Recent Language Contact in the Nepal Himalaya
Michael Noonan
University of Wisconsin-Milwaukee

The Nepal Himalayas have been the scene of extensive linguistic contact over a considerable period.[1] Languages of different genetic phyla, in particular Indo-European and Tibeto-Burman, have been involved, but so have languages within the Tibeto-Burman phylum representing different stocks with differing typological characteristics. Indeed, the long periods of contact between speakers of Tibeto-Burman languages of different stocks have resulted in considerable lexical and grammatical borrowing, which has tended to obscure genetic relationships. As a result, there is still a good deal of uncertainty as to how even major groupings of languages should be positioned within the family tree.

In recent times in the Nepal Himalaya, large-scale population movements, both from outside Nepal into the country and within Nepal itself, have resulted in a wide variety of contact situations involving at least the following groups: 1) speakers of Tibeto-Burman languages which have been in Nepal for long periods [i.e. languages which are usually grouped together as 'Himalayish'], 2) speakers of Tibeto-Burman languages which have moved south of the Himalayas within the last two millennia [i.e. speakers of Bodish languages, especially Tamangic, Ghale, and languages of the Tibetan Complex, such as Baragaunle and Sherpa], and 3) speakers of Indo-European Nepali, which was well established in Western Nepal in ancient times, but has moved into central and eastern Nepal more recently.

Contact among speakers of these languages has resulted in considerable borrowing of lexical and grammatical material. In this paper, I will present data on sixteen Tibeto-Burman languages of Nepal with the aim of showing what these languages have borrowed, and from what source. I will concentrate here on grammatical borrowing as opposed to lexical borrowing, though in practice the two are sometimes difficult to disentangle.

The method that I am using to chart grammatical borrowing is a fairly simple but a rather crude one, subject to known errors of a variety of sorts. The method can be described as follows: for each of the major genetic groupings [Bodish, Himalayish, and Nepali — and for some subclassifications with the first two], I establish values for a set of structural parameters thereby establishing a structural profile. For each language, grammatical features are compared to the structural profile for its group and, if the values are different, it is assumed that change has taken place. This sort of approach can

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only succeed if a large number of features and languages are considered, and I have tried to do just that.

The structural parameters chosen for the structural profiles are those which will yield differences among the three groups. So, for example, there would be little point in including a parameter for the order of major clausal constituents since all three groups are strongly SOV. On the other hand, the presence of distinctive tone, the order of adjectival modifiers and their heads, the existence of split ergativity of certain types, and so on represent parameters which will yield different values for these groups and thus can be used to map possible instances of borrowings or convergence. The structural features used in this survey are summarized in Table 1 and are discussed individually later in the paper.[2]

The language groupings themselves require some comment. Of the three groupings, Nepali is the least problematic since it consists of only one language. However, one finds a number of differences, even with regard to the parameters considered in this study, between standard literary Nepali and colloquial regional Nepali. For example, in the Baglung and Myagdi districts of Nepal, I have heard Nepali which is consistently ergative — that is, does not exhibit the aspect-based split ergativity of Standard Nepali — and in which the Standard Nepali distinction between the dental and retroflex series of consonants is neutralized in an apical alveolar series. The structural profile used here is based on the standard dialect, however, since this dialect, for the most part, represents a more conservative version of the language [i.e. more like the one speakers of TB languages would have encountered in times past] and is the one held out as a normative model in the schools and in the mass media. And, it is also worth noting that Indo-Aryan influence on the TB languages of Nepal predates the arrival of Nepali and its predecessors in the central and eastern portions of the country. Newari, for example, has been influenced by Indo-Aryan for a very long period.

For our purposes here, the Bodish group consists of the Tamangic languages, Ghale, and local representatives of the Tibetan Complex, such as Baragaunle [a variety of Loba] and Sherpa. The structural profile that can be assigned these three subgroups prior to contact with Nepali is pretty similar, though there are some differences as will be noted in the text. Though there are some uncertainties as to how the languages should be grouped — Ghale in particular, this grouping is clearly a genetic grouping, and a reasonably close one at that. The presumed genetic relationships among these languages is presented in Figure 1.

The Himalayish group is much more problematic. It isn't clear, for example, that this represents a genetic grouping at all as opposed to a geographic assemblage of TB languages that have been in contact in the sub-Himalayan region of Nepal for a long period. The exact relation of Newari to the rest is particularly problematic. Nonetheless, from a typological point of view, these languages can be presumed to have shared, prior to contact with Nepali and other Indo-European languages, a rather distinctive typology. And there is still a remarkable similarity in structural profile of the languages

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[2] The tables can be found at the end of the paper.

at the western and eastern extremes of their distribution — Kham and the Kiranti languages, languages which have experienced the least amount of interference from Indo-European and are thus presumed to have preserved better the earlier structural profile. We therefore assume — and this is a very strong and possibly incorrect assumption — that at an earlier period all the languages in this grouping had the structural profile still shared by Kham and the more conservative Kiranti languages.[3]

So, in sum, we assume that the languages classified as Himalayish have been in Nepal for a long period and had shared a distinctive typology. The Bodish languages, represented by the Tamangic group, had entered the sub-Himalayan region of Nepal perhaps 1500 years ago, with Ghale perhaps entering a bit later. The entry of members of the Tibetan Complex into this zone is relatively recent. Indo-Aryan Nepali, though well established in the west of Nepal a thousand years ago, has become important in central and eastern Nepal, where the languages in this survey are spoken, much more recently.

Before going on to discuss the structural features used to make the structural profiles, we should say something about the sample of languages discussed in this survey. The sixteen languages discussed here, although distributed across the genetic groupings, constitute a 'convenience sample' based on limitations of available data. Data from Sherpa and any of a number of additional Kiranti languages were available and would have increased the value of the study. In later versions of this paper, these data will be added. The languages used in the study and the sources of data for them are given in (1); their genetic classification is provided in Figure 1 and their locations within Nepal can be found on the map in Figure 2:

(1)   Athpare: Ebert 1997a
        Baragaunle: Mary Brehm, fieldnotes; Kretschmar 1995
        Camling: Ebert 1997b, Winter 1985
        Chantyal: Michael Noonan, fieldnotes; Noonan et al 1999, Noonan 2000a
        Chepang: Caughley 1982, Thompson 1990
        Ghale: Holly Smith, fieldnotes; Smith 1999
        Gurung: Glover 1974
        Hayu: Michailovsky 1988b
        Kham: Watters 1998
        Limbu: van Driem 1987
        Magar [Syangja]: Karen Grunow-Harsta, fieldnotes
        Magar [Tanahu]: Karen Grunow-Harsta, fieldnotes
        Nar-Phu: Michael Noonan, fieldnotes; Noonan 2000b
        Dolakha Newari: Genetti 1994
        Kathmandu Newari: Genetti 1994; Malla 1985; Michael Noonan, fieldnotes
        Thakali: Georg 1996; Michael Noonan, fieldnotes

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[3] This is especially problematic for Newari, which, as noted above, has been under varying degrees of Indo-Aryan influence for a long period and whose exact relationship to the rest of the group is problematic.

Nepali is not one of the languages in the survey, but it figures prominently in the discussion: almost all young adults in Nepal now speak Nepali fluently and so bilingualism is an every day fact of life. As the rate of lexical borrowing increases, so does the rate of structural influence, as we will see later in this paper.

The values assigned to the languages in the survey for each of the structural features are summarized in Table 2. We will take up each in turn.

Phonemic voicing contrasts: I refer here to contrastive voicing in stops and fricatives. The structural profile of the Bodish languages of Nepal does not include contrastive voicing, whereas voicing is contrastive for the Himalayish group and Nepali.

 Of the Bodish languages in our sample, all the languages are consistent with the profile save Chantyal and Gurung. Chantyal, with its massive borrowing of Nepali vocabulary [71% of the items listed in Noonan *et al* 1999], has assimilated to the Nepali type. In Gurung, contrastive voicing in limited to certain tones.

 In the Himalayish group, all the languages are consistent with the profile except for the Kiranti languages. Ebert (1997a) reports that in Athpare voiced consonants are rare in initial position; for Camling, Ebert (1997b) reports voicing contrasts for labials and dentals only. In Limbu, in native vocabulary, a voicing contrast is found only in bilabials, though borrowings from Nepali are establishing the contrast for other points of articulation.

Tone: The Tamangic languages have been described as having a basic four-tone system [Mazaudon 1973, 1978a, 1978b, 1993-4]. The members of the Tibetan Complex in Nepal mostly exhibit a two-tone system, which, as in Tamangic, is related to voicing of the initial consonant. Nepali is, of course, non-tonal, and we assume that tone in the Himalayish group is of recent origin, as, for example, Michailovsky 1975 has shown for Khaling.

 Chantyal has lost its tone system under Nepali — and perhaps Magar — influence. It retains an opposition of murmured *vs* plain syllabic nuclei, which resembles that found in some Magar dialects.

 Of the Himalayish languages in our sample, only Kham has acquired a tone system, almost certainly under Bodish influence. A number of Kiranti languages have acquired tone systems, in particular those spoken in the northern reaches of the Kiranti-speaking area: these languages can be presumed to have had the most contact with Bodish languages.

Murmur: The presence of murmur and its role in the phonological system clearly distinguishes the three groups. For the Bodish languages, at least those in Nepal, murmur is a concomitant of tone, typically associated with low tone. In this way, murmur can be found in syllables with voiceless as well as voiced initials, at least in some languages. In Nepali, murmur is phonologically a feature of consonants. And in the Himalayish

group, we can assume that the presense of murmur is an innovation deriving from contact with either Nepali or Bodish.

While in the main the Bodish languages in Nepal preserve the original role of murmur as a concomitant of tone, the large and ever-increasing number of borrowings from Nepali have resulted in disturbances in the traditional relation between tone and murmur with many words now having phonemic murmur on the Nepali pattern. Predictably, this affects Chantyal the most, and the most recent borrowings are taken in with murmur preserved according to the Nepali pattern where murmur can occur independently on consonants in syllabic onset or coda: earlier borrowings did not follow this pattern.

The situation in Himalayish is complex. Kham has murmur as a concomitant of tone in the manner of the Bodish languages. The Newari dialects are split: Dolakha lacks murmur altogether, but Kathmandu has it in the Nepali fashion. [Genetti 1994 reconstructs murmur for Proto-Newari.] The two Magar dialects have mumur in more-or-less the Nepali fashion, though Tanahu shows signs of a 'register' system similar to that which Chantyal must have had after losing its tone system. Kiranti languages have assimilated murmur in varying degrees: Limbu has murmured stops only in a few loan words, while in Athpare and Camling, murmured stops occur in [presumably] native words, but they are not numerous. In Chepang, Caughley finds phonetic murmur, but analyzes it phonemically as a sequence of voiced consonant and /h/. Murmur in these languages is generally in the Nepali fashion.

Voicing opposition in liquids and/or nasals: The Bodish languages in Nepal prototypically have a series of voiceless liquids and, occasionally, voiceless nasals, voiceless *m* being the most common. These are lacking in Nepali and are assumed to be lacking in earlier stages of Himalayish.

In Bodish, Chantyal and Ghale now lack these sounds, though both have murmured nasals and liquids, unlike Nepali.

In Himalayish, the Hayu-Chepang group have voiceless liquids and Chepang has voiceless nasals as well. For Athpare Ebert reports one word with /rh/, which she refers to only as an 'aspirated *r*'. For Camling Ebert reports /lh/, /rh/, /mh/ and /nh/, none of which are reported by Winter (1985), though Ebert provides minimal pairs with plain liquids and nasals. Kathmandu Newari has murmured liquids and nasals, but lacks a voiceless series.

Retroflex series: We refer here specifically to either of two sorts of oppositions among stops: dental *vs* true retroflex and dental *vs* alveolar, with the latter being affricated with a rhotacized off-glide such as [ɹ]. The first is characteristic of Nepali and languages influenced by it, the second characteristic of the Bodish group. See Michailovsky 1988a for discussion.

Once again, Chantyal differs from the other Bodish languages, here in lacking a retroflex series of any sort. In this too, it may have moved to be more in accord with Magar: Magar natively has an alveolar series [perceived by Nepali speakers as retro

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flex] only and is [in Tanahu] acquiring an opposition with a dental series through borrowings from Nepali. Of the Himalayish languages in our sample, only Dolakha Newari has a retroflex series that is not obviously the product of recent borrowing from Nepali. Michailovsky reports that Dolakha Newari has retroflex consonants of the Nepali type.

Fricatives and affricates: The Bodish group is characterized by a phonemic opposition between an alveolar and an alveopalatal series of fricatives and affricates. Spoken Nepali lacks such an opposition — though a few purists pronounce written श as an alveopalatal; the Himalayish languages also lack this opposition.

In our sample, Chantyal once again assimilates to the Nepali type, having phonetic [s] and [ʃ] in complementary distribution. Marphatan Thakali, as described by Georg, has two affricates as separate phonemes, but not a corresponding pair of fricatives.

Phonemic nasalized vowels: Nepali has phonemically nasalized vowels, and distinctive nasality is assumed for Tamangic [Mazaudon 1993-4] and is widely found in Nepal Bodish. Distinctive nasal vowels are assumed here not to characterize the Himalayish group, though a feature like this may arise spontaneously in any linguistic grouping.

Having said that, we note that distinctive nasal vowels seem to be associated with geographical groupings. In our sample, the two Bodish languages spoken in the Kali Gandaki Valley, Thakali and Baragaunle, lack nasal vowels. The other Tamangic languages have phonemic nasal vowels, and so do the other members of the Tibetan Complex in Nepal for which we have data: Jirel and Sherpa. For Ghale, nasal vowels exist, but may have a low functional load.

Among the Himalayish languages, Kham has nasal vowels, as do both dialects of Newari and Hayu. The remaining Himalayish languages in our sample lack them, save for Camling, for which distinct nasalization is reported by Ebert only for /o/ and /a/. [Winter reports nasalized counterparts for /e/ and /u/ also].

ʌ ~ ɒ allophony: This refers to a characteristic of Nepali which has been passed on to a number of other Nepalese languages. In Nepali, the mid-central phoneme /ə/ has two allophones, a mid-central vowel and a low back rounded vowel in more-or-less free variation. This feature has been borrowed in Thakali, Chantyal, Ghale, Syangja Magar, and Kathmandu Newari, all of which have evolved 6-member vowel systems like Nepali's.

Word initial /ŋ/: The Bodic[4] languages are characterized by allowing the velar nasal to appear in word initial position; Nepali does not. In our sample, Chantyal and Kathmandu Newari have converged with Nepali in not allowing /ŋ/ to appear word ini

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4 Note that 'Bodic' is not the same as 'Bodish': see Figure 1.

tially. In the latter, as in Nepali, the velar nasal is present only allophonically, by assimilation.

Michailovsky reports initial /ŋ/ to be rare in Hayu.

Stress: In Standard Nepali, stress is phonemic, though it is largely predictable from the orthography, which writes distinctions in vowel length that are no longer pronounced. In the Bodic groupings in our sample, stress was predictable and was generally fixed on the root. Where languages have borrowed large amounts of Nepali vocabulary, they have accommodated to the Nepali stress pattern. Of the languages in our sample, this is most evidently true of Chantyal, though it is true to lesser degrees for most of the other languages.

Prefixes: The Himalayish languages, as a group, are prefixing. The Bodish languages and Nepali, with a few exceptions [such as the negative prefix in Bodish], do not use prefixes.

All of the Bodish languages are consistent with their traditional typology and with Nepali in not allowing prefixes. The Himalayish languages continue to use prefixes, save for the Newari dialects and the Hayu-Chepang group, which resemble the Bodish languages in having no prefixes but the negative.[5] In the Magar dialects, the number of prefixes is very small, however, in comparison to the number of suffixes.

Person/number inflection on verbs: The three groupings present different typologies: in Bodish there is no person/number agreement on verbs, in Nepali there is agreement only with the subject, and in the Himalayish languages there is agreement, potentially, with two arguments.

The Bodish languages all lack person/number agreement morphology, though Baragaunle has innovated an evidential system that resembles the conjunct/disjunct system found in Kathmandu Newari. In the Himalayish group, the Hayu-Chepang group, Kham, and the Kiranti languages have person/number agreement with multiple arguments. Syangja Magar has subject agreement, but the Tanahu Magar dialect lacks argument/verb agreement altogether. Kathmandu Newari also lacks agreement [though it has a conjunct/disjunct distinction for which person is relevant — see Genetti 1994]; Dolakha Newari has an agreement system which references subjects only.

Reflexive: This parameter patterns exactly like the previous one: in accordance with their complex argument/verb agreement patterns, Himalayish typology would express reflexives as part of their verbal word. Nepali and the Bodish languages express reflexives analytically, with either a special reflexive form or an ordinary personal pronoun.

The Bodish languages all have analytic reflexives, with Chantyal and Nar-Phu using only ordinary personal pronouns. In the Himalayish group, the Hayu-Chepang

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[5] In Chepang, the negatives are expressed as suffixes.

group, Kham, and the Kiranti languages express reflexives as part of the verbal word, but the Magar dialects and the Newari dialects have analytic reflexives on the Nepali model.

Adjectival word order: All the groupings allow AN order, but Bodish allows also NA and some Bodish languages favor this order.

In our sample, all the Bodish languages allow NA order — this is really the preferred order in Nar-Phu and Manange — except for Chantyal, which has only the AN order. All the Himalayish languages in our sample have only AN.

Demonstrative word order: The Tibetan Complex has N Dem; all other groupings in our sample have Dem N. All the languages in our sample are consistent with their structural profile for this feature.

Numeral word order: Bodish languages have N Num, whereas Nepali and the Himalayish group have Num N. All the languages in the sample are consistent with their structural profiles save Chantyal, which has borrowed all its numbers from Nepali along with the order that goes with them, and Hayu and Camling, both of which allow N Num order along with Num N.

Ergative syntax: The Bodish languages in Nepal are fairly consistently ergative, but where they deviate from a strict ergative case assignment, the deviation is conditioned by pragmatic factors like topicality, volitionality, and so on. The Himalayish languages have a similar profile, though split ergativity often follows the animacy hierarchy, with speech act participants following an accusative syntactic pattern. Standard Nepali, on the other hand, has an aspect based split ergativity.

All of the languages in our sample are consistent with their grouping's structural profile save Tanahu Magar, which appears to have a split ergative syntax along the Nepali model, and Camling. Conservative varieties of the latter are consistent with the Himalayish structural profile, having a consistently ergative syntax for 3rd person subjects, but no case marking on 1st and 2nd person transitive subjects; however, Ebert reports that some speakers now show Nepali-type split ergativity.

Antidative syntax: By 'antidative', we mean the use of the case marker associated with indirect objects on certain classes of direct objects, especially animate patients [see Dryer 1986 and Noonan 1991]. This syntagm is associated with Nepali and is absent from the traditional structural profiles of all the Bodic groups.

In our sample, only Ghale, Hayu, and the Kiranti languages Athpare and Limbu don't exhibit the antidative use of the indirect object case form. And in Ghale, there is evidence indicating that the phenomenon is taking root there too, but it is still marginal to the system at this point. [Note that Hayu lacks a dative case marker.] In a few cases [e.g. Gurung and Camling], the Nepali dative case morpheme has been borrowed along with its syntax.

Dative subjects: The 'dative subject' construction is one in which the most animate argument is rendered in the case ordinarily assigned to indirect objects and, moreover, acquires many of the characteristics of subjects in the language. Semantically, dative subjects are typically non-volitional experiencers. See Masica 1991 for an extended discussion.

The dative subject construction is a prominent feature of Nepali syntax, but is not characteristic of the Bodic languages of Nepal.

Acquisition of this feature among the Bodic languages seems to be an index of Nepali influence. Chantyal, the Magar dialects, and the Newari dialects clearly have acquired it. Examples of the construction can be found in other Bodic languages in our sample, but in those languages, so far as we can tell, the construction has not yet been fully integrated into the syntax.

Compound case: 'Compound case' refers to the compounding of case clitics creating complex expressions, e.g. Chantyal *dʰuŋ-pʰyaraŋ-mar-gəmsə* [tree-SUBESSIVE-CIRCUMLATIVE-ABLATIVE][6] 'from down around the base of the tree'. This pattern, which also serves as a source of case clitic renewal, is characteristic of the Bodic languages. Nepali does not use this pattern and augments its case clitics from other sources.

All of the languages in our sample, even Chantyal, the one most affected by contact with Nepali, employ case compounding.

Vertical case and vertical verbs: 'Vertical case' refers to locative, ablative, and allative case forms whose meanings include also the vertical directional senses 'up', 'down', and 'level'. 'Vertical verbs' refer to verbs with a sense like 'come' and 'bring' which includes also a vertical dimension, i.e. 'come from above', 'bring from below', etc.

These phenomena are characteristic of and probably restricted to the Kiranti languages [see Ebert 1994], though other Bodic languages, e.g. Chantyal, may habitually specify the vertical dimension by other means, e.g. adverbials. Of the languages in our sample, all the Kiranti languages have vertical verbs, but only Camling has vertical case. Hayu may have vertical case [though this is not altogether clear from Michailovsky's description], but seems to lack vertical verbs; Chepang appears to lack both.

Morphological valence increasing strategies: We refer here to derivational processes which increase valence [applicative or causative]; all three groups have periphrastic causative constructions, and we are not concerned with them here.

Nepali has such derivational morphology as do all the Bodic groupings except Tamangic. In many of the Bodic languages, however, such strategies are non-productive, though pairs resulting from these strategies are numerous.

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[6] Note that each of the case clitics in the example is in origin itself the product of compound case.

All the languages in the sample are consistent with their structural profiles except Chantyal, which has borrowed valence increasing morphology from Nepali. The morphology, which, interestingly, is not identical to that found in Nepali, is restricted to [the very numerous] Nepali borrowings.

Morphological valence decreasing strategies: Here too we are concerned with morphological, as opposed to syntactic, devices for decreasing valence such as passive. Nepali has such a device, but such strategies, we assume, are not part of the structural profiles of the Bodic languages.

The Bodish languages do not have any such strategy, not even Chantyal. Among the Himalayish group, the Newari dialects and Chepang do not have such a strategy either, though the other Himalayish languages in our sample have various kinds of detransitivizing morphology. For example, Tanahu Magar seems to have a middle construction, as well as a non-productive detransitiving suffix. Athpare [122-4] has strategies for detransitivizing clauses, including an 'agent demotion' strategy, whereby the agent does not agree with the verb and is expressed in the ablative; these seem marginal to the system at this time.

Evidentiality expressed in the verb complex, i.e. by verbals, not sentence particles: This mode of expressing evidentiality is characteristic of the Tibetan Complex, but not of other groupings in our sample. Note that we are using the term 'evidential' in a fairly restricted way here, referring only to the opposition 'witnessed/highly reliable' *vs* 'not witnessed' or 'hearsay/not highly reliable', which involves a linking of speaker's certainty of the veracity of reported information with the source of the information, i.e. whether witnessed or not.

All of the languages in our sample are consistent with their structural profiles except Nar-Phu and Kathmandu Newari. Nar-Phu, though a Tamangic language, is within the Tibetan cultural sphere and traditionally many speakers were bilingual in Nar-Phu and Tibetan dialects. This mode of evidentiality is central to the Nar-Phu verb system.

Kathmandu Newari evidences a 'conjunct/disjunct' system which has its origins in an evidential distinction of the sort described above. This system is not found in contemporary Dolakha Newari.

Honorific noun and verb stems: Honorific noun and verb stems are characteristic of the Bodish grouping within Nepal, but are not found in the other groupings.

Honorific nouns and verbs seem to be characteristic only of those Bodish-speaking groups in Nepal that adhere to the Tibetan Buddhist faith. So, among the Bodish languages in our sample, Baragaunle, Nar-Phu, and Thakali preserve honorific forms [though Thakali has only honorific verbs], while Chantyal, Gurung, and Ghale have lost them, at least in the varieties of these languages that we have investigated or have reliable information on.

Numeral classifiers: Numeral classifiers are entirely absent from the Bodish structural profile, but are present both in Himalayish and in Nepali. The Nepali classifier system is quite simple, consisting only of a human/non-human distinction; those in Himalayish languages can be considerably more complex.

In the absence of a classifier system in the Bodish languages is directly connected with the preservation of native numerals: when these have been lost and replaced by Nepali numerals, as in Chantyal, the Nepali system of classifiers is usually imported along with the numerals. In Chantyal, however, the human classifier is seldom used except in very formal speech.

In Himalayish, native classifier systems are preserved in some cases and lost in others, usually matching the fate of native numerals. Limbu, however, has no classifier system and yet preserves native numerals.

Verbal with nominal and adjectival functions: The Bodic languages generally make use of a verbal with nominal and adjectival functions [Noonan 1997]; Nepali lacks such a form. In our sample, only Tanahu Magar deviates from the Bodic norm in having innovated a specifically attributive deverbal form.

Finite subordinate clauses: The Bodish languages and all of Himalayish save Kiranti and Hayu do not allow finite subordinate clauses except as complements to 'say'. [Note that Chepang differs from Hayu here.] Himalayish Kiranti and Hayu and Standard Nepali allow finite subordinate clauses, though their typologies are somewhat different. [Note, however, that colloquial Nepali tends not to favor finite subordination.] All of the languages in our sample are consistent with their group's structural profiles.

Correlative constructions: The correlative construction that concerns us here is a complex construction formed with a relative pronoun in the first clause and a demonstrative in the second: *who believes my argument, that person will be enlightened.* The Bodish languages natively lacked this construction; it is characteristic of Nepali.

Reliable data on this construction are available for only eight languages in the sample. Of these eight, six languages have borrowed the syntagm; three — Chantyal, Athpare [Ebert 1997a:154] and Tanahu Magar — have borrowed both the construction and the *j*-class pronouns that go with it from Nepali. Hayu, Camling, and Syangja Magar use native words, though the construction otherwise follows the Nepali pattern.

Having examined all the features with regard to each of the languages in the sample, we can now provide a sort of profile for the languages. Excluding the last structural feature, for which we have incomplete data, we have the following, summarized in Table 3.

The following can be inferred from the Table 3 and the discussion of the structural features above:

1. The Bodish languages were more different typologically from Nepali than were the Himalayish languages prior to contact. This can be seen, for example, in the relative values for +T/-N and +T/+N.
2. The table shows that Chantyal is the most deviant relative to the structural profile of its group. It's the only language in the sample where the number of deviations from the typological norm exceeds the number of instances of typological consistency with the other members of its genetic grouping. Given that the values for the other Bodish languages are generally quite similar, the profile of Chantyal is rather striking. The history of Chantyal is quite special [see Noonan 1996 for discussion] and accounts for its unusual degree of divergence from the Tamangic typological norm.
3. The Newari dialects and the Magar dialects show the greatest number of deviations after Chantyal, and, again like Chantyal, these are primarily in the direction of convergence with Nepali — or, at least, with Indic. Most likely the influence of Indic on these languages has been considerable over a long period. The Newar dialects, particularly those in the Kathmandu Valley, have been in close contact with Nepali for more than two centuries centuries and have had other Indic influences before that. Magar has had great exposure to Nepali over at least the last three centuries and many ethnic Magars, in particular those in the westernmost reaches of the ethnic Magar area [e.g. in Baglung and Myagdi] , have been speaking Nepali for many generations.
4. Among the other Bodish languages, except for Chantyal Gurung has been most affected by Nepali. This is not surprising given the long contact between Gurungs and Nepali speakers.
5. Baragaunle and Nar-Phu, both spoken north of the great Himalayas in ecological [though not political] Tibet, show the least influence from Nepali. Until fairly recently, contact with Nepali speakers was not especially frequent. Chantyal apart, the Bodish languages in our sample have been affected structurally relatively little by Nepali in comparison to the Himalayish languages.
6. Kham and the Kiranti languages have very similar structural profiles despite the great physical distance separating them.
7. There are few instances overall of -T/-N, i.e. instances where these languages have changed so as to converge with a structural profile other than that of Nepali. Chantyal has likely borrowed from Magar in a few instances, and Kham has long been in contact with Bodish languages and has borrowed from them. Hayu and Chepang, with the greatest number of -T/-N values have been in contact with Bodish [specifically Tamang] over a long period.
8. So, where change has occurred, it has generally been in the direction of convergence with Nepali, as seen by comparing the figures under -T/-N and -T/+N. This is hardly a surprising result, given the political and cultural situation in Nepal.

Finally, we need to evaluate the parameters themselves. In Table 4 are listed the instances of -T, i.e. deviations from the structural profile for each grouping, of the thirty

parameters used in our survey [again the final one is not given here due to incomplete data]. From the data in Table 4 the following can be said:

1. Twelve out of the sixteen languages in our sample showed -T/+N values for antidative, i.e. twelve of the languages acquired this feature from Nepali. Masica (1991) notes that antidative [not his term for the construction] is a comparatively new phenomenon in South Asia and has spread rapidly among Indo-Aryan languages. Note also that five languages have aquired the dative subject construction from Nepali. It is worth noting that not only have these constructions involving the dative spread from Nepali to the TB languages of Nepal, but also that they are often accompanied by the Nepali -*lāi* dative, which is often borrowed along with the constructions in which it is used, for instance by Gurung and some Kiranti languages.[7]

2. Of the phonological features, some [e.g. the presence of phonemic nasalized vowels] can easily arise spontaneously, so we must be careful in attributing their spread to areal influence. Other features are less likely to arise spontaneously and therefore when one finds them one has a better case for areal influence: murmur is such a feature. The ʌ ~ ɒ allophony is distinctive and idiosyncratic enough to be attributed to external influence.

3. All the Himalayish languages in our sample, save the Newari dialects, Chepang, and Camling[8], have developed valence decreasing strategies, though these devices are a diverse set syntactically, resembling neither each other nor Nepali very much.

4. The largest number of –T/-N values for any structural feature is found with the Numeral Classifiers and is associated with Himalayish languages which have, presumably, lost their classifier systems: the Magar dialects, Chepang, and Limbu. Only Chantyal has a –T/+N value for this feature, having borrowed Nepali's minimalist classifier system along with Nepali numerals.

I will close with two observations. First, the amount of borrowing from Nepali does not correlate directly with endangerment. Some languages, e.g. Kathmandu Newari, have been in close contact with Nepali for a long period and have borrowed many features without being in grave danger of extinction. Chantyal also has survived for a long period in close contact with Nepali and, as we have seen, has been massively influenced by it without succumbing to it, though some recent changes in social conditions in the Chantyal speaking villages may well result in the extinction of the language within the next generation (Noonan 1996). By contrast, the Kiranti languages have been in close contact with Nepali for a much shorter period and have borrowed much less, though many of these languages are in grave danger of extinction within the next few decades.

Second, many of the reference grammars consulted for this study tend to underreport borrowings from Nepali as these features are less interesting to Tibeto-Burmanists than native features, and linguists often strive in their grammars to describe

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[7] The Bodish languages frequently have a dative in *la/ra*, accidentally similar to the Nepali dative. Prior to Nepali contact, all [or, at least, most] of the Kiranti languages lacked a dedicated dative altogether.

[8] Both Chepang and Camling have been analyzed as having inverse constructions.

only 'pure', uncorrupted structures where alternatives between native and borrowed structures still exist. A truer picture of the actual spoken languages would likely show greater convergence with Nepali than this study has shown.

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Table 1: Structural Features Inventory by Grouping

phonological feature	Bodish [Bodic]	Himalayish [Bodic]	Nepali [I-A]
phonemic voicing contrasts	no	yes	yes
tone	2- or 4-way tonal contrast	no tone	no tone
murmur	murmur concomitant with tone	absent	murmur contrastive with stops
voicing opposition in liquids and/or nasals	present	absent	absent
retroflex series	present	absent	present
fricatives	distinct alveolar & palato-alveolar series	one fricative [alveolar or palato-alveolar]	one fricative [alveolar or palato-alveolar]
affricates	distinct alveolar & palato-alveolar series	palato-alveolar series only	palato-alveolar series only
phonemic nasalized vowels	present[9]	absent	present
ʌ ~ ɒ allophony	absent	absent	present
word-initial /ŋ/	present	present	absent
stress	relatively weak, word boundary stress: on root; may be pitch accent type	relatively weak, word boundary stress: on root	relatively weak phonemic stress

morpho-syntactic feature	Bodish [Bodic]	Himalayish [Bodic]	Nepali [I-A]
prefixes	absent [save for NEG]	present	absent
person/number marking	absent	complex [i.e. multiple arguments]	simple [i.e. subject (or absolutive) only]
reflexive	analytic; special refl word or pers pro	inflectional	analytic; special refl word
adjectival w/o	NA [AN possible]	AN	AN
demonstrative w/o	N Dem in Tibetan Complex, Dem N elsewhere	Dem N	Dem N
numeral w/o	N Num	Num N	Num N

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[9] Perhaps a split with the Tamangic languages having nasalized vowels and the rest not.

morpho-syntactic feature	BODISH [BODIC]	HIMALAYISH [BODIC]	NEPALI [I-A]
ergative syntax	consistently ergative	consistently ergative, or split on animacy hierarchy	aspectually split ergativity
antidative syntax	absent	absent	present
dative subjects	absent	absent	present
compound case[10]	present	present	absent [?]
'vertical' case[11]	absent	present	absent
'vertical' verbs[12]	absent	present	absent
morphological valence increasing strategies[13]	absent in Tamangic; present elsewhere	present	present
morphological valence decreasing strategies	absent	absent	present
evidentiality expressed in VC by verbals	present in the Tibetan Complex, but not elsewhere	absent	absent
honorific verb & noun stems	present	absent	absent
numeral classifiers	absent	present	marginally present
verbal with nominal and adjectival functions	present	present	absent
finite subordinate clauses	absent	present in Kiranti & Hayu-Chepang; absent elsewhere	present
correlative constructions[14]	absent	absent	present

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[10] This refers specifically to the compounding of locative case clitics creating complex expressions, e.g. Chantyal *dhuŋ-phyaraŋ-mar-gəmsə* [tree-SUB-CIRC-ABL] 'from down around the base of the tree'.

[11] 'Vertical' case refers to LOC, ABL, and ALL cases which include vertical directional senses: 'up', 'down', and 'level'.

[12] 'Vertical' verb refers to a verb with a sense like 'come' and 'bring' which includes also a vertical dimension, i.e. 'come from above', 'bring from below', etc.

[13] By morphological, we mean by derivation; in all three groups there are periphrastic causative constructions.

[14] Complex constructions formed with a question word in the first clause and a demonstrative in the second: *who believes my argument, that person will be enlightened.*

Table 2: Structural Features Inventory by Language — Part 1

1 = Bodish: 1a = Tibetan Complex, 1b = Tamangic, 1c = Ghale; 2 = Himalayish: 2a = Kham-Magar, 2b = Newari, 2c = Hayu-Chepang, 2d = Kiranti

+T/-N = consistent with the structural profile of the grouping and not consonant with Nepali [i.e. feature has not converged with Nepali type]

+T/+N = consistent with the structural profile of the grouping and consonant with Nepali

-T/-N = inconsistent with the structural profile of the grouping but not consonant with Nepali [i.e. converging on a type other than that exemplified by Nepali]

-T/+N = inconsistent with the structural profile of the grouping and converging with Nepali [i.e. the feature may have been borrowed from Nepali]

	Bara-gaunle: 1a	Nar-Phu: 1b	Gurung: 1b	Thakali: 1b	Chan-tyal: 1b	Ghale: 1c
PHONOLOGICAL FEATURES						
phonemic voicing	+T/-N	+T/-N	-T/+N	+T/-N	-T/+N	+T/-N
tone	+T/-N	+T/-N	+T/-N	+T/-N	-T/+N	+T/-N
murmur	+T/-N	+T/-N	+T/-N	+T/-N	-T/-N	+T/-N
nasal/liquid opp.	+T/-N	+T/-N	+T/-N	+T/-N	-T/+N	-T/+N
retroflex series	+T/+N	+T/+N	+T/+N	+T/+N	-T/-N	+T/+N
fricatives	+T/-N	+T/-N	-T/+N	-T/+N	-T/+N	+T/-N
affricates	+T/-N	+T/-N	-T/+N	+T/-N	-T/+N	+T/-N
nasalized vowels	-T/-N	+T/+N	+T/+N	-T/-N	+T/+N	+T/+N
ʌ~ɒ allophony	+T/-N	+T/-N	+T/-N	-T/+N	-T/+N	-T/+N
word initial /ŋ/	+T/-N	+T/-N	+T/-N	+T/-N	-T/+N	+T/-N
stress	+T/-N	+T/-N	+T/-N	+T/-N	-T/+N	+T/-N
MORPHO-SYNTAC-TIC FEATURES						
prefixes	+T/+N	+T/+N	+T/+N	+T/+N	+T/+N	+T/+N
person/number	+T/-N	+T/-N	+T/-N	+T/-N	+T/-N	+T/-N
reflexive	+T/+N	+T/-N	+T/+N	+T/+N	+T/-N	+T/+N
adjectival w/o	+T/-N	+T/-N	+T/-N	+T/-N	-T/+N	+T/-N
demonstrative w/o	+T/-N	+T/+N	+T/+N	+T/+N	+T/+N	+T/+N
numeral w/o	+T/-N	+T/-N	+T/-N	+T/-N	-T/+N	+T/-N
ergative syntax	+T/-N	+T/-N	+T/-N	+T/-N	+T/-N	+T/-N
antidative syntax	-T/+N	-T/+N	-T/+N	-T/+N	-T/+N	+T/-N
dative subjects	+T/-N	+T/-N	+T/-N	+T/-N	-T/+N	+T/-N
compound case	+T/-N	+T/-N	+T/-N	+T/-N	+T/-N	+T/-N
vertical case	+T/+N	+T/+N	+T/+N	+T/+N	+T/+N	+T/+N
vertical verbs	+T/+N	+T/+N	+T/+N	+T/+N	+T/+N	+T/+N
morph. val. increasing	+T/+N	+T/-N	+T/-N	+T/-N	-T/+N	+T/+N
morph. val decreasing	+T/-N	+T/-N	+T/-N	+T/-N	+T/-N	+T/-N
evid. expressed in VC	+T/-N	-T/-N	+T/+N	+T/+N	+T/+N	+T/+N
honorific N&V stems	+T/-N	+T/-N	-T/+N	+T/-N	-T/+N	-T/+N
numeral classifiers	+T/-N	+T/-N	+T/-N	+T/-N	-T/+N	+T/-N
verbal as Nom & Adjl	+T/-N	+T/-N	+T/-N	+T/-N	+T/-N	+T/-N
finite subordinate cl's	+T/-N	+T/-N	+T/-N	+T/-N	+T/-N	+T/-N
correlative const's		+T/-N			-T/+N	

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Table 2: Structural Features Inventory by Language — Part 2

1 = Bodish: 1a = Tibetan Complex, 1b = Tamangic, 1c = Ghale; 2 = Himalayish: 2a = Kham-Magar, 2b = Newari, 2c = Hayu-Chepang, 2d = Kiranti

+T/-N = consistent with the structural profile of the grouping and not consonant with Nepali [i.e. feature has not converged with Nepali type]

+T/+N = consistent with the structural profile of the grouping and consonant with Nepali

-T/-N = inconsistent with the structural profile of the grouping but not consonant with Nepali [i.e. converging on a type other than that exemplified by Nepali]

-T/+N = inconsistent with the structural profile of the grouping and converging with Nepali [i.e. the feature may have been borrowed from Nepali]

	Kham: 2a	T.Magar: 2a	S.Magar: 2a	K.Newari: 2b	D.Newari: 2b
PHONOLOGICAL FEATURES					
phonemic voicing	+T/+N	+T/+N	+T/+N	+T/+N	+T/+N
tone	-T/-N	+T/+N	+T/+N	+T/+N	+T/+N
murmur	-T/-N	-T/+N	-T/+N	-T/+N	+T/-N
nasal/liquid opp.	+T/+N	+T/+N	+T/+N	+T/+N	+T/+N
retroflex series	+T/-N	+T/-N	+T/-N	+T/-N	-T/+N
fricatives	+T/+N	+T/+N	+T/+N	+T/+N	+T/+N
affricates	+T/+N	+T/+N	+T/+N	+T/+N	+T/+N
nasalized vowels	-T/+N	+T/-N	+T/-N	-T/+N	-T/+N
ʌ~ɒ allophony	+T/-N	+T/-N	-T/+N	-T/+N	-T/+N
word initial /ŋ/	+T/-N	+T/-N	+T/-N	-T/+N	+T/-N
stress	+T/-N	+T/-N	+T/-N	+T/-N	+T/-N
MORPHO-SYNTACTIC FEATURES					
prefixes	+T/-N	+T/-N	+T/-N	-T/+N	-T/+N
person/number	+T/-N	-T/-N	-T/+N	-T/-N	-T/+N
reflexive	+T/-N	-T/+N	-T/+N	-T/+N	-T/+N
adjectival w/o	+T/+N	+T/+N	+T/+N	+T/+N	+T/+N
demonstrative w/o	+T/+N	+T/+N	+T/+N	+T/+N	+T/+N
numeral w/o	+T/+N	+T/+N	+T/+N	+T/+N	+T/+N
ergative syntax	+T/-N	-T/+N	+T/-N	+T/-N	+T/-N
antidative syntax	-T/+N	-T/+N	-T/+N	-T/+N	-T/+N
dative subjects	+T/-N	-T/+N	-T/+N	-T/+N	-T/+N
compound case	+T/-N	+T/-N	+T/-N	+T/-N	+T/-N
vertical case	+T/+N	+T/+N	+T/+N	+T/+N	+T/+N
vertical verbs	+T/+N	+T/+N	+T/+N	+T/+N	+T/+N
morph. val. increasing	+T/+N	+T/+N	+T/+N	+T/+N	+T/+N
morph. val decreasing	-T/+N	-T/+N	-T/+N	+T/-N	+T/-N
evid. expressed in VC	+T/+N	+T/+N	+T/+N	-T/-N	+T/+N
honorific N&V stems	+T/+N	+T/+N	+T/+N	+T/+N	+T/+N
numeral classifiers	+T/+N	-T/-N	-T/-N	+T/+N	+T/+N
verbal as Nom & Adjl	+T/-N	-T/+N	-T/+N	+T/-N	+T/-N
finite subordinate cl's	+T/-N	+T/-N	+T/-N	+T/-N	+T/-N
correlative const's	+T/-N	-T/+N	-T/+N		

Table 2: Structural Features Inventory by Language — Part 3

1 = Bodish: 1a = Tibetan Complex, 1b = Tamangic, 1c = Ghale; 2 = Himalayish: 2a = Kham-Magar, 2b = Newari, 2c = Hayu-Chepang, 2d = Kiranti

+T/-N = consistent with the structural profile of the grouping and not consonant with Nepali [i.e. feature has not converged with Nepali type]

+T/+N = consistent with the structural profile of the grouping and consonant with Nepali

-T/-N = inconsistent with the structural profile of the grouping but not consonant with Nepali [i.e. converging on a type other than that exemplified by Nepali]

-T/+N = inconsistent with the structural profile of the grouping and converging with Nepali [i.e. the feature may have been borrowed from Nepali]

	Che-pang: *2c*	Hayu: *2c*	Athpare: *2d*	Camling: *2d*	Limbu: *2d*
PHONOLOGICAL FEATURES					
phonemic voicing	+T/+N	+T/+N	+T/+N	+T/+N	-T/-N
tone	+T/+N	+T/+N	+T/+N	+T/+N	+T/+N
murmur	-T/+N	+T/-N	-T/+N	-T/+N	+T/-N
nasal/liquid opp.	-T/-N	-T/-N	+T/+N	-T/-N	+T/+N
retroflex series	+T/-N	+T/-N	+T/-N	+T/-N	+T/-N
fricatives	+T/+N	+T/+N	+T/+N	+T/+N	+T/+N
affricates	+T/+N	-T/-N	+T/+N	+T/+N	+T/+N
nasalized vowels	+T/-N	-T/+N	+T/-N	-T/+N	+T/-N
ʌ~ɒ allophony	+T/-N	+T/-N	+T/-N	+T/-N	+T/-N
word initial /ŋ/	+T/-N	+T/-N	+T/-N	+T/-N	+T/-N
stress	+T/-N	+T/-N	+T/-N	+T/-N	+T/-N
MORPHO-SYNTAC-TIC FEATURES					
prefixes	-T/+N	-T/+N	+T/-N	+T/-N	+T/-N
person/number	+T/-N	+T/-N	+T/-N	+T/-N	+T/-N
reflexive	+T/-N	+T/-N	+T/-N	+T/-N	+T/-N
adjectival w/o	+T/+N	+T/+N	+T/+N	+T/+N	+T/+N
demonstrative w/o	+T/+N	+T/+N	+T/+N	+T/+N	+T/+N
numeral w/o	+T/+N	-T/-N	+T/+N	-T/-N	+T/+N
ergative syntax	+T/-N	+T/-N	+T/-N	+T/-N	+T/-N
antidative syntax	-T/+N	+T/-N	+T/-N	-T/+N	+T/-N
dative subjects	+T/-N	+T/-N	+T/-N	+T/-N	+T/-N
compound case	+T/-N	+T/-N	+T/-N	+T/-N	+T/-N
vertical case	-T/+N	+T/-N	-T/+N	+T/-N	-T/+N
vertical verbs	-T/+N	-T/+N	+T/-N	+T/-N	+T/-N
morph. val. increasing	+T/+N	+T/+N	+T/+N	+T/+N	+T/+N
morph. val decreasing	+T/-N	-T/+N	-T/+N	+T/-N	-T/+N
evid. expressed in VC	+T/+N	+T/+N	+T/+N	+T/+N	+T/+N
honorific N&V stems	+T/+N	+T/+N	+T/+N	+T/+N	+T/+N
numeral classifiers	-T/-N	+T/+N	+T/+N	+T/+N	-T/-N
verbal as Nom & Adjl	+T/-N	+T/-N	+T/-N	+T/-N	+T/-N
finite subordinate cl's	-T/-N	+T/+N	+T/+N	+T/+N	+T/+N
correlative const's		-T/+N	-T/+N	-T/+N	

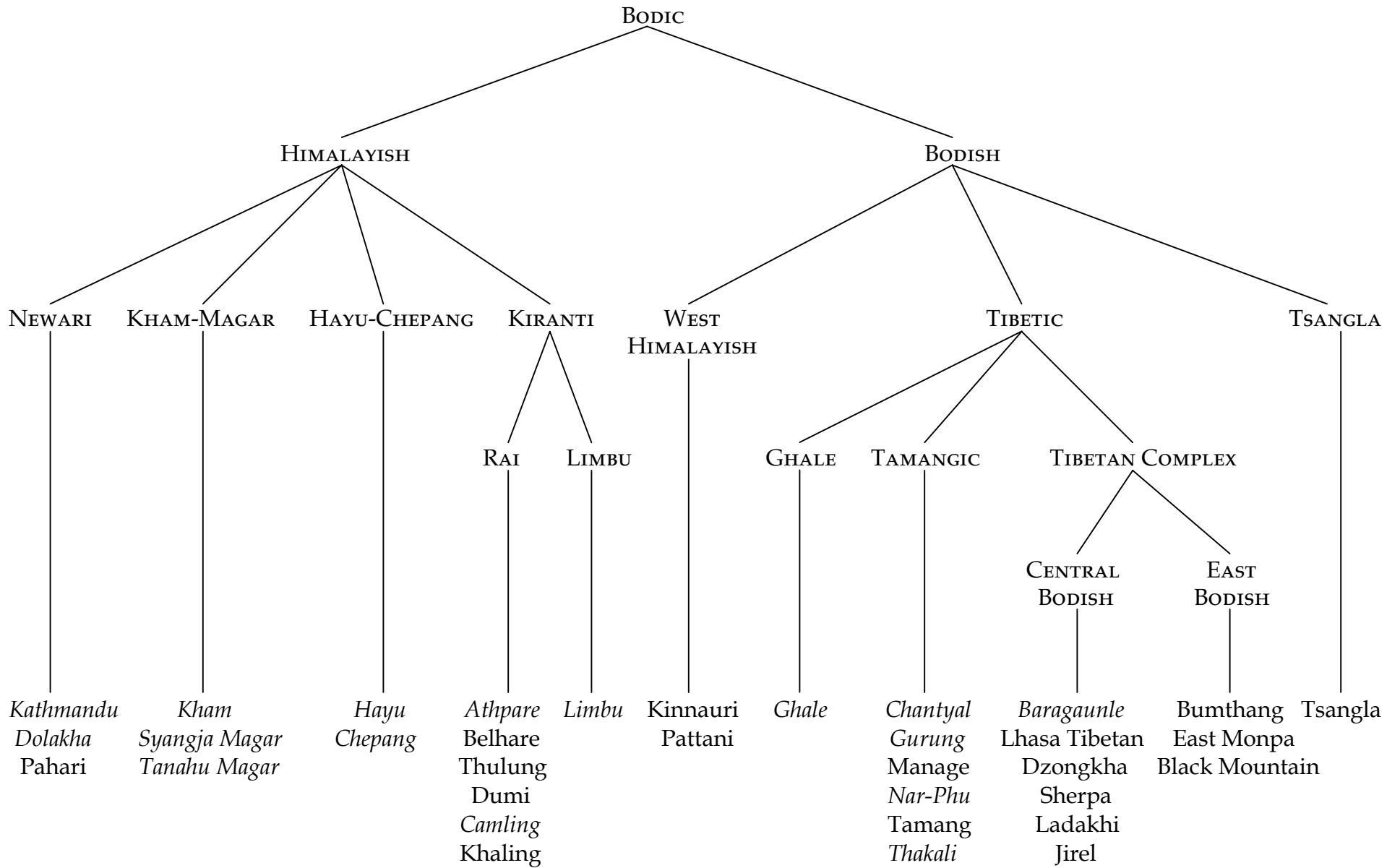**Table 3: Feature Values by Language**

1 = Bodish: 1a = Tibetan Complex, 1b = Tamangic, 1c = Ghale; 2 = Himalayish: 2a = Kham-Magar, 2b = Newari, 2c = Hayu-Chepang, 2d = Kiranti

		+T/-N	+T/+N	-T/-N	-T/+N
Baragaunle	1a	22	6	1	1
Nar-Phu	1b	22	6	1	1
Gurung	1b	17	8	0	5
Thakali	1b	19	7	1	3
Chantyal	1b	7	6	2	15
Ghale	1c	18	9	0	3
Kham	2a	12	13	2	3
Tanahu Magar	2a	8	13	2	7
Syangja Magar	2a	8	13	1	8
Kathmandu Newari	2b	7	13	2	8
Dolakha Newari	2b	8	14	0	8
Chepang	2c	12	10	3	5
Hayu	2c	13	9	3	5
Athpare	2d	14	13	0	3
Camling	2d	13	11	2	4
Limbu	2d	15	11	2	2

Table 4: Deviations from Typological Norm, by Feature

	-T/-N values	-T/+N values	Total -T
PHONOLOGICAL FEATURES			
phonemic voicing	1	2	**3**
tone	1	1	**2**
murmur	2	6	**8**
nasal/liquid opp.	3	2	**5**
retroflex series	1	1	**2**
fricatives	0	3	**3**
affricates	1	2	**3**
nasalized vowels	2	5	**7**
ʌ~ɒ allophony	0	6	**6**
word initial /ŋ/	0	2	**2**
stress	0	1	**1**
MORPHO-SYNTAC-TIC FEATURES			
prefixes	0	4	**4**
person/number	2	2	**4**
reflexive	0	4	**4**
adjectival w/o	0	1	**1**
demonstrative w/o	0	0	**0**
numeral w/o	1	2	**3**
ergative syntax	0	1	**1**
antidative syntax	0	12	**12**
dative subjects	0	5	**5**
compound case	0	0	**0**
vertical case	0	3	**3**
vertical verbs	0	2	**2**
morph. val. increasing	0	1	**1**
morph. val decreasing	0	6	**6**
evid. expressed in VC	2	0	**2**
honorific N&V stems	0	3	**3**
numeral classifiers	4	1	**5**
verbal as Nom & Adjl	0	2	**2**
finite subordinate cl's	1	0	**1**

Figure 1: *Proposed Genetic Relationships Within the Bodic Section of Tibeto-Burman*
[names of languages included within the present survey are in italics]

BODIC

HIMALAYISH — BODISH

NEWARI KHAM-MAGAR HAYU-CHEPANG KIRANTI WEST HIMALAYISH TIBETIC TSANGLA

RAI LIMBU GHALE TAMANGIC TIBETAN COMPLEX

CENTRAL BODISH EAST BODISH

NEWARI	KHAM-MAGAR	HAYU-CHEPANG	RAI	LIMBU	WEST HIMALAYISH	GHALE	TAMANGIC	CENTRAL BODISH	EAST BODISH	TSANGLA
Kathmandu	*Kham*	*Hayu*	*Athpare*	*Limbu*	Kinnauri	*Ghale*	*Chantyal*	*Baragaunle*	Bumthang	Tsangla
Dolakha	*Syangja Magar*	*Chepang*	Belhare		Pattani		*Gurung*	Lhasa Tibetan	East Monpa	
Pahari	*Tanahu Magar*		Thulung				Manage	Dzongkha	Black Mountain	
			Dumi				*Nar-Phu*	Sherpa		
			Camling				Tamang	Ladakhi		
			Khaling				*Thakali*	Jirel		

Figure 2: Map Showing Locations of Languages in Sample

1 = Bodish: 1a = Tibetan Complex, 1b = Tamangic, 1c = Ghale; 2 = Himalayish: 2a = Kham-Magar, 2b = Newari, 2c = Hayu-Chepang, 2d = Kiranti

Kham: 2a
Baragaunle: 1a
Thakali: 1b
Chantyal: 1b
Nar-Phu: 1b
Gurung: 1b
Ghale: 1c
Tanahu Magar: 2a
Syangja Magar: 2a
Chepang: 2c

Limbu: 2d
Athpare: 2d
Camling: 2d
Hayu: 2c
K.Newari: 2b
D.Newari: 2b