-t-ang

What is striking about this paradigm is that past and non-past are distinguished only in the inverse categories; in the direct and 3-3 categories no distinction is made. Where there are distinct past forms, the past tense morpheme is -t, which reflects a widely attested past/perfective *ta which can be traced to Proto-Tibeto-Burman. There is also a -t morpheme found in the 3rd patient forms which synchronically are not marked for tense. This suggests two possible explanations for the extant pattern: either the direct categories have lost an earlier non-past form and generalized original past forms in -t (this is Konow's suggestion in the LSI) or an earlier direct or 3rd patient morpheme in *t has collapsed with the past tense -t. The former suggestion requires an explanation for the generalization of the past forms, which doesn't seem to be a particularly plausible development. The second explanation seems more likely, particularly in view of the fact that plausible cognates for the hypothetical *t morpheme exist in the Vayu 'benefactive' suffix -tU (Michailovsky 1974), which has the same distribution as the Limbu direct/3rd patient -tu, and in a 'transitivizing' *d/*t attested elsewhere in the family.

We also find in Limbu evidence bearing on the original marking of the local 1-2 and 2-1 categories. Limbu has two morphemes, a suffixed and a prefixed aa, which are historically and to a considerable extent synchronically associated with 1st and 2nd person participants. The suffixed -aa given in the singular non-past forms above is found only in the 2s-1s, 1p-2, and 3-1s configurations. No aa morpheme occurs in the 1s,d-2 forms. In the 2-1 configurations, if either participant is non-singular there is a prefixed rather than a suffixed aa. This prefix apparently occurs optionally in 1st exclusive non-singular - 3rd non-singular forms; unfortunately the glosses furnished in the LSI report do not always specify whether non-singular 1st persons are inclusive or exclusive. The aa- prefix occurs most consistently in configurations with a 'first person' inclusive dual or plural participant. It occurs in all numbers for Inc-1st, 2nd-Inc, Inc-3rd and 3rd-Inc, as well as for intransitives with Inc subjects.

If we explain the 1n.s.-3n.s. forms in aa-, to whatever extent they actually occur, as infection from the inclusive forms, then we find the prefixed aa- only in forms where both SAPs are participants, and in all such forms except the 1-2 forms and 2s-1s. The suffixed -aa almost fills out the inventory of SAP/SAP forms, as it occurs in the 2s-1s and 1p-2, but it also occurs in the 3-1s configuration where only one SAP is involved. Excepting this last form and the inclusive forms, the two aa morphemes are exclusively associated with the local categories in the transitive paradigm, thus recalling the Jyarong 1-2 prefix a- and the Rawang 2-1 suffix -a. If we accept Bauman's (1975: 200-203) argument that the inclusive/exclusive distinction is a secondary development in those languages which manifest it, rather than a PTB feature, then the cognacy of the Jyarong, Rawang, and Limbu a morphemes is clear, as is the original direction marking function of the Limbu morphemes.

3. The Proto-Tibeto-Burman direction system

We have now seen functioning direction systems or clear traces of them in Chepang, Vayu, Limbu, Jyarong, Rawang, and Nocte. Of these Chepang, Vayu and Limbu clearly belong to a single branch of the family; in Benedict's (1972) system Vayu-Chepang and Kiranti (to which Limbu belongs) are coordinate branches of the Bahing-Vayu nucleus, while Shafer (1967) makes East Himalayish (Kiranti) and West Central Himalayish (Bahing-Vayu) coordinate branches (with Bodish and West Himalayish) of his Bodic division. Jyarong is generally considered to be closely linked with Tibetan, which would place it in Shafer's system in the same major branch as Chepang, Vayu, and Limbu. With Rawang and Nocte, however, we get considerable genetic spread; Rawang is certainly more closely linked with the Lolo-Burmese branch than with the Tibetan and Bahing-Vayu languages, while Nocte belongs to the Konyak group, which is most closely linked with the Bodo-Garo branch. Thus the distribution of direction marking is sufficiently

wide to suggest attribution of direction marking to PTB. With the addition of the data from Limbu to that which we considered in 2.4, we now have evidence for prefixed and suffixed *a, as well as the prefixed and suffixed *u discussed previously. Limbu does not provide clear evidence concerning the original values of these morphemes, but if we attribute to them the values attested in Jyarong and Rawang, then we have a case for this system in PTB:

DIRECT	*-u
1-2	*a-
2-1	*-a
INVERSE	*u-

We cannot as yet suggest etymologies for the consonantal elements found or inferred in Nocte, Vayu and Limbu, but their accretion is hardly surprising in view of the inherent potential for ambiguity in the original system.

We have here reconstructed a distinction between prefixal and suffixal position, as attested in Jyarong, rather than between two distinct suffixal positions, as we find in Chepang and Nocte. Note that support for this reconstruction is found in Limbu, which is closely related to Chepang, and that there is also indirect evidence for earlier prefixal inverse marking in Rawang. There is some evidence for a general tendency to replace prefixes with suffixes in Tibeto-Burman; note for example that the non-pronominal second person series exemplified by Jyarong tə-/kə-, Chepang -te?/-ne?, Rawang e-, and Limbu 2nd person k'-, seems to have been originally prefixal (on the evidence of Jyarong, Rawang and Limbu) and to have been shifted to suffixal position in many of the other languages (Chepang, and a number of other languages not discussed here; cf. Bauman 1975, DeLancey 1980a).

The attribution of direction marking to PTB is consistent with the likely supposition that PTB had a split ergative case marking system like that of modern Kham and Jyarong (cf. Bauman 1977); the close semantic parallelism between this type of split ergativity and direction marking has been noted by Dixon (1979), Whistler (1980ms.), and DeLancey (1980b). The discovery of direction marking in PTB also makes sense of the PTB verb agreement pattern. It has been demonstrated (Bauman 1977, DeLancey 1980a) that the original agreement pattern was the SAP agreement which we have seen in the languages discussed here, the clearest example being Tangut (discussed in section 1). But, as noted previously, this system, although susceptible of a convincing psychological explanation (DeLancey 1980b), makes little sense in functional terms. If agreement is always with first or second person in preference to third, regardless of grammatical function or semantic role, then agreement provides little or no useful information. As I pointed out above (2.1), however, when combined with direction marking

the SAP agreement pattern is as functional as any other agreement system.

Notes

- 1) Tangut or Hsi-hsia is an extinct language closely allied to Lolo-Burmese.
- 2) Or with the possessor of a possessed subject, or the possessor of agent or patient in a transitive sentence. Possessor agreement is also found in Chepang and in Jinghpaw.
- 3) Agreement here is with the possessor of the patient.
- 4) We find traces of the old pattern in the Bunan imperfective paradigm, and the old pattern seems to be retained in a suffixal agreement pattern in the Old Kuki language Kom (DeLancey 1980a).
- 5) Jyarong, spoken in Szechwan, is generally considered to be closely allied to the Tibetan languages.
- 6) The data as presented by Jin et. al. is seriously underanalyzed; where I present ordered prefixes tə-a, tə-u, kə-u, Jin et. al. list unitary morphemes tə-, təu-, kəu-. The reader can see that the meanings of such morphemes would be quite arbitrary.
- 7) These and their cognates are discussed at some length in Bauman (1975) and in DeLancey (1980a), where different opinions as to their original value are given.
- 8) Chepang, spoken in Nepal, belongs to the Bahing-Vayu or West Central Himalayish languages.
- 9) These do not occur at all with 1st singular agent, or with 1st singular patient of 2nd person agent, and are apparently incompatible with some number agreement markers; as far as I can tell these gaps are accidental.
- 10) Rawang, spoken in northern Burma, is ascribed to the 'Nung' languages, and is fairly closely allied to Lolo-Burmese and to Jinghpaw.
- 11) Morse (1965) states that in the Mətwang dialect of Rawang "Only action from first or second to third person, or between two third parties, is expressed as transitive action" (1965:348), which sounds very much like an attempt to describe a direction system. He further notes that these categories (i.e. the direct categories) are marked by a lengthening of the vowel of the antepenult or penultimate syllable of the verb. Unfortunately he does not present a full transitive paradigm, and I have not been able confidently to map this system onto that described by Barnard. At any rate, Morse's statement suggests that living direction systems are to be found in at least some forms of Rawang.
- 12) E and I are symbols representing morphological categories, and have no phonological significance.

- 13) For a justification of the suggestion of a "*te series" including the non-pronominal second person markers found in Jyarong, Chepang, Rawang and elsewhere, see Bauman (1975), DeLancey (1980a).
- 14) Nocte, called Namsangia in the LSI, is a Konyak language.
- 15) Vayu, or Hayu, is generally considered to be very closely related to Chepang.
- 16) The -N represents a process morpheme which changes a final stop to a nasal: pUk-no 'I'll get you up', pUng-no 'I got you up.' It is not realized after a final vowel.
- 17) Limbu, spoken in Nepal, belongs to the Bahing-Vayu nucleus or to Shafer's East Himalayish branch.

References

- Barnard, J.T.O. 1934. A handbook of the Rawang dialect of the Nung language. Rangoon.
- Bauman, James. 1975. Pronouns and pronominal morphology in Tibeto-Burman. Ph. D. dissertation, University of California at Berkeley.
- _____. 1977. An historical perspective on ergativity in Tibeto-Burman. circulated at the 10th International Conference on Sino-Tibetan Languages and Linguistics, Washington D.C.
- Benedict, Paul K. 1972. Sino-Tibetan: A conspectus. Cambridge.
- Caughley, Ross. 1978. Participant rank and verbal cross-reference in Chepang. pp. 163-78 in J. Grimes, ed., Papers on discourse. Arlington: Summer Institute of Linguistics.
- Comrie, Bernard. 1978. review of Dixon 1976. *Lingua* 45.79-94.
- Das Gupta, K. 1971. An introduction to the Nocte language. Shillong.
- DeLancey, Scott. 1980a. Deictic categories in the Tibeto-Burman verb. Ph.D. dissertation, Indiana University.
- _____. 1980b. An interpretation of split ergativity and related patterns. Indiana University Linguistics Club.
- Dixon, R.M.W. 1976. Grammatical categories in Australian languages. Canberra.
- _____. Ergativity. *Language* 55.59-138.
- Grierson, Sir George, ed. 1909. Linguistic Survey of India. Calcutta.
- Hockett, Charles F. 1966. What Algonquian is really like. *IJAL* 32.59-73
- Hodgson, Brian. 1857-8. Comparative vocabulary of the languages of the broken tribes of Nepal. *J. As. Soc. Bengal* 26.317-522, 27.393-442. repr. in Hodgson, Miscellaneous essays relating to Indian subjects. London, 1880.

- Jin, Peng, Ke-rang Tan, Ai-tang Qu, and Xiang-rong Lin. 1958. Jiarong yu Suomo huade yuyin he xingtai. Yuyan Yanjiu 3.71-108.
- Kepping, Ksenia. 1975. Subject and object agreement in the Tangut verb. LTBA 2.219-232.
- . to appear. Elements of ergativity and nominativity in Tangut. in F. Plank, ed., Ergativity: Towards a theory of grammatical relations. New York: Academic Press.
- Michailovsky, Boyd. 1974. Hayu typology and verbal morphology. LTBA 1.1-26.
- Morse, Robert. 1965. Syntactic frames for the Rvwang (Rawang) verb. Lingua 15.338-69.
- Shafer, Robert. 1967. Introduction to Sino-Tibetan, Part I. Wiesbaden.
- Silverstein, Michael. 1976. Hierarchy of features and ergativity. pp. 112-71 in Dixon 1976.
- Watters, David. 1973. Clause patterns in Kham. pp. 39-202 in A. Hale, ed., Clause, sentence and discourse patterns in selected languages of Nepal, vol. 1. Norman, OK: Summer Institute of Linguistics.
- Wen, Yu. 1944. Lun Jiarong yu dungcu zhi rencheng weicu. Jungguo Wenhua Yanjiu Hueikan 4.79-94.
- Whistler, Kenneth. 1980. Inverse person marking in Nootkan. Ms., University of California at Berkeley.

*Prepared for the 13th International Conference on Sino-Tibetan Languages and Linguistics, University of Virginia, October 23-26 1980