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NORTHERN NAGA: A TIBETO-BURMAN MESOLANGUAGE. (VOLUMES ONE AND TWO)

City University of New York PH.D. 1983

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NORTHERN NAGA:

A TIBETO-BURMAN MESOLANGUAGE

by

WALTER T. FRENCH

VOLUME ONE

A dissertation submitted to the Graduate Faculty in Anthropology in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York.

1983

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This manuscript has been read and accepted for the Graduate Faculty in Anthropology in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

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Abstract

NORTHERN NAGA: A TIBETO-BURMAN MESOLANGUAGE

by

Walter T. French

Adviser: Professor Edward H. Bendix

This study in comparative historical linguistics deals with the languages of the Northernmost of the Nagas of the Assam-Burma frontier: those which have been called "Nagish" (Shafer) or "Konyak" (Benedict). Using data from seven dialects -- Yogli, Moshang, Nocte, Wancho, Wakching Konyak, Phom, and Chang -- it reconstructs the phonological system and basic lexicon of the Tibeto-Burman mesolanguage from which these dialects are descended, which I call Northern Naga (NN). Lexical comparison is employed to construct models of the diversification of this mesolanguage into its daughter languages and of its relation to other Tibeto-Burman nuclei.

NN is noteworthy for preserving distinctions which must be reconstructed for Proto-Tibeto-Burman (PTB), but which have been lost in many Tibeto-Burman languages: it distinguishes consonantal prefixes, manner-series of

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initial stops, initial consonant clusters, four position-classes of initial nasals, and vowel length in both open and closed syllables. It is thus an important step toward refining the accuracy of the PTB lexicon. Most PTB initials and rhymes are represented by distinctive correspondences in Northern Naga; in some cases, further distinctions, suggesting an expansion of the PTB inventory, are required.

The results of the lexical comparison demand clinal models of the relations among the languages compared. These models are interpreted as reflecting retardation in the replacement of cognate forms within communicatory fields embracing related but already separated languages.

When this factor is discounted, the comparison shows that the Northern Naga languages fall into two subgroups, with Wancho affiliated with the languages spoken to the south of it rather than with those to its north as previously suggested. Following this split, the language ancestral to the northern subgroup (Yogli, Moshang, Nocte) re-entered a communicatory field with Jinghpaw.

Externally, the comparison demonstrates that, as Shafer and Benedict had suggested, NN is more closely related to Bodo-Garo than to any other Tibeto-Burman nucleus, but that it is almost as closely related to Jinghpaw. It emphatically supports Benedict's hypothesis of a Bodo-Garo-Konyak-Kachin "supergroup", implying that these languages comprise a discrete division of Tibeto-Burman.

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PREFACE

The Tibeto-Burman comparativist may wish to turn directly to Chapter V, where he will find a systematic comparison of the basic vocabulary of the Northern Naga languages, and of NN, with that of Dimasa, Jinghpaw, Burmese, Lushai, and Ao Mongsen. The judgments of cognacy tabulated in this chapter are supported in more detail in the entries in Chapter IV, "Dictionary of Proto-Northern Naga Roots"; these in turn depend upon the correspondences underlying, and reconstructions of, NN proto-segments proposed in Chapter III. Extensive reference to external comparisons is, however, made throughout.

Special thanks are due to each of the members of my committee, without whose unflagging tolerance and support this thesis would not have been written: to Professor May Ebihara, in whose course on Southeast Asia I first became absorbed with the comparative problems presented in this corner of the world; to Professor Mike Hall, with his contagious enthusiasm for the venerable but unfashionable enterprise of historical linguistics; and especially to Professor Ed Bendix, who introduced me to the study of languages and who has proved a constant patron through a succession of new departures.

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I have been unusually fortunate in having as my outside reader Professor James Matisoff of the Department of Linguistics of the University of California at Berkeley, whose interest and involvement in this study is reflected in a correspondence spanning five years. His meticulous critique of my first attempt at reconstructing the NN phonological system (what became Chapter III of the present work) was of particular value. In subjecting my attributions of cognacy to a standard of cautious skepticism informed by his command of Tibeto-Burman variational semantics, he attempted to curb my tendency to speculative excess; what may remain of this is solely my responsibility. Professor Matisoff's conscientious interest and generous encouragement have been a source of sustenance from the conception of this study to its completion.

My deepest debt is to Paul Benedict, as will be apparent from the frequency with which his work and personal communications are cited in the pages that follow. Benedict's Sino-Tibetan: a Conspectus (STC) is the indispensable constant companion of any worker in Tibeto-Burman comparative linguistics; but it represents only one horizon in his ongoing excavation of the linguistic prehistory of Southeast Asia. Benedict's typewritten comments on successive versions of the solution to the problem of Northern Naga presented in Chapter III below, incorporating many insights into aspects of Tibeto-Burman

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reconstruction which go beyond those developed in the STC, run to 37 single-spaced pages, with rarely a margin left unfilled. If, under the imperative of shaping a phonological system that would provide a patterned coherence for my mesolanguage and account, as nearly as possible, for all of the data, I have persisted in questionable judgments, the fault is mine alone. To Dr. Benedict's enthusiastic collaboration in this work I owe not only much of what may be of merit in its substance, but also the precious sense of participation in a living scholarly pursuit, whose roots, as the dedication to the STC acknowledges, lie in Kroeber's fading vision of a holistic, humanistic anthropology.

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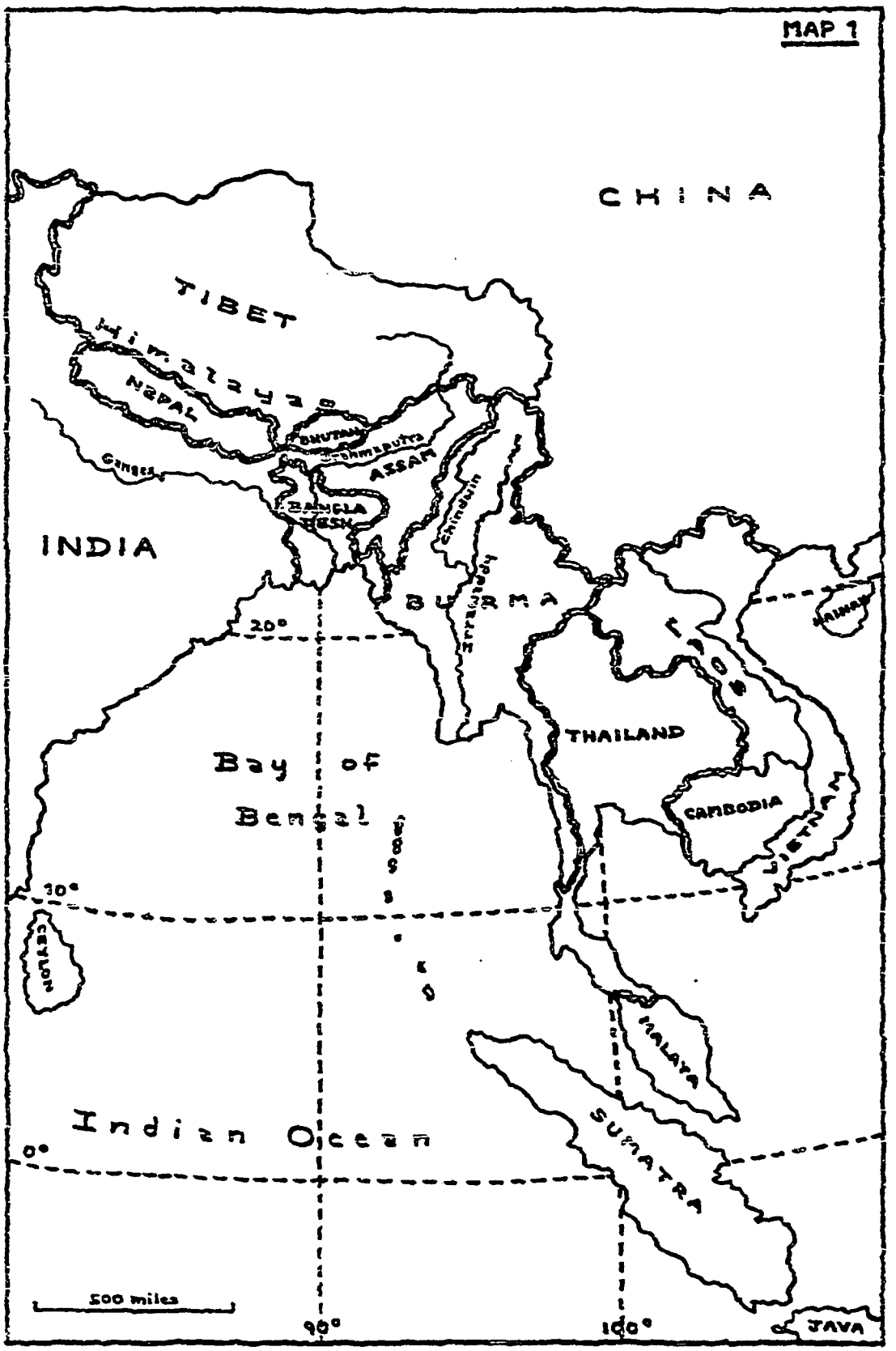

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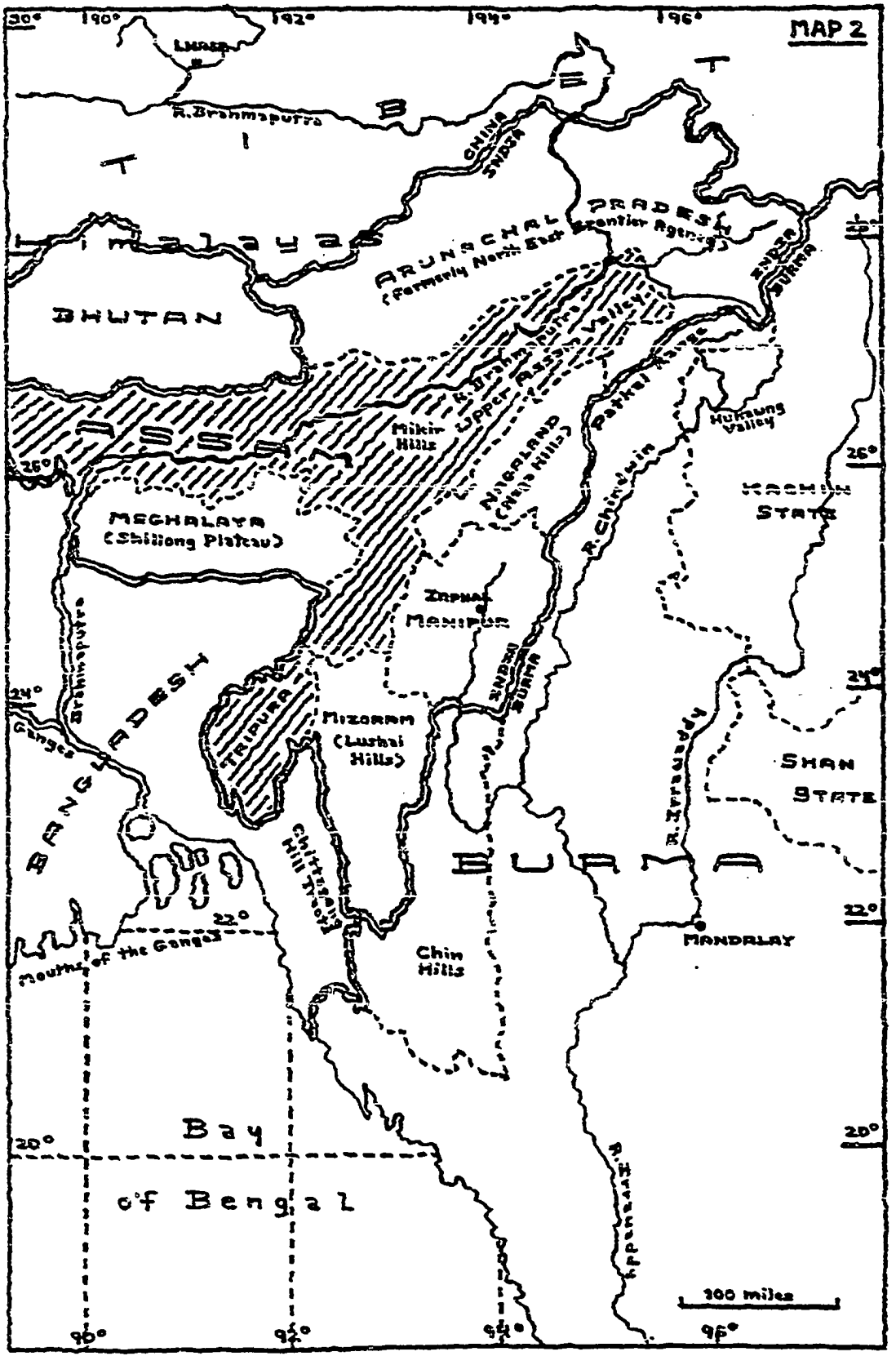

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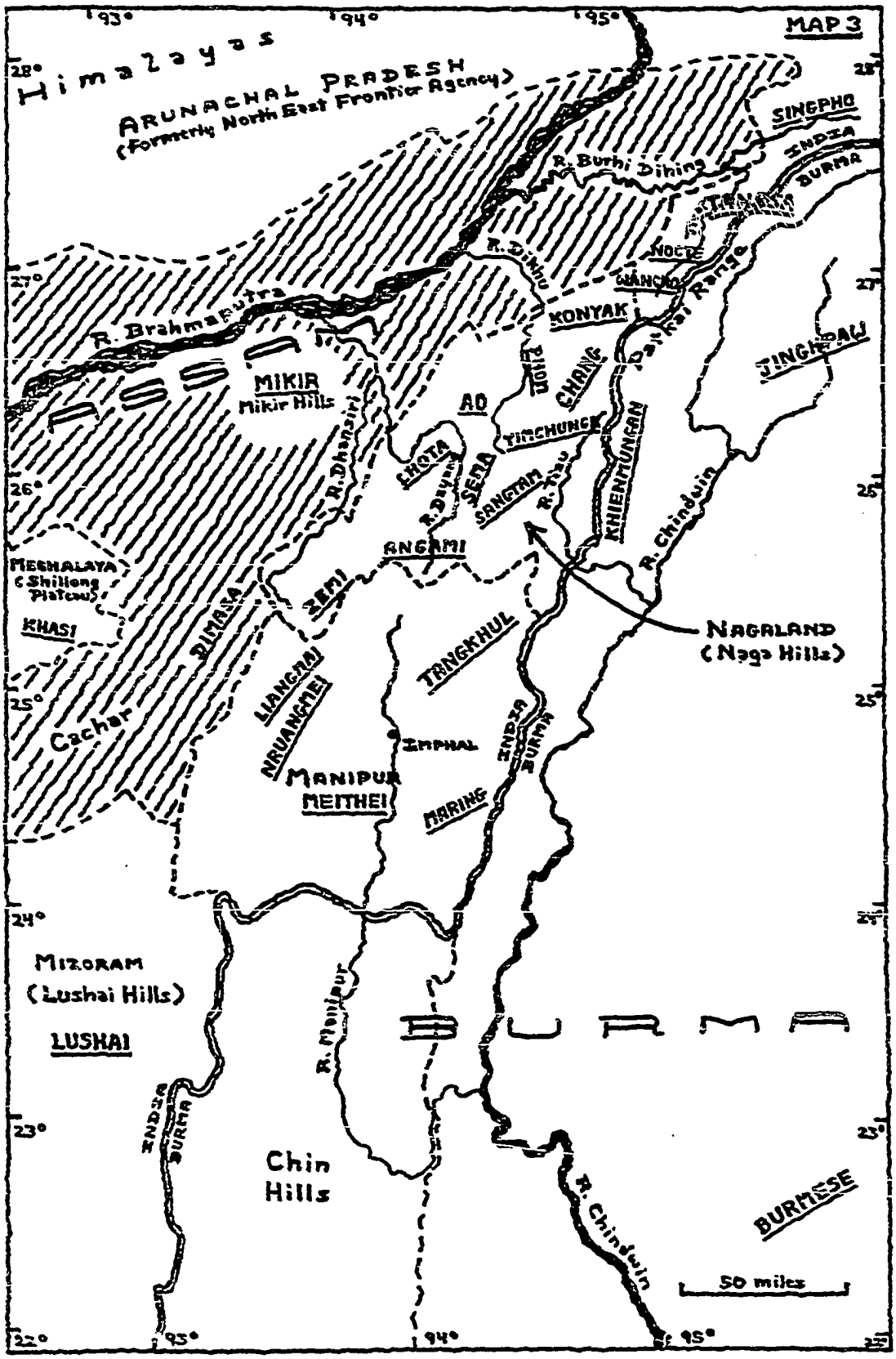

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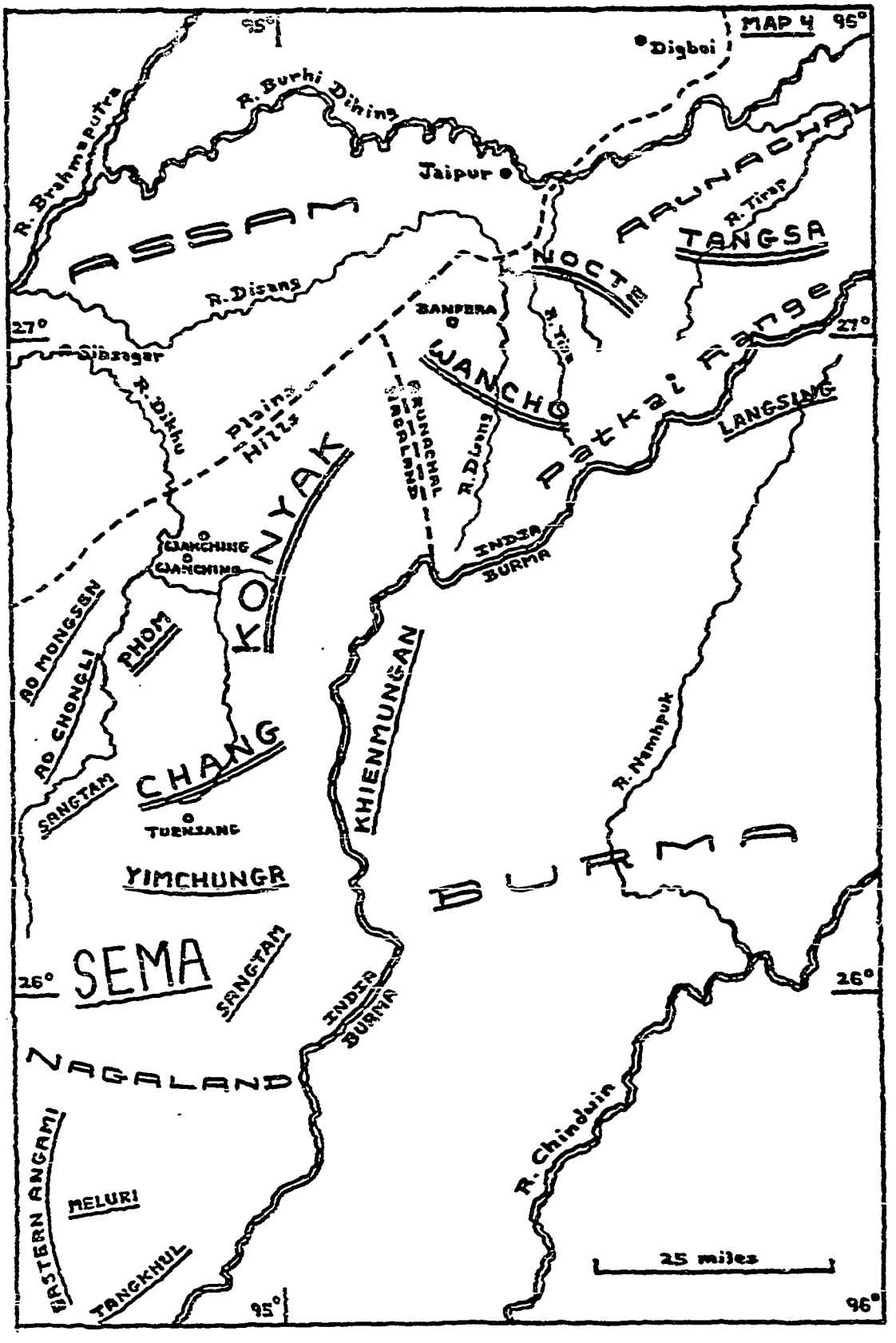

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I. INTRODUCTION

1.1. The Peoples of the Assam-Burma Frontier.

The natural frontier between India and Burma is an unbroken arc of parallel mountain ranges extending from the southeastern rim of the Himalayas a thousand miles to the sea. Though a continuous formation, these ranges have no single name, but a series of names by which they came to be known locally. From south to north, beginning at about 20°N, these include: the Chin and Lushai (or Mizo) Hills; the Manipur Hills; the Naga Hills; and the Patkai Range. Except for the statelet of Manipur, nestled in a high valley at the midpoint of these ranges, and Indic in religion from at least the second century A.D., the inhabitants of this mountainous divide shared until recently a classic tribal culture.

They shared: the cultivation of cereal grains for subsistence, mostly in systems of field rotation; large fortified villages sited on ridge-tops or -spurs, and divided into wards or quarters; exogamous clans and lineages of differential rank, based on patrilineal descent; elaborate men's houses for bachelors; substantial dwellings housing conjugal families; prestige

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grades earned through feasting, particularly involving the sacrificial slaughter of mithan or buffalo; and raiding with the objective of taking heads. Without exception, they speak Tibeto-Burman languages.

Although the largest political unit was the village, these peoples were divided into linguistically and culturally distinctive "tribes", generally occupying continuous stretches of territory. These linguistically and culturally differentiated groupings became the bases for the organization and presentation of ethnographic data, in monographs such as The Angami Nagas (Hutton 1921a) and The Lushei Kuki Clans (Shakespear 1912). But these two titles also reflect the assumption of higher-order groupings -- an unwarranted assumption which was an artifact of differences in perspective: the tribal peoples of the ranges bordering Burma on the west, and south of Manipur, were known to the Burmese, and thus became known to the British administrators of Burma, as Chin (hence, "Chin Hills"), from a Burmese word (Lehman 1963: 3); the tribal peoples of the hills bordering British India (Eastern Bengal) on the east, south of Manipur, were known as Kuki, a term of uncertain (but certainly not indigenous) origin, which seems to have had currency among the neighboring plainsmen from Chittagong in the southwest to Manipur in the north, and was thus adopted by the British administrators of these provinces. (Shakespear

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1912: xiii). The view from the east encountered Chin, that from the west descried Kuki, while in the hills themselves the distinction was overridden, or at a lower level replaced by a multitude of finer ones. Research in comparative linguistics (see below) has shown that the distinction has no meaning, though the names, fixed by usage, persist.

Meanwhile, to the north of Manipur, the tribal peoples of the ranges bordering Assam on the southeast were known to the Assamese, and thus became known to the British administrators of Assam, as Nagas (probably from the Assamese word for "naked"; Hutton 1921a: 5, n.1). Hence, "Naga Hills". In Manipur itself, the 'Naga' groups, with clear continuities with the peoples to the north, in the colonial Naga Hills District, seem to have been culturally sufficiently different from the 'Kuki" groups to make this distinction at least meaningful. But even the so-called 'Old Kuki' groups were probably latecomers to Manipur; the earliest of them are not mentioned in the Manipur chronicle until the middle of the sixteenth century (Shakespear 1912: 148), whereas Naga groups had been there from the earliest times. On the other hand, the small, fragmented Old Kuki communities adjoining the valley became assimilated in many ways to Manipuri customs, while the independent Naga villages in the higher hills remained aloof. My point is that the

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cultural fault line separating Nagas from Old Kukis in Manipur, where the two categories come into contiguity, does not imply a fundamental distinction between those groups called 'Nagas' and those called 'Kuki' (or 'Chin') at large. The Old Kukis of Manipur are intrusive, ultimately more closely related to Central than to Northern Chin (Grierson, quoted in Sengupta 1969; Shakespear 1912: 8; Shafer 1955: 104). The venerable distinction between 'Kuki' and 'Naga', which arose accidentally because of local differences in the generic term applied by plain and valley people to hill people, and was reinforced by the differences between groups already so called when these came into contiguity in Manipur, has no basis in fact. This is not to say that systematic cultural differences between the groups called 'Naga' and those called 'Chin' or 'Kuki' do not exist, but only that these differences are no greater than those between groups <u>within</u> each category, particularly the Nagas. Again, linguistic comparison supports this conclusion (Benedict 1972: 10; cf. Leach 1966: 445).

It has been necessary to dispose of the differences implied by the traditional nomenclature to make the following summary plausible: from at least the base of the Chin Hills (ca. 21°N 93°E) to the head of the Patkai Range (ca. 27°N 96°E), the mountainous frontier between India and Burma is inhabited by tribal peoples sharing broad continuities of culture. This archaic culture has

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for many centuries followed a historical trajectory sharply demarcated from that of the Hindu civilization in the Brahmaputra valley to the north and that of the Buddhist civilization in the Irrawaddy-Chindwin plain to the east. Its continuity is punctured by the Hindu-ized principality of Manipur at the center of its range but outflanks it on either side. Within this broad pattern of cultural continuities, some of whose features were touched on above, discontinuities accumulate at the boundaries of numerous linguistically differentiated regional or local groupings of politically autonomous villages. It is to this linguistic differentiation that we now direct our attention.

I.2. Linguistic Geography of the Assam-Burma Frontier Area.

It was noted above that all of the inhabitants of the mountainous divide between India and Burma speak languages of the Tibeto-Burman Family. Moreover, with one important set of exceptions, all of these languages were placed by Shafer (1950, 1955) in a lower-order taxon which he called the Kukish Section (of the Burmic Division of Sino-Tibetan). The set of exceptions comprises the languages which will be the subject of this study, the "northernmost Naga languages" (Shafer 1953), which Shafer (1955) groups, by themselves, as the Nagish Section of the Baric Division (of Sino-Tibetan). I cite Shafer here as an example of general opinion among

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investigators who have confronted the problem of the subclassification of Tibeto-Burman. His is not the only classification in the field, but all students have agreed that there are important differences between the "northernmost Naga languages", on the one hand, and all of the languages spoken by the other 'Nagas', 'Kukis', and 'Chins', on the other. To set this asserted discontinuity in context, it will be necessary to briefly review the state of the art in Tibeto-Burman classification. This review will also allow us to introduce those languages to which we shall have occasion to refer in the body of the work, providing them with both a taxonomic and a geographic context.

1.2.1. Tibeto-Burman Classification: State of the Art. Perhaps the only assertion about the classification of the Tibeto-Burman languages which commands universal assent is that they are genetically related to Chinese in a maximally inclusive grouping called Sino-Tibetan.[1] After this, disagreement begins: Sino-Tibetan is given the taxonomic designation Family by Shafer (1955), Phylum by Voegelin and Voegelin (1965), and Stock by Benedict (1972). This disagreement at least appears to be merely one of nomenclature, but as the term "Family" is used extensively for lower-order taxons by authorities other than Shafer, the latter terms are preferable.

---

[1] Actually, Burling (1965: 162) comments that "a few linguists are skeptical [even] of this relationship", but Benedict (1972) has probably now laid this to rest.

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Benedict and Shafer have been the linguists most concerned with the classification of the Sino-Tibetan languages. I shall begin with Shafer's classification, which appeared first, in 1955.

Within his Sino-Tibetan Family, Shafer awarded co-ordinate status to six Divisions:

(1) Sinitic: Chinese.

(2) Daic: Thai, including Siamese and Lao, the national languages of Thailand and Laos; Shan and Khamti, dominant dialects in extensive areas of northern Burma; and Ahom, from the thirteenth to the nineteenth centuries the dominant language in the eastern portion of Assam valley.

(3) Bodic: Tibetan and other languages of the Himalayas.

(4) Burmic: In the light of all subsequent opinion, an indiscriminate grouping, comprising languages and groups of languages dissociated at this taxonomic level in later treatments. Shafer's own subclassification includes seven Sections and one isolate:

A. Burmish: Burmese; certain languages of northern Burma (in Kachin territory), including Atsi, Lashi, and Maru; and the Lolo languages of south China and the northern reaches of all of the countries of Southeast Asia.

B. Nungish: Rawang and other languages of northern Burma, in the Kachin country.

C. Kachinish: Jinghpaw, extensively spoken throughout northern Burma, along the high pass linking Burma with Assam at the northern end of the Patkai Range, and in the low hills flanking the far eastern end of Assam valley, here known as Singpho.

Shafer called the language 'Kachin', but as Leach (1964 1954 : 41-45) establishes, this term is properly an ethnic category label, also applied to peoples speaking other, not closely related, languages.

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D. Kukish: The languages of the Assam-Burma divide, 'Kuki', 'Chin', and 'Naga' (except those spoken by the northernmost of the Nagas), including Meithei or Manipuri, the language of Manipur state; also Mikir, spoken in the Mikir Hills, which rise from the Brahmaputra plain south of the river, but separated by lowlands from the divide.

E. Mruish: Mru, really an isolate at the far southern end of the ranges dividing Burma from India.

F. Luish: A grouping of little-known isolates, widely dispersed up and down the frontier area between Burma and India, but spoken always in plains settings (Lehman 1963: 13).

G. Taman: Recognized as a divergent isolate; upper Chindwin valley.

H. Chairelish: Chairel, really an isolate, an extinct language of Manipur.

(5) Baric: The old languages of eastern India; i.e., of the Brahmaputra valley east of Bengal; of its southward extension into Cachar and Tripura; and of the Shillong Plateau. Except on the Plateau, the dominance of these languages was supplanted by historic incursions: first, in the eastern half of the valley, by the Thai-speaking Ahom (thirteenth century); finally, throughout the valley and in Cachar and Tripura, by the Indic-speaking Assamese.

The Baric Languages include Boro (Bodo, Plains Kachari); Dimasa (Hills Kachari); and Garo on the Plateau, which it shares with the Austroasiatic Khasi — Garo on the western half of the Plateau, Khasi in the east.

Boro, with many dialects, still counts over 300,000 speakers, but these are now lost in a sea of ten million Assamese and other Indic speakers from the subcontinent, the fruit of the incorporation of Assam into the Indian Empire in the nineteenth century.

As noted above, Shafer also includes in Baric Konyak and the other "northernmost Naga" languages, but with a Sectional distinction: Nagish, as opposed to Barish.

(6) Karenic: Spoken in southeastern Burma and eastern Thailand, extending far to the south down the spine of the Malay Peninsula.

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Now, one of Shafer's six Divisions of Sino-Tibetan must immediately be ruled out of court: Thai is apparently not Sino-Tibetan at all (Benedict 1972: 2). Shafer argued that certain striking similarities between Thai and Chinese are best explained by positing a genetic relationship; Benedict has long maintained that they are due to borrowing (Benedict 1942). The latter position is also taken by Downer (1963), Burling (1965), and, at least implicitly, by Marrison (1967), and accepted by Bynon (1977). Miller (1968, 1969) is noncommittal, but his critique of Shafer's reconstruction of Sino-Tibetan forms for cultural and technological items on the basis of Chinese and Thai alone (1968: 429-431) -- anticipated by both Benedict (1942) and Haudricourt (1948) -- casts doubt on Shafer's entire case. The weight of opinion is solidly on the side of the exclusion of Thai from Sino-Tibetan.

Note that Shafer does not set up a Tibeto-Burman grouping in opposition to Chinese within Sino-Tibetan, but assigns co-ordinate taxonomic status to Bodic, Burmic, and Sinitic. This was apparently a consequence of his having been able to muster 216 pairs of presumed cognates from the basic vocabularies of Tibetan and Chinese, against only 191 pairs from those of Tibetan and Burmese (1955: 96-97, 99). But his interpretation of these figures immediately belies the use he makes of them: "we know there has been contact between China and Tibet for many centuries, but I know of no such contact between

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Tibet and Burma" (1955: 97). This is not yet the place to undertake a full exposition of what I will thus merely state as a hypothesis, which offers an alternative interpretation of Shafer's data: the participation of two or more related languages in a communicatory field should retard differential replacement of cognates. This assumes that Shafer's scores are indeed comparable, but we have no assurance of this, as no figures are supplied as to the total number of comparisons attempted in each case. Benedict (1976) remedies this deficiency by undertaking a cognate count limited to the Swadesh 100-word list. His results show a score of 16 for Mandarin and Tibetan[1] against 32 for Tibetan and Burmese.

This finding supports the higher-order branching model of interrelationships within Sino-Tibetan proposed in Benedict (1972). This model sets up different orders of relationship among Shafer's co-ordinate Divisions. First, of course, it excludes Thai from Sino-Tibetan altogether; secondly, it sets Chinese (Sinitic) apart from a Tibeto-Karen Superfamily; finally, it separates Tibeto-Burman and Karen (Karenic). The Tibeto-Burman Family so isolated by Benedict includes essentially the languages grouped by Shafer in his Bodic, Burmic, and Baric Divisions of Sino-Tibetan.

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[1] Benedict's substitution of Mandarin for Shafer's (Archaic or Ancient) 'Chinese' also corrects (but may overcorrect) the probable bias deriving from the much greater antiquity of the latter when compared to even the oldest records available for Burmese.

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Benedict then proceeds to subdivide his Tibeto-Burman Family into seven "primary divisions or nuclei", plus a number of residual languages and groupings of languages "perhaps" somewhat more distantly related to one or another of the seven primary divisions. He revises Shafer here essentially as follows: the latter's Baric Division stands, but his Bodic (Himalayan) and Burmic Divisions are separated into three nuclei apiece. As detailed above, Shafer had distinguished eight Sections within his Burmic Division. Three of these -- the widely ramified Burmish and Kukish, and Jinghpaw (Kachinish) -- are counted as nuclei or primary divisions of Tibeto-Burman by Benedict; the other five are among his residual units. Benedict also qualifies the affiliations of Meithei and Mikir; in his scheme they are only "perhaps" to be grouped with Kukish. He similarly disaffiliates Konyak and the other "northernmost Naga" languages from Baric: in Shafer's taxonomy these languages (as Nagish) were awarded Sectional status co-ordinate with Barish (Boro, Dimasa, Garo, etc.); for Benedict they "are most profitably compared with Bodo-Garo" (6) but their affinities with this nucleus do not warrant an inference of "immediate genetic relationship".

The two classificatory schemes are presented in a comparative table on the following page. Because it is peripheral to the concerns of this study, the subclassification of the Himalayan languages (Shafer's Bodic) is

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omitted. Benedict's residual units are prefaced by a star (*Nagish -- preferable to Benedict's "Konyak", as this is a grouping, not an isolate). I have omitted Shafer's term "Section" when the unit in question is really an isolate.

Sino-Tibetan Subclassification
according to Shafer (1955) and Benedict (1972)

Shafer	Benedict
Sino-Tibetan Family	Sino-Tibetan Stock
Daic Division	--
Sinitic Division	Chinese
	Tibeto-Karen Superfamily
Karenic Division	Karen
	Tibeto-Burman Family
Bodic Division	Three Himalayan Nuclei
Baric Division	
Barish Section	Bodo-Garo Nucleus
Nagish Section	*Nagish
Burmic Division	
Chairelish	*Chairel
Kukish Section (incl. Mikir and Meithei)	Kuki-Naga Nucleus
	*Mikir
	*Meithei
Mruish	*Mru
Burmish Section	Burmese-Lolo Nucleus
Nungish Section	*Nungish
Kachinish	Kachin Nucleus
Luish Section	*Luish
Taman	*Taman

It will be apparent from this juxtaposition of the two classifications that they are in general agreement as to the identity and coherence of the constituent units of

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Sino-Tibetan at the levels represented in the table. They differ in how these units are related to one another: Benedict is bolder than Shafer in setting up four taxonomic levels where Shafer has just two, but also more cautious in qualifying the taxonomic status of his "residual" units.

Two additional classifications should be briefly considered. Burling (1965) agrees with Benedict in promoting a number of Shafer's Burmic Sections to Divisional rank. His classification differs from Benedict's on the following points:

(1) Karen is treated as a branch of Tibeto-Burman, though its divergent character is noted;

(2) Kuki-Naga (Kukish) is divided into two branches (for the subclassification of Kukish, see below);

(3) Jinghpaw (Kachin) is not treated as a distinct unit at the branch or Sectional level; rather, it is suggested that it "may be a rather distant member" of Baric (162).

This last suggestion appears to represent a radical departure from Shafer's and Benedict's classifications, but points of similarity between Bodo-Garo and Kachin had long been noted. The position of Jinghpaw in Tibeto-Burman classification presents one of the salient problems in the field. Burling pursued the issue in a monograph (1971), drawing Benedict's summary comment: "he was able to find support for a special link between Kachin and

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Garo [taken as a representative of Bodo-Garo (Barish)] . . . noted by the writer in the early 1940's" (1976: 172). Benedict in fact drew particular attention to these affinities in his 1972 summation (7), though they are not reflected in his classification.

The points of similarity among Barish, Nagish, and Kachin were accorded formal recognition as reflections of a genetic unity in the classification of Voegelin and Voegelin (1965, 1977)[1]. This classification, which on other general points follows Shafer, sets up a "Bodo-Naga-Kachin Family" (as well as a "Naga-Kuki-Chin Family" [= Kukish]) within Sino-Tibetan. But Voegelin and Voegelin are not Sino-Tibetanists, and the source of their revision of Shafer in their 1965 compilation is unattributed. In their 1977 work, they cite "Morse (1965)" as the authority for the revisions, but this reference turns out to be to "Consultant information incorporated in Voegelin and Voegelin 1965". Morse had published on Nungish (Morse 1963) but his views on Tibeto-Burman classification at large, presented as if uncontroversial and definitive by Voegelin and Voegelin, were apparently transmitted by personal communication. We may add Morse's opinion that there is a genetic link among Barish, Nagish, and Kachin to those of Benedict and Burling, but the Voegelin and Voegelin classification must be considered to be of

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[1]The latter publication (insofar as Tibeto-Burman is concerned) simply recapitulates the classification given in the earlier; it does not refer to Benedict (1972).

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dubious value, on this and other grounds.[1]

As noted above, Benedict (1976) greeted Burling's (1971) demonstration of a "special link" between Bodo-Garo and Jinghpaw with approval, but at the same time he found that much of the evidence presented by Burling "must now be set aside on the basis of comparative phonology" (172). He proceeded to attack the problem himself by way of a Swadesh 100-word list comparison of Mandarin, Pwo Karen, Tibetan, Garo, Lushai (for Kukish), Burmese, and Kachin. (I have already referred to one of the results of this comparison in my discussion of the coherence of Tibeto-Burman as against Chinese.) Benedict interprets the scores obtained from this comparison (probably the most rigorous attempt yet made to provide a sound evidential basis for Sino-Tibetan subclassification) in such a way as to significantly revise his 1972 treatment. He con-

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[1]For one example, Voegelin and Voegelin group Atsi, Lashi, and Maru with Jinghpaw in the Kachin branch of their Bodo-Naga-Kachin grouping (1965: 13-14; 1977: 83). These languages are spoken by peoples culturally assimilated to the Jinghpaw Kachin; indeed, these peoples 'are' Kachin if this term is restricted to its original sense as a cultural rather than a linguistic category (Leach 1964 [1954]: 41-44). But their languages have been identified as Burmish (or its equivalent) by Leach (ibid.: 45), Shafer (1955: 103), Burling (1967a:1-2), and Benedict (1972: 8). Against this unanimity of published opinion, there is apparently only the judgment of Morse (see above), but it is unclear whether Morse is responsible for this particular assignment, for in its original presentation it is prefaced by a reference, linking Lashi and Maru to Jinghpaw, attributed to the "Burma Year Book for 1957-58" (1965: 13).

For a second example, all of the Nagish languages are listed under the rubric 'Tangsa' (1977: 82). This outright error is attributed to Morse but appears to reflect a misunderstanding of one of his communications.

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cludes now that Garo, like Karen,

> represents an early split from the parent TB group but one that also included Kachin (177) . . . a basic cleavage line must be recognized within TB between B/T/L [Burmese/Tibetan/Lushai] on the one hand and K/G [Kachin/Garo] on the other (178).

The principal data suggesting this interpretation are the scores for Garo: all but one of these are uniformly low -- 18 to 20 matches (out of a possible hundred). The exception is the score for Garo and Kachin, 29, which is among the highest.

Kachin, however, has virtually as many matches with Burmese (28) as with Garo. Benedict confronts the difficulty by arguing that this score is misleading:

> The writer has long suspected that the key 'crossroads' position of Kachin (STC: 5) reflects its pivotal geographical setting rather than any basic linguistic makeup . . . scores point to the existence of newer levels within Kachin, especially to a Burmese level . . . the language has long been under heavy influence from the culturally dominant Burmese speech, with the result that it is difficult to determine the precise status ('native' vs. loanword) of many lexical items (177-178).

The expectation seems to be that if only the hypothesized loanwords could be positively identified, the anomalous scores would drop to a level producing a distribution representable by a dendrogram. But it is possible to interpret the data as they stand, as entirely reflective of cognation, if one invokes the postulate advanced above, viz., that the participation of two or more related languages in a communicatory field should retard differential replacement of cognates.

The problem which acceptance of this postulate

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presents for lexical comparison is that relative cognate counts would no longer be an unequivocal index of degree of genetic relationship. But when a set of scores, like those at issue here, cannot be mapped onto a branching-tree model in any case, it would seem to be theoretically preferable to nevertheless account for them as cognate counts rather than as contaminated by diffusion.

In this instance, it is also empirically preferable, for the high score for Kachin and Burmese is backed up by scores of intermediate strength between Kachin and Tibetan, on the one hand, and Kachin and Lushai, on the other; it strains credulity to ascribe these also to borrowing. Actually, the way in which all of the scores may be neatly mapped onto a clinal model is remarkable.

The twenty-one scores relating the seven languages compared fall into three sets: 32-28 (four scores); 24-22 (five scores); 20-15 (twelve scores). The scores for Mandarin are all in the low range; indeed, there is no other score which is lower than the highest attained by Mandarin. Thus the figures support the radical distinction between Chinese and Tibeto-Karen. When the Mandarin scores are excluded, the low range is reduced to 20-19 (six scores).[1]

The situation of Pwo (Karen) is somewhat more equivocal. Alone of the remaining languages, it has no high scores, and on this ground it might be set off from

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[1] Or 20-18 if an alternative score (19/18) is used.

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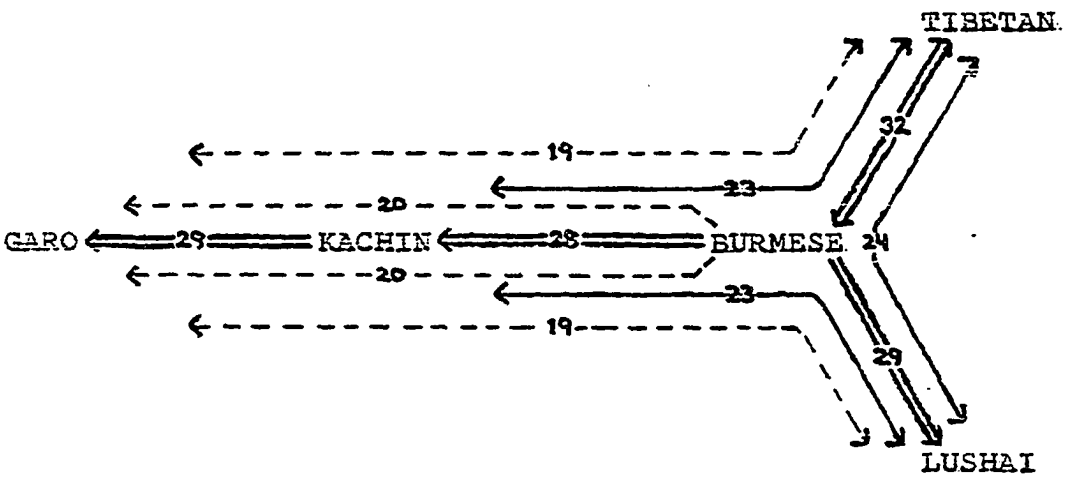
the others. (The clear-cut difference between the four high scores and all of the others should probably be accorded the greatest significance.) But Pwo does show scores of intermediate strength with Lushai (23) and Burmese (22). In terms of cumulative historical relationship (common origin plus post-partum influence), it is closer to these. This could be represented in the diagram below, but I have omitted Pwo for clarity. The remaining languages link up as follows:



The double lines on the diagram show primary relationships (high scores); the single solid lines show relationships of intermediate strength; the broken lines show relatively weak relationships (low scores). The formal requirement of the model is that the units must be arrayed in such a way that the strength of relationship between any two adjacent units in a chain is greater than that between either of these two units and any more distant unit in that chain. (It may be seen that this requirement is satisfied for each of the three chains

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in the diagram, viz., Tibetan-Lushai, Tibetan-Garo, Lushai -Garo.)

It is clear from the model that the implication of the scores is that it is Burmese, rather than Kachin, which now occupies the 'crossroads' position: Tibetan, Lushai, and Kachin are all linked to Burmese by primary relationships of roughly equivalent strength; they are also linked to one another by relationships of intermediate strength (which may be interpreted as a function of the primary relationships).[1] Considering just these four languages, not only do their relative positions preclude any subgrouping; they cannot be represented on a branching-tree model at all.

There is, however, a hypothesis which would account for this situation: the successive participation of Burmese in three discrete communicatory fields, the first including Tibetan (but not Kachin or Lushai), the second including Kachin (but not Tibetan or Lushai), the third including Lushai (but not Tibetan or Kachin). On this hypothesis, a retardation in the rate of differential replacement of (similar cognate) forms still shared by Tibetan and Burmese, and later, of forms still shared by Burmese and each of the other two languages, left these three pairs of languages with higher scores than those of

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[1] It is true that the score for Burmese and Tibetan is higher than the other two, but they are all in the high range; Benedict also comments that few of the terms shared between B/T or B/L "can be considered innovative in any sense . . . There hardly seems to be sufficient evidence here for a genetic grouping, say, of [B/T]" (178).

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the three pairs composed of Tibetan, Kachin, and Lushai, where differential replacement was not retarded.[1]

The hypothesized order of succession of these three communicatory fields is not, of course, derived from the scores themselves. Extrinsic evidence must be brought into play, the evidence of history and of geographical distribution. It is commonly agreed that the Tibeto-Burman languages had a center of dispersal north of the mountain barriers which divide Southeast Asia from Tibet and China.[2] Thus, all of the Tibeto-Burman languages spoken in Southeast Asia, including Garo, Kachin, Burmese, and Lushai (also Karen) are the precipitates of southerly migrations.

But Burmish languages (Lolo, e.g.) are still widely distributed in southwest China. This strongly suggests that the Burmese were the last of the major Tibeto-Burman groups to enter Southeast Asia. In terms of our model, this movement would have broken off the participation of Tibetan and Burmese in a common communicatory field and led to Burmese participation in new fields south of the mountain barriers. Given the northerly position of

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[1]Other possibilities are equally supportable by the model. One is that the fields shared by Burmese with Kachin and with Lushai were (or are) coeval rather than sequential, with retardation of replacement operating independently in Kachin and in Kukish. Another is that one of the three pairings is genetic after all.

[2]See Maspero (1952: 530), Coedès (1969 [1962]: 29), and the authorities cited by Leach (1964 [1954]: 230); Leach's own polemical counter-position (Leach 1960) is effectively refuted by Dyen (1960).

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Kachin and the apparent southerly center of dispersal for Kukish (see below), a field embracing Burmese and Kachin would be likely to have been earlier than one embracing Burmese and Kukish, if these were indeed sequential.

The alignment of units in a clinal model is isomorphic with the simplest possible reconstruction of the history of the geographical relationships of the languages involved. The arrows in the diagram point to the implications of the model (together with the postulate of a northern origin) for inferring order of migration, and indicate its direction. Thus, on this evidence, the southward movement of the Kachin preceded that of the Burmese, despite the fact that the Burmese are now located to the south of the Kachin. So also did that of the Lushai, while that of the Barish-speaking peoples appears to have been the earliest of all.

We thus return to the problem of the position of Garo. If it were not for the high score linking Garo and Kachin, Barish could be set off on a branching-tree model from the rest of Tibeto-Burman. But that score exists, and is supported by Benedict's judgment that "at least nine of the shared items [may be] considered innovative" (177).

The key to the situation may lie in the low value (20) of the score for Garo and Burmese. Recall that the scores linking Tibetan, Kachin, and Lushai with one another are all in the intermediate range (24-23), and

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that these scores may be interpreted as functions of the primary relationships these languages enjoy with Burmese. As the linkage between Garo and Burmese is similarly mediated by their primary relationships with Kachin, we should expect this linkage to be of intermediate strength as well. To attribute its weakness to genetic distance is to leave unexplained the strong relationship of Kachin either to Garo or to Burmese (and through it, to Tibetan and Lushai). But there is an alternative: the low score for Garo and Burmese may be the result of the longstanding and decisive geographical separation of Barish from the Tibeto-Burman languages of Burma by the ranges of the Assam-Burma divide (see Mills 1926b). If, in the absence of such a separation, Garo and Burmese had dropped only to a level of 24-23% cognation, the corresponding figure for Garo and Kachin, similarly separated, would be 34%. And such a score, which would then be the highest of all, would support Benedict's argument for a Kachin-Garo 'supergroup'.

To complete our survey of Tibeto-Burman classification insofar as this is relevant to the positioning of the set of languages which are the subject of this study, we must now narrow our focus to the subclassification of the languages of the Assam-Burma divide itself. As we have seen, these are divided by Shafer into Kukish and Nagish, with Benedict concurring except for a qualification as to the status of Meithei and Mikir.

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Shafer divided his Kukish Section into two broad groupings, each comprising six Branches. The first of these broad groupings he labelled "Central Core languages or Kukish proper" (1955: 105, n.45); the second comprises languages which he judged to be progressively divergent from this Central Core. In practice, these "divergent" languages are the Naga languages (that is, those spoken by groups culturally categorized as 'Nagas'), Meithei, and Mikir. Shafer, however, insisted on the point that these languages, however divergent, were Kukish. He presents the relations among his Branches of Kukish in a diagram having the form of a simple quadrivial mesh -- that is, one consisting of four chains, of which that linking the Central Core languages would be the "strongest", and of which 'Old Kukish' is the node.

Benedict is in general agreement with this treatment, recognizing "a core of Kuki languages proper" and affirming that "no sharp (linguistic) distinction between Kuki and Naga can be maintained" (1972: 10). At the level of Shafer's Branches, he distinguishes four "subtypes" within Kuki proper[1] and (in effect) six subtypes among the more northerly languages (exclusive of Meithei

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[1]These differ from Shafer's six in that Benedict rejects Shafer's establishment of a distinct Lakher Branch, placing Lakher in his Central Kuki subtype. In this he has decisive support from Lehman (1970: 120). Benedict also ignores (or has perhaps reclassified) Langet, an isolate not subordinated by Shafer to any of his (other) five Branches.

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and Mikir).[1] He differs with Shafer only on matters of detail.

In presenting the subclassification of these more northerly languages, however, we may bring into play the work of Marrison (1967), which is not reflected in Benedict (1972).[2] This work is limited to the Naga languages -- those subsumed by Benedict under the rubrics "Naga proper" and "transitional" (between Kuki and Naga proper). Again, it should be emphasized that this distinction does not reflect a linguistic subgrouping. Marrison appears to have accepted the category designation 'Naga', as traditionally applied, as setting the limits to his study, without investigating the question of whether, or to what degree, this designation might mark off a coherent linguistic unit.

Indeed, not only does Marrison make no case for the linguistic unity of his Naga languages as against the more southerly Kukish languages; emphasizing their internal diversity, he actually proposes "to divide the Naga languages into three groups, each having some parity with the Boro [Barish] and Kachin groups" (268);[3] i.e.,

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[1]These differ from Shafer's four (exclusive of Meithei and Mikir) in that Benedict treats separately (a) Maring and Khoibu, and (b) Tangkhul, all of which Shafer places in his Luhupa Branch, as well as Puiron, which does not appear in Shafer's classification.

[2]Marrison's work is a Ph.D. thesis (U. of London); his findings have (to date) never been published.

[3]Marrison's work is divided into text and Appendices, separately paginated. Unless qualified, my references to his page numbers are to the text.

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at the level of (Primary) Divisions of Tibeto-Burman. This is an extreme solution, unsupported by systematic comparison with Barish, Kachin, or, most important, (other) Kukish languages. In the absence of systematic examination of their external relationships, Marrison's three Naga groups can hardly be promoted to Divisional status. On the other hand, Marrison's work on their internal relationships -- the actual subject of his study -- must supersede previous classifications.

One of Marrison's three Naga groups ("Konyak Group") corresponds to Shafer's Nagish. He divides the other two ("Ao-Tangkhul Group", "Angami-Zeme Group") into five sub-groups. Now, there is a fairly good correspondence between these five sub-groups and the four of Shafer's "divergent" Branches which cover the Naga languages. Hence, Marrison's most telling departure from the Benedict-Shafer classification of these languages is the introduction of an additional order of relationship, intermediate between (Benedict's) Divisional and (Shafer's) Branch levels: Marrison's "sub-groups" are Shafer's Branches and Benedict's subtypes. For his "groups" I substitute the term already available for such a level in Shafer's labelling scheme, and recognize a Southern Naga and a Central Naga Section. With the establishment of such a level in the subclassification of Kukish, I also formalize Benedict's and Shafer's judgment as to the relative unity of the latter's "Central Core" languages by

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proposing a Kuki Section co-ordinate with these and including Meithei and Mikir at the Sectional level. Thus, Marrison's revised classification of the Naga languages makes possible a revised classification of Kukish at large; this classification rejects the extremity of his own solution while taking his conclusions into account, yielding a more highly structured model, viz.:

KUKISH DIVISION (of the Tibeto-Burman Family)

A. KUKI SECTION (Shafer's Central Core languages)
   (1) Southern Kuki Branch
   (2) Old Kuki Branch
   (3) Central Kuki Branch (includes Lushai)
   (4) Northern Kuki Branch

B. MEITHEI

C. SOUTHERN NAGA SECTION
   (1) Southwest Naga Branch
   (2) Angami Branch

D. CENTRAL NAGA SECTION
   (1) Lhota Branch
   (2) Ao Branch
   (3) Southeast Naga Branch

E. MIKIR

I reserve the designation "Northern Naga" for Marrison's third ("Konyak") group, Shafer's Nagish (see below). Here I briefly discuss the membership and nomenclature of the Branches of Sections C and D.

SOUTHERN NAGA SECTION

(1) Southwest Naga Branch. The membership of this

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Branch, Marrison's Type C-2 of his Angami-Zeme Group (= Southern Naga Section) corresponds for the most part to that of Shafer's WESTERN Branch, which is identical with Benedict's WESTERN KUKI. It includes all of the languages so classified by Benedict and Shafer but with an important addition: Rengma -- or rather the Tseminyu, Nzong, or Southern "dialect" of Western Rengma, long recognized as a distinct language from Ntenyi, the Northern "dialect" of Western Rengma, and Meluri, Eastern or "Naked" Rengma (Hutton 1921a: 361; Mills 1937: 2) but not previously definitively separated from them in classification. Benedict and Shafer classified "Rengma" without differentiation in what I have called the Angami Branch of Southern Naga (though Shafer, in a footnote [1955: 107, n.69], recognized a problem). Marrison's classification not only assigns Ntenyi and Meluri to Central Naga, but links Rengma proper to the Southwest Naga languages rather than to the Angami group. This is a significant revision, as it runs counter to both geographical distribution and apparent cultural affinity.

(2) Angami Branch. This is Marrison's Type C-1 of his Angami-Zeme Group. Except for the reclassification of Rengma, it corresponds exactly to Shafer's EASTERN Branch -- a misnomer, as it is not situated to the east of any other Kukish languages, abutting on the plains to the west -- and to Benedict's SOUTHERN NAGA. It includes only the various Angami languages or dialects, and Sema.

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CENTRAL NAGA SECTION

(1) Lhota Branch. Here Marrison's classification begins to diverge markedly from that of Benedict and Shafer. Where Benedict and Shafer posited a NORTHERN NAGA Branch including, among other languages, Lhota and Ao, Marrison splits this in two. His Type B-2 includes Lhota and Yimchugrü from this Branch, as well as Ntenyi (the Northern "dialect" of "Western Rengma") and Meluri ("Eastern Rengma").

(2) Ao Branch. This is Marrison's Type B-1. It includes the balance of Shafer's NORTHERN NAGA[1]: the various Ao dialects and Sangtam.

(3) Southeast Naga Branch. The inclusion of this grouping with those listed above in what he called the Ao-Tangkhul Group (= Central Naga Section) represents Marrison's most significant departure from the Benedict-Shafer classification. Marrison's Type B-3, it includes Tangkhul and Maring, the languages of Shafer's LUHUPA Branch. As noted above, Benedict treated Tangkhul and Maring (with Khoibu, which Marrison calls a dialect of Maring) separately, but saw them both as transitional between Naga and Kuki proper; Shafer's diagram carries the same implication. Both also saw what I have called the Southwest Naga languages as transitional in this sense. This classification is consonant with political geography: these are the Naga languages of Manipur, east

[1]Except for his extraordinary inclusion in this Branch of Lepcha, a language of Sikkim (see below).

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and west. Marrison's reclassification of Tangkhul and Maring with Naga languages spoken far to the north, and his grouping of Rengma, spoken north of the Angami country, with the Naga languages of northwest Manipur suggest that the Kuki affinities of these languages are contact phenomena.

This classification is not presented as definitive, but as a model which, by proposing a more hierarchical set of relationships among the Naga languages, both opens up new hypotheses for more intensive study and allows us to speak more coherently about these languages. To this latter end, I have proposed conjunctive labels for Marrison's groupings and represented the nature of these groupings with designations ("Section" and "Branch") which may suggest a strict genetic ordering. This interpretation would be unwarranted. Marrison's classification is not the result of an application of the comparative method, but of a wide-ranging analysis of continuities and discontinuities in all aspects of language: phonology, morphology, lexicon, and syntax. All Marrison's classification reflects -- and he claims no more for it -- is the apparent degree of <u>overall</u> relationship, in which common ancestry and postpartum influence are necessarily confounded.

This classification is presented in full, in tabular form, on the next several pages. Alternative names for the languages are given in parentheses. For the 'lead

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name', I have used that adopted by Marrison as reflecting "common usage at the present day" (20), except in those cases where a name has become established through classic or continuous reference in the general literature. A 'lead name' given in parentheses designates a language or dialect not treated by Marrison. For the subclassification of the Angami Branch, I have made extensive use of other sources, particularly Hutton (1921a), and of an analysis of some of Marrison's data in order to produce a more finely discriminated ordering.

The taxonomic levels employed may be roughly interpreted as follows:

A. Distinct languages, whose relationships to one
B. another are hypothetical.
C.

(1) Distinct languages, but closely related in
(2) what Marrison calls a "clearly defined
(3) group" (henceforth CDG).
(4)

(a) Probably divergent dialects of a single
(b) language.
(c)

– Almost certainly only partially
– differentiated dialects.
–

Although I have included a few languages or dialects not treated by Marrison, the list is by no means complete. At the very least, most if not all of the languages shown are dialectically differentiated as 'Angami' is, with some of these 'dialects' probably really having the status of distinct languages. The figures shown are approximations as to number of speakers, but are based on diverse and questionable sources: rough estimates only.

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SOUTHERN NAGA SECTION

Southwest Naga Branch

A. Puiron (Poeron, Impurion) -- c. 500 (?). N Manipur, E of the main Kabui area. Said to be a dialect of Kabui (App.: 364, 394) but elsewhere only to be "spoken by a small part of the [Kabui] tribe" (265; emphasis added). SE Naga affinities.

B. Maram -- c. 5000. N Manipur. Closest to Khoirao.[1]

C. Khoirao (Kolya Naga) -- probably several thousand speakers. NC Manipur. Closest to Maram; Hodson "was informed that they were descended from Maram" (1911: 4).

D. (1) Kabui (Maruongmai, Nruangmei) -- c. 25,000.
(2) Liangmai (Kwoireng, Quoireng) -- c. 10,000.

Spoken in the range flanking Manipur on the W and NW, to the W of the languages listed above.

E. (1) Zemi (Zemi, Arung, Empui, Empeo, Kachcha Naga)
(2) Mzieme -- identified as the NE dialect of Zemi but treated as a separate language.

Territory parallels that of Kabui/Liangmai, to the NW of the latter, between them and the plains. c. 30,000.

F. Rengma (Tseminyu, Nzong, Nzonyu, Unza) -- c. 4000. W Naga Hills N of Tengima Angami, with the plains to the W, Sema to the E, Ntenyi and Lhota to the N.

Angami Branch

A. Angami

(1) (Memi) -- c. 30,000. Far N Manipur.

(a) (Mekrima) (Mekroma, Maikel)
(b) Sopvoma (Mao)

(2) Kezhama -- c. 10,000. SE portion of the Angami area of the Naga Hills. It should be noted that Shafer saw Sopvoma and Kezhama as closely related to each other and more closely related to Sema than to Tengima or Chakrima.

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(3) (Tengima) (Western Angami) -- c. 35,000. W portion of the Angami area of the Naga Hills.

(a) (Viswema-Khonoma) -- SE Tengima area.

- Dzuna
- Kehena
- Mima
- Khonoma

(b) Mozema (Mezoma) -- SW Tengima area.

(c) Kohima -- NE Tengima area.

(d) (Chakroma) -- NW Tengima area, adjacent to the plains.

(4) Chakrima (Chokri, Eastern Angami) -- c. 15,000. NE portion of the Angami area of the Naga Hills.

B. Sema (Simi) -- c. 50,000. N of Chakrima, but with a single village in the far SE of Chakrima country, reflecting a more southerly origin.

CENTRAL NAGA SECTION

Lhota Branch

A. Meluri (Eastern Rengma, Naked Rengma, Anyo) -- c. 4000.
SE Naga Hills, E of Chakrima. Spoken by descendants of Northern Rengma migrants; most closely related to Ntenyi.

B. Ntenyi (Inseni-Kotsenu, Northern Rengma) -- c. 2000.
Most closely related to its offshoot, Meluri; less closely to Lhota, to the N, and to Rengma proper, to the S.

C. Lhota (Hlota, Lotha) -- c. 25,000. W Naga Hills.

D. Yimchungrü (Yachumi, Yimchurr) -- c. 15,000. E Naga Hills, at the latitude of Lhota but separated from it by Sema and Sangtam, which it also resembles.

Ao Branch

A. Ao (Hatigoria) -- c. 60,000. NW Naga Hills, bordering the plains on the W, N of the Lhota.

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The E boundary of most of the principal section of the Ao is the Dikhu River. On the E bank of the Dikhu, from S to N, they are bordered by Lophomi Sangtam and by Northern Nagas: Chang, Phom, and Konyak.

(1) Changki -- Four villages, far SW of Ao territory. Characterized by Mills and treated by Marrison as a subdialect of Mongsen, but the Changki have been in the process of "becoming" Mongsen, so the dialectical similarities may represent convergence.

(2) Mongsen -- S and W of Ao territory.

(3) Chongli -- E of Ao territory.

The two major 'dialects' of Ao, or so treated by Mills and Marrison, but cf. Mills:

> Most Mongsen-speaking individuals know Chongli, while comparatively few persons whose natural dialect is Chongli can speak <u>or understand</u> Mongsen. The spread of the Chongli dialect has received great impetus from the work of the Mission (1926: 333; emphasis added).

Though it can be read otherwise, it seems to me that this is best interpreted as referring to bilingualism in a context of mutual unintelligibility.

(4) Trans-Dikhu Ao

(a) Yacham -- Spoken in one or two villages in Phom country.

(b) Tengsa (Tangsa) -- Ditto. Not to be confused with the Northern Naga language of the same name.

(c) Longla -- Spoken in one or two villages in Chang country. Not to be confused with Longsa, the one trans-Dikhu Chongli village.

B. Sangtam -- c. 20,000.

(1) Lophomi -- C Naga Hills, SE of Ao, NE of Sema, N of Yimchungrü, which it also resembles.

(2) (Thukomi) -- C Naga Hills, E of Sema, S of Yimchungrü.

(3) (Pochuri) (Phorr, Photsimi, Southern Sangtam) -- SE Naga Hills, S of Thukomi, E of Chakrima.

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Southeast Naga Branch.

A. Tangkhul -- c. 45,000 in Manipur (NE); this does not include the related population of the Somra Tract across the border in Burma. Numerous dialects, eight of which are treated by Marrison.

B. (1) Maring -- c. 7500. SE Manipur.
(2) Khoibu.

In all, Marrison has compiled and organized extensive materials on twenty-four Kukish languages or dialects, as well as more limited vocabularies for fifteen additional dialects. As he says, with particular reference to what I have called the Central Naga Section, "these languages are considerably mixed and their exact affiliations and origins have not been established" (268). This is a rich field for the application of the comparative method. But perhaps the most intriguing problem, from the perspective of Tibeto-Burman classification at large, has to do with the status of the languages of Marrison's third group: those which Shafer labelled "Nagish". We now have sufficient background to describe the linguistic geography of the area in which these languages are to be found.

I.2.2. The Linguistic Setting of the Northern Naga Languages.

Marrison's third ("Konyak") group of Naga languages are spoken in the northeasternmost ranges of the Assam-Burma divide. The divide, as the approximate co-ordinates of its termini (21°N 93°E at the southerly base of the

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Chin Hills, 27°N 96°E at the head of the Patkai Range) indicate, runs predominantly north and south; in its upper reaches, however, it bends eastward like a negatively accelerating curve. This is why some of the older writers referred to the groups with which we are concerned as Eastern Nagas (e.g., Michell 1883; cf. Hutton 1921a: 383). But because in the Naga Hills themselves (i.e., in the greater part of the Naga territory) the axis of the ranges is still NNE, it seems preferable to use a north-south, rather than an east-west, gradient to distinguish the major Naga groups.

The Northern Nagas are situated to the east of ca. 94°45' E longitude and to the north of ca. 26°10' N latitude. The divide at this point is about seventy-five miles in width, from the Brahmaputra plain on the northwest to the Chindwin valley on the southeast. It runs ENE for another 120 miles or so, narrowing to about fifty miles across. Just beyond, the headwaters of the westward-flowing Buri Dihing, a tributary of the Brahmaputra, approach those of the southward-flowing Chindwin; the two are linked by the Pangsou Pass (ca. 96°15' E, 27°15' N), the old trade route between the Hukawng Valley on the upper Chindwin and upper Assam. This is Singpho (= Jinghpaw, Kachin) country on both sides and marks the northeastern terminus of the Naga country. (See the maps in Michell 1883, Guha and Basu 1931, Leach 1964 [1954], and Elwin 1959.)

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The Naga groups bordering the Northern Naga territory on the south, in a crescent dipping from the plains of Assam to the southeast and then east to the Patkai spine, are the Ao, the Sangtam, the Yimchungrü, and the linguistically unknown Khiemnungan (Kalyo-Kengyu); except for (though possibly including) the last, all have Central Naga languages. On the east, along the valley of the upper Chindwin, are Kachin, interspersed with two or three pockets of Shan settlements. To the northwest are the Assamese in the Brahmaputra plain, though there survive here a small number of Chutiya, once the rulers of upper Assam, whose language is Barish. This is the situation today -- the "ethnographic present" here referring to the latter half of the nineteenth and the twentieth century.

The establishment of Assamese -- an Indic language closely related to Bengali -- as the speech of the Brahmaputra plain is, however, a very recent development. It postdates the incorporation of Assam into the Indian Empire in 1823, with the attendant establishment of pax Britannica and, more important, the circumstance that

> It was . . . found necessary, at a very early stage, to seek for tea garden coolies elsewhere, and in 1853 the Assam Company had already begun to import labourers from Bengal (Gait 1963 [1905]: 412).

In 1905, Gait could still write that "although Aryan languages are now predominant . . . the strain of Aryan blood is very thin" (ibid.: 7), whereas in 1965 Burling observed that (in contrast to elsewhere in Southeast

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Asia[1])

> Only in Assam is the racial difference between the people of the mountains and those of the valley great enough to prevent a hill man from losing himself among the plains poulation (Burling 1967b: 215).

First in language, and then in the composition of the population itself, the Indic element became predominant in the plain, as it had been in religion for many centuries. But it has had little effect on the languages of the adjoining hills. In Marrison's compilation of Assamese loanwords in the Naga languages, only the following are listed as appearing in two or more of the seven Northern Naga languages treated: DONKEY, NAIL, KEY, GOLD, MONEY, HOUR, and THOUSAND.

The British wrested control of Assam from the Burmese, but Burmese rule -- really, military occupation -- was evanescent, commencing only in 1819. For some five hundred years before this date, upper Assam was ruled by the Thai Ahom, whose language was hardly more than dialectically differentiated from that of the Shan of northern Burma, from whence they came, and again from Siamese itself. This lack of differentiation of the Thai languages, whose geographical compass already in the thirteenth century approached that of Tibeto-Burman east of the Himalayas, bears witness to the much greater time depth which must be assigned for the diversification

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[1]Assam is not generally reckoned a part of Southeast Asia, but the affinities of its tribal populations to the south of the river are with Burma rather than India.

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of the latter.

The Ahom first appeared in upper Assam in the early thirteenth century. They were not at this time Buddhist, as the Shan of Burma were later to become, and in about 1400 the court came instead under Brahmanical influence, culminating in its adoption of Vaishnavite Hinduism in the mid-seventeenth century (Gait, ibid.: 83-84, 99, 105; Gogoi 1976: 16, 17). In 1523 they succeeded in subjugating the Chutiya kingdom, apparently the last of the Barish-speaking states in upper Assam (Gait, ibid.: 89). But they ruled as an aristocracy (Burling 1965: 94), and it is possible that their language was never adopted by the mass of the population. At any rate, it had been almost entirely supplanted by Assamese by the end of the nineteenth century: Peal writes that of the descendants of the Ahom, still speaking and writing the language, "a few hundred alone remain" (Peal 1881-2); whereas Chutiya continued to be spoken (Gait, ibid.: 41), returning some 9000 speakers even in 1961 (Kunstadter 1967: 209).

Nevertheless, for perhaps six or seven centuries the Ahom and the Northern Naga dominated contiguous territories, in the upper Brahmaputra plain and in the ranges bordering it on the southeast. Marrison has been assiduous in seeking out instances of possible Ahom loanwords in the Naga languages (219-222), and the comparisons he proposes are heavily weighted to Northern Naga: of 46 Ahom words cited, 34 are compared with forms in one or more of

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the Northern Naga languages. I would evaluate about a third of these (11) as sound, and another third (11) as plausible but indeterminate; most of the comparisons in these two categories, however,-- 16 out of 22 (see below for exceptions) -- involve only a single isolated form in one or another Northern Naga language. Eight of Marrison's comparisons may, I think, be rejected on comparative grounds:

1. TEN Ahom šip, Maring cip, Nocte i chi. Marrison may be stretching the plausible comparison with Maring (SE Naga) to Nocte, but (a) palatal initials are notoriously unstable in TB generally, (b) Nocte does not normally drop labial finals, and (c) Nocte i chi, though isolated in Northern Naga, is best compared with Dimasa ji, Jinghpaw ci ~ ši, and Burmese a chai, as Benedict suggests in deriving all of these forms from a PTB *tsyay (STC 94).

2. SLAVE Ahom kha, Yogli kha wa. The Yogli form comes from NN *kla^{B}, with cognates in four other Northern Naga languages.

3. GINGER Ahom khiŋ, Nocte ciŋ. The Nocte form comes from NN *ji°ŋ, with cognates in three other Northern Naga languages; cf. also Dimasa ha jiŋ.

4. KNOW Ahom šaŋ, Konyak šiŋ. I derive the Konyak form, along with Chang Šen 'recognize', from an NN *C-khyeŋ, cognate with Tibetan mkhyen-pa and Jinghpaw cyeŋ (STC 51, #223).

5. SPEAK Ahom ba, Khamti wa, Wancho wan (Khamti is another Thai language of upper Assam). The Wancho form comes from NN *C$_{V}$-wər, with cognates in three (possibly four) other Northern Naga languages. As no definite TB comparisons for these forms can be found

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outside Northern Naga, however, there is a possibility that the word came into NN itself -- i.e., into the Northern Naga protolanguage -- from Ahom. As in the case of SLAVE (above), which also has no definite TB comparisons outside Northern Naga, I reject this possibility because the NN form is more complex than the Ahom (especially in its syllable closure). See also the entry for the following item.

6. SUN/FIRE Ahom ban, Khamti wan, 'sun'; Yogli wal, Moshang var, Nocte/Wancho van, Chang wan, 'fire'. The Northern Naga terms, along with Konyak a~ka and Phom o, come from NN *2-wa°r, FIRE. This root has certain cognates in Dimasa wai, Garo wa2l, and Jinghpaw 2wan, 'fire', and highly probable ones in (e.g.) Chairel phal < *phar 'fire', Tibetan 'bar-ba 'burn, catch fire, be ignited', and Miri par 'light (as a fire), ignite' (STC 50, #220), all referred by Benedict to a PTB *bwâr~*pwâr, and further related to Chinese b'i̯wăn/b'i̯wᵊn < *bwan < *bwâr 'burn' and Xwâr/Xwâ < *phwâr 'fire' (STC 174, n.463), so that the root goes all of the way back to the PST level.

Even if it were not for this derivation, by which the Northern Naga forms may be traced not only to Proto-Tibeto-Burman (hereafter PTB) but even to Proto-Sino-Tibetan (hereafter PST), the NN form is, if not more complex, at least probabilistically prior to the Ahom form if the two are indeed related, for in these languages *-r > -n is an extremely common development, while I know of no examples of *-n > -r.

This may be relevant in view of the correspondence Ahom b- : Khamti w- : NN *-w- in both SPEAK and SUN/FIRE, which does suggest a relationship. In view of the PTB/PST derivation of NN FIRE, however, the direction of borrowing is more likely to have been from some TB language (probably Barish)

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into Ahom, rather than the reverse. The semantic difference, with respect to which NN 'fire' agrees with other Tibeto-Burman (and Chinese) forms for 'burn' and 'fire', against Thai 'sun', and for which a 'fire' > 'sun' shift is likelier than its opposite, leads to the same interpretation.

In the two remaining instances, Marrison cites two Northern Naga forms; in each of these instances, the comparison is plausible for one of the two forms, but may be rejected for the other:

7. BAG Ahom thuŋ, Khamti thoŋ, Nocte khatoŋ (Butler; Robinson has khat toŋ [khat = 'cloth'] and Das Gupta has just toŋ, for 'basket'), Wancho ni tzuŋ (Peal; ni = 'cloth'). The Nocte comparison is reasonable, particularly as *-uŋ > Nocte -oŋ. But Wancho tz- goes back only to *-j-; the Nocte and Wancho forms correspond neither with respect to their initials nor with respect to their rhymes. If they were borrowed, they were borrowed independently.

8. BEAT Ahom phat, Yacham-Tengsa ta phet, Nocte vat, Wancho pit. The Wancho form, with cognates in Phom (phei) and Chang (-phet-), comes from NN *phe't, for which Yacham-Tengsa provides an external comparison. The Nocte form does not go with this set, and may well have been borrowed from the Ahom.

In four additional instances, Marrison's comparisons are sound in that the Ahom and Northern Naga forms he cites are certainly related in some way, but the evidence suggests that it is the Ahom form which was borrowed -- as for SPEAK and SUN/FIRE, if the similarity in these two cases is not fortuitous:

1. LETTER Ahom lai, Konyak lai lan, "and similar forms

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in other Naga languages for 'letter', 'book'". The Konyak form is from NN *lay, LEAF(2)/BOOK, the Chang cognate having both senses, as well as (in comp.) 'paper'; cf. also Dimasa ba lai 'leaf'.

2. RING Ahom khop, Nocte khap. I derive the Nocte form, along with Wancho kap-, Konyak šep-, and Chang -kap, from an NN *khyap -- with medial glide on the basis of a comparison with Jinghpaw -cop < *-kyop.

3. ROPE/BRIDGE Ahom šai 'rope', Nocte si, Wancho/Konyak šai 'bridge'. The Northern Naga forms, along with Moshang hi, come from NN *C_V-kray, BRIDGE; cf. Dimasa yao kha rai (yao = 'hand'), Jinghpaw ma khrai, as well as Loloish cognates of the last (cited by Matisoff, STC 38, n. 123), all of these taken together strongly supporting a reconstruction PTB *N-kray. This may be an unusual instance -- perhaps the only one -- of an Ahom word having been borrowed directly from Northern Naga.

4. SILVER Ahom ŋan, Nocte/Wancho ŋun, Konyak/Phom ŋin. The Northern Naga forms (also including Wancho Muthun ŋwun) come from NN *ŋuil; cf. Tibetan dṇul, Burmese ŋwe. The argument for this NN reconstruction, which can be extended to a PTB *ŋwil, is a complicated one, and the interested reader is referred to the section on the NN *-uil rhyme in Chapter III. Benedict (p.c.) suggests that the Naga forms here may in fact have been borrowed from Thai, but the vocalism is precisely parallel to that for HAIR(1), NN *muil, < PTB *mwil (also Benedict, p.c., for this revision of the STC's *(-)mil ~ *(-)mul). Again, as for *-r > -n (see SUN/FIRE above), a form in -l is probabilistically prior to a related form in -n.

There are only five instances cited by Marrison in which, in my judgment, forms in two or more Northern Naga

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languages have been derived from an Ahom loanword. Three of these are of minor interest, as they are not reconstructible for NN:

1. CUP Ahom ban, Nocte ban, Konyak wan. Konyak does not have b- (see Chapter II) except in one isolated form, probably itself a loan, but NN *b- > Konyak p-.

2. MAD Ahom ba, Nocte a pa, Wancho bo. Neither Nocte p- : Wancho b- nor Nocte -a : Wancho -o is a reconstructible correspondence; the two forms probably reflect independent borrowings from Ahom.

3. SIT Ahom naŋ, Yogli ŋaŋ, Moshang noŋ. The two Tangsa forms could both come from *nəŋ or *noŋ (with assimilation of the initial to the final in Yogli).

In two cases, however, we must posit an Ahom loanword as the source of an NN reconstructed form:

4. KNIFE Ahom mit, Noçte mit cha, Wancho bit sa, Konyak ñit. The Northern Naga forms (first syllable; second syllable is 'son') come from NN *ç-mi˚t. There are no other TB comparisons.

5. BIG (also 'great') Ahom luŋ, Konyak yoŋ pu, Phom loŋ pə, Chang yaŋ bu. The Northern Naga forms, along with Yogli a juŋ, Nocte a doŋ, and Wancho coŋ, come from NN *gluŋ; cf. also Dimasa -yuŋ, Koch cuŋ-, 'great'. The word is restricted, within TB, to Barish and Northern Naga, however, so that the adoption of the Ahom word into the language or languages ancestral to these groups -- prefixed there by g-, a common adjectival prefix in Barish, this prefix coalescing with the initial (as is regular) in NN -- is its probable source.

Finally, there is one case of an NN reconstructed form for

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which the evidence for borrowing and that for a derivation from an earlier level of Tibeto-Burman is tilted to the former, but not conclusive:

6. GO Ahom ka, Yogli/Moshang/Nocte ka, 'go', Chang ko 'go!, begone!'. The Northern Naga forms are from NN *ga^{A} -- assuming that they have not been borrowed directly, an assumption supported by Chepang ga^{A} 'stride', with matching tone.

All in all, then, there is surprisingly little evidence for any significant influence of Ahom on the Northern Naga lexicon. That such influence was scant is merely underscored by the attribution of the NN words for 'knife' and 'big, great' to Ahom, as these indicate a considerable time depth for Ahom-NN contact, the initials of each having undergone substantial transformations after NN split into its daughter languages.

I have cited Khamti forms above only when they differed from the Ahom; in many cases they are identical. Khamti, though a likely source for late borrowings by the more northerly Northern Naga languages (Yogli, Moshang, possibly Nocte), need not be considered as a possible influence on NN itself. The Khamti are Shan from Burma, arriving in upper Assam only at the end of the eighteenth century (Gait 1963 [1905]: 205, 344; Leach 1964 [1954]: 35), and establishing themselves, interspersed with Singpho (= Jinghpaw, Kachin) at the very head of the Brahmaputra valley.

Before the penetration of the valley by the Ahom

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in the thirteenth century, it had long been occupied by speakers of Barish languages, who very probably entered it from the east as the Ahom did centuries after. As we have seen, both Shafer and Benedict are of the opinion that the Northern Naga languages are more closely related to Barish than to any other Tibeto-Burman nucleus; yet all of the other languages of the divide are Kukish. If Benedict and Shafer are correct about the Barish affiliations of these languages, we should ask whether their presence in the hills is, like the presence of Barish itself on the plain, of considerable antiquity; or whether it might not post-date, and indeed be a repercussion of, the Ahom incursions. According to Michell, "the Tablung [Wanching Konyak] clans occupy land which was a sort of penal settlement of the Ahom kings" (1883: 204). If the Northern Naga languages were originally carried into the hills by refugees from Assam valley, who were the inhabitants of these hills before this time? If the Northern Naga languages are Baric, might their divergence from Barish be attributable to the influence of the languages spoken there before them?

The inhabitants of Assam valley itself before the coming of the Tibeto-Burmans were probably speakers of Austroasiatic languages. The present distribution of languages of this stock, including Khmer (Cambodian), Mon in lower Burma, Wa along the border of Yunnan and the Shan states in upper Burma, Semang in interior Malaya, and probably Vietnamese, strongly suggests that at one time they

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occupied virtually all of mainland Southeast Asia. An even broader compass is attested by the Munda languages of the hills of Chota Nagpur, west of Bengal on the subcontinent; by Khasi in Assam, spoken in the eastern half of the Shillong Plateau; and by Forrest's (1962) argument for an Austroasiatic substratum in Lepcha, spoken in Sikkim, apparently accepted by Benedict (1972: 7).

No Austroasiatic language is spoken in the Assam-Burma divide or in its immediate environs. But recall that Shafer actually classified Lepcha in his Ao unit, as what we have called a Central Naga language -- and within this unit with the trans-Dikhu languages Tengsa and Yacham (1955: 106). In discussing these languages, Marrison, after classing them as Ao (in a CDG) and noting their Phom affinities (ascribed to contact), comments: "There also appear to be some unique features which may indicate another original element in their make-up" (App.: 371).

It seems possible that what these languages share with Lepcha may be an Austroasiatic substratum; if so, this would place speakers of an Austroasiatic language on the divide, in what is now Northern Naga (Phom) territory.[1] There are some intriguing parallels between certain Northern Naga forms and certain forms, cited by Marrison, in one or another Austroasiatic language, though serious

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[1]Voegelin and Voegelin claim that "additional field work since Shafer's classification appeared suggests that Lepcha is better classified with the Naga branch of the Bodo-Naga-Kachin family" (1965: 8) -- i.e., as Northern Naga. As usual, they do not cite their authority.

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claims cannot be made for these in the absence of systematic comparison with at least a Western Mon-Khmer mesolanguage. Cf. particularly, however:

LAMP/POT Mon khdek 'lamp'; Moshang/Nocte tik 'pot', Konyak tək 'pot', a tək 'lamp' (a = 'fire'), Phom dək 'pot', o dək 'lamp' (o = 'fire'), Chang cak 'pot', all from NN *2-dik, POT. Benedict (p.c.) considers this an early loan into TB from Indic, citing Bengali deg(h), but the striking parallel between NN *2- (which emerges only at the reconstructed level) and Mon kh- suggests an Austroasiatic source for the TB forms.

WHITE//MOON/STAR Khasi ba lih 'white', Khamti lən 'moon', NN *li˚t, STAR a /MOON(2), the source of the words for 'star' (in comp. with terms ≃ 'small') in Yogli, Wancho, Phom, and Chang, and of the words for 'moon' (in comp. with terms ≃ 'big') in Wancho, Konyak, Phom, and Chang (see Chapter IV for details). There appear to be no TB comparisons for this form.

TEN Khasi ši pón; Wancho ban, Konyak pen, Phom/Chang an, from NN *bo˚n. Again, no TB comparisons can be found.

STAND Khasi yeŋ, Ao Mongsen yuŋ li, Maring ma yuŋ, NN *yuŋ (five languages; see Chapter IV for details).

The other obvious candidate for a precursor to Baric in Northern Naga territory is Kukish. Though the issue can only be decided by detailed lexical comparison, three aspects of the distribution of the Kukish languages which may be relevant should be noted.

First, it happens not only that most of the languages of the Assam-Burma divide (all of them, except the nor-

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thernmost) are Kukish, but also that Kukish (with the exception of Mikir[1]) is spoken only in the divide. This is a "nucleus" which has the form of a strand of DNA, strung out for over five hundred miles while never exceeding a hundred miles in breadth. The Kukish languages are the concomitant of a sharply defined ecological zone. There is no evidence that Kukish languages were ever spoken in the plains.

This is not to deny the inferences of Luce (1959) and Hutton (1965) that the Chin entered Burma by way of the upper Chindwin valley and that the Chindwin was the route by which they slowly moved southward before entering the hills of the divide at their southern end. The question is whether we should not properly speak here of the ancestors of the Chin, not yet either hill or valley people in a time and place where that opposition had not yet developed. And even if we posit a time when proto-Chin were in occupation of the entire valley, we should expect a single language to have been spoken all along the watercourse. The diversification of Kukish took place in the hills.

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[1]But Mikir is divergent; is probably the precipitate of a migration from the divide; and is itself a hill language. The "Plains Chin" are recent migrants from the Chittagong Hill Tracts (Loeffler 1959, 1960) or the Arakan Yoma (Lehman 1963), where their several dialects (Sandoway, Thayetmo, Chinbon) are still spoken (Hill 1962). Some have actually crossed the Irrawaddy to settle, however, in another range of hills, the Pegu Yoma (Stern 1962).

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Second: within the hills, the regions showing the greatest linguistic diversity are in the far north, where Marrison was forced to conclude that the Central Naga languages "are considerably mixed and their exact affiliations and origins have not been established" (268); in the center, where Meithei is sufficiently divergent that Benedict hesitates to place it squarely within Kukish, where Kuki and Naga interdigitate, and where the influence of Meithei on both further confounds relationships; and in the far south, among the Southern Chin (= Southern Kuki) (Lehman 1963: 17). The valley of Manipur, however, has been a center of disturbance rather than of dispersal; as we have seen, its Kuki languages are those of refugee and migrant groups which have moved into it at various times and from various places in the hills to the south.

Third: all of the evidence at our disposal, historical and inferential, points to the direction of the major population movements in the divide, and throughout its length, as having been from south to north. Lehman places the center of dispersal for all of the Kuki languages in the southern Chin Hills (1963: 18), and the more recent movements of 'Old' and 'New' Kukis north into Manipur and Cachar thus merely replicate the ancient pattern. But the Southern and Central Naga languages are also Kukish, and so must ultimately also derive from this southern point of origin. A

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glance at Hutton's map, "Migrations of Naga Tribes according to their own traditions" (1921a: f.7), shows that all of the major tribes of the Naga Hills claim a more southerly origin: the Angami from what is now Tangkhul country, the Sema, Rengma, and Lhota from Kezhama country, the Lophomi Sangtam from the southernmost part of Thukomi Sangtam territory, the Ao from what is now Lhota and Sema country -- even the Chang from what is now Sema country (of which more later). In most cases these traditions are substantiated by other evidence. Furthermore, as one moves north after leaving the Southern Chin Hills, successive language groupings appear to be more and more divergent from those which precede them. At the two termini, the linguistic diversity of Southern Kuki and that of Central Naga are thus of different kinds. The former appears to be that of definitely related languages which have become differentiated more or less <u>in situ</u> over a long period of time, and whose higher-order relationship with the less differentiated Central Kuki languages is clear. The latter appears to be that of tentatively and tenuously related languages whose present locations are the result of an indeterminate number of discrete population movements involing divergent contact influences from yet other languages; and whose relationship to the less differentiated Southern Naga languages is equally tentative and tenuous. The

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Southern Kuki Branch of Kukish seems to satisfy the requisites of a center of dispersal, in that it shows greater differentiation than co-ordinate groupings (e.g., Central Kuki, Northern Kuki, or even the two taken together), while it is possible that Central Naga is so divergent that its proper co-ordinate is all of the balance of Kukish.

The general model that best accounts for these distributional data is one which posits an initially slow and more or less continuous peopling of the divide by northward-moving Kukish-speaking groups already having subsistence, social, and political systems adapted to the hill country. These groups may well have assimilated Austroasiatic-speaking groups which were there before them, irregularly distributed, and which may thus have contributed to the diversification of their languages. In a second phase, certain of these groups -- e.g., the Central Chin generally and the Lushai in particular, the Angami, the Sema -- grew and rapidly extended their territory through military conquest, partly assimilating and partly driving before them the other peoples in their path, thus setting off other, reactive, movements and effacing linguistic continuity. (On the Chin, see Lehman 1963: 18, 26; on the Lushai, Shakespear 1912: 2-6; on the Angami, Hutton 1921a: 6-7; Mills 1937: 5-6; Mills 1922: 3-5; on the Sema, Hutton 1921b: 6-8.)

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It is the earlier of these two postulated phases in the movement of Kukish-speaking peoples northward up the divide which is of interest here. The disjunctive assignment of the Central Naga languages to Kukish and the Northern Naga languages to Nagish obscures the possibility that the Kukish advance did not suddenly draw up short at the co-ordinates given above as the western and southern boundaries of Northern Naga territory, but pressed on to the nether reaches of the divide, to later contribute a Kukish substratum to the Northern Naga languages. There are no natural boundaries here, no transition between ecological zones such as that which sets the divide off from the plains.

Hutton notes a number of detailed correspondences in items of material culture which are shared by the Angami and Southwest Nagas with the Konyaks, "otherwise so extremely different", but with none of the intervening groups. These items — cane knee-rings, buffalo horn bugles, woven palm-leaf rain cloaks, the method of male hair-dressing — have in effect the status of cognates (shared retentions) (Hutton 1921a: 386; cf. Hutton 1965: 24-25, 30, 31, 34). But whether their linguistic correlative was Austroasiatic, or Kukish, or Baric, we cannot at present say. Mills, whose experience in the Naga country spanned thirty years, thought finally that the Konyaks (or their ancestors)

> once spread over the whole of [the Naga Hills] and were conquered and incorporated by the many tribes

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> of widely differing customs which we now lump together as Nagas . . . Hundreds of miles from their present home one finds traditions of a folk whose men squeezed their waists into tight cane belts . . . Their ancient monoliths still stand on soil now alien and their customs survive among tribes which have forgotten their name. (Mills 1948: 149).

This opinion as to the archaic character of Konyak culture was affirmed by Hutton (1965: 32). Thus, the determination of the exact affinities of their language is of the greatest interest for the ethnology of the region as well as for Tibeto-Burman linguistics.

We have reviewed four dimensions, or possible dimensions, of the linguistic environment or background of the Northern Naga languages: Barish (< Tibeto-Burman < Sino-Tibetan) and Ahom (< Thai < Austro-Thai) are successively attested historically in the plains at their feet, though neither has survived in that region today; Kukish (< Tibeto-Burman < Sino-Tibetan) is still spoken in the hills on their flank; and some language or languages related to Khasi (< Mon-Khmer < Austroasiatic) may have been spoken in either zone in prehistoric times. It remains to consider the languages spoken at their back, as it were, across the Patkai Range in the valley of the Chindwin. The imagery is appropriate because the languages which are the subject of this study (the only Northern Naga languages for which we have sufficient information) are all spoken on the Assam side of the divide. Those on the Burma side are virtually unknown (but see below).

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The linguistic prehistory of the upper Chindwin valley bears some similarities to that of upper Assam. As in Assam, it was undoubtedly a Tibeto-Burman-speaking population which came under the control of a Thai-speaking aristocracy, the Shan, no later than the beginning of the thirteenth century. Shan and Ahom may have been no more than dialectically divergent, the Ahom having originally set out for Assam from the Shan states in the Hukawng (upper Chindwin) valley. Leach (1964 [1954]: 239-240) places the Shan in upper Burma much earlier, but on the basis of an identification of the eighth century kingdom of Nanchao in Yunnan as Shan, a conjecture already current but conveniently supportive of his polemic. This conjecture was dismissed by Burling as no more likely than that Nanchao was Tibeto-Burman (1965: 93). Nanchao apparently had a genealogical patronymic linkage system common among Burmish-speaking peoples, and on this basis Lo (1945) identified its linguistic affiliation as Tibeto-Burman rather than Thai. There seems to be no reason to believe that Shan penetration of upper Burma, or at least of the upper Chindwin valley, was not part of the same movement which carried the Ahom into Assam in the early thirteenth century, as Coedes (1969 [1962]) asserted.

The Tibeto-Burman-speaking people who (outside of scattered Shan settlements) are dominant in this region today are the Jinghpaw Kachin. Whether the Kachin were

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already in occupation of the valley at the time of the Shan invasion is another question. Hanson (1913: 18) says that the Kachin did not appear in Burma until the seventeenth century. Benedict's postulated 'Garo-Kachin' linkage suggests that peoples speaking a language related to Jinghpaw should have been there much earlier. Taman may be an isolated remnant of such a language. At any rate, for at least the last three centuries, Jinghpaw Kachin has been the language of the low hills along the upper Chindwin and its tributaries, as it has been the language (interdigitated with Hkamti Shan) of the passes linking Burma with Assam.

1.3. The Northern Nagas and their Languages.

Marrison includes seven Northern Naga languages in his compilation. Let me begin this section by presenting his classification of these, with some additional basic information concerning their distribution, in the same format as that employed above to present his classification of the more southerly Naga languages.

Marrison set these languages apart in what he called the Konyak Group, as co-ordinate with his Ao-Tangkhul Group (= Central Naga) and Angami-Zeme Group (=Southern Naga). As noted above, Marrison's Konyak Group corresponds to Shafer's Nagish. But while Shafer did not propose a subclassification of Nagish, Marrison discriminates two "Types", A-1 and A-2, which I have labelled the Tirap and Konyak Branches of Northern Naga.

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NORTHERN NAGA

Tirap Branch

(These three groups comprised the high hill population of the Tirap District of the former North-East Frontier Agency [NEFA; now Arunachal Pradesh].)

(1) Tangsa -- c. 12,000 speakers in Tirap, a large but undetermined number across the border in Burma, where they are known as Rangpan, Haimi, Pyengu, Kuwa, and Htangan. Numerous dialects in both areas. These are the northernmost of the Northern Nagas. They extend farther to the south on the Burma side, where they are bordered on the SW by the Khienmungan. On the Tirap side they are bordered on the SW by the Nocte.

(a) Yogli -- according to Marrison (App.: 400), the northernmost of the Tangsas.

(b) Moshang

Marrison gives the terms for numerals in three additional dialects, but even these are taken from Dutta (1959), a questionable source. A dozen or so further terms are available for yet another dialect, Shangge. Steen (1948) gives a vocabulary of about 100 terms (numerals, body parts, material culture) for "Langsing" (Burma), apparently to be identified with the Langshin Rangpan of Dewar (1931).

(2) Nocte (Namsangia) -- c. 20,000 speakers. SW of Tangsa, with Wancho to their own SW, from the plains to the Patkai. Namsangia was the name given to the dialect recorded in Robinson (1849) and the name of one of three groups of (what we now know as Nocte) villages tabulated by Brodie in 1842 (Brodie 1873). The other two, Burdwar (= Bor Duaria) and Paneedwar (= Pani Duaria) are grouped by Peal (1872) as Mohongia. Peal gives the Mohongia terms for numerals, which Shafer curiously excludes from his consideration of the Northern Naga languages because they "give no particular grounds for believing the language to be Nagish" (1953: 229); although the dialect is distinct, this is simply not true.

(3) Wancho (Banpara, Mutonia) -- c. 30,000 speakers. SW of Nocte, with Konyak to their own

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SW, from the plains to the Patkai. The "Joboka and Banfera" and "Muthun and Khulung-Muthun" word lists of Brown 1851 represent, as Shafer (1953: 229) says, two very closely related dialects. Peal's (1872, 1873) Banpara vocabulary represents a third, equally closely related dialect. The Wancho treated here is Banpara (Peal)/Banfera (Brown); where these two dialects differ phonologically, they do so systematically.

These dialects cover only three of the twelve Wancho village groups identified by Srivastava (1973); there are at least two further groups (Joboka and Changnoi) across the modern political border in the Tuensang District of Nagaland.

Konyak Branch

("Konyak" because the Chang claim a Konyak origin while the Phom, between the two, have strong cultural affinities with both.)

(1) Konyak -- c. 40,000 speakers. SW of Wancho, from the plains to the divide in the north. Bordered on their own SW, adjacent to the plains, by Ao (Chongli); but farther east their territory extends well to the south, paralleling the Ao country but separated from it by Chang, with Khienmungan to the south.

The dialect recorded by Marrison is apparently that of the village of Wakching (=Jaktung), closely related to but distinct from that of Wanching (=Tableng, Tablung, Angwanku); the "Tablung and Jaktung" of Brown 1851, which differs from Marrison's dialect, must be that of Wanching. Brown's "Mulung and Sima" is also Konyak, probably the dialect of the village of Mon. All of these villages are near the plains; there are many further dialects in the interior.

(2) Phom -- c. 13,000 speakers by 1961 census count, a figure at variance with Hutton's (1929b) report that at that time they had only five villages, unless several of these were unusually large. They occupy an enclave on the east bank of the Dikhu, opposite the Ao country, with Konyak to the north and east and Chang to the south. The Chingmengnu dialect of the SW Konyak village of Tamlu (LSI, cited by Shafer) is also Phom.

(3) Chang -- c. 18,000 speakers. SW of Konyak, with Khienmungan to the east and Yimchungrü to the south. On the west they have in recent times pushed through to the Dikhu, sharing its east bank with Phom to the north and Sangtam to the south.

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Although the cultures of a number of the Southern and Central Naga groups had been described in a set of richly detailed ethnographic monographs by Hutton (1921a, 1921b) and Mills (1922, 1926, 1937), all of which included grammatical sketches and vocabularies, the Northern Naga country was ethnographic terra incognita until quite recently. The hill country was never incorporated into the Ahom kingdom, and British administration, though finally extended to some of the most southwesterly Konyak villages, never went beyond. As a result, we have only one substantial ethnographic report on a Northern Naga group from the British period, von Fürer-Haimendorf's on the Konyaks of Wakching (1938). A later field trip enabled von Fürer-Haimendorf to collect material on the Wanchos, and this was published along with an expanded treatment of the Wakching Konyaks as Fürer-Haimendorf 1969. When we add to this Srivastava's survey of the Wanchos (1973) and the two brief sketches Hutton published on the Chang (1921a: 377-382; 1929a: 3-5), we have the sum total of the general ethnography of these peoples. Some additional information may be culled from tour diaries (e.g., Brodie 1873 [1842], Butler 1855, Hutton 1929b, Fürer-Haimendorf 1962 [1939], 1976), articles on particular aspects of culture (e.g., Hutton 1927, 1929c, Mills 1948, Steen 1948), and one faulted monograph on the Tangsas (Dutta 1959). It is difficult to reconcile the twentieth-century materials (all of which postdate 1920)

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with the nineteenth-century accounts, particularly the useful series of sketches by Peal (e.g., 1872, et seq.), because the place-names given in the latter are Assamese, while those given in the 'modern' treatments are those used by the peoples themselves.

The Ahom Chronicles' first reference to a Northern Naga group by its Assamese name[1] falls in a reign of 1493-1497, and is to Banfera (Wancho); the Tablungia (Wanching Konyak) are first mentioned at c. 1563 (Devi 1968: 31-34). These names are given as the names of village groups in Brodie's tour report of 1842 (Brodie 1873), apparently the first systematic reconnaissance of the Northern Naga country by the British; Brodie's report covers large parts of the Konyak, Wancho, and Nocte country, but does not extend to the Tangsas, who still do not appear on Michell's map of 1883. It is not until 1892 that we have an observer (Peal) who begins to refer to Northern Naga groups by their own names (Peal 1892, 1892-3); here too we have the first reference to the Tangsa, though not by name. The designations "Tangsa", "Nocte", and "Wancho" do not appear in print until 1933 (Johri 1933).[2] The terms "Konyak" and "Phom"

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[1]It was in the sixteenth century that the Chronicles began to be compiled in Assamese, as well as in Ahom, but the earlier Ahom chronicles were translated into Assamese versions; it is in one of the latter that the name appears (Devi 1968: 12-14; Gait 1963 [1905]: xiii).

[2]But found in a 1962 Indian "reprint"; they do not appear otherwise until 1959-1961.

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appear for the first time in Hutton 1921a, "Chang", as a language name, in Grierson 1903.[1]

Only in the case of the Chang can we say with reasonable certainty, on Hutton's testimony, that the collection of villages so designated (by their own inhabitants) formed a culturally distinctive grouping; i.e., that the appellation "Chang" referred to a valid cultural category over and above its components and subdivisions, and against its external affinities, rather than to an administrative expedient. There is a good historical reason for this coherence as compared to the questionable validity of other Northern Naga groupings: the Chang were "a new tribe. Their chief village -- Tuensang -- has only existed for 11 generations" (Hutton 1929b: 46); "from this village all or most of the other Chang villages are derived" (Hutton 1921a: 377):

> In all directions the parent village of Tuensang . . . has thrown out offshoots which have conquered and practically absorbed the neighbouring tribes, and which have spread the influence and the mixed culture of the conquerors even beyond the area of actual subjugation, so that Sangtam villages to the south and Phom villages to the north are becoming assimilated to the Changs in between.
>
> . . . the Changs started by decimating the villages of their Ao neighbours, and followed by annexing their lands and occupying their sites and allowing those of the former owners that survived to come back as subjects, and this process was only stopped by the British occupation (Hutton 1929a: 3-4).

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[1] I have not used this as a linguistic source because it is superseded by Hutton's far more complete work, from which it differs in certain respects. Compare particularly VULVA, potentially valuable for its rare rhyme but of indeterminate initial (Grierson has suk, Hutton ʒuk).

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If the figure of eleven generations is correct, Tuensang would have been founded in about 1650. That the Chang should thus be considered a "new" people offers an idea of the time scale with which we have to deal in Naga prehistory. The coherence of their culture when compared to that of their northern neighbors is ironic, however, for as Hutton's description of it as "mixed" recalls, Chang tradition also avers that Tuensang was founded by groups of both Konyak and Yimchungrü. This is affirmed by Hutton:

> This mixture of elements is very patent in Chang culture. . . . Generally speaking, however, the culture is more Yimtsung than Konyak [but] the Konyak element seems to have predominated in speech in proportion as it has succumbed in culture (ibid.)

And, indeed, Hutton classifies the Chang as Central Nagas on the basis of their cultural affinities (1921a: 351): a Central Naga culture with a Northern Naga language.

I have quoted Hutton at length on this topic not only because of the light which might thereby be thrown on Chang linguistic divergence from the Northern Naga type, but also because it suggests a model of assimilative sequence when one group subjugates another, as has undoubtedly happened so often in these hills. We see here Sangtam, Phom, and Ao in the initial phases of "becoming" Chang (cf. Leach 1964 [1954], esp. 293-297); to oversimplify, the culture of the threatened or subjugated group is assimilated to that of the dominant, while

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their language (for the time) remains unchanged (cf. Mills 1926: 2, 333, for specific examples). Thus, the Chang themselves probably "are" Konyaks who have become assimilated to Yimchungrü cultural patterns.[1]

But what it means to "be" 'Konyak' is by no means clear. One complilation, the Statistical Handbook of Nagaland (Nagaland 1965) classifies every village therein by both "tribe" and "mothertongue"; twenty-nine distinct languages are attributed to the ninety-two villages shown as 'Konyak'. (In comparison, the same source lists four Ao languages; Lhota, Sema, and Chang are undifferentiated.) These figures could of course represent an exaggeration of differences, but the general pattern has been independently affirmed:

> In the Konyak country it was . . . possible to traverse in a single day several linguistic areas, and the material culture too differed noticeably from village to village. Among most of the other Naga tribes there was much less linguistic and cultural diversity, and in Ao or Angami country one could travel for several days without encountering significant local variations (Fürer-Haimendorf 1969: 9).

Von Fürer-Haimendorf's reference to "other Naga tribes" does not apply to the groups yet further to the northeast, which were at the time of his visit (1936-37) unadministered and unknown. Peal painted a vivid picture of the situation in unadministered territory (Wancho) after his

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[1] At least for a time; for "Changs believe that about three generations ago all their customs and dress underwent a radical change, and that platform burial was then introduced . . . It was at this time also that the practice of tattooing was adopted" (Hutton 1921a: 382): Konyak customs.

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first visit in 1872:

> As a consequence of . . . head-cutting, and its isolating influence, few Nagas reach the plains, but those living on the border. We thus see a community of some hundreds perched on a hill, and depending almost exclusively on their own resources, constantly fighting others similarly isolated, on all sides, yet thoroughly able to maintain themselves. Perhaps in no other part of the world can so complete a tribal isolation be seen, and sub-division carried to such an extreme (330).

With the Wanchos we again encounter the tradition of a 'mother-village' from which all of the villages of the group are descended: Changnoi (= Changnu, Hangnyu, Sangnyu, Sangloi). Brodie in 1842 noted that nominal tribute was paid the chief of "Changnoee" by "all the tribes eastward to the Booree Dehing" -- an exaggeration -- as a result of their chiefs' "having all been descended in some way or other from the Changnoee family" (1873 [1842]: 259); on the other hand, "the people of Changnoee . . . said they had little or no intercourse with the Nagas beyond them to the south ['Konyaks']" (ibid.: 261). This is confirmed by Peal, whose excellent maps (1892-3: Plates XII and XIII) show that Changnoi is on the far southwestern edge of the territory which it colonized, and that the eastern boundaries of this territory are congruent with those of the Wancho as described by Srivastava (1973). This suggests that 'Wancho', like 'Chang' may designate a coherent cultural unit; but this unit is <u>not</u> the 'Wancho' of the Census, which identifies the twelve Wancho villages in Nagaland (including Changnoi

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itself) as 'Konyak'.

Wancho tradition places the founding of Ru Nu (= Banpara), one of the largest and apparently one of the earliest Wancho villages in Tirap, at twelve generations ago. At "say, 25, 30 yrs. each", this would date Wancho expansion to c. 1550-1600 (Peal 1892: Plate I, f. 324). But as we have seen, the 'Banfera' Nagas are already mentioned in the Ahom Chronicles at about 1495, and an earlier occupation is confirmed by Peal's observation that "not less than" 400-year-old jack trees are to be found in every village in the vicinity of Banfera, but nowhere outside the villages (Peal 1872: 316, 320). Although the traditions may be in error, or Peal's estimate of the length of a Wancho 'generation' understated, this suggests that the 'Wancho' villages in Tirap were already going concerns before they became Wancho. The foundation of Changnoi itself, according to the tradition, is another eight generations removed, suggesting that the origin of the Wanchos -- i.e., probably, their separation from a generalized 'Konyak' matrix, but possibly also involving a movement up from the plains -- may date to the fourteenth century. This is a date which would be consonant with an interpretation which traced the occupation of the Northern Naga country by speakers of a Baric language to repercussions of the Ahom invasion.

As in the case of the Phom, we have virtually no information on the Nocte. They are said to have "had

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probably the closest ties with the plains" (Raghaviah 1969: 294) and some villages at least, probably those closest to the plains, are reported to have adopted Vaishnavite Hinduism (see e.g. Chakravarty 1973: 87). This would be the only recorded instance of a Naga group adopting a plains religion, but although no reliable first-hand information seems to be available, Devi dates the conversion to the early eighteenth century and places it in what is probably its proper context: Nocte Vaishnavism is of "a very elementary form . . . a compromise between the rules followed by the Vaishnavas and the tribal ways", for the Noctes were still taking heads as late as 1945 (Devi 1968: 19).

The Tangsas of Dutta's monograph (1959) are unrecognizable as Nagas, and the name "Naga" does not appear in his book. These facts might appear to be related, but there are two stories here. The first is that the Tirap Tangsas described by Dutta have for a long time been under the political control of Singpho (Peal 1892-3: 246) and have become assimilated to Singpho culture. These are the Nagas of the Tirap and Namchik valleys, and directly across these valleys lay one of the principal routes linking the Hukawng (upper Chindwin) valley with Assam; compare the map of Tangsa villages in Dutta (ibid.: fsp.) with that in Michell 1883. But formerly they were headhunters (Dutta 1959: 24-25). Chakravarty (1973: 88-89) recounts a 1908 report by Williamson of

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human sacrifice in 'Rangpur' (= Rangpan) country just across the divide on the Burma side: when a man becomes head of a household, a slave, bought for the purpose, is beheaded and the skull hung on the verandah. The Tirap Tangsa do the same, except that the head taken is that of a dog (Dutta 1959: 14-15).

That the Tangsa are nowhere called Nagas by Dutta is almost certainly a function of the political situation on India's northeast frontier; the designation is also conspicuously absent from Srivastava's monograph on the Wanchos (1973). Dutta's tour was in 1957. In 1956 the Naga National Council declared Nagaland a "sovereign republic" and took up arms in revolt. One of their aims has always been "to bring under one unified administrative unit as far as possible all Nagas" (from a document drawn up in 1948). In 1973 the insurgents were "still a fighting force, able to strike at their enemy and evade his counter measures" (Maxwell 1973: 17). The Indian government clearly has an interest in discouraging a belated discovery of 'Naga' identity among the Tirap groups. But Nagas they are, on cultural as well as on linguistic grounds.

The paucity of our ethnographic information on the Northern Naga groups is matched by that of our linguistic information. Hutton's 1929 Outline of Chang Grammar is still the most complete source available for any of these languages. Yet a good start had been made:

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we have word lists from Robinson (1849) for Nocte; from Brown (1851) for Nocte and for two dialects of both Wancho and Konyak; from Peal (1873) for Wancho; from Butler (1875) for Nocte; and from Needham (1897) for Moshang, to name only some of the more important nineteenth-century sources. By the turn of the century these word lists had been collated by the Linguistic Survey of India, and the languages represented in them (along with Chingmegnu, a dialect of Phom, and Chang) brought together as an Eastern Sub-group of Naga by Konow (Grierson 1903: 329-377; cf. Shafer 1953) -- essentially Marrison's solution. Thus the affinities among the six Northern Naga languages (all we had then -- and all we have now) were recognized at an early date. The only significant addition to this corpus for nearly fifty years was Hutton's work on Chang (1929a). This was also the first Northern Naga vocabulary collected from an 'inland' group -- i.e., from a region not directly adjacent to the plains.

It was thus on the basis of the Survey data, plus Hutton's Chang, that Shafer in 1953 undertook a re-examination of the classificatory status of these languages. As we have seen, he argued that Konow's Eastern Sub-group of Naga was more closely related to the Barish languages of Assam valley than to the other Naga languages. He based this conclusion on two lines of evidence. The first was a number of "unusual" words, common to Barish and Nagish (also to Jinghpaw). Only two examples are given:

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(Baric) *sal 'sun' and *war 'fire'. In most Tibeto-Burman languages the words for 'sun' and 'fire' are from PTB *nəy and *mey, respectively. In discussing the origin of the Baric terms, Shafer admits two possibilities: that they were "borrowed from a substratum language" or that they were "newly coined and replaced the old ones", implying that these terms appear only in Baric (and Jinghpaw); hence, whichever explanation is correct, they would have the status of shared innovations at the level of Proto-Baric, attesting to the genetic unity of Barish and Nagish (Shafer 1953: 227, 230). But these words are not restricted to Baric and Jinghpaw. The first appears in Bahing, a Himalayan language of Nepal, (tsyar 'to shine') and is (thus) reconstructible for PTB (*car) (Benedict 1972: 47, 208); cf. also Ao Chongli yar, Tangkhul han, both 'to shine'. The second appears both in Tibetan ('bar-ba 'burn, catch fire, be ignited') and in Miri (par 'light [as a fire], ignite') -- representatives of two different Himalayan Divisions -- and is (thus) also reconstructible for PTB (*bwâr ~ pwâr) (Benedict 1972: 50; 23, n.78), and even, on the basis of Chinese cognates, for Proto-Sino-Tibetan (ibid.: 191, n.488). They must therefore be interpreted as shared retentions in Barish, Nagish, and Jinghpaw -- hence, as weaker evidence for genetic relationship than Shafer thought.

Shafer's second line of evidence for grouping Nagish with Barish consists of the results of a search for, and

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tabulation of, comparisons between one or more Nagish languages, on the one hand, and Tibetan, Barish, Kachinish, Kukish, and Burmese, "that is, with the five principal Tibeto-Burmic groups, or a representative of them", on the other. These comparisons showed a greater number of correspondences

> between Nagish and Barish than between Nagish and any other group . . . the total for all the Nagish languages was 91 comparisons with Barish, 71 with Burmese, 70 with Katsin, 67 with Kukish, and 64 with Old Bodish [Classical Tibetan](ibid.: 229-230).

Thus this line of evidence does support an association between Nagish and Barish. Further, Shafer states that the sources consulted were less complete for Barish, implying a possible understatement of its relative affinity with Nagish.

But the only Kukish language named is Lushai, spoken far to the south (Central Kuki Branch); otherwise, the forms cited for Kukish are identified simply as "Kukish" and are probably drawn from other Kuki (rather than Naga) languages, or from comparisons between these languages (cf. Loeffler 1966: 119). Marrison's cognate counts show a sharp decline in the number of correspondences between Konyak and even other Naga languages as one moves from north to south; the median percentages by subgroup (Branch) are 22 (Ao), 16 (Lhota), 9 (SE), 8.5 (Angami), 6 (SW). (N.B.: These figures are for a set of terms chosen for their ability to differentiate the Naga languages; they are not comparable with Shafer's, nor do they reflect

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absolute degree of relationship.) The comparable figure for Lushai or for a Proto-Kuki mesolanguage would be at least as low as the last in the series. This is, again, a clinal distribution, so that it makes a great deal of difference how "Kukish" is sampled; more of a difference than for Barish, which is "one of the most closely knit TB groups" (Benedict 1976: 172). But Shafer apparently made use of <u>all</u> of the materials available for Barish.

If, on the other hand, one uses the materials available for the Naga languages, one has little difficulty in finding Kukish comparisons for Nagish which Shafer missed, e.g.,

NOSE NN *na-gu'ŋ; e.g., Maring nathuŋ, Mao oŋhuŋ
CROOKED NN *guaŋ; Kabui ŋkon-mei
TO BITE NN *gək; Lhota eŋkak
CROW NN *kha; Tangkhul haŋkha, Sema agha
FOREHEAD NN *khaŋ; Sangtam kikhaŋ, Khonoma tikha
HEAD NN *khow; e.g., Lhota kurrə, Tangkhul kui
SKIN NN *C$_V$-khuar; Sema ayikhwo

and even:

PALM OF HAND NN *-pha; Lushai (!) -phah

This list covers only those forms which Shafer reconstructs with initial stops (231-235) and for which he does not cite a Kukish or Lushai comparison.

I am not arguing here that the Northern Naga languages are <u>not</u> Baric, but only that Shafer's evidence for classifying them as such is not as strong as he supposed. I wish merely to re-open the question, and will return to it in Chapter 5.

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In the meantime, Benedict's more cautious treatment of the question in his 1972 summation seems preferable. Benedict, like Shafer, sees the distribution of the Barish-Nagish-Jinghpaw roots for 'sun' and 'fire' as particularly significant (7), although, as we have noted, he reconstructs PTB forms for both on the basis of Himalayan cognates. He partially dissociates Nagish from Bodo-Garo, adding "perhaps also Konyak" (5), but his doubts appear to be grounded in the latter's possible "points of contact with Kachin" (7), a separate nucleus.

These doubts should have disappeared when in 1976 Benedict, as we have seen, proposed collapsing Barish and Kachin into a single "supergroup" -- but one which only "probably also" includes Konyak (178; emphasis mine). One degree of doubt has been removed, but one remains. The problem is that the Northern Naga languages (Benedict's 'Konyak') have never been systematically compared in full. Shafer's 1953 paper treats only initials, and is frankly presented as a preliminary study (see below for discussion of the reconstructive, as against the classificatory, aspect of this paper). Of the Northern Naga languages, only Chang (Hutton 1929a) is cited as a primary source for Benedict's reconstruction of Proto-Tibeto-Burman (1972: 12), though a few Moshang forms are cited in the text. It is one of the objects of the present work to make Proto-Northern Naga forms available for the further refinement of the classification, as well as the reconstruction, of

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Tibeto-Burman.

We now have four additional vocabularies for Northern Naga languages which were not available to Shafer in 1953. Walker's work of 1948 (incorporated in Marrison) rounded out the current list of seven Northern Naga languages with the addition of Yogli. Yogli is described by Marrison as a dialect of Tangsa (thus only dialectically differentiated from Moshang) but treated as a distinct language, and the question of their degree of separation is moot. Morse, who is reported to have done fieldwork on "several" of the Tangsa 'dialects', refers to them as "languages", which, however, "are closely related, and might be considered widely divergent dialects" (cited in Voegelin and Voegelin 1965: 8). Dutta, after asserting that "the differences are so slight that they may be taken to form one language" (1959: 49), nevertheless also reports that "beyond a certain stage, the subtribes find it difficult to understand one another and are compelled to have recourse to Singpho as a medium of inter-tribe communication" (ibid.: 50).

Marrison himself provides vocabularies for Konyak (Wakching dialect) and Phom which are so much more extensive than those formerly available that they must supersede the dialects of the Survey for comparative purposes.

Finally, Das Gupta (1971) provides an even more extensive Nocte vocabulary than the sum total of the three already available, and one which, as it is of the same

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dialect, is particularly useful.

1.4 Toward the Reconstruction of the Northern Naga Mesolanguage.

In the preceding discussion of the Northern Naga groups, as well as in earlier sections, I have given occasional indications of the difficulties presented by the linguistic and cultural diversity of the peoples of the divide for comparative ethnology. Because of the relative resistance of a language to replacement, the determination of the relationships among the Naga languages must be the first step to overcoming these difficulties. Because of the apparent continuity of the Southern and Central Naga languages with the Kuki languages, the determination of the affinities of the Northern Naga languages becomes the highest-order problem for the region at large.

This is equally the case when the region is considered purely from the perspective of comparative linguistics. As we have seen, Benedict, in reviewing Tibeto-Burman classification, included Northern Naga among those "residual" units which "resist all efforts at taxonomic reduction" (1972: 4); his subsequent qualification of this judgment, based on a postulated unity of Barish and Kachin, still leaves room for doubt. Marrison went so far as to reject Shafer's assimilation of Southern and Central Naga to Kukish, as well as his assimilation of Northern Naga to Barish:

> Important as these connexions are, I do not myself

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> accept this classification as it stands, because the differences between the Naga languages and their neighbours are of a basic nature, and the affinities though extensive are not sufficiently strong to establish it (267).

But while Marrison proposes 'comparisons' for all of the initials and rhymes of Konyak and Moshang with the other languages of their subgroup (in the case of Moshang, also with Konyak), he does not take the decisive step of reconstructing protoforms. His "common Naga vocabulary" (139-141), which, if it were shown to be derivable from a Naga protolanguage, would stand as evidence of the unity of the Naga languages which Marrison sometimes (as in the summary passage quoted above) seems to advocate, remains only suggestive. And, in the absence of systematic comparison of Naga languages with those of their neighbors which are most likely to share with them a common origin short of PTB itself, Marrison cannot, as he admits (168), decide whether their affinities may not be the result of borrowing.

What Marrison has accomplished is to have brought together in one place a rich body of materials for the comparative study of the Naga languages, including extensive bibliographies, a gazetteer and synonymy of language and place names, comparative vocabularies for over 900 basic glosses (including some, such as those for Konyak and Phom, not previously available), and a voluminous series of 'comparisons', internal and external, lexical and otherwise, suggesting interlanguage relationships.

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His classification of the Naga languages with respect to one another is an areal classification (Hymes 1964 [1956] : 567-568).

In the present work I attempt to provide the beginnings of a genetic classification of the Naga languages within Tibeto-Burman. I have selected for this purpose those which I have called the Northern Naga languages because of the focal problem these languages present for the linguistic prehistory of the Nagas and, beyond them, of the Assam-Burma frontier area at large. These languages also appear to satisfy the requirement of constituting a coherent group whose unity is presumptively genetic at a level no deeper than that of a primary division of Tibeto-Burman; this at least has been, as we have seen, the judgment of all investigators, though its confirmation is conditional upon the results of this study. I referred above to "cognate counts" derived by Marrison for a list of fifty terms selected to demonstrate the differences among the Naga languages; more precisely, this comparison is "based on a judgment of probable cognation, but disregards phonetic divergence" (143). Scores are given only for five "representative" languages, of which the one which is of interest to us is Konyak. Its scores pattern as follows:

Yogli	45	Ao Mongsen	30	Yacham/Tengsa	14
Moshang	52	Ao Chongli	22	Ntenyi	14
Nocte	43	Sangtam	22	Meluri	13
Wancho	59	Yimchungrü	21	Khoirao	11
Phom	72	Lhota	18	Puiron	11
Chang	54			all others	10-4

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The important datum here is the gap between the score for Nocte (43), the lowest for another Northern Naga language, and that for Mongsen (30), the highest for a Central Naga language, which lends support to the assertion of coherence for Northern Naga. (The figures for Ao Chongli, another of the "representative" languages for which a full run of scores is given, against the Northern Naga languages range from 34 [Moshang] to 17 [Phom]; they are thus similar to those of Konyak and the more northerly Central Naga languages.) Also of note, however, is the fact that the Yogli-Konyak and Nocte-Konyak scores are among only four scores which do not allow the grouping of an "odd" language with its closest "representative" language at the level of 50 or above; that is, the Northern Naga languages form a coherent unit with respect to the other Naga languages, but one which has a fair degree of internal diversification.

Unlike Marrison, Shafer in his 1953 paper (where he argued that Nagish was Baric) reconstructed prototypes for a limited number of Northern Naga initial consonant correspondences. He did not treat rhymes, but in effect assumed that rhyme correspondences obtained for apparent cognates. On the basis of the evidence discussed (and questioned) above, he also assumed the genetic unity of Barish and Nagish, admitting forms from both sets of languages to the comparison, so that the prototypes are set at the level of Baric. His results, while generally

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sound, are limited, particularly as regards Nagish. Most of the variation in Shafer's Baric initials is grounded in variation in Barish, for which he had available data on over twice as many languages and dialects. I will discuss his reconstructions, and their bearing on the possibility that Nagish is Baric, as I present my own NN initials in Section 3.1 below.

Shafer prefaced his discussion of the problem of classifying Nagish by remarking that

> Some Naga languages have undergone more severe phonetic change than any other Sino-Tibetan languages except perhaps the Lolo and modern Mandarin (229).

Three of the criteria chosen by Marrison to arrive at his classification of the Naga languages demonstrate the degree of reduction with which we have to deal in Northern Naga. Marrison divided the Naga languages into ten classes based on their inventories of noun prefixes. The seven Northern Naga languages form one of these ten classes, the simplest: they have none. Again, Marrison set up seven classes on the basis of classificatory verbal prefix inventories. Here the Northern Naga languages form two classes: (1) None (Konyak, Phom, Chang); (2) a- (or other vowel) only. Thirdly, Marrison set up twelve classes on the basis of initial consonant inventories. The simplest save one is limited to the "common Naga series" of 20-22 simple initials -- no clusters. It includes Yogli, Moshang, Nocte, and Maring. The next class differs only in the further simplification of the

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absence (loss) of *r-*. It consists of Konyak, Phom, and Chang.[1,2] Thus, at first sight, it would appear that NN could be reconstructed without prefixes and without initial clusters. This is not the case. The number of distinct and soundly attested correspondence sets for initials is much too large to be explained by a set of reconstructed initials like those in the daughter languages. Both prefixes and initial clusters (and prefixed clusters) are required for the protolanguage, as Shafer already realized,[3] though he could hardly have guessed the magnitude of the problem. Given this circumstance, and the virtual absence of direct indications of the presence (let alone the shape) of the prefixes and clusters in the daughter languages, it would not have been possible to arrive at a useful reconstruction of NN without systematic referral to other Tibeto-Burman languages where these features were sometimes retained.

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[1]Marrison placed Wancho (with Ao and Tangkhul) in yet a third (and even simpler) class, defined by having only two (rather than three) manner-series of stops. But this is incorrect for Wancho. As I point out below, the +/- aspirated contrast is phonemic in Wancho as in all of the other Northern Naga languages (see Chapter II); Wancho should thus be classed with Yogli et. al. on this variable. (For these classifications, see Marrison: 253-256.)

[2]In partial compensation for these reductions, the Northern Naga languages are among the majority of Naga languages which do retain the full "common Naga series" of six *final* consonants, Yogli also retaining *-l*, and Moshang both *-l* and *-r*.

[3]Shafer reconstructs one cluster for Baric: **khr-*. He does not reconstruct prefixes, but distinguishes several "kinds" of **l-* and **r-* (as $*l_1$-, $*l_2$-, etc.) having different patterns of reflexes and in some cases suggests that these are the result of different kinds of prefixes.

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Accordingly, I have utilized for this purpose Marrison's comparative vocabularies for the Southern and Central Naga languages, but particularly the forms he also provides for eight additional languages, including written Tibetan and written Burmese, with their greater time depth. Most useful of all, however, is the extensive list of reconstructed PTB forms presented in Benedict's Sino-Tibetan: a Conspectus (1972), as well as the wealth of information from particular Tibeto-Burman languages (as well as Karen and Chinese) contained in that work. (hereafter STC). The PTB forms in the STC have been extensively supplemented, and in some cases amended, by Benedict 1980-82 (personal communications), in the ongoing work of refining and extending the reconstruction of PTB and PST (Proto-Sino-Tibetan).[1]

The PTB forms given in the STC were reconstructed on the basis of comparisons of forms drawn from a limited number of well-recorded languages representing the major divisions of Tibeto-Burman, without systematic attention to intermediate protolanguages (Benedict 1972: 12-13; see below, Section 1.5, for a listing of these languages). Much of the future progress in both the reconstruction and the subclassification of Tibeto-Burman is likely to come from the more detailed study of particular branches of the family, with the reconstruction of intermediate protolan-

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[1] In more than a few cases, these emendations have been based in part on the Northern Naga comparisons given in the present work.

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guages (see, e.g., Burling 1959, 1967b; Matisoff 1969; Bradley 1975); such intermediate protolanguages have been termed "mesolanguages" (Matisoff 1978: 252, n.118), whence the title of this work.

Additional sources for PTB forms utilized for comparison include Benedict 1976; Matisoff 1972a, 1972b, 1972c, 1978, 1980-82 (p.c.); and Weidert 1979. The last-named source utilizes data from the Northern Naga languages, as does a brief paper by Solnit (1979), which is devoted exclusively to them.[1]

1.5 Plan of the Balance of the Work.

In Chapter II I present the phonological inventories of the seven data languages, discussing problems of variation among the different sources utilized for each language and my working solutions to these problems.

In Chapter III I present the correspondence sets abstracted from phonological comparison of the vocabularies of the seven data languages, and the postulated NN prototypes of which these correspondence sets are the differentiated reflexes. These prototypes, taken together, constitute the phonological system of the mesolanguage.

In Chapter IV I present the lexicon of reconstructed NN roots, with the cognate sets which are their differentiated reflexes in the daughter languages, cross-referenced to PTB roots and/or probable cognate forms in

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[1] I am indebted to David B. Solnit for providing me with a copy of this (unpublished) paper.

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other Tibeto-Burman languages.

In Chapter V I utilize the materials presented in Chapters III and IV to address the questions of (a) the subclassification of the Northern Naga languages, and (b) the place of the Northern Naga languages in Tibeto-Burman.

In the section which follows, I provide a key to the principal languages cited for comparison, and to the abbreviations which I will use in the balance of the work.

I.6 List of Principal Languages Cited for Comparison with Key to Abbreviations

(1) Sources

GEM Geoffrey Edward Marrison, The Classification of the Naga languages of Northeast India (Text)

see Marrison 1967

GEMa As above (Appendices) These are separately paginated and include the comparative vocabularies.

LSI Linguistic Survey of India

see Grierson 1903, 1904, 1927, 1928

STAL "Sino-Tibetan: another look"

see Benedict 1976

STC Sino-Tibetan: a Conspectus

see Benedict 1972, Matisoff 1972b

TSR The Loloish Tonal Split Revisited

see Matisoff 1972a

pcPKB Personal Communication from Paul K. Benedict

see Benedict 1980-82

pcJAM Personal Communication from James A. Matisoff

see Matisoff 1980-82

(2) Language Groupings and Protolanguages

ST Sino-Tibetan

PST Proto-Sino-Tibetan

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TB Tibeto-Burman

PTB Proto-Tibeto-Burman

(PST and PTB forms cited are those reconstructed by Benedict in the STC unless otherwise indicated)

LB Lolo-Burmese (Burmish)

PLB Proto-Lolo-Burmese

BG Bodo-Garo (Barish)

KN Kuki-Naga (Kukish)

NN Proto-Northern Naga

(3) Individual Languages

The column on the left recapitulates Benedict's STC subclassification of Tibeto-Burman, as given above in Section 1.2.1.; that on the right lists the most important languages in each group -- i.e., those which are cited by Benedict (1972: 12) as primary sources for the reconstruction of PTB, plus certain others to which I shall refer (these latter are preceded by a (+) sign). Where I will use an abbreviation, this is given in parentheses following the language name.

TB Nuclei and (*) Residual Units	Principal Languages for Comparison
Tibetan-Kanauri	Written Tibetan (WT), Kanauri, Gyarung
*Lepcha	(+) Lepcha
*Magari	(+) Magari
Bahing-Vayu	Bahing, (+) Chepang
Abor-Miri-Dafla	Miri, Dafla
*Digaro	(+) Digaro
Bodo-Garo	Garo, Bodo, (+) Dimasa, (Di.), Moran
*Konyak (= Northern Naga)	Chang (see below for others)
Kuki-Naga	
a. Kuki	S: Sho; C: Haka, Lakher, Lushai (Lu.); N: Siyin, Thado
b. Southern Naga	Sema, (+) Angami Khonoma (Kh.), Angami Kohima (Ko.); Zemi (Ze.), Mzieme (Mz.), Nruangmei (Nr.), Liangmai (Li.)
c. Central Naga	Ao Chongli, Tangkhul (TN), (+) Ao Mongsen, Yimchungrü (Yi.), Sangtam (St.)
*Mikir	Mikir (Mk.)

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*Meithei	(+) Meithei or Manipuri (Mpri.)
Burmese-Lolo	Written Burmese (WB), Spoken Burmese, Maru; Ahi Lolo, Nyi Lolo, Lisu, Lahu
*Nungish	Rawang
Kachin	Jinghpaw (Jg.), (+) Singpho

The seven Northern Naga languages will always be cited in the following order, and abbreviated thus:

Tangsa -- Yogli	Yo.
Tangsa -- Moshang	Mo.
Nocte	No.
Wancho	Wa.
Konyak	Ky.
Phom	Ph.
Chang	Ch.

The most important languages for my own purposes are those for which abbreviations have been adopted. Alphabetically by abbreviation, these are:

Abbr.	Language	Classification
Ch.	CHANG	NORTHERN NAGA
Di.	Dimasa	Bodo-Garo (Barish)
Jg.	Jinghpaw	Kachinish
Kh.	Angami -- Khonoma	Southern Naga, Angami Br.
Ko.	Angami -- Kohima	Southern Naga, Angami Br.
Ky.	KONYAK	NORTHERN NAGA
Li.	Liangmai	Southern Naga, SW Br.
Lu.	Lushai	Kuki
Mk.	Mikir	Ind., closest to Kukish
Mo.	MOSHANG	NORTHERN NAGA
Mpri.	Meithei (Manipuri)	Ind., closest to Kukish
Mz.	Mzieme	Southern Naga, SW Br.
No.	NOCTE	NORTHERN NAGA
Nr.	Nruangmei (Kabui)	Southern Naga, SW Br.
Ph.	PHOM	NORTHERN NAGA
TN	Tangkhul	Central Naga, SE Br.
St.	Sangtam -- Lophomi	Central Naga, Ao Br.
Wa.	WANCHO	NORTHERN NAGA
WB	Written Burmese	Burmese-Lolo (Burmish)
WT	Written Tibetan	Tibetan-Kanauri

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Yi.	Yimchungrü	Central Naga, Lhota Br.
Yo.	YOGLI	NORTHERN NAGA
Ze.	Zemi	Southern Naga, SW Br.

Note: The form of the abbreviation adopted for Tangkhul (TN) differs because it has, like some others above, already appeared in the general literature in that form (Matisoff 1972c, 1978: 299).

(4) Phonological Symbols.

The phonological symbols employed are those in general use for Tibeto-Burman. Aspiration is indicated by an -h- (e.g., kh-). Vowel length in reconstructed NN forms is indicated as for PTB/PST, by -ˑ- (e.g., -uˑk). A special note is required regarding my symbolization of reconstructed NN prefixes:

*ʔ- = Glottal prefix.

*C- = Unvoiced consonantal prefix, other than the above -- usually *s-.

*N- = Nasal prefix.

*$\underset{\text{v}}{\text{C}}$- = Voiced consonantal prefix, including nasal where (as in most cases) there is no distinct reflex resulting from the nasal.

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II. THE NORTHERN NAGA LANGUAGES

2.1 Sources.

Marrison (1967) has been used as a source for all seven data languages. For each language, Marrison's own sources, as well as others consulted, are given below.

(1) Yogli. Marrison's vocabulary is taken entirely from Walker (1948). I have taken additional forms from Dutta (1959; see below, under Moshang) and Weidert (1979).

(2) Moshang. Marrison's principal source is Needham (1897). He also lists, and I have also consulted, Grierson (1903 -- itself based on Needham, but containing a few forms not given by Marrison) and Dutta (1959). The latter source must be used with care, for it gives many "Tangsa" forms without specifying to which of five "dialects" they belong. Marrison picked up about twenty of these, scattered throughout Dutta's text without dialectical attribution, and listed them as Moshang. I have eliminated these forms (some of which would be phonologically irregular for Moshang) from consideration.

Dutta's list of "Tangsa" kin terms (52), however, though similarly unattributed and similarly identified

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by Marrison as Moshang, is recognizable as Yogli, and certain of these terms have been tentatively so treated below. The principal rationale for this attribution is the occurrence in some of the forms on the list of characteristically Yogli dipthongs, which appear in Moshang only in restricted contexts.[1] Forms taken from this list and asserted to be Yogli reflexes of NN prototypes are identified as such in Section 4.2.

(3) Nocte. Marrison lists three sources for his Nocte vocabulary: Robinson (1849), Brown (1851), and Butler (1875). I have consulted all three and have made use of each. The three sources are in close agreement but are not in all cases identical, so that it may be inferred that they are independent. The differences among them, however, tend to be systematic or otherwise accountable.

I have also drawn on two more recent sources not available to Marrison: Das Gupta (1971) (extensively) and Weidert (1979). Again, despite the lapse of more than a century, there is fairly close agreement between the earlier and the later sources; where there are differences, I have regularly used the earlier ones.

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[1] Marrison in fact gives only two words which are (apparently) unequivocally Moshang (i.e., other than dialectically unattributed forms from Dutta) and which have "Yogli-type" dipthongs: a/ka rau 'this/that' and khai 'cloth'. The first is also irregular in Yogli (-r►); the second (Yo. also khaï) may be a loan but is interpreted, as in Yogli, as the reflex of NN *khra˚t, a rare (for Moshang) case of loss of final consonant.

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(4) Wancho. Although Marrison lists only Peal (1872, 1873) as a source for his Wancho vocabulary, he has also drawn upon Brown (1851). I have also made use of both of these sources, which, like those for Nocte, are in general agreement but show some systematic differences.

(5) Konyak. There are no general published sources for the vocabulary of the Konyak dialect collected by Marrison, who cites his own MS (1962), with "additions" from Fürer-Haimendorf (ts., n.d.), but fortunately this is the most extensive of Marrison's Northern Naga vocabularies, with over 1000 forms listed. One or two words of this (Wakching) dialect are given in Weidert (1979), but the principal Konyak dialect reported by Weidert is distinct, as are the two given in Brown (1851).

(6) Phom. Marrison's and my only source for Phom is his own compilation (MS, 1965).

(7) Chang. Marrison's Chang vocabulary is based on Hutton (1929), but contains a number of forms not to be found in this source, perhaps taken from Chang (1956), though according to Marrison this later source is also based on Hutton. Marrison gives only somewhat fewer than half of Hutton's 2000-odd entries, but I have compiled a Chang-English version of Hutton's English-Chang lexicon to provide a greatly expanded

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data base for this language.

In the detailed presentation of the evidence for all reconstructed forms (Section 4.2 below), whenever I cite a form not given in Marrison, I indicate its source. I discuss differences among sources as these become germane to the various phases of the analysis which follows.

2.2 Phonological Inventories

The common syllabic structure of the seven data languages is (C)V(V)(C). For comparative purposes, their phonological inventories may be most usefully presented by considering each of the three syllabic elements in turn: first, initial consonants; then, final consonants; and finally, vowels.

2.2.1. Initial Consonants. (Phones enclosed in parentheses are rare and problematic; see notes for discussion).

(1) Yogli.

b	d	j	(g)	
p	t	c	k	
ph	th		kh	
	ts			
v	s	š	(X)	h
w	r	y		
	l			
m	n	ñ	ŋ	

Notes

(g) Occurs only in the syllable ge, a morpheme prefixed to the verb roots for 'gather', 'meet', 'join', and 'divide', with no cognate elements in other lgs.

(X) Occurs only in two forms cited by Weidert but both of these fit

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into sets reconstructible as *(C-)kl-, whose Yogli reflex (per Walker) is kh-. I infer that Walker's kh- (in these *(C-)kl- sets, not elsewhere) is equivalent to Weidert's X-. Whether this equivalence reflects slightly different dialects or idiolects, a sound shift between 1948 and 1979, or a failure on Walker's part to distinguish the fricative from the aspirated stop is unclear. As the "Yogli" treated here is Walker's, only if the third of these possible explanations is correct would an additional phoneme be required.

One additional difference in the representation of initials should be noted. Where Walker has y- (j- intervocalically), Weidert gives tž-. In this instance the difference is sufficiently great to make the third explanation proposed above untenable. Thus dialect difference or sound shift becomes a likelier explanation for the kh-/X- equivalence as well.

Apart from the possibility of a phoneme /X/ (which would be unique in Northern Naga), the set of Yogli initials presents only two exceptional features when viewed in the context of the general Northern Naga pattern. The first of these is the existence of the affricate ts-, otherwise found only in Wancho; the second is an unequivocal contrast between v- and w-, the other languages regularly having one or the other, but not both.

Marrison does not give a table of Yogli phonemes separable from "Tangsa" (which he bases on Moshang), so it is not possible, in this case, to comment on differences between his analysis and my own.

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(2) Moshang.

b	d	j	g	
p	t	c	k	
ph	th		kh	
v	s	š		h
(w)	r	y		
	l			
m	n	ñ	ŋ	

Notes

(w) Occurs intervocalically as an allophone of /v/ < *(C-)w- but also, in one form ('bamboo'), word-initially. In a second instance, va ~ wa 'father', the w- variant may be interpreted as a loan from Jinghpaw (also wa). (This interpretation is also possible for 'bamboo', Mo. wa(n), Jg. kawa -- the Jg. ka- is from a PTB *g- prefix (STC 114) and is in fact optional (STC 24); synchronically, however, the distinction must be maintained in any case.)

Aside from the question of w-, the Moshang initials are exceptional only in including a g- as a regular reflex of an unprefixed prototype. (Synchronically, we should say that g- is extremely rare or does not occur at all in the other Northern Naga languages, but is common in Moshang.)

Moshang does show what is apparently a remarkable departure not only from the general Northern Naga initial consonant inventory but also from its syllable canon, in having forms with kr- and, in one case, gr-. The comparative material makes it clear, however, that these are not to be interpreted, and need not be represented, as initial consonant clusters, but rather that the -r- element is a part of the rhyme. Shafer dismissed them as recording errors -- "Needham frequently wrote r after gutturals when other Sino-Tibetan

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languages show that no r belongs there" (1953: 237, n.1) and Benedict (p.c.) says that Needham's kr- is probably to be interpreted as kə- (where -ə- is a "back unrounded vowel"). Be that as it may, Shafer makes Needham sound idiosyncratic, whereas his Moshang Cru/Cri (the -r- insert occurs only before these two high vowels) regularly corresponds to Yogli (and other Tangsa dialects') Cau/Cai. I reconstruct Proto-Tangsa *-au/*-ai, which in Needham's transcription becomes Moshang -ru/-ri /{k,g}__, whatever its actual phonetic value.

Synchronically, then, we should have to recognize -ru and -ri as distinct rhymes (though diachronically they appear as allophones of -u and -i), but we may eliminate kr- and gr- as distinct initials.

My table of Moshang initials differs from Marrison's in one other respect. Marrison lists zero initial for Moshang (also for Nocte, and the same argument would apply to Yogli), but this is applicable only for prefixes, which in Tibeto-Burman generally follow an entirely different set of rules than those which govern roots. (Yogli has g-, for example, only in an apparent prefix, as noted above.) In Yogli, Moshang, Nocte, and, with two equivocal exceptions, Wancho, all roots begin with consonants, though vocalic prefixes are common. The frequent and systematic occurrence of root-initial zero in Konyak, Phom, and Chang is an important general departure linking these

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languages and calling for recognition at this stage of analysis.

(3) Nocte.

b	d	j		
p	t	c	k	
ph	th	ch	kh	
w	s			h
	r			
	l			
m	n	ñ	ŋ	

Notes

/ñ/ Apparently encompasses a range of phonetic values extending to ñj (indicated only for Nocte), for it is given in the latter form in certain words, erratically, by all three of the earlier recorders. There are, however, a sufficient number of cross-checks to show that the two values are not phonemically distinct (see Section 4.2 for details); neither Marrison nor Das Gupta recognizes a distinction.

Nocte appears to be unique among the Northern Naga languages in having both an unaspirated and an aspirated voiceless palatal stop (or affricate). This distinction, however, was established only by the recent work of Das Gupta (1971). It is undoubtedly genuine and longstanding, for Das Gupta's synchronic distinction neatly discriminates forms I had already ranged under very different correspondence sets before I became aware of his work. Apparently none of the nineteenth century recorders were aware of the difference. This raises the question of whether the distinction might have gone unrecognized in other languages as well. Against this possibility it may be noted that in none of the correspondence sets in which Nocte ch- appears do any of the

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languages apparently most closely related to it have a palatal stop of any kind. Although ch- fills a gap in the pattern it appears that only Nocte effected this closure.

Except for the addition of ch-, (and the omission of zero), the table of Nocte initials above is the same as Marrison's. It differs from those of Yogli and Moshang in the absence of g-, ɕ-, y-, and w-. Now Das Gupta also presents a table of Nocte initials in which he includes both ɕ- and w-. There are good reasons, however, for rejecting both of these as distinct Nocte phonemes.

Das Gupta's inclusion of ɕ- (which does not appear in any other source) is based on just three forms: ɕi 'jenggat (leaf for thatching)' (one of two varieties listed); ɕamchoŋ 'coat'; and ɕu 'thorn'. The first and second of these refer to "cultural" items and could easily be loans. Alternatively, the initial in 'coat' may be the result of a dissimilative shift from *chamchoŋ (No. *cham < NN *dzam < PTB *tsam 'hair, wool, hide' + choŋ 'cold'; cf. Mo. samtoŋ, also 'coat', sam also < NN *dzam). As for 'thorn', Das Gupta's transcription would appear to be in error, for Butler gives su, the expected Nocte reflex of NN *caw, this initial being supported by the forms for 'thorn' in all of the other six languages.

Thus, I do not think the available evidence

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warrants setting up *š- as a Nocte phoneme. This constitutes a significant departure from the general Northern Naga pattern, for *š- is quite common in all of the other languages. The absence of *š- coupled with the introduction of ch- raises the question of whether the latter might not be the Nocte equivalent of the former. But, again, this seems unlikely, as, for example, there is an identity correspondence for *š- (< NN *C-khy) for all languages except Nocte, but the apparent Nocte reflex in this set is not ch-, but c-.

Das Gupta also lists w- (as well as v-) in his table of Nocte initials; again, this phone does not appear in any other source. Das Gupta's w- regularly corresponds to the v- of all other recorders. The problem is that Das Gupta also gives a number of forms with v-; he thus introduces a distinction, v-/w- : v-, comparable to the c-/ch- : c- distinction discussed above. Unlike the latter, however, this distinction does not appear to be phonemic. Of eight forms with initial v-, four have variants with w- and two may be shown diachronically to have a distinct prototype.

It may be that the actual phonetic value of the sound generally recorded as v-, but in Konyak and Chang, and in Das Gupta's transcription of Nocte, as w-, is rather vw-, as suggested by the following Chang forms from Hutton: wi ~ vi 'to bellow', wi ~ vwi 'to bleat';

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wie ~ vwie "to count"; uwi ~ vwi 'soap'. In any case, it does not appear that, except in Yogli, a phonemic distinction should be drawn between the two.

(4) Wancho.

b	d	j	g	
p	t	c	k	
ph	th		kh	
	tz			
	ts			
v	s	š		h
	r			
	l			
m	n	ñ	ŋ	(ø)

Notes

/j/ There is much confusion in the recording of what is apparently a unitary phoneme with phonetic values extending from [z] through [dz] to [dž]; in two cases, both extreme readings are given for a single gloss by the same recorder (Peal). I follow Marrison here in representing the phoneme as /j/, but the choice seems arbitrary, and my regular procedure in what follows will be to write j ~ z. See Section 3.11 below for further discussion. Note that /tz/ is distinct.

/g/ Extremely rare (a single form, 'five') but not problematic: it may be explained as an instance (unique in Northern Naga, and rare in Tibeto-Burman) of the substitution of a homorganic stop for a nasal (following a voiced prefix); I have a parallel case of m- > b-.

(ø) Occurs in one root, an 'flour, bread', as a probable loan from Konyak, id. Included here on the basis of one other root, o ~ ø 'bird', whose interpretation (see Section 4.2 below) is problematic.

The affricates tz- and ts- are not counted as phonemes by Marrison, but the comparative data suggests that they should be. Each is established on the basis of a single source: tz- from Peal (the corresponding phone in Brown is ts-); ts- from Brown (Peal has t-).

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If we were simply to follow Brown, we should have just one additional phoneme, ts-. Marrison ignores Brown and his forms in ts-, interprets Peal's tz- as a variant of /j/, and so admits no affricate to phonemic status. But although Marrison's subsumption of tz- under /j/ is understandable given the confusion attending the phonetic values of the latter (see above), comparative data show it to be incorrect: tz- has an entirely different set of correspondences than do j- and z- (j ~ z).

I thus set up /tz-/, which, on the evidence of 'milk' (Peal: tzamti; Brown: tsamti), is represented in Brown's transcription as ts-. But Brown also gives forms in ts- for which Peal has t-, which can only be interpreted as /ts-/, and which must be distinct from the above; hence, the choice of /tz-/ rather than /ts-/ for the initial in 'milk'.

Marrison also errs in failing to recognize that the general Northern Naga contrast between unaspirated and aspirated voiceless stops is also present in Wancho. Again, this is because of his primary reliance on Peal, who apparently had difficulty in hearing the difference (he noted aspiration in only five cases).[1] In Brown the contrast is clear, and consistent with the comparative evidence.

---

[1] Marrison's reliance on Peal over Brown is probably due to the fact that Peal's vocabulary is much more extensive; but Brown had the generally better ear.

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Thus my inventory of Wancho initials expands on Marrison's by five: the rare tz- and ts-, and the ubiquitous kh-, th-, and ph-.

(5) Konyak.

		j		
p	t		k	
ph	th		kh	
		ʒ		h
w		y		
	l			
m	n	ñ	ŋ	ø

With Konyak, we encounter a greatly reduced set of initials: r- and s- have been lost, but Marrison does fill out the stop series with b-, d-, g-, and c-. I do not believe any of these have phonemic status. All are extremely rare. As Konyak is one of Marrison's "head" languages, for which he selects certain forms (three, if available) to illustrate his asserted phonemes, let me briefly review the forms he chooses to support the elements above.

For the three voiced stops, Marrison cites only one form apiece. This in itself is damaging when we recall that the Konyak vocabulary given in Marrison (1967) is the most extensive we have, with over 1000 forms supplied for the 917 glosses, and that the reason for this "saturation coverage" of Konyak is that Marrison is drawing on his own undoubtedly much

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more extensive field notes. Indeed, for one of the three forms, dak 'nail' (no comparisons given -- possibly from English tack?), Marrison had to go outside the material given in his comparative vocabularies. The others are included: gei 'basket' (no comparisons), another cultural item (but just possibly a *g- prefix transformed into a root; see the discussion of Yogli ge- above, and cf. especially Yo. gecom 'to gather', Zemi gekum, id.). Thirdly: ba 'to sit' (var.), which Marrison compares to Phom uo, idem. I place the latter form with Nocte boan "tired', aboanton 'to rest" (ton = 'to sit') < NN *bual < PTB *bwa"l (Benedict, p.c.); the expected Konyak reflex here would be *po, so the rhyme as well as the initial does not fit. Many other comparisons are available, however: Marrison cites Angami ba, and add Chokri/Kezhama ba, Liangmai/Maram/Mzieme bam, Sangtam bəm, Tangkhul pam, all "to sit". Moving beyond these Central and Southern (Kuki-) Naga languages, we have Meithei pham 'to sit', Jinghpaw ban 'to be at rest', ba 'tired'. A loan thus seems entirely possible, and given the apparent isolation of the form in Northern Naga, and of the phone in Konyak, probable.

It may also be, of course, that [b d g] are simply sub-phonemic variants of /p t k/, as in Chang (see below). This would appear to be the case with the fourth problematic phone, c-, but in reverse, as

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j- is far more common. Marrison's examples for c- are can 'wall' (no comparisons) and cinmei 'peace' (cf. Phom cinmei, Chang sanmai, idem); the latter forms may be etymologized as 'village-good' ('good': Ky. meipu, Ph. meipa, Ch. maiba -- the second syllable is an adjectival suffix) and if this etymology is correct, it demonstrates the free variation of j- and c-, for 'village' is Ky. jin, Ph. jan ~ cin, Ch. san, all from NN. *C-klin < PTB *glin 'land, country, region'. (Note the same variation in Phom, to which the same argument applies; this is also true for the Phom vowel: Phom -in and -en are freely varying alternative reflexes of NN *-in).

To the Konyak : Phom correspondences j-:j- (common), c-:c- ('peace') and j-:j- c- ('village') may be added c-:j- ('chest': Ky. capa, Ph. japa) and j-:c- ('grave': Ky. manjon, Ph. mancon), rounding out the set of possible variations. Except for the first, each of these examples is unique. I think it may reasonably be concluded that c- in Konyak (and also in Phom) is probably only a sub-phonemic variant of /j/.

It may be noted that in Konyak (as in Phom and Chang) zero-initial becomes frequent and important (as a result of the loss of earlier consonantal initials). These three languages are also linked by the absence of r-, which is one of Marrison's principal reasons for subgrouping them in contradistinction to Yogli, Moshang, Nocte, and Wancho.

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(6) Phom.

b	d	j	g	
p	t		k	
ph	th		kh	
v		š		h
	l	y		
m	n	ñ	ŋ	ø

Notes

/g/ Occurs in only one root, 'to steal' (confirmed in 'thief'), and interpreted as the Phom reflex of NN *k- following a voiced NN prefix (*r- in PTB). The other voiced stops are fairly well represented and apparently phonemically distinct from their voiceless counterparts.

The above inventory of Phom initials differs from Marrison's only in the deletion of c-, which is interpreted as a free allophonic variant of /j/, as in Konyak (see above).

Mention should be made, however, of two additional phones which Marrison transcribes as dh- and gh- in his vocabulary but does not treat further. The first of these, occurring in two reconstructible forms, may be confidently interpreted as a positional allophone of th- following a prefix. The retention of prefixes is extremely rare in Phom; the reconstructions of the two forms in question account for both the retention of the prefix and the voicing of the following initial in that the prefixes in both cases are nasals (see Matisoff's comment on the same development in Lolo-Burmese, STC 38, n.123).

It would be satisfying to be able to account for

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the single occurrence of gh- in the same way, but the pair of terms Ky. kho, Ph. gho, both 'hundred' seem to be entirely isolated. Furthermore, neither is given with a prefix, and although I have two correspondence sets with Ky. kh- : Ph. kh-, both appear to go back to prototypes with voiceless prefixes. Thus, the source of these terms, and of Phom gh-, remains in question.

(7) Chang.

		(j)		
p	t	c	k	
ph	th		kh	
	s	š		h
w		y		
	l			
m	n	ñ	ŋ	ø

Notes

(j) Generally a free variant of /c/, but probably contrastive in at least two forms as the reflex of NN *khl-.

As for Konyak, Marrison lists two series of unaspirated stops, unvoiced and voiced, but with the possible and partial exception of j- (see above), I can see justification for only one. Unlike in Konyak, voiced stops are not uncommon in Chang, though far less frequent than voiceless ones. The number of cases in which forms which are identical except for the voicing of the initial are given with the same or virtually the same gloss is so great, however, that it can only be explained by positing free variation. Weidert agrees, for he writes Chang stops in capitals (e.g., guh 'nine', kei 'dog', kaušan 'chin' -- three forms which do not

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happen to have variants listed by Hutton -- are all written by Weidert with G-, the second syllable of khonca 'forehead' with a J-, and pa "fence" with a H-). Weidert uses the same convention for Konyak stops, but this is not decisive as he is dealing with a different dialect from Marrison's; he does not use it for Yogli or for Nocte, where the voiced/voiceless difference is contrastive.

(8) Initial Consonants: Summary.

The following initial consonants are common to all seven of the Northern Naga languages:

p ph t th c and/or j k kh h
v and/or w l
m n ñ ŋ

The following initials are present in the majority of the languages, with the exceptions noted:

b d s š r y

Nocte lacks š; Nocte and Wancho lack y.

Konyak and Chang lack b and d as phonemes.
Konyak and Phom lack s.
Konyak, Phom, and Chang lack r.

The following initials have only limited distribution in the group:

g : Common only in Moshang.
ch : Nocte only.
tz : Wancho only.
ts : Yogli and Wancho.
x : Possible for Yogli.
ø : Common in Konyak, Phom, and Chang; possible for Wancho.

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2.2.2. Final Consonants. As is general in Tibeto-Burman, the Northern Naga languages display a sharply restricted set of final consonants, easily tabulated as follows:

Yogli.	Moshang.	Nocte/Wancho /Konyak/Phom.	Chang.
p t k	p t k	p t k	p t k ɣ
l	r l		
m n ŋ	m n ŋ	m n ŋ	m n ŋ

The differences from the common 3x2 pattern are apparent at a glance. Tangsa -l and -r are retentions from PTH, but Chang -ɣ is a special departure. For completeness, we should add -Ø to cover the open-syllable rhymes. Chang has a few forms transcribed with voiced stop finals, but these are to be interpreted like its voiced stop initials, as free variants of their voiceless counterparts; and, in the case of the finals, Marrison does so interpret them.

Note that the only addition to the inventories of initial consonants is the Chang -ɣ, which is best interpreted as a positional allophone of -k.

A special problem, however, is presented by the apparent occurrence of glottal finals added to what are otherwise (and reconstruct as) open-syllable rhymes. Weidert has recorded such glottal finals for Yogli, Nocte, and his (though not, in the half-dozen forms he supplies, Marrison's) dialect of Konyak, though not for

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Chang. These glottal finals were not transcribed by any of the earlier recorders. Because Weidert gives so few forms, there is no way to take them into account. They also appear, however, in Marrison's transcription of Phom. Weidert interprets them as accompaniments of certain tones in the languages he treats. This is almost certainly how they are to be interpreted for Phom as well, for they do not reflect a contrast in the segmental phonology of reconstructions either at the NN or the PTB level. (See Section 2.2.4. below, on tone.)

2.2.3. Vowels. The five vowels /i e a o u/ are common to all seven Northern Naga languages. Possible distributional constraints on these vowels as well as additional vowels and dipthongs are treated separately for each language below.

(1) Yogli.

Open Syllable Rhymes

i		u
ei	oi	o
ai	a	au

Vowels and Dipthongs in Closed Syllables

i (ieŋ)		u
e		o
	a au	

The only open-syllable -e in our Yogli corpus is that in the prefix ge-, which, as discussed above, is also our only example of g-. Unlike in the case of g-, however, -e would be expected to be rare, so this does not necessarily mean that it does not occur in root-final position.

The dipthong -ie- is shown in the table with a

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final -ŋ to indicate that (a) this is the only final with which it appears, and (b) there is good reason to believe this is a real constraint and not an artifact of incomplete materials. (The same convention will be followed throughout this section.) It is given in parentheses to indicate rare and problematic status: it appears in only one form, namyeŋ 'cat', and emerges only as the result of an interpretation (based on comparative data) of this form as /ŋa(m) mieŋ/ (cf., e.g., No. miaŋ).

The other dipthong shown for closed syllables, -au-, is well-established and notable, for it constitutes the only rising dipthong to be found in closed syllables in all of Northern Naga. It may substitute for -o- before velars, for there are no examples of the latter, and Yogli shows -au ~ -o alternation in open syllables, but it also appears before dentals. The following comparison, however, strongly suggests that -au- and -o- are allophones:

	Before Velars	Before Dentals	Before Labials
Walker	-au-	-au-	-o-
Weidert	--	-o-	-o-

If this is so, it is probable that -ai (in open syllables) and -e- (in closed syllables) are allophones as well; this would solve the problem of the missing open -e. There remain -oi and -ei as increments to the basic five-vowel pattern, but there is a question about

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the phonemic status of -ei as well. Weidert does not give any forms with -ei, and the one direct comparison available ('to buy': Walker arei, Weidert ri) suggests that Weidert may interpret the rhyme transcribed by Walker as -ei as /-i/. (There are other cases in which Weidert gives -i where -ei would be expected.) The difference is not necessarily only between the two sources, however, for Walker himself sometimes (as in 'tongue') gives -i where comparative data lead us to expect -ei. Thus the apparent free variation between -au and -o, and the apparent allophony of -ai and -e-, may have a parallel in free variation between -ei and -i. The difference is not one of tone, for according to Weidert 'to buy' and 'tongue' are both on the same tone.

If all of the reductions suggested above are correct, we would arrive at the following revised table of vocalic phonemes for Yoglit:

Open Syllable Rhymes

i ~ ei/i		u
ai	oi	au ~ o
	a	

Vowels and Dipthongs in Closed Syllables

i (ieŋ)		u
e		au ~ o/o
	a	

(The symbols following the slashes represent Weidert's apparent reductions of variation in Walker.)

Finally, it should be noted that Weidert often gives -A- for Walker's -a-. In dipthongs, Weidert's distinction between -Ai/-Au and -ai/-au (where Walker

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has only the latter) corresponds to the distinction (drawn on independent, comparative grounds) between NN *-ə(ˀ)y/*-ə(ˀ)w and NN *-aˀy/*-aˀw. Thus, in Weidert's transcription, Yogli has an additional pair of phonemes, in effect restoring the low dipthongs with which we began, and his closed-syllable -ʌ- should also be considered distinct.

This again raises the question, as with initial x- and tx-, of whether Weidert recorded a slightly different dialect than Walker or whether he recognizes distinctions that Walker did not. (In this case, because the distinctions go back to the NN level, sound shift within the same dialect can be ruled out as an explanation of the differences.) Whichever answer is correct, the differences are so few and so systematic that Weidert's distinctions may be noted as a valuable supplement to our analysis of the phonology of Yogli according to Walker, viz.:

Open Syllable Rhymes

i ~ ei/ i		u
ai/ʌi	oi	au ~ o/ʌu
ai/ai	a	au/au

Vowels and Dipthongs in Closed Syllables

i (ieŋ)		u
e	a/ʌ	au ~ o/o
	a/a	

We thus end with a set of six vowels and a symmetrical set of seven open-syllable rhymes, plus -oi. Weidert also gives one form each in open -o and -ʌ (bo2 'to carry the baby on the back', vʌ2 'bamboo'), but as both of these reconstruct to NN/PTB *-a if

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Weidert's forms are discounted, the vowels in these forms are best regarded as positional variants of -a following labials.

(2) Moshang.

Open Syllable Rhymes

i	ui	u
	(ɤ)	o
(ai)	a	

Vowels and Dipthongs in Closed Syllables

i		u
e	(ɤ)	o
	a (aun)	

As for Yogli, an open -e cannot be substantiated, but may nevertheless occur, as we are dealing here with a particularly limited corpus. The parentheses enclosing -ɤ and -ai as open-syllable rhymes indicate that they occur only as reflexes of closed-syllable rhymes in NN. The latter (one instance: khai 'cloth') is further questionable in that it may be borrowed from Yogli, which has the identical form, as noted above. There is also only a single form in -aun (yaun 'dao'), which appears to be irregular; Marrison does not list -aun as a Moshang final.

Although -ɤ is well-established as the reflex of (only) NN *-uan, it appears in only one closed syllable (-ɤr) and bears no apparent relation to Yogli -ʌ-. In both contexts, it is probably a positional allophone of /u/. Thus, what we seem to have in Moshang is a simple five-vowel pattern in both open and closed syllables, with the single addition of -ui. But the materials

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available are limited and based on a single early source, so this conclusion must be tentative. (I have noted above my disbelief in Yo. a/kə rə, Mo. a/ka rau 'this/that', which looks like a transposition.)

(3) Nocte.

Open Syllable Rhymes

i	u
e(i)	o
a	

Vowels and Dipthongs in Closed Syllables

i	ie~ia uo~ua~oa	u
e	a/ʌ	o
	á/a	

Here we have a simple five-vowel system in open syllables. The alternation between -e and -ei is definite; the latter is found only in Das Gupta, who gives both alternatives for a number of forms. There are no distinct rising dipthongs in Nocte.

In closed syllables, however, we find eight distinct vocalic components. Weidert is again our source for a distinction between two values of what is given in all other sources as -a-. Weidert's Nocte -ʌ- matches his Yogli -ʌ- perfectly: wherever we find -ʌ- in a Yogli form given by Weidert, its Nocte cognate also has -ʌ-. Furthermore, in five out of six cases in which Weidert gives -a- (rather than -ʌ-) and in which the same form is given by Robinson or Brown, it is written in the older sources with a diacritic, as -á-; conversely, Weidert's forms in -ʌ- are always written without a diacritic in these

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sources.

I pointed out above that Weidert's distinction between -A- and -a- in Yogli dipthongs matches a difference in the NN reconstructions of these rhymes. This is also the case for his distinction between Yogli -aŋ and -Aŋ, which correspond to NN *-a°ŋ and *-aŋ, respectively; Nocte has just -a for the former, but, like Yogli, -Aŋ for the latter. When we come to other finals, however, the correspondence breaks down. If our reconstructions are correct, seven out of eight reconstructible forms in -AC (other than -Aŋ) go back to short vowels in NN; but only three out of seven reconstructible forms in -aC (other than -aŋ) go back to NN long vowels.[1] A similar picture is presented by the distribution of diacritics. (This is to say that, faced with the apparent irreconcilability of the implications of Weidert's -AC/-aC distinction and the Nocte diacritics, on the one hand, and of the implications of different basic vowel symbols in other languages (Konyak, Phom, Chang), on the other, I have chosen to use the latter rather than the former as a guide to reconstruction.) Nevertheless, these dis-

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[1] One of the four apparent exceptions here, however, is the form which is given without a diacritic by Robinson; and two at least (possibly all) of the other three go back to the vowel I have written as *-ə- but which, in some cases at least (including these), seems to be ultimately related to PTB/PST *-â-, "intrinsically a long vowel" in Chinese (STC 190, n.488).

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tinctions, even if they do not always discriminate between long and short vowels in the protolanguage, are not without significance, for they do mark off coherent correspondence sets in most cases.

Nocte's inventory of closed-syllable rhymes includes, in addition to its six simple vowels, two kinds of falling dipthongs, front and back. These are found with greater frequency in Nocte than in any other Northern Naga language. Although, as the table indicates, they are variously transcribed, it seems unlikely that more than the two distinct rhymes are involved.

We have enough data on Nocte to be able to state with some assurance what closed-syllable rhymes do *not* occur; that is, certain nuclear vowels are only realized before some kinds of final consonants and not others. Thus, *-e-* occurs only before dentals (*-en*, *-et*). Moreover, its occurrences fall into two classes, the interpretation of which strongly suggests that the phonemic status of *-e-* in closed syllables must be qualified. First, let me note that in the older sources, an unequivocal closed-syllable *-e-* appears in only three forms. Two of these forms (*ijet* 'to know', *khet* 'to plant') go back to *open*-syllable reconstructions in NN, the Nocte *-t* being interpreted as the reflex of an optional suffix at the NN level (because cognate forms with and without the *-t* are found else-

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where in Tibeto-Burman). Thus, one of the two classes of Nocte forms containing *-e-* consists of suffixed open-syllable rhymes.

The second class consists of forms in *-e-* which are variants of forms in *-a-* (*asan* ~ *asen* 'right (good)', *sat* ~ *iset* 'eight'), given in the older sources only in *-a-* (all of the examples above are from Das Gupta), corresponding to Weidert's *-ʌ-* (*achet* "pain(ful)": *chʌt* 'to ache') and reconstructing as closed syllables. In these forms *-e-* is a free allophonic variant of *-a-/-ʌ-* before dentals. Although in these cases the *-a-* appears to be prior, the variation can also have its source in an original *-e-*, as witness **ije* > *ijet* 'to know' ~ *ijat* 'to understand', **ne* > *net* ~ *nat* 'to rub'. The third form given with an *-e-* by an older source, *ñen* 'soft', seems at first to establish a distinct *-e-*, for it reconstructs in **-e-* as well; but so does *jʌp* 'to fan' (Weidert), so that the *-e-* in 'soft' is best interpreted as having been realized in the upper range of the *-e-* ~ *-a-/-ʌ-* field as a result of the palatal initial.

Thus, according to the interpretation offered here, Nocte has no distinct *-e-* in closed syllables; even rhymes deriving from the distinct open *-e* may be realized as *-a-*, as with 'to know/understand' and "to rub".

Nocte *-o-* also has a restricted distribution.

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It occurs only before velars (-on, -ok) but, unlike -e-, appears to be stable and distinct. With diachronic hindsight, we may say that the contrast among NN short vowels, with the exception of *-i-, is neutralized in Nocte before dentals and labials, but that before velars *-u- (> No. -o-) as well as *-i- remains distinct.

(4) Wancho.

Open Syllable Rhymes

i	(ia)	ui	(ua~oa)	u
e		oi		o/ɔ
	ai	a	au	

Vowels and Dipthongs in Closed Syllables

i	(iak)	uo~ua~oa	u
e			o
		a	

In Wancho we again encounter rising dipthongs in a more varied pattern of open-syllable rhymes similar to that of Yogli. Unlike Yogli, however, Wancho has an -ui as well as an -oi, and falling dipthongs which, as the parentheses indicate, occur as open-syllable rhymes only as the reflexes of closed-syllable rhymes in NN, specifically rhymes closed with the velar nasal, *-ŋ. A third point of interest here is the -ɔ, given only by Peal, sometimes as a variant of -o, in forms which Brown always writes with -o (Peal wrote this sound as â, but explicated "as in naught"; Marrison transcribes it as -ao, but this carries a possibility of confusion with -au, which is distinct -- Marrison gives only the latter in his table of Wancho rhymes).

In closed syllables, we again have, as in Nocte, a back falling dipthong which is probably unitary

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despite varying transcriptions. There are only two instances of the front falling dipthong, both with -k as indicated.

(5) Konyak.

Open Syllable Rhymes

i		ui		u
e	ei	oi	ou	o
	ai	a	au	

Vowels and Dipthongs in Closed Syllables

i (iaŋ)		u
e (eaŋ)	ə	o
	a	

With Konyak we seem to have the most extensive array of open-syllable rhymes to this point. The question is whether -e and -ei, on the one hand, and -o and -ou, on the other, are truly contrastive. In Chang, they are not. In Phom, the other Northern Naga language most closely related to Konyak, -o and -ou are distinct, but whether -e contrasts with -ei rides on the decision for Konyak. This in turn depends upon whether we are willing to posit an *-e and *-o, in addition to an *-e°y and *-o°w, for NN. The evidence for such a distinction is slender, as the contrasts would be reflected only in Konyak, and all four phones are rare. Nevertheless, on the basis of some extra-NN evidence, I do provisionally recognize the distinctions in Konyak and set up *-e and *-o for NN.

In Konyak the distinction between -ui and -oi, which is open to question for Wancho, seems clear-cut. In closed syllables, an -ə- appears as the regular reflex of a number of different proto-vowels, but only

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before velars and labials, never dentals.

(6) Phom.

Open Syllable Rhymes

i						u
e	ɐ	ei	oi	ɤ	ou	o
	ai		a		au~aɤ	

Vowels and Dipthongs in Closed Syllables

i		u
e	ɤ	o
	a	

In Phom the proliferation of open-syllable rhymes we found in Konyak becomes even more pronounced. Two at least of these, -au and -aɤ, may be collapsed into one on the basis of alternation within a single root. We should then also expect -eɤ and -ei to be allophones, but the evidence, slender though it is, does not warrant such a reduction in this case.

As in Konyak, -ɤ- occurs only before velars and labials, not before dentals.[1] Additionally, -e- occurs before dentals and labials, but not before velars. There does not seem to be any justification for positing allophony in either case, however.

(7) Chang.

Open Syllable Rhymes

i						u
e(i)~ie				(uɔ)		ɔ(u)
	ai		a		au	

Vowels and Dipthongs in Closed Syllables

i (iek)		uo~ua~oa	u
e	(ɔɤ)		o
	a		

Though we have more information on Chang than on

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[1] There is one exception: šət 'eight'. But cf. anpəšet 'eighteen'; in no other instance does a basic numeral term have an altered shape in a compounded form.

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any other Northern Naga language, the state of our analysis of its rhymes is among the least satisfactory. The unanalyzed state of the data as presented by Hutton is perhaps more troublesome here than in other cases, because Hutton appears to have transcribed fine, probably sub-phonemic distinctions, and at the same time often gives alternative transcriptions of the same root. Moreover, there may be a genuine, substantive source of some of the apparent free variation, i.e., in tonal distinctions becoming reflected in the segmental shape of the rhymes. We can substantiate this for one case (NN *-a > Ch. -au/-o(u)), and there may well be others on the same model.

As noted above, and as stated by Hutton himself, -e and -ei, on the one hand, and -o and -ou, on the other, are not contrastive in Chang. The problem is that, in certain correspondence sets though apparently not in others, -e(i) and -i(e), among front vowels, and -o(u) and -u, among back vowels, do not appear to be contrastive either. A similar problem arises in closed syllables with an apparent interchangeability between -eC and -aC in some sets and between -oC and -aC in certain others. Some or all of this apparent variation may be a result of differences in tone.

As the parentheses enclosing it in the table indicate, -uo at least does not occur as the reflex

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of an NN open-syllable rhyme, but only as the reflex of NN *-a˚n -- where, however, it is realized as -u(o) word-finally and as -o elsewhere (or is this, again, a function of tonal variation?); at any rate, we have here a clear-cut example -- clear-cut, because the reflexes of *-a˚n in the other languages are distinctive and consistent -- of the variation in rhymes (especially open-syllable rhymes) which is endemic to Chang.

The comparable front rhyme, -ie, occurs in nine roots, five of which are reconstructible in NN, all with open-syllable rhymes. Two of these definitely (probably three) go back to *-ay, whose more common Chang reflex is -e(i); the other two apparently go back to *-e, where we would expect, but do not have any definite instances of, Chang -e as well. Thus I show -ie in the table as a (free) variant of -e(i) -- in at least one instance there is an apparent doublet: phe(h) 'meat', phie 'flesh' (cf. Ky. phai, both). This is only the beginning of the confusion among these open-syllable rhymes, however, for both -i ~ -e variation (phi ~ phe 'to ask') and -u ~ -o variation (lu ~ lo 'to rise') are not uncommon.

In closed syllables, Chang, like Wancho, has a front rising dipthong only before -k; and, again like Wancho, only as an alternative reflex of a single prototype, which I reconstruct as *-ek in both cases.

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Again like Wancho (and Nocte), Chang has a variety of front falling dipthongs which are probably phonemically identical. Its one unique departure is the rhyme -ɔɤ. As noted above, the final -ɤ is best regarded as a positional allophone of -k. It substitutes for -k in two very different contexts, in both of which it is regularly associated with the vowel -ɔ-, which appears only sporadically and as a variant elsewhere.

First, the rhyme -ɔɤ is the regular reflex of one of the most common open-syllable rhymes, NN *-ɔw. Here it is the vowel which would appear to be primary -- the more so as the rhyme becomes -ɔk following an initial k- (i.e., NN *-ɔw > Ch. -ɔk / k__, -ɔɤ E -- there are additional reflexes, but they do not concern us here). Here, -ɔɤ is diachronically a back rhyme, but in its other context, it is diachronically a front rhyme, as the reflex of NN *-iak. And in this case the final would appear to be primary, changing the quality of the vowel.

Finally, there are three closed-syllable rhymes which do not occur at all in Chang: *-ut, *-up, and *-um. On the analogy of the other finals, they might be expected to appear as the reflexes of NN *-u°C, but are replaced here by the ubiquitous -aC. Chang makes use of all other possible combinations of its five basic vowels and six basic finals.

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(8) Vowels: Summary.

The four vowels /i a o u/ occur in all languages in both open and closed syllables. An /e/ also occurs in all languages, but is unattested in open syllables in Tangsa and appears only as a variant of /a/ before dentals in closed syllables in Nocte.

Two dipthongs, /ai̯/ and /au̯/, are general, appearing in all languages except Moshang and Nocte. A third, /oi̯/, has the same distribution except that it is also missing in Chang. The dipthong -ei is also common, but of variable status: it is an allophone of /e/ in Nocte (which has no distinct dipthongs in open syllables) and in Chang; it appears to be distinct in Konyak and Phom; and it is the most common realization of /i/ in Yogli. The parallel back dipthong, -ou, has a more restricted distribution but a comparable status where it occurs: distinct in Konyak and Phom, an allophone of /o/ in Chang.

To this system of eight basic open-syllable rhymes (-(e)i, -e(i̯), -a, -o(u), -u; -ai, -au; -oi̯) (with the gaps noted, and -e, -o ≠ -ei, -ou in Konyak and Phom) we must add: /ui̯/ in Moshang, Wancho, and Konyak; and /ə/ and /eə/ in Phom.

The Yogli open-syllable mid-vowels present a special problem: -e does not occur, -o occurs only as an infrequent variant of -au. But Weidert's distinction between -ai̯, -au̯ and -Ai, -Au allows us to set up a

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three-way contrast, front and back, with -ai (Walker) = -ʌi (Weidert) and -au ~ -o (Walker) = -ʌi (Weidert) occupying the middle position, paralleling the situation in the other languages having dipthongs.

The rising dipthongs which expand the set of open-syllable rhymes in these languages do not occur (in Yogli, are not contrastive) in closed syllables, where the basic pattern is one of just five nuclear vowels freely combining with six to eight final consonants. These five vowels are augmented, in different languages, in four ways: (1) In Konyak and Phom, by /ə/; (2) In Yogli and Nocte, by a distinction between two values of -a, one written by Weidert as -ʌ, the other generally given with a diacritic in the older sources for Nocte -- it is the former which has -e- as an allophone before dentals; (3) In Nocte, and more rarely, in Wancho and Chang, by falling dipthongs, /ia/ (Nocte only) and /ua/; in Nocte, these dipthongs assume the relative position of mid-vowels in the other languages, /e/ being absent and /o/ being the reflex of NN *-u{ŋ,k}; (4) In Yogli, Wancho, Konyak, and Chang, by front falling dipthongs which, unlike those covered under (3) above, occur only before velars; to this category may be added Chang -ɤ-, which occurs only before -ɤ, as the reflex of NN *-iak.

That is, Nocte has both front and back falling dipthongs which combine freely with finals; Wancho and

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Chang have back falling dipthongs which combine freely with finals, but, along with Yogli and Konyak, front falling dipthongs only before velars; Moshang and Phom have no falling dipthongs at all.

By and large, open-syllable rhymes in NN yield open-syllable rhymes in its daughter languages, and closed-syllable rhymes in NN yield closed-syllable rhymes in the daughter languages, but loss of final consonants occurs systematically in a number of cases, leaving open-syllable rhymes which are the reflexes of closed-syllable prototypes. In only two cases, however, do these augment the inventory of open-syllable rhymes, and in both of these cases, the rhymes are present in closed syllables as well: both are falling dipthongs, front and back in Wancho, back only in Chang, both produced by the loss of a velar nasal final.

2.2.4. A Note on Tone. Like Tibeto-Burman languages in general, all of the Northern Naga languages are almost certainly tonal. Tone is definitely attested for Yogli, Nocte, and Konyak by Weidert, for Nocte by Das Gupta, and for Chang by Hutton (also by Weidert). However, in no case do we have tone transcribed for more than a handful of forms: illustrative, in the cases of Das Gupta and Hutton. Weidert gives tonal markings for all forms, but only a limited number of forms. Thus, it is not possible, on the basis of the data currently avail-

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able, to reconstruct tone for NN, insofar as this is reflected only in tonal distinctions in the daughter languages; nor, of course, to reconstruct segmental phonology insofar as this might be reflected only in tonal distinctions in the daughter languages. Luckily, however, the Northern Naga languages are among those Tibeto-Burman languages which have generally preserved (NN/PTB) final consonants, the loss of these in other Tibeto-Burman groups being a principal source of tonal reflexes of segmental distinctions at an ancestral level.

As the reconstructions proposed herein are based on segmental phonology only, the important question for my purposes is the opposite one: to what degree do segmental distinctions in the data languages reflect not segmental distinctions but tonal distinctions in the protolanguage? I have one well-established case in which they do: Chang _-o(u)_ < NN(/PTB) *_-a_$^{\{A,C\}}$ contrasts with Chang _-au_ < NN(/PTB) *_-a_^{B}. This case is special, however, in that, because _-a_ is the most common final in Northern Naga (as in Tibeto-Burman generally), the skimpy illustrative data on Nocte tones provided by Das Gupta is sufficient to suggest a correlation, which Benedict (p.c.), on the basis of his current work on TB tones, has been able to confirm. As I have suggested above, it is entirely possible that some of the apparent variation in Chang reflexes of

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other NN open-syllable rhymes is similarly a function of tonal distinctions in the protolanguage. But we do not have sufficient data to tell. One or two other instances in which it is possible that differences in tone underlie variation in Northern Naga rhymes will be discussed below in Section 3.2., as germane.

2.2.5. Phonological Inventories: Summary. On the following pages I summarize the most important data presented above in the form of a comparative table of the phonological inventories of the seven Northern Naga languages treated in this work.

It should be noted that these are summaries only. Some of the variations discussed above are not represented here in the interests of clarity. In particular, I show only the phones as represented in the older, basic sources, with two exceptions: the important Yogli X-, and those rhymes given by Weidert which are necessary to discriminate rhymes conflated in the earlier sources on Yogli and Nocte; as above, these are shown following a slash in the rhyme table.

The consonants, both initial and final, are tabulated on the next page, and the vowels on the page following.

The differential vertical division of the two tables is meant to draw attention to the fact that while the Wancho consonant inventory is more similar to Nocte's, its vowels are closer to those of Konyak.

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Yogli	Moshang	Nocte	Wancho	Konyak	Phom	Chang
(g-)	g-		g-		g-	
k-	k-	k-	k-	k-	k-	k- ~ g-
kh-	kh-	kh-	kh-	kh-	kh-	kh-
j-	j-	j-	j-	j- ~ c-	j- ~ c-	(j-)
c-	c-	c-	c-			c- ~ j-
		ch-				
d-	d-	d-	d-		d-	
t-	t-	t-	t-	t-	t-	t- ~ d-
th-	th-	th-	th-	th-	th-	th-
b-	b-	b-	b-		b-	
p-	p-	p-	p-	p-	p-	p- ~ b-
ph-	ph-	ph-	ph-	ph-	ph-	ph-
			tz-			
ts-			ts-			
h-	h-	h-	h-	h-	h-	h-
(X-)						
ʂ-	ʂ-		ʂ-	ʂ-	ʂ-	ʂ-
s-	s-	s-	s-			s-
y-	y-			y-	y-	y-
r-	r-	r-	r-			
l-	l-	l-	l-	l-	l-	l-
v-	v-	v-	v-		v-	
w-	(w-)			w-		w-
ŋ-	ŋ-	ŋ-	ŋ-	ŋ-	ŋ-	ŋ-
ɲ-	ɲ-	ñ- ~ ŋ-	ɲ-	ɲ-	ɲ-	ɲ-
n-	n-	n-	n-	n-	n-	n-
m-	m-	m-	m-	m-	m-	m-
			(ø)	ø-	ø-	ø-
-ŋ	-ŋ	-ŋ	-ŋ	-ŋ	-ŋ	-ŋ
-n	-n	-n	-n	-n	-n	-n
-m	-m	-m	-m	-m	-m	-m
	-r					
-l	-l					
						-ɤ
-k	-k	-k	-k	-k	-k	-k
-t	-t	-t	-t	-t	-t	-t
-p	-p	-p	-p	-p	-p	-p
-ø	-ø	-ø	-ø	-ø	-ø	-ø

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Yogli	Moshang	Nocte	Wancho	Konyak	Phom	Chang
-ei ~ -i /-i	-i	-i	-i	-i	-i	-i
-ai/-ʌi		-e(i)	-e	-e	-e	-e(i)
-a	-a	-a	-a	-a	-a	-a
-au ~ -o /-ʌu	-o	-o	-o ~ -ɔ	-o	-o	-o(u)
-u	-u	-u	-u	-u	-u	-u
					-ɤ	
					-eɤ	
				-ei	-ei	
-ai/-ai			-ai	-ai	-ai	-ai
-au/-au			-au	-au	-au ~ -aɤ	-au
				-ou	-ou	
-oi			-oi	-oi	-oi	
	-ui		-ui	-ui		
	-ɤ(*ŋ)		-ia(*ŋ) -ua(*ŋ)			-uo(*ŋ)
-i-	-i-	-i-	-i-	-i-	-i-	-i-
-e-	-e-		-e-	-e-	-e-	-e-
		-ia-				
-a-/-ʌ-	-a-	-a ~ -e /-ʌ-	-a-	-a-	-a-	-a-
-a-/-a-		-á-/-a-				
		-ua-	-ua-			-ua-
-au ~ -o- /-o-	-o-	-o-	-o-	-o-	-o-	-o-
-u-	-u-	-u-	-u-	-u-	-u-	-u-
	(-ɤ-)			-ɤ-	-ɤ-	
-ieŋ				-iaŋ -eaŋ		
			-iak			-iek -ɤʊ

Note: The rhymes shown in the central section of the table are open-syllable reflexes of prototypes closed with *-ŋ.

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III. THE PHONOLOGY OF PROTO-NORTHERN NAGA: CORRESPONDENCES AND RECONSTRUCTIONS

3.1 Introduction

In this chapter I present the phonological inventory of the mesolanguage: first initials, then rhymes. The core of the chapter is a series of tables in which I display the reflexes of a particular reconstructed proto-segment in the seven data languages along with sets of cognate forms exemplifying these correspondences.

My objectives are: (1) to establish the validity of the correspondence set at issue; (2) to establish the plausibility of the reconstruction proposed for each such set.

In general, I compare only those syllabic components of polysyllabic forms which contain the reflexes of the proto-segment (rhyme or initial) in question. I also generally cite only one word to represent each morpheme, though in many cases a morpheme appears in additional words which provide important evidence for the validity of a cognate set. For this additional information, and full forms where these are not displayed, the reader is referred to Chapter IV.

In this chapter, I present only those data which are necessary and (ideally) sufficient to establish the

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validity of each reconstructed proto-segment in turn: of an initial segment, or of a rhyme, as the case may be. Thus, when a language has variant forms both of which are counted as members of a cognate set, I show both only when the variance is pertinent to the segment under consideration. Thus, I show all prefixes in the section on initials, but omit them in the section on rhymes. In presenting PTB forms and comparisons with other TB languages, I concentrate on those which bear directly on the reconstruction of the segment at issue.

All forms cited from Northern Naga languages and most forms cited from other TB languages are syllabified according to my own analysis of syllable division.

Cognate sets are presented under the headings of simple glosses labelling the NN root, in capitals. Sometimes these are composite, e.g., HEART/MIND[a]. When no form is available in a given language for <u>any</u> of these "head" glosses, I indicate this lacuna in the table with a double dash: --; when this symbol is absent, a form exists, but is not cognate. A numeral following a label indicates that I reconstruct more than one NN root for the gloss in question. An [a] or [b], as in the example above, indicates a disyllabic form for each of whose syllables a reconstruction is proposed.

The symbol $\simeq$, borrowed from mathematics, is used to link a form to a meaning not given in a source, but which I propose on the basis of context or conjunction.

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3.2 Initial Stops.

Benedict (1972: 17-20) reconstructs only two manner-series of stops for PTB, voiced and voiceless unaspirated. Although many Tibeto-Burman languages have a three-way contrast, aspiration is interpreted as sub-phonemic, (voiceless) aspirated stops generally being the reflexes of unprefixed voiceless unaspirated stops. The three-way contrast is, however, required for NN.

The contrast is clearly delineated for dentals[1] and labials, for which, in at least three of the languages, the prototypes are maintained (NN *d- > Mo t- constitutes an apparent but questionable break in the pattern):

Yo	b	d	p	t	ph	th	kh
Mo	b	t	p	t	ph	th	kh
No	b	d	p	t	ph	th	kh
Wa	b	d	p	t	ph	th	kh
Ky	p	t	p	t	ph	š	š
Ph	ø	ø	p	t	ph	š	š
Ch	ø	ø	p	t	ph/p	th/	kh/
NN	*b	*d	*p	*t	*ph	*th	*kh

I have added the equally unproblematic aspirated velars to the tabulation above.

The principal questions in this area are: (1) whether NN has a *g-; and (2) whether it has a series of palatal stops. I answer both questions in the affirmative, but they require some discussion.

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[1] Or alveolars. In no available description of a Northern Naga language does an author define his phonic symbols. Marrison provides only definitions which apply across the board, to all of the languages he treats, and, except for r (alveolar), always writes "dental or alveolar".

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In addition to the aspirates shown above, there are in Northern Naga two plentifully attested correspondence sets which go back to PTB velar stops. These are:

	Yo	Mo	No	Wa	Ky	Ph	Ch
(1)	k	k	k	k	t	s	k
(2)	h	g	h	h	k	k	k

These sets may be interpreted in three ways. Shafer (1953: 231-2; 235-6) reconstructs (1) as *k- and (2) as *χ- (this being the "Kukish" reflex). Benedict disagrees on the latter; in his judgment a stop is required (p.c.), and he has suggested that the difference between the two sets may be that (1) had an unprefixed, and (2) a prefixed, prototype.

I have not yet broached the subject of prefixed prototypes in NN, which will occupy a great deal of space in the following pages. In general, however, across the entire run of NN initials, as well as in those cases where the reconstruction of a prefix is most strongly supported by the extra-Northern Naga evidence, the differences between the reflexes of the unprefixed and prefixed initials are not great. In many cases, the reflex differs in only one or two languages. In most cases, the unprefixed initial appears to be much more common.[1]

The reflexes in the two sets under discussion, however, differ in every language except Chang. Fur-

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[1] I say "appears to be" because, in those cases where the differentiating reflexes occur only in languages for which no cognate form is available, I have reconstructed the words in question with unprefixed prototypes.

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thermore, each of the two sets has its own variants suggestive of proto-prefixation. For these reasons, I believe they must go back to prototypes which differ more fundamentally than in the presence or absence of a prefix.

There is no question that one of the sets is derived from NN *k-. As the data appear to demand an NN *b- and *d-, *g- is an obvious candidate for the other. The problem with this is that while *b- and *d- were retained in Yogli, Nocte, and Wancho, g-, as we saw in Chapter II, either does not occur or occurs only rarely, in restricted environments, in these languages. Thus it may well have been absent from the protolanguage as well. Nevertheless, I reconstruct NN *g- for (1), and *k- for (2). In the following paragraphs I give my reasons for choosing this assignment, rather than the reverse.

Benedict's STC reconstruction of PTB is not much help here, as there are few clear-cut identifications of PTB *g- to be found there -- only twelve in all[1] -- and of these only three have correspondents in Northern Naga. SHIN is found only in Chang, so that its NN initial correspondence set is indeterminate. SHOOT conforms to a variant of (2), and thus stands as prima facie negative evidence for my *k- for this set, but the variant demands

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[1] In three other cases Benedict gives *g-~*k-. This does not count *g(+glide)- clusters, which are an entirely different matter (see below).

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a prefix in NN, and as this appears to have been a glottal prefix, it may have led to the devoicing of the NN root-initial. The third instance, HEAD(1), is the only unequivocal one, but here the NN initial is *kh-! I give what comparative evidence is available below, under *g- and its prefixed variants, *C_V-g- and *C-g-, but the principal reasons for my decision have to do with pattern symmetry.

First I must dispose of the obvious possibility that the Moshang g- in set (2) constitutes a unique retention of the proto-initial. That Moshang g- is everywhere secondary is demonstrated by its occurrence in a critical form, BLOOD(1): PTB *(s-)h(y)wəɫˀɔy > Jg. sai, Li. ta zai, Ze. he zai, NN *C-həˀy > Yo a hai, Mo ta gri, No. he, all 'blood', Ch hai 'marrow'. As the PTB reconstruction (as well as my own reluctant division of the Northern Naga forms for 'blood' into two sets)[1] indicates, this is a word whose interpretation presents many difficulties in Tibeto-Burman generally. But there is one thing that is certain about it, and that is that it does not have a stop initial: the Moshang g-[2] is the only instance of a velar stop in the word for BLOOD in the more

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[1]The other, also derivable from PTB *(s-)h(y)wəɫˀɔy, is NN *syi > Wa a ji, Ky i, Ph i, Ch si. Note that Chang has a reflex in each set, and for this one, cf. Jg. ləsəwi 'marrow'.

[2]The initial element is g-, not gr-; diachronically the -r- is a part of the rhyme, Proto-Tangsa *-au/*-ai > Mo -ru/-ri /{k,g}__ (see above, 2.2.1(2) for details). The ta- element is almost certainly a prefix (cf. Shangge te-yai, Li. ta zai), probably from the PTB *(s-).

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than fifty Tibeto-Burman languages immediately available to me for comparison.[1] But the initials for BLOOD(1) in Yogli (h-), Moshang (g-), and Nocte (h-) are the same as those for the second of our velar stop sets. In BLOOD, PTB *(s-) h- > NN *C-h- > Proto-Tangsa (or 'Proto-Tirap', to include Nocte) *(C-)h- > Mo (C-)g-; and the last of these shifts also applied to the Tangsa/Tirap *h- which had resulted from the fricitivization of an earlier (NN) stop initial. Thus, the Moshang g- does not help us to determine whether that earlier stop initial was or was not itself voiced.

What does allow us to make this determination is the (relative) symmetry which appears when set (1), which I have reconstructed as *g-, is compared with, first, the sets for *d- and *b-; and, second, those for the clusters *gy- and *gr-. The other NN voiced stop initials, *d- and *b-, are retained in Yo/No/Wa, unvoiced in Ky, and deleted in Ph/Ch. This pattern is more similar to that of set (1), where a velar stop is retained in Yo/Mo/No/Wa, fronted to t- in Ky[2], and fricitivized in Ph, than to that of set(2), which shows fricitivization in Yo/No/Wa and retention in Ky/Ph. The critical language here is Phom, for which dental/labial voiced stop reduction (loss) is paralleled by velar stop reduction (fricitivization) in set (1), but not

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[1] With the exception of WT khrag, but this is from a different root altogether, "isolated in Tibeto-Burman" (Benedict 1972: 51, n.168). A few languages (incl. Lu., Di.) have th-, but as a reflex of *s-.

[2] NN *j- is also fronted to t- in Ky. Thus NN *g-, *j-, and *d- (and *$\underset{v}{C}$-g-, *$\underset{v}{C}$-j-, *$\underset{v}{C}$-d-) all become Ky t-.

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by the retention of the stop in set (2), particularly in the face of stop reduction elsewhere in the set.

The second line of evidence favoring the reconstruction of *g- for set (1) lies in the identity of the Ky/Ph reflexes for this set (t-/š-) and the Ky/Ph reflexes of *gy-, *C̬-gy-, and *gr-, these reconstructions being well supported by comparative evidence. For full details, see below, but note here:

	SAMBAR	HIGH(2)	EIGHT	BURN(2)
Ky	tok	tau-	tet	ton 'ignite'
Ph	šok	šou-	šət	
NN	*gyuk	*gyaw	*C̬-gyat	*grə̆n

SAMBAR PTB *g-ryuk (pcJAM); cf. Gurung gyuu 'sheep' (pcPKB)

HIGH(2) cf. Jg. tsau (Jg. ts- < PTB *gy-, STC 52)

EIGHT PTB *(b-)g-ryat

BURN(2) cf. WT sgron 'ignite'

Konyak t- appears to be a distinctive reflex of NN *g(y,r)-, occurring nowhere else among the many velar clusters. Compare the following correspondence sets for relative pattern symmetry:

Yo	k	c	c	h		kh
Mo	k	c	c	g	th	h
No	k	c	c	h	kh	s
Wa	k	c	c	h	h	s
Ky	t	t	t	k	k	š
Ph	š	š	š	k	k	th
Ch	k	s	h	k	s	h
NN	*g	*gy	*gr	*k	*ky	*kr

Thus, I reconstruct NN *g- where Shafer had Baric *k-, and NN *k- where Shafer had Baric *ɣ-. It should be

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noted, however, that Shafer did not realize that t- (th- in the dialects then available to him) is the regular Konyak reflex in the set I have reconstructed as NN *g-. If he had, it might have given him pause, for the one extensively attested velar-initial word for which Shafer was able to cite a Konyak cognate (with th-) -- NINE -- is also "peculiar" in that it has a voiced initial in WT (dg-), where, according to Shafer, *dk- would be expected.[1] Shafer drew special attention (1953: 236-237) to this twofold problem with NINE, but could offer no solution as to what the proto-initial might have been. Because of the paucity of his data on Konyak, however, he saw it as an isolated problem.[2] In his STC text, Benedict reconstructs NINE with *d-k- "in the face of" the Tibetan (and the Nung) form (23), but in the Appendices he relents and writes *d-k- ~ *d-g- (202, 217).[3] My NN reconstruction for NINE, *C-gə·w, provides additional support for this latter interpretation, of proto-variation in the initial for

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[1]Because "the shift from k' or k to t' when not influenced by a following liquid is something I believe does not occur elsewhere in Sino-Tibetan" (Shafer 1953: 236), Shafer apparently would have been willing to mark the Ky th- off to recording error, were it not confirmed by the Wa k-: Ky th- correspondence in 'feather' -- my HAIR(2), *gui. But this was the only other case he found.

[2]In fact, another instance was available to him, and for the first and most extensively attested word he cites for Baric *k-: NOSE, Ky na teŋ (all dialects), but, possibly because of the vowel shift, he apparently did not recognize it to be cognate.

[3]Matisoff has also varied in his representation of NINE, writing once *d-g- (1972c) but again *d-k- (1978).

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this root.[1]

The second question raised at the beginning of this section is whether NN has a series of palatal stops: that is, whether the phonemes which I symbolize as *j-, *c-, and *ch- are better regarded as stops or as affricates. Certain considerations of pattern symmetry lead me to tabulate them as stops, though a case for the alternative interpretation could easily be made.[2] The entire set of NN (unprefixed) stops, with their reflexes, may thus be represented as follows:[3]

Yo	b	d	ts	k	p	t	š	h	ph	th	c	kh
Mo	b	t	j	k	p	t	š	g	ph	th		kh
No	b	d	c	k	p	t	s	h	ph	th	th	kh
Wa	b	d	ts	k	p	t	h	h	ph	th		kh
Ky	p	t	t	t	p	t	h	k	ph	š	j	š
Ph	ø	ø	h	š	p	t	h	k	ph	š	j	š
Ch	ø	ø	s	k	p	t	c	k	ph/p	th/	c	kh/
NN	*b	*d	*j	*g	*p	*t	*c	*k	*ph	*th	*ch	*kh

The palatals are clearly an unruly lot when compared to the others, but the following points may somewhat qualify their apparent failure to conform to the general stop pattern:

1. In view of the unvoiced reflexes of *g-, it is not surprising that the (Yo/No/Wa) reflexes of *j- should be unvoiced as well.

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[1]That is, assuming that the PTB reconstruction with *k- is definite. NN points only to a *g-.

[2]The best evidence in this case, actually, is probably the comparative (extra-Nothern Naga) evidence, for which see below; additional important evidence depends upon a comparison of the reflexes of (variously) prefixed stops, for which, again, see below.

[3]For clarity, I do not show recorder variation here.

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2. As *g- and *d- both become t- in Ky, *j- > t- is expectable.

3. The Ph and Ch reflexes of *j-, like those of *d- and *b-, show stop reduction, though in this case incomplete.

4. The fricitivization of *k- in Yo/Mo/No/Wa is paralleled by that of *c-, though here it is also extended to Ky and Ph. The Nocte s- seems anomalous, but recall that Nocte does not have *s-.

5. The Chang c- for *c- fills in a perfect series of retentions of voiceless unaspirated stops in this language.

I now proceed to a consideration of the evidence for (a) the validity of each of the correspondence sets tabulated above, as well as that of their variants which I attribute to proto-prefixation; and (b) the plausibility of my reconstructions for these sets. This presentation takes the form of a series of tables, one for each reconstructed proto-segment, setting out the cognate sets which provide the strongest evidence for (a) and/or (b) above, and followed by: (1) a listing of the glosses for other words reconstructed with the proto-segment in question; (2) where conditioned variations in reflexes (not represented above) occur, a specification of the conditioning environments; (3) a summary, for each word in the table, of the most telling extra-Northern Naga evidence for the posited proto-segment -- preferably from PTB itself -- where such evidence is available. I begin with the velars.

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		GIVE(1)	CHIN	DOOR	KNEE	LOCUST	BITE(1)	GO(1)
							*g-	
Yo	k-	ku	ka	--		--	--	ka
Mo	k-	ku	--			--	kok	ka
No	k-	ko	ka	ka-	-ku	--	kak	ka
Wa	k-		ka-	ka-	-kui	kak		
Ky	t-	tau 'receive'	ta-	ta	-tu	tok		
Ph	š-	šuo	--	ša	-šə2	šuk	šak 'tear'	
Ch	k-	ku	kau-	ko-	-kək	kok-		ko 'go!'
NN	*g-	*gow	*ga^{B}	*ga^{A}	*gəw	*guak	*gək	*ga^{A}

also: ASCEND(2), CROOK/CROOKED/BENT(1)(2), DITCH, -MALE(1), -FEMALE(1), GOAT(1), HAIR(2), HOLE/CAVE, -LEG-, TO POUR OUT, TO REVOLVE/ROUND/AROUND, SHELL, TUBE.

GIVE(1) cf. Mz. ŋau lu~n'ŋwa lu 'to receive'
CHIN PTB *(m-)ka^{B}~*(s-)ka^{B}
DOOR PTB *m-ka, possibly ~ *ga (STC 166, n.445)
KNEE cf. WT dgu-ba 'bend(ing), bowing, stooping' (pcPKB)
GO(1) cf. Chepang ga^{A} 'stride' < PTB *ga^{A} (pcPKB)

Note the PTB nasal prexixes for CHIN and DOOR, and the possibility of a former nasal prefix in the Mzieme forms for GIVE, suggesting that PTB *N-k- > NN *(N-)g-. Shafer (1953) reconstructs a Baric "nonaspirated stop" (he has only a two-way contrast, +/- aspirated) for BITE and CHIN (also REVOLVE/ROUND/AROUND [his CROOKED], CROOK/CROOKED/BENT(1), and GOAT), but he was unable to cite Konyak or Phom forms for any of these and thus did not realize that they go together with the words for NINE and HAIR(2) (his FEATHER), which, with their Konyak t(h)-, so puzzled him.

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*C$_{\underline{v}}$-g-

		NINE	NOSE	TO SOW(1)	TO SOW(2)
Yo	k-/kh-	tə kau	khauŋ	--	--
Mo	k-	ta kru	--		
No	kh-	i khu	kho	khet	a khiet
Wa	k-	a ku	na kuŋ	--	--
Kv	t-	tu	na teŋ	tei	
Ph	š-	šə	šuŋ-	šei	
Ch	k-~g-	guh	kuŋ		kie
NN	*C$_{\underline{v}}$-g-	*C$_{\underline{v}}$-gə˚w	*na gu˚ŋ	*C$_{\underline{v}}$-ga˚y	*C$_{\underline{v}}$-gay

also: BUG(1)/BEE(b), SHIN.

NN *g-/*C$_{\underline{v}}$-__ > Tangsa k-/C-__, kh- E. This rule is presumptive for Moshang, but a comparison of the five other Tangsa dialects available shows that 'nine' has an unaspirated initial when the consonantal prefix is retained, as in Yo/Mo (four cases), but an aspirated initial when the consonantal prefix has been lost (Rongrang).

NINE PTB *d-kəw~*d-gəw, the latter based particularly on WT dgu; cf. Benedict (1972: 23): "Tibetan maintains the surd vs. sonant distinction with great regularity, and strong evidence must be marshalled before reconstructing any stop initial conflicting with the evidence from that language."

NOSE cf. Garo na kuŋ, but Di. guŋ, with voiced initial also in a number of other Barish dialects (incl. Garo "B", Bodo, Lalung, Chutiya, and Rabha -- where it is "contrary to expectations") cited by Shafer (1953: 231).

SOW cf. Di. gai, Jg. gat. The -t in Jg/No (-et in root (2) in No) is suffixed.

This set differs from (unprefixed) *g- only in the aspirated initials in Yogli and Nocte. Aspiration is

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an improbable development from a voiced prototype with a voiced prefix, but the latter is well-attested for 'nine' throughout Tibeto-Burman (see STC 116 for Kukish, also Jg. dž∂khu) as well as in Tangsa itself, and I take it that the *na- element has the same effect in NOSE.[1] Benedict (pc) suggests that the PTB *d- prefix may have been replaced by *s-, as in Barish (Garo sku, Di. sugu), which would then be the source of the Tangsa *t-, but Langsing (Steen 1948) has d- (da kow; cf. also de chat 'eight').[2] In fact, both *C̬-j- and *C̬-d- appear to have aspirated reflexes in Nocte; cf. especially RIGHT-HAND: No (dak)cha < NN *C̬-da < PTB *g-ya ~ *g-ra (> Di. yao ga da) (No dak, Di. yao = 'hand'). TO SOW, despite a problem with its rhyme which I have resolved by positing proto-variation in vowel length, supports the validity of a set with No kh-: Ky t-, as well as the reconstruction with *g-.

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[1]The (*)na- is not a prefix (though it may have been reinterpreted as one) but the most common Tibeto-Burman word for 'nose' itself. The (NN)*gu˚ŋ element is from a word for 'hole', the compound originally (as still in Chinese) meaning 'nostril' (pcPKB).

[2]This suggestion was made, however, before I recognized the parallelism between NINE and NOSE, broken only in Yogli. At that time I was trying to account for an apparent *kh- initial for NOSE in the face of Ky t- and Ch k-. If NOSE is reconstructed with a *g-, however, it is only the Nocte form which appears to be irregular, just as in NINE (and SOW), and the unequivocally voiced preposed element in NOSE points to the common solution.

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*C-g-

		TO TIE(1)	WAIST
Yo	k-	-ka	keŋ šit 'belt'
Mo		--	--
No	kh-	khak	
Wa	k-	-ka in 'knot'	
Ky	š-	ša	šiŋ; šiŋ hit 'belt'
Ph	š-	ša	šəŋ
Ch	š-		šen-
NN	*C-g-	*C-ga	*C-geŋ

TIE(1) cf. Bodo-Garo *ka^{A} (Di. kha)(pc PKB), Jg. ša jup

WAIST cf. Jg. šiŋ kit 'belt' -- note that the Jg. initial agrees with that in TIE -- and Chepang giŋ 'lower back' (Matisoff 1978: 280, n.274). Matisoff relates the Chepang form to Garo džaŋ-gal 'back', suggesting that the two may be linked by a 'transfer of palatality', either from (Garo) initial to (Chepang) vowel or vice-versa. The NN reconstruction points to the latter development -- palatalization of the Barish initial -- with Di. jeŋ khoŋ 'waist' closing both the phonological and the semantic circles.

The Jinghpaw and Northern Naga forms for TO TIE show that in these languages (unlike in Barish) the palatalization of the initial in WAIST is not an effect of the vowel, thus indirectly supporting the reconstruction of the *s- prefix (*s-g- > *s-dž- > š-).

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		EARTH [a]	COVER/ SHUT(1)	HOE	EMPTY	SCRAPE	*k- DOG [a]
Yo	h-	ha	a hip	--	--	--	hi-
Mo	g-	ga	--	gu-		--	gui-
No	h-	ha	hap	-hun-	a ho 'absent'	-hut in 'dye'	hu
Wa	h-	ha	--	hɔ	--	hut- 'cut'	hi
Ky	k-	ka	kep	--	kiaŋ	kut 'scratch'	kui
Ph	k-/š-	ka-	kəp	--	koŋ	--	ši
Ch	k-	kau	kap	kau	koŋ-	kat	kei
NN	*k-	*ka^{B}	*kup	*kua	*ko'ŋ	*ku't	*kuəy

also: BRANCH, COMPLETE, COVER/SHUT(2), HOUSE, TWIST/ BIND.

NN *k- > Ph š-/__{i,e}, k- E.

EARTH PTB *r-ka^{B} (prefix based on Jg./Nung)
COVER PTB *kup (pcPKB)
HOE cf. Mk. ku, Sema a ku pu, Di. kho di
EMPTY PTB *ko'ŋ (pcPKB)
SCRAPE PTB *kut
DOG PTB *kwəy

This seems firm, and receives further support from the prefixed variants (next pages), which differ only slightly. This was Shafer's Baric *ɣ-; he had recognized EARTH -- his GOD is a compound of EARTH -- DOG, and HOUSE (which I have not shown here because of distinctive reflexes conditioned by its unusual rhyme), also STEAL and HILL, which I reconstruct with prefixes (see below).

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*2-k-

		CARRY ON THE BACK(1)	SHOOT	CLAY
Yo	h-	hul	--	--
Mo	g-	--	gap	--
No	h-	han	a hap	--
Wa	h-	han	hap 'bow'	
Ky	kh-	khei	khep	khəm
Ph	k-/š-	ku	--	a šem
Ch	k-	kan	kib	
NN	*2-k-	*2-kur	*2-ka'p	*2-kəm

*2-k- > Ph š-/__{i,e}, k- E. (i.e., just as above, for *k-)

CARRY cf. WT 'khur-ba

SHOOT .PTB*ga'p -- or possibly *g-a'p or *g-(h)wa'p. (STC 50); the latter reconstruction is based primarily on Nung hwap -- cf. Nung hwar 'burn, kindle' (ibid.), NN *2-wa'r, FIRE.

CLAY cf. Jg. khum pup, WT 'jim-pa (with initial palatalized by vowel?)

WT /'/, the reflex of PTB prefixed *a-, is realized before stops and affricates as 2(ə)- (STC 122-123, esp. n. 339); preglottalization in Jg. is probably also the reflex of *a- (STC 23: n.78). I suggest that NN shows a parallel development; see particularly *2-w-, where the evidence is strongest. Here, the reflex which calls for a reconstruction other than simple *k- is the Ky kh-, and the WT forms with '- point to *2-; further comparative evidence is available under *2-p- (similarly > Ky ph-). Note also the Phom a- in 'clay', a rare element in Phom.

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		STEAL			HILL
Yo	h-	a hau	Yo		
Mo	g-	a gru- in 'thief'	Mo		
No	h-	a hu	No	h-	-ho
Wa	h-	a hu	Wa	h-	-hoa
Ky	k-	ku	Ky	k-	-kiaŋ
Ph	g-	gə?	Ph	š-	šoŋ
Ch	k-	kok	Ch	š-	šoŋ
NN	*C̥v-k-	*C̥v-kə˙w	NN	*C-k-	*C-ko˙ŋ

STEAL PTB *r-kəw HILL cf. Jg. koŋ, WT sgaŋ

I have just one example for each of these two proto-segments.

The set for STEAL (all forms except Wa [--] confirmed in 'thief') differs from that for *k- only in having g- in Phom -- the only occurrence of g- in our corpus for this language. Note also, however, that this is only the second word so far considered which is prefixed in all four Tirap languages (the other was NINE, *C̥v-gə˙w).

The set for HILL differs from that for *k- in having a š- unattributable to conditioning by a front vowel in Phom, as well as in Chang, there matching the Chang reflex of *C-g-. The WT form shows the prefix, but implies a voiced initial in PTB, which may have become unvoiced under the influence of the prefix in NN.

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		HEAD(1): TOP OF__	HEAD(2): FOREHEAD	SMOKE	CROW
					*kh-
Yo	kh-	khu	khaŋ	-khʌu2	--
Mo	kh-	khu	khaŋ	-kru	-kha
No	kh-	kho	khaŋ	-khu	-kha
Wa	kh-/k-	kho/ko 'hair'	khaŋ-/kaŋ-	-khut/-kut	-kha/-ka
Ky	š-	-šau in 'hat'	šaŋ	--ši	-ša
Ph	š-	šu 'hair'	šaŋ-	--	-ša
Ch	kh-/k-	khu	khəŋ-	-kəkh	-ku-
NN	*kh-	*khow	*khaŋ	*khəw	*kha[A]

also: BACK(1), BOAT(1), BROAD, HOT(2)/TO BOIL, LIP.

Wa kh- (Brown)/ = /k- (Peal)

NN *kh- > Ch k-/...-__, kh-/ #__.

HEAD(1) PTB *m-gaw ~ *(s-)gaw (STC), *m-gow ~ *s-gow (Matisoff 1972c), but both of these sources cite Di. səgau; Shafer (1953: 233), citing Di. kho-ro, reconstructs Baric *kh-.

HEAD(2) cf. WB khoŋ 'head'; as FACE, Baric *kh- (Shafer).

SMOKE PTB *kəw; Baric *kh- (Shafer).

CROW PTB *ka ; Baric *kh- (Shafer).

Shafer's Baric *kh- compilation also includes my BOAT(1) and HOT(2)/TO BOIL (his BURN). It includes as well two words, SKIN and BITTER, which have variant reflexes in some languages; Shafer noted, but did not attempt to account for, this variation, which I attribute to proto-prefixation (next page).

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*C$_{V}$-kh- and *C-kh-

		SKIN(1)			BITTER	BAG	TEA
Yo		(a khauŋ)	Yo	kh-	kha	--	--
Mo		a kru	Mo	kh-		-khak	
No	kh-	a khuon	No	kh-	a kha	-khok 'basket'	khe-
Wa	k-/k-	kuon/kan	Wa	kh-/k-	kha/ka		--
Ky	š-	šo	Ky	kh-	kha-	-khok	khe-
Ph	š-	šu	Ph	kh-	kha-		--
Ch	kh-	khon	Ch	kh-	khau-		--
NN	*C$_{V}$-kh-	*C$_{V}$-khuar	NN	*C-kh-	*C-kha[B]	*C-khuk	*C-khe

*C$_{V}$-kh-

SKIN PTB *kwər (pcPKB), cf. Chinese giwər 'hides', "apparently with secondary voicing" (ibid.). For prefix, cf. Di. bugur.

The initial correspondences for SKIN deviate from those for (unprefixed) *kh- only in Wancho, where (as Shafer noted) Brown has k- rather than kh-, and in Moshang (see below). Brown's unaspirated k- in SKIN is matched by his unaspirated t- in MOUTH(1), NN *N-thu'r, where the voiced prefix is solidly attested (NN *th- > Wa th-, just as for *kh-, except in MOUTH). The Moshang initial may also be unaspirated following the prefix (as for *C$_{V}$-g-, in NINE), but it could equally have been conditioned by the following -r-; there are no examples of Mo khr-. Because of this indeterminacy, I have left the space for the 'regular' Moshang reflex of *C$_{V}$-kh- blank. The Yogli form, with its velar final, may or may not be related.

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*C-kh-

Wa kh- (Brown)/ = /k- (Peal), just as for *kh-

BITTER PTB *ka^{B}
BAG PTB *kuk

The retention of *kh- in Ky and Ph[1] in BITTER really presents an unresolved problem for the reconstruction of NN. I can present no internal or external evidence of an unvoiced prefix for this word, or for BAG or TEA. The problem of BITTER is apparently not restricted to Northern Naga, for Shafer, similarly at a loss, could "only note that this phoneme is kept in this word in other Tibeto-Burmic languages where one would ordinarily expect a shift" (1953: 234).

One possibility is that the identity correspondence for BITTER really reflects (unprefixed) *kh-, and that the shift to ɣ- in Ky/Ph reflects the prefixed prototype (*C-kh-) -- i.e., that I have reversed the two sets. I have four reasons for choosing the assignments shown:

1. Throughout Northern Naga, unprefixed protoforms appear to be much more common than their corresponding prefixed variants. I have five sets showing the shift to ɣ- in Ky/Ph, against BITTER, BAG, and TEA; but the latter two are questionable in that they are both the sort of words that could easily be borrowed, and in each case I have forms from only two languages.
2. Shafer, too, thought that BITTER was anomalous, and not only in Nothern Naga (see above).

[1] Marrison (70); the Puiron form at (30) is Phom.

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3. The unprefixed *th- shows the shift to s- in Ky/Ph. (This is of limited significance, however, as the prefixed varieties shift to j-, and as *ph- is retained).

4. There is one other proto-segment which has kh- in Ky/Ph, and this is also a *C- prefixed variant, *C-khr- (see below).

All of this is hardly decisive, however, and the alternative, particularly in view of extra-Northern Naga evidence for *s- prefixes for both HEAD(1) and HOT(2)/TO BOIL, should be kept in mind.

In the above presentation of NN velar stops, I have paid close attention to Shafer's earlier treatment of many of the same materials. In the section to follow, on NN * (-)j-, Shafer will be of little help. Of the sixteen cognate sets I reconstruct with NN * (-)j-, Shafer recognized only two, TWENTY and BREAST (his MILK), which, in his section on "Sibilants and Affricates" (1953: 251-258), he almost necessarily confounded with sets going back to (sometimes quite) different prototypes. His treatment of both, in fact, is fallacious. He mis-transcribed Wa (Banfera) tsa 'twenty' as tš̆a and ignored the fact that the Wa (Banfera) initial in 'milk' is (again) ts- and not tš̆- -- a crucial distinction which sets these two words off from the others with which he compares them (he has no extra-Nagish evidence for either).

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	GINGER	HARD (1)	HIGH (3)	RED	20	*j- HARD(2)	FAR (1)
Yo ts-	tsiŋ-	a tsan	--				--
Mo j-	--	--				--	a jal
No c-	ciŋ	a can	a coaŋ	a cak			
Wa ts-/t-	--		/taŋ		tsa/	tsak/tiak	
Ky t-	tiŋ		-toŋ in 'top'	təak	ta		
Ph h-	--	--		hak-	ha		
Ch s-	si		-soŋ in 'hop'	sak-	sau-	sek-	sa-
NN *j-	*ji·ŋ	*jan	*juaŋ	*jak	*ja	*jek	*ja·l

also: TO FIND, PERSON(2).

Wa ts- (Brown)/ = /t- (Peal) (See Section 2.2.1 above.)

GINGER cf. Di. ha jiŋ

HARD(1) cf. Jg. ja

HIGH(3) PTB possibly *jwaŋ (pcPKB)

RED PTB *cak (STC) but possibly better *jak (pcPKB)

HARD(2) cf. Jg. yak 'difficult'

FAR(1) PTB *ja·l

As the comparisons above indicate, there is some extra-Northern Naga evidence of *j- for each of the words shown, except TWENTY, which appears to be without even possible cognates elsewhere in Tibeto-Burman (the Yo/Mo/No forms are compounds of 'ten' and 'two'). This is particularly unfortunate, as numerals generally "breed true" in Northern Naga, unlike adjectives, for which differential replacement is virtually a rule; note that this is the first set for which our demonstration must rely on fragmentary evidence provided by adjectives.

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*C$_{v}$-j-

		RUN	BREAST	PADDY	TRUE
Yo	s-	son		--	--
Mo	y-	yu	yam ŋa 'plantain'		--
No	ch-	chuan		cha	
Wa	ts-/tz-		tsam-/tzam- in 'milk'	/tza	/-tziŋ
Ky	t-		təm	ta- in 'chaff'	-tiŋ
Ph	h-			ha?- in 'chaff'	hiŋ-
Ch	y-			you-	yiŋ
NN	*C$_{v}$-j-	*C$_{v}$-juan	*C$_{v}$-jəm	*C$_{v}$-ja[A]	*C$_{v}$-ji·ŋ

Wa ts- (Brown)/ = /tz- (Peal) (See Section 2.2.1 above.)

RUN cf. PTB *jon 'ride'. If this comparison, entailing semantic shift in Northern Naga, is correct, it also provides evidence for the voiced prefix, for the WT form, Žon-pa, is probably from a form with an initial such as *bdz- (STC 29, n.91).

BREAST cf. WT Žo 'milk' (+ ma 'mother'?). The Moshang cognate requires a note: the -ŋa element by itself is cognate with other forms for PLANTAIN, cf. The association of a plantain with a breast is one of both form and function, for in Southeast Asia generally plantains are primarily children's food.

PADDY cf. Newari ja (pcJAM), Jg. ya 'millet'. This root is distinct from NN *dza(B) < PTB *dz(y)a(B) 'eat' (also 'food'). Because of the similarity of the two, some of the comparisons advanced for EAT may really pertain to PADDY. But they are clearly distinct in Northern Naga (Wa/Ky/Ch); see particularly Wa tza 'grain; corn; rice as grain' but sa 'to eat; boiled rice' (all from Peal).

TRUE cf. SW Naga: Rengma keciŋ, Khoirao kajiŋba, Nr. kəcuŋhmei, all 'true'. In the Ky for 'true' the initial element is ŋao 'word, speak' but the prefix is indicated in ə tiŋ pa 'right(correct)' and ə tiŋ lak 'to believe'.

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*C-j-

		WINTER/ COLD(1)	TO CUT WITH AN AXE	TO PUT/ TO KEEP(2)
Yo	s-	-suŋ	--	
Mo	š-	-šuŋ	--	
No	ch-	-choŋ all 'cold'		
Wa	ts-/tz-		--	/-tzuŋ in 'bag'
Ky	ø-		ak	aŋ (both)
Ph	h-	-hoŋ 'winter'	--	hoŋ 'to put'
Ch	ø-	-aŋ* 'winter'	ak	
NN	*C-j-	*C-juŋ	*C-jo'k	*C-jo'ŋ

Wa ts- (Brown)/ = /tz- (Peal) (as for *C̬-j-).

*Chang -aŋ 'winter' could equally well be the reflex of WINTER/COLD(3), *klaŋ, cf.

WINTER/COLD PTB possibly *juŋ (pcPKB)

CUT w. AXE cf. WT 'jog

PUT/KEEP cf. WT 'jug 'put', Ao Chongli re juŋ 'keep'.

(See TO PUT/TO KEEP(1) for another example of how these are alternative glosses for a single semantic unit in Tibeto-Burman)

The WT forms in '- of course suggest not *C- but *ʔ- < PTB *a-, but there is hardly enough material here to set up another proto-segment for *j-, and the reduced Ky/Ph/Ch reflexes are not what we should expect for an NN *ʔ-j- on the pattern of *ʔ-d- and *ʔ-b-, so I have opted for a solution implying prefix substitution.

In summary, the extra-Northern Naga comparisons cited for * (-)j- over the last three pages provide fairly good support for the reconstruction of the initial for all three sets, if not for the reconstruction of

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(-/+) prefixes in the manner shown. For this, however, I also refer to pattern symmetry with the reflexes of * (-)g-. Compare:

Yo	k	k/kh	k	ts	s	s
Mo	k	k		j	y	š
No	k	kh	kh	c	ch	ch
Wa	k	k	k	ts	tz	tz
Ky	t	t	š	t	t	ø
Ph	š	š	š	h	h	h
Ch	k	k	š	s	y	ø
NN	*g	*C$_{V}$-g	*C-g	*j	*C$_{V}$-j	*C-j

And note the following symmetrical features:

1. In Nocte, the unaspirated reflex of the unprefixed prototypes becomes aspirated when it is the reflex of prefixed prototypes. This is also the case, as we shall see, with *d-/*C$_{V}$-d- and *b-/*C$_{V}$-b- (I have no examples of *C-d- or *C-b-).

2. In Konyak, retention and fronting of the stop occurs when either prototype is either unprefixed or preceded by a voiced prefix; when the prototype is preceded by an unvoiced prefix, stop quality is lost.

3. In Chang, the reaction of an initial whose prototype is preceded by an unvoiced prefix is identical to that in Konyak.

My division of prefixes into voiced, unvoiced, and (sometimes) glottal is undoubtedly an oversimplification. There is no reason why <u>every</u> prefix -- Benedict in the <u>STC</u> distinguishes (at least) seven for PTB -- should not have a distinctive influence on one or another initial. As we shall see, it is possible in a limited number of cases to reconstruct a nasal prefix for NN.

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		THORN	SUN	FINGER (1)	SELL (1)	TO TEAR	FLY	*c- SALT
Yo	š-	šʌu2	-šal	-ši	a šaŋ	-šit in 'belt'	šoi	--
Mo	š-	šu	-šar	-ši	šoŋ	--	--	šum
No	s-	su	san	-su	saŋ	-siet		sum
Wa	h-	huk	-han	-[h]i	haŋ		huat	hum
Ky	h-	hü	-hi			hit	hoi	həm
Ph	h-	hə?					--	həm
Ch	c-	cak	can-	-ci-		cit-	cot-	cam
NN	*c-	*cəw	*cər	*cuəy	*coŋ	*ci°t	*cuat	*cu°m

also: TO CLOSE, TO JOIN(2), ROOF(1), TO SING(1)

THORN PTB *tsow, but in STC text (before recognition, in notes, of a palatal series) and cites Jg. ju, rather than the expected (*ts- >) *dzu; at (69) a variant in -u(w) (= -əw in the revised formulation) is posited, on the basis of the Di. form.

SUN PTB *car

FINGER cf. PTB *(r-)cray 'count'

SELL cf. WT 'tshoŋ-ba

TEAR cf. PLB *jit (pcJAM)

SALT PTB *gryum (STC), but in one development > *ju[°]m (pcPKB); cf. Jg. jum

Two of the sets not shown above also have PTB *c-: JOIN(2), NN *cap : PTB *cap; and ROOF(1), NN *cip : PTB *cip or *cup (pcPKB).

For 'finger', Ky/Ph, and for 'to sell', Ky/Ph/Ch selected a distinct root; see FINGER(2), SELL(2).

Shafer recognized the unity of THORN, SUN, FINGER, SELL, and SALT and suggested *tsh- as the Baric initial (1953: 253-255).

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*2-c-

		DESTROY	SPLIT	GET (1)
Yo		--	--	
Mo		--	--	--
No	c-		--	i cu
Wa	h-	hat 'cut'	--	
Ky	th-	thet 'break'	them	thou
Ph			--	
Ch	c-	-cat[1]	cam[2]	
NN	*2-c-	*2-co·t	*2-cum	*2-co·w

Chang glosses

1 in ñen cat 'slander' (ñen = 'name')
yik cat 'pillage' (yik = 'hand')

2 under 'cut', "of meat only, =to cut up very small", preceded by "nin- (cut up - of meat only)" (Hutton 1929a: 65), cf. pei ñin 'split'.

DESTROY PTB *cât 'break, cut' (WT gtšod-pa); the Chinese cognate also means 'destroy', especially in view of the Chang forms the best gloss for the set at large.

This extremely slender evidence has been assembled to attempt to account for Ky th-, which occurs in only six forms in our corpus of over a thousand. Of these six, only the three shown above have apparent cognates elsewhere. I reconstruct *2- on the model of *2-k- > Ky kh- and *2-p- > Ky ph-, and *2-c- rather than *2-t- on the evidence of the PTB form for DESTROY and the No form for GET, with their palatal initials. The Wa form for 'cut' may or may not be cognate, but the three remaining pairs appear to be reasonably sound as provisional matches.

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		SUCK	MUCH (1)			-FEMALE (2)
Yo			--	Yo	š-	e šik 'wife'
Mo		--	--	Mo	š-	-šik
No	c-	a cup	cen-[1]	No	h-	-hiek
Wa	h-	--	han ko 'best'	Wa		
Ky	h-	hɐp		Ky		
Ph				Ph		
Ch	š-	šap	šen ko 'full'	Ch		
NN	*C̬-c-	*C̬-cu°p	*C̬-cen	NN	*C-c-	*C-ci°k

Nocte glosses

1 in cen to 'how much?'
cen ko 'everywhere' (cf. a ko 'here', i ko 'there')

*C̬-c-

SUCK This root is related to, and much confounded with, KISS, which I reconstruct as NN *C̬-chup (see below), i.e., with aspirated initial and short vowel. The two probably go back to the same prototype at some level, but distinctive reflexes (particularly) in Ky require keeping them apart in NN.

cf. Jg. cyup 'suck', cup 'kiss', Bodo cup 'suck', Mk. iŋ jup (note prefix), both. The Nocte form (given only by Das Gupta) is also listed for both glosses, but fits only here. Cf. KISS under *C̬-ch-. Matisoff (VSTB 32) reconstructs PTB *ʔcup ≈ *ʔjup 'suck'.

*C-c-

-FEMALE cf. Bodo-Garo *-cik ~ *-jik 'female suffix', Garo jik 'wife', meʔ-cik 'wife, woman, female'. This is another problematic set, however, for Yogli also has -cik in 'woman', and cf. NN *C-khye°k, WOMAN; I include it primarily to call attention to the problem.

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*ch-

	BURN (1)	TASTE	ANSWER
Yo c-	a cak		—
Mo	--	—	--
No th-	thak	thâ li 'tongue'	
Wa		--	--
Ky j-		jep	jan
Ph j-	jak	jep	jaŋ
Ch c-	cik	cap	co-
NN *ch-	*chak	*chap	*châ°ŋ

BURN cf. WT 'thsig (with palatalized vowel ["transfer of palatality"; cf. the discussion of WAIST under *C-g- and Matisoff 1978: 280, n.274], as in Chang?); Mpri. cak; and Chinese tsiăk/ciăk 'roast, broil' (pc2KB) — for the latter, cf. Chinese t'iat/ciät 'break, destroy' : PTB *cât : NN *?-co°t, DESTROY, an important comparison for the palatal initial in BURN (Chinese forms [Archaic/Ancient] from STC, 191, n.488).

TASTE PTB possibly *jap (pc2KB)

ANSWER cf. Lu. chha°ŋ (note aspirated initial)

This is a problematic reconstruction, because there is also evidence, both internal and external, suggesting a dental/alveolar affricate as the prototype. The Chinese comparison for BURN and the perfect Lushai match for ANSWER are critical for the decision to reconstruct the palatal.

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		KISS
Yo		--
Mo		--
No		
Wa		--
Ky	j-	jep
Ph	j-	jəp
Ch	š-	šep
NN	*C̬-ch-	*C̬-chup

		URINE
Yo	š-	ši
Mo		--
No		
Wa		--
Ky	š-	ši
Ph		--
Ch	c-	cet
NN	*C-ch-	*C-chi

*C̬-ch-

KISS see SUCK, under *C̬-c- above. The comparisons for KISS are more extensive (if the difference in glosses can be taken as a reliable discriminator between the two roots, which is doubtful — indeed, if there are two roots in Tibeto-Burman generally: it is possible that the two senses are phonetically distinguished only at sub-PTB levels).

cf. Jg. cup, Mpri. cup, and for prefix Mk. in jup, Ao Mongsen me chep (both glosses), Maring mə cup 'kiss' (pcPKB for prefix), and particularly Sangtam mə chəp 'kiss", showing the aspirated initial (St. distinguishes between c- and ch- [GEM, App.: 366]) as well as the prefix.

*C-ch-

URINE PTB *ci. For the aspirated initial, cf. WB chi (Burmese distinguishes between c- and ch-). The -t suffix appears in both WT and Jg., but Chang suffixed -t seems to be an independent (though parallel) development, occurring only (but not always — hence probably also a function of tone) in forms having *C- (*s-) -prefixed prototypes (with high front rhymes). See below under rhymes for full discussion; the point of relevance here is that Chang suffixed -t appears to be a reliable indicator of a *C- prefix in NN.

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		TO BE (1)	UP	BLIND	REPEAT	BEAT (2)	QUARREL (2)	*d-
Yo	d-	-dauŋ[1]		--	--		--	
Mo	t-	tə	-ten[2]	--	--		--	
No	d-	doŋ		-duok	a dap-			
Wa	d-		din- 'above'	-dok	--			
Ky	t-		-ten[3]		--	tip 'hit'		
Ph	ø-				--	ap	--	
Ch	ø-		an-[4]			ip 'pat'	o-	
NN	*d-	*duaŋ	*dian	*do·k	*dəp	*di·p	*daw	

Glosses and analysis of compounded forms

1 Yo da dauŋ 'breathe'; da- is cg. with other forms for LIVE/BREATHE, cf.

2 Mo ka ten 'rise'; ka = 'go', cf. GO(1), hence 'rise' ≃ 'up-go'

3 Ky ta ten 'housepost'; ta- possibly < PTB *ta 'put, place'. Cf. Mulung tan 'above' (Mulung is another of the Ky dialects, recorded by Brown).

4 Ch tig an- an ti 'throw (tig-) up', "lit."; cf.: tig an-yan ti 'throw (tig-) down' (ti = CAUSATIVE, yan = 'descend'). Also: an tin po 'hang up' (po = 'set down')

TO BE cf. Di. doŋ 'to be; to be alive'; possibly also WT 'dug 'to be' (cf. NN *C-jo·ŋ, PUT/KEEP(2), WT 'jug 'put').

UP cf. Lu. pa thian 'God' (pa = 'father')[1], Bodish *s-təŋ (WT steŋ) 'upper part', PST *(s-)təŋ ~ *dəŋ 'rise, raise, etc. -- cf. particularly Chinese d'i̯əŋ/dž'i̯əŋ, whose glosses include 'be on top, above' (STC 183, n.482).

REPEAT PTB *təp ~ *dəp

BEAT PTB *dup ~ *dip, *tup ~ *tip. For the Ch gloss, cf. especially Mk. dip-dip 'beat (heart, pulse)'

QUARREL PTB *daw 'defy, interfere [in a quarrel], be at enmity with'

[1] "The creator who lives in the sky" (Shakespear 1912:

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My treatment of the varieties of * (-)d- is largely based on, and partially dependent for its coherence on, that of * (-)b-, where the picture is considerably clearer. As the reader whose patience is not yet exhausted will appreciate, I have had to go to some lengths in my attempt to make a case for the validity of the corespondence set for *d-, particularly for that of the crucial set for UP. The material in the following pages will, I hope, establish the existence of a prefixed *d- in NN, and thereby lend credence to the fragmentary evidence for the unprefixed variant.

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157). The word for (formal) 'friend' in Lushai is also thian, but is almost certainly distinct. Apparent cognates of Lu. pathian are widespread in Kuki languages: khogein pcotteeang (Banjogi or Bom, Chittagong Hill Tracts, but apparently related to Lai [Haka], Central Kuki)(MacRae 1801, one of the very earliest reports); patheng (Kom) and pathel (Anal, Kolhen: all three Manipur Old Kuki)(Shakespear: ibid.); and pathen (Thado, Northern Kuki)(Shaw 1929). For the semantics, see Zemi tiŋ waŋ 'God', which Marrison explicitly glosses 'lord of the sky' (136) -- Zemi tiŋ 'sky' may be yet another cognate -- and Ky kawaŋ, Mulung kahwaŋ 'God', Mulung kawaŋ 'above' (Brown).

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*ʔ-d-

		POT	DO/ MAKE(4)	DO/ MAKE(5)	GET(2)
Yo		--			
Mo	t-	tik			
No	t-	tik	tiek		
Wa	--	--			
Ky	t-	tɔk		toi 'work'	
Ph	d-	dɔk	dɔk	dou 'work'	daŋ
Ch	c-~j-	cak	-caɣ	jan 'must'	coŋ-[1]
NN	*ʔ-d-	*ʔ-dik	*ʔ-diak	*ʔ-dəˀr	*ʔ-dəŋ

Chang glosses

1 in: coŋ sak 'gift' (sak = 'expend'), coŋ sa 'reward' (sa < sa no 'show favor').

also: GO(4), THINK(1), WAIT. For these three sets, I have only Ky and Ph forms (Ky t- : Ph d-); although a dental/alveolar initial is confirmed by external evidence for all three sets, there is no indication of a glottal prefix. In the absence of a Chang cognate with (or without) a palatal initial, the reconstruction of the initial for these sets must remain provisional.

POT cf. WT dig 'large kettle, washing-copper, brewer's copper', Garo dik 'large earthenware pot; jar', Di. di-dik 'metal water jar' (all pcPKB), Jg. (n)diʔ 'pot'. Benedict (pc) considers this a loan from Indic, but cf. the Mon form cited in Section 1.2.2 above: khdek 'lamp' (Ky a tɔk, Ph o dɔk, Ky a-/Ph o- = 'fire'), suggesting instead an Austroasiatic source, with Mon kh- : NN *ʔ-.

DO(4) PTB *dyak (WT 'deg(s)-pa)(pcPKB)

DO(5) cf. Lu. tuˀr 'must'

GET cf. Mk. deŋ 'receive'

I am thus able to offer two external comparisons for the *ʔ- prefix as the conditioning factor for this set.

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*C̥-d- and *N-d-

		SUFFER (1)	CLEAN	TIGHT	RIGHT-HAND			STORM
Yo	d-	da 'sick'	--	a dam-[1]	--	Yo		
Mo		--	--	--	--	Mo		
No	ch-	cha 'ache'	--	--	cha	No		
Wa	t-		--		ta-	Wa	d-	-duŋ [4]
Ky	j-		jao-		-ja	Ky	n-	-niaŋ [5]
Ph	d-		dau-	--	-ta[3]	Ph		
Ch	s-	-sak	sak-	-sam[2]		Ch		
NN	*C̥-d-	*C̥-da'k	*C̥-da'k	*C̥-dam	*C̥-da	NN	*N-d-	*N-du'ŋ

Glosses for TIGHT

1 in: a dam ka 'to tie'; -ka alone is cg. with other forms for TIE(I), cf.

2 in: yik sam 'to close one's fist; to be numb' (yik = 'hand')

3 Phom d- > t-/-k__ (full form is lak ta, lak = 'hand')

Glosses for STORM

4 in: raŋ duŋ 'thunder; lightning' (raŋ = 'sky')

5 in: waŋ nyaŋ 'wind' (waŋ = 'sky'; Marrison's orthographic ny- is generally to be interpreted as ñ-, but here the Wa and external evidence suggests the interpretation shown).

also: HEART/MIND [b]

SUFFER cf. Yi. phɔ tsak 'fever' (phɔ = 'body'), Lp. a dak 'illness'

CLEAN cf. Yi. tsak 'bathe', WT dag-pa 'clean'

TIGHT cf. WT dam-po 'tight'

RIGHT PTB *g-ra ~ *g-ya, especially Di. yau-gada (yau = 'hand')

STORM cf. WB mu-ntuiŋ 'storm' (mu- < mul 'sky'), Mk. iŋ deŋ 'thunder': note nasal prefixes in both.

The linchpin of the correspondence set for which I

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reconstruct *C_V-d-, as well as of the reconstruction itself, is the set for RIGHT-HAND, which defies all attempts at placement as *(g)r-, *(g)y-, or the like, but responds to an interpretation positing a development parallel to that in Dimasa, i.e., *g-r- > g-d-.[1] The *d- for CLEAN and TIGHT (though not the prefix) is confirmed by the WT forms, and appears to become ts- in Yimchungrü, a development which is perhaps more plausible following a prefix. The aspirated initial in Nocte is, as we have seen, regular for the reflex of a voiced stop following a voiced prefix.

The reconstruction for STORM is frankly speculative: the Wa form could be from (unprefixed) *d-, but the Ky form, together with the apparent WB and Mikir cognates, suggests special treatment. A parallel pre-emption of a Konyak stop initial by a homorganic nasal under the influence of a (lost) nasal prefix seems to have taken place in CHEEK(2), NN *N-biaŋ > Ky meŋ-.

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[1] STC 34.

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		SHORT (1)	HEARTH	SEND	BACK (2)	WEAVE	WATER (1)	*t- SWEET
Yo	t-	a to	--	--		--		--
Mo	t-	--	tap	tar		--		--
No	t-		tap		tok- 'behind'	-tak	ti 'soup'	a tu
Wa	t-	tut	--	--	tok	--	ti	ti
Ky	t-/j-		-tap	tei 'take'	tok	tak	-ji- 'honey'	
Ph	t-/j-	--	tep	tei	tok	tak	-ji- 'honey'	--
Ch	t-	tu-	tap 'ashes'		tak	tak	tei	tei-
NN	*t-	*tə'w	*təp	*te'r	*tuk	*tak	*təy	*tuəy

also: ALL(2), ANT(1), BUFFALO(2), COMPLETE(1), EARTH[b], FALL(3), NAVEL(1), PROMISE(1), PUT, ROOF(2), SLOPING, STICK(2), STRAIGHT, TOP, YEAST.

NN *t- > Ky/Ph j- /__ i #. The rule is ad hoc. 'Honey' is a compound of 'bee' + 'water' throughout TB, of WATER(1) in No/Wa/Ch; therefore I interpret Ky/Ph -ji- in 'honey' as WATER(1) though it appears nowhere else in the corpus for these languages. The Ch t- precludes a reconstruction in *C-t- and the Ph j- precludes *C$_y$-t- (see next pages), even with a palatalization rule, as it contrasts with Ph t- in a ti 'egg'. I reconstruct EGG (segmentally the same root as WATER (1), but on a different tone; cf. STC 196, n.494) with *C$_y$-t-, rather than *t-, because of its Mo d-. Shafer (1953: 232, n.5) interpreted the Mo d- as "due to intervocalic position" (full form: wu di, wu = 'fowl') but cf. Mo wa toŋ 'all', ALL(2). Thus it is not simply intervocalic position but close juncture (cf. STC 135, n.367, on the parallel distinction in Karen -- PK *thi 'water' but *2di 'egg') which makes the difference.

Of course, 'honey' in Ky/Ph could go back to *C-t- (splitting the root rather than the Ky/Ph reflexes of *t-), but recall that a similar rule was required for *k-. Yet another possibility is that the Ph j- is the result of assimilation to the nasal initial of 'bee' (ña2 'bee', ña2 ji u 'honey'), but this would have to operate at a distance for Ky (ña tai 'bee', ña tai ji lo 'honey'). On balance, the solution presented above seems most plausible.

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The conditioning environment must be as specific as it is, restricted to an open syllable, because palatalization does not occur in Ky tiŋ- < NN *tiŋ, STRAIGHT, restricted to __i because it does not occur in the forms for SEND. It should be noted that palatalization of *t- before -i is common in Barish (including Garo; Shafer 1953: 232, STC 26), but that it occurs identically in the forms for 'water' and 'egg'. One must apparently go as far as Karen to find a segmental distinction between these two words, but as Benedict points out (STC 26), the Garo initial is not palatalized in na-tik 'shrimp' < PTB *(s-)di˚k, though whether the inhibiting factor is the closed syllable or the prefix is uncertain.

SHORT PTB *tǝw (pcPKB)

HEARTH PTB *tap

SEND cf. Lu. ti˚r 'send', Ze. tei waŋ 'bring' (waŋ = 'come')

BACK cf. PTB *tuk 'neck'. Whether or not this comparison is correct, the set for BACK belongs to a word-family including PTB *l-tak 'above' and PTB *to[˚]k (pcPKB) > NN *tǝ˚k, TOP. ROOF(2) is probably the same word as BACK (in comp. with 'house'-, i.e., 'house-back', probably on the model of a quadrupedal animal's back), the connection being made by Ch tak, "over (of horizontal position only) . . . (lit. = 'back') could not be used of trees, for instance, with which ku (=head) is used" (Hutton 1929a: 83). Cf.:

	BACK	ROOF	TOP	SLOPING
No	tok- 'behind'			-tuak 'steep'
Wa	tok	-tok		
Ky	tok	-tok	a tok me[2] 'above'	
Ph	tok	-dok[1]	tok- 'above'	
Ch	tak	-dak[1]	šoŋ tok- 'peak'[3]	tok-
NN	*tuk	*tuk	*tǝ˚k	*tuak

1 Secondary voicing
2 me = 'on, at, in'
3 šoŋ = 'hill, mountain'

WEAVE PTB *r-tak (pcPKB)

WATER PTB *ti(y) (= *ti or *tǝy)

SWEET PTB *twi(y) (= *twi or *twǝy)

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		HEAR	THICK	EGG	FAR(2)	LIFT	TO CLIMB *$\underset{v}{C}$-t-
Yo	t-	tai	--	--	--		--
Mo	d-	--	--	-di		--	də
No	t-	tat	a tat 'fat'	ti		tuon	
Wa	t-	a tat	tat	-ti	a tai		--
Ky	j-	jai	jei-		jai-	jon-	jut
Ph	t-	(tan)	--	-ti	tai-		tət- 'jump'
Ch	t-	tit	-tat- 'large'	-tei			
NN	*$\underset{v}{C}$-t-	*$\underset{v}{C}$-ta·t	*$\underset{v}{C}$-tat	*$\underset{v}{C}$-təy[1]	*$\underset{v}{C}$-tay	*$\underset{v}{C}$-tuan	*$\underset{v}{C}$-tu·t

[1]The reconstruction for EGG, whose initials are interpreted as due to close juncture with forms for BIRD rather than a prefix, is actually *(C-)wa(w)-təy, the complexity of the BIRD element resulting from its being a composite of no fewer than three proto-forms for BIRD (cf.), as well as Mo wu 'fowl' ('bird' = vu).

HEAR PTB *tâ-s. Also has the senses 'listen' and 'obey', both also Ky jai/Ch tit(-), and both Jg. ma tat, suggesting a nasal prefix; cf. also Ao Chongli me tet 'understand'.

THICK PTB *r-tas

EGG PTB *ti(y) 'water', in comp. with 'bird' or 'fowl'

FAR PTB *tay 'great, large' (cf. Wa tai hu 'many'). A *g- prefix is well-attested: Mk. ke the, Di. ge de ba, Southern Naga ke di.

LIFT cf. Tibetan-Kanauri *don ~ *ton '(cause to) come or go out, pull' (WT 'don-pa).

Note that the Ph t- in EGG is compatible with the Ky j- : Ph t- correspondence in FAR and HEAR, as the Ky/Ph j- in 'honey' is not. Note also the parallelism between NN *$\underset{v}{C}$-d- > Ky j-, Ph d- and NN *$\underset{v}{C}$-t- > Ky j-, Ph t-.

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		GRANDFATHER(1) /ELDER BROTHER
Yo	t-	a tai
Mo		
No	t-	te
Wa	t-	a tai
Ky	j-	jei-
Ph	j-	-jei
Ch	c-~j-	jai ; cai-
NN	*C-t-	all 'elBr' 'brethren' *C-ta°y

GrFa/elBr probably, like FAR (preceding page) also related to PTB *tay 'great, large'. See below, under *C-th- SMALL(/PARENT'S [y]Z/Br), NN *C-tho°y < PTB *doy ~ *toy '(parent's) younger sibling', but always in comp. with father/mother terms and elsewhere also 'short', 'small'.

This set varies from that for *$\underset{v}{C}$-t- only in the palatalization of the stop in Phom and Chang, cf. *(-)k-:

Ph	k/š	g	š	t/j	t	j
Ch	k	k	š	t	t	c
NN	*k	*$\underset{v}{C}$-k	*C-k	*t	*$\underset{v}{C}$-t	*C-t

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*th- (1)

	DIG	FACE	POOL (1)	GUN [b]	SHORT (2)	BUTTERFLY
Yo th-	thu	thal 'cheek'	--	--		--
Mo th-	--	thal	--		--	--
No th-	thu	than	-thum[1]	-tho	a thoan	
Wa th-/t-	/-tə	/tun	/-tum[2]	/-tua		-thuak/-tuak
Ky š-	šo		šim	-šiŋ	šo-	-šek
Ph š-	šou		šem-	--	--	--
Ch th-/	thu			-thuŋ	-thon-[3]	
NN *th-	*thu	*thə°l	*thu°m	*thu°ŋ	*thuar	*tho°k

Glosses for POOL

1 in: jo thum 'dam' (jo = 'water')

2 in: šuak tum 'bank' (šuak = 'box'; probably actually 'container'). On this interpretation, 'reservoir' would be a more appropriate gloss for the No form, the jo- element being redundant, as in Ph šem yuŋ 'pool' (yuŋ = 'water').

There is, however, another possibility. Wa šua- = 'river' (šua ko 'river', šua nu 'small river'). The šuak- in 'bank' could be from šua ko, in which case the -tum would refer to the containing rather than the contained element, not only in Wancho but (in its cognate transforms) for the entire set, 'dam' then being indeed the correct Nocte gloss.

Chang gloss for SHORT

3 in: hak thon a 'panting' (cf. hak thoun 'to sigh'), hak = 'breath', i.e., 'short of breath'; possibly also in yik či šo thon bu 'little finger', yik či sou = 'finger'.

also: CONTAINER, TO DIVIDE(1), HOUSEPOST, MIRE, PUSH, SPEAK(1), SPIT, WHITE(5).

Wa th- (Brown)/ = /t- (Peal)

DIG PTB *du ~ *tu (Jg. thu)

FACE cf. Di. thaiŋ, Jg. -than, Lu. cal, all 'forehead'

POOL cf. Lu. du°m

SHORT PTB *dwan ~ *twan 'shrink', Chinese twân/tuân

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'short', < PST *twa-n (pcPKB); but note, for rhyme, all three languages cited for this PST root have -n for *-r as well as for *-n (STC 15, 172).

BUTTERFLY cf. PTB *twak 'emerge'

None of the thirteen roots cited above for *th- have a front-vowel rhyme in NN. Although this could be due to chance, it raises the possibility that an intriguing correspondence set having only front-vowel rhymes represents the reflexes of NN *th-/__{i,e}... This set could hardly be posited on the basis of the NN data alone, but emerges clearly from a comparison of that data with forms from Lushai and Mzieme. What is intriguing about these comparisons is that the Lushai forms have zero-initial; if these are from a PTB *dental/alveolar stop (I also have comparisons with Mikir and Dimasa), they are the resultants of a development not recognized in the STC. This development would have begun with an earlier palatalization of the stop, regular for Lushai[1] (as in Wancho), and continued with fricitivization (as in Thado, Siyin, and Tiddim, Yogli and Konyak), but proceeded to loss of the consonant in Lushai (possibly also in Lhota). Provisionally, then, I set up *th- for this set, with distinctive reflexes conditioned by front-vowel rhymes (though *dy- is also a possibility). I would like to be able to cite a Lushai form with Ø- for a solid PTB *t-/__{i,e}..., but the latter are extremely rare: the STC has only

[1]See STC I7, n.63.

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*ti(y) 'water', *(m-)ti-s 'wet', and *tip 'beat' (var.) among over fifty PTB roots with *t-. Perhaps this lacuna is to be explained by unusual and divergent developments of *t-/__{i,e}... in TB generally, making cognate sets with this prototype difficult to recognize. But compare:

*th- (2)

	EAT(2)	TO PUT/ TO KEEP(1)	WHITE (4)
Yo s-	sei		
Mo			
No th-		thïen (both)	
Wa c-			ce
Ky h-	hei 'food'	hen 'put'	heŋ-
Ph			
Ch th-			-theŋ[1]
NN *th-	*they	*the'n	*the'ŋ

1 in: theŋ thou 'firefly' ~ theŋ do 'glowworm', (lit ñu) kam theŋ 'full moon' (lit ñu = 'moon')

EAT cf. Lu. ei 'taste, eat', Mz. tei 'eat'

PUT/KEEP cf. Lu. en kol 'keep' , Ze. tei 'keep', Di. deŋ (both)

WHITE cf. Lu. eŋ 'yellow' , Mz. tei ha 'white', Lu. e'ŋ 'to shine; light(bright)', Mk. theaŋ 'to shine', ke theaŋ 'light(bright)', theŋ tom 'torch', Lhota eŋ 'sun'.

My *th- (1) and *th- (2) are of course identical in NN, and have been thus separated only for convenience and clarity of presentation, and to set off the latter as provisional. NN *th-/__{i,e}... > Yo s-/Wa c-/Ky h-.

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*C̥-th- (including *N-th-)

		PROMISE (2)	(EDGE/) MOUTH(1)	
Yo		--	--	
Mc	/n-	--	nər	(NN *N-th- > Mo n-)
No	th-		thun	
Wa	t-/t-	--	tun/tun	
Ky	j-	jiŋ 'swear'	ju	
Ph	j-		ju	
Ch	th-	thi	thuən 'edge;end'	
NN	*C̥-th-	*C̥-thi·ŋ	*N-thu·r	

(EDGE/)MOUTH PST *(m-)dyu·r (pcPKB): Chinese d̂'iwən/ dz̆'iwĕn 'lip; borders of a river', WT žur 'snout, muzzle, trunk' (cf. No vo thun 'beak' [vo = 'bird']), Garo cil, Di. jer, Jg. nten, 'lip' (front vowels conditioned by *-y-), Lepcha (a-)duI 'lips', Mk. iŋ tur 'lip, mouth'.

The Moshang form allows us to specify the nasal prefix for NN[1] (for PTB/PST see Jg. and Mk.). As with Mikir, however, there is no suggestion in the Northern Naga forms that the *-y- was retained in NN: Ky/Ph j- is the usual reflex of prefixed *t(h)-.

Mikir is also the only language cited which shares with NN the extension of sense from 'lip(s)' to 'mouth'. The different extension seen in the double gloss for the Chinese is also present in Chang sam puŋ 'point; rim; mouth', but I derive this from NN *kyam < PTB *r-ka[·]m 'edge, bank, precipice; lips, mouth', see (EDGE/)MOUTH(2). The EDGE-LIP-MOUTH linkage is evident in both roots, and

[1]Benedict suggested to me that the Moshang nər

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on this basis I propose that the Chang cognate of the other Northern Naga forms for 'mouth' is not sam puŋ but thuən 'edge; end' (~ tho an 'border'), though this word has no anatomical reference.[1]

The apparent shift from PST *(-)d- to NN *(-)th- I cannot explain, but only note that we have seen this before, e.g., in NN *khow, HEAD(1) < PTB *(-)gaw or *(-)gow.

Note, finally, that MOUTH, like SKIN(1), NN *C̬-khuar, has an unaspirated initial in Brown's as well as in Peal's transcription of Wancho, confirming loss of aspiration in this language following a voiced prefix.

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form is cognate. The shift from a non-nasal to a nasal is extremely rare in Northern Naga, as in TB generally, but cf. DRINK, where *N-l- becomes Yo/Mo n-.

[1]But cf. Chang thu ñu 'elephant' (ñu here ≃ 'big', see BIG(2)) and the gloss for the apparent WT cognate of NN *N-thu'r: 'snout, muzzle, trunk'.

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*C-th-

	DRY(2)	SMALL(/PARENT'S [y]Z/Br)	LADDER	STICK(1)
Yo Š-	a Šan	a Šoi 'aunt'	--	--
Mo s-	--	i si 'aunt'		
No th-			-tho	-thun
Wa /t-		--	/-tuŋ	--
Ky j-		joi-/ -joi[3]		
Ph j-	--	-joi[1]/ --	--	
Ch c-		-co-[2]	cuŋ	cu
NN *C-th-	*C-than	*C-tho·y	*C-thu·ŋ	*C-thu·l

Glosses for SMALL

1 in: laŋ joi 'table' (laŋ = 'bed'). On the comparability of Naga beds and tables, see Hutton (1921b: 39): "Beds are made from single slabs of wood hewn out of the tree and raised 2 feet or so from the ground, either on wooden props or on legs hewn out of the wood in the same piece as the slab itself. The great bed of a Sema chief is often an enormous table . . ."

2 in: ham bi co bə 'small' (ham bə also = 'small'; such "semantic reduplication" is common in Chang); co bu 'remainder'; co ŋa 'mere'; sat co 'small fig', etc.

3 in: a ñu joi 'aunt', a pa joi 'uncle' (a ñu = 'mother', a pa = 'father'). Cf. von Fürer-Haimendorf 1969: 107, writing of the Wakching dialect of Konyak: "the father's elder brother is addressed u-bha-yoŋ (great father) [(-)yoŋ = 'great, big' also in our dialect, see BIG(1)] and the father's younger brother u-bha-dzui (small father)". Clearly Wakching dzui = Wanching joi, both 'small', and the Ky terms given under the 'aunt' and 'uncle' headings by Marrison are those for the parents' younger siblings.

DRY: PTB *tan: WT and WB reflexes both than- (STC 190, n.488)

SMALL: PTB *doy ~ *toy, glossed 'younger (youngest) sibling' in the STC listing

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of Tibeto-Burman roots (208), but almost always found in forms glossed 'father's/mother's younger sister/brother', in comp. with the 'father' or 'mother' term, just as in Konyak. For the free(d) sense, 'small', see STC 67, n.211: Trung (Nungish) has -dəi (in comp. with 'brother' and 'uncle') in the terms for 'younger brother' and 'younger uncle', also dəi 'short', a-dəi 'small(persons)'; the qualification is absent in Lepcha di(-m) 'small'.

Cf. again also the apparent correspondence between NN *C-ta°y, GRANDFATHER(1)/ELDER BROTHER and PTB *tay 'big, large, great'.

LADDER cf. PTB *duŋ ~ *tu°ŋ, particularly the latter, represented by Lepcha (a-)thŭŋ 'height, length'; the former, short-vowel, variant may be represented by NN *thuŋ, HOUSEPOST. At any rate, the two NN forms are almost certainly related to each other and probably to one or the other of the PTB variants.

STICK cf. Li. ta thun2

The reflexes for this set differ from those for *C$_{\text{v}}$-th- (where the latter are available for comparison) only in the substitution of c- for th- in Chang (cf. *C$_{\text{v}}$-t- > Ch t-, *C-t- > Ch c-, exactly parallel). The Tangsa sibilants are expectable following an *s- prefix. There is some evidence of the prefix itself for three of the four forms: Yo a- in 'dry'; the fact that SMALL is essentially a kinship term (see also SON and GRANDCHILD); Li. ta- in 'stick'; but this is tenuous. The principal evidence is indirect: the conjunction of solid external indications of an initial *t(h)-, on the one hand, and, in Northern Naga, palatalized reflexes diverging from those for (unprefixed) *th-, on the other.

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		DEAF	TEN (2)	NUMERAL PFX. (in '4')	BAD (1)	CARRY ON BACK (2)	JUMP	*b- TREE (2)
Yo	b-	baŋ		bə-	a ba	bo2	--	
Mo	b-	--		ba-	a ba	--	--	
No	b-	-ba		be-		ba2		baŋ
Wa	b-	-ba	ban	--		--		
Ky	p-	-pan-	pen	pe-				
Ph	∅-	-aŋ-	an	a-			-ei	
Ch	∅-	o-	an	--		--	ai	
NN	*b-	*ba°ŋ	*bo°n	*b--	*ba°k	*ba[B]	*ba°y	*baŋ

DEAF PTB *ba°ŋ ~ *pa°ŋ (pcPKB).

TEN No ST comparisons can be found, but cf. Khasi Ši pón (Robinson 1849: 349)(Ši- = 'one-', "a specialized form . . . used only with quantifiers" [GEM 210]). This is evidently a loan from Austroasiatic into NN.

PREFIX in '4' PTB *b--

BAD cf. Jg. yu bak 'sin' (The NN reconstruction with final -k is dependent upon the Jg. correspondence.)

CARRY PTB *ba. The full gloss (with both forms, from Weidert) is 'to carry the baby on the back'; the glosses for the Jg. and Digaro forms from PTB *ba (STC 19) are similar.

JUMP cf. Lu. bai 'to hop'

TREE cf. PLB *baŋ (pcPKB); also Di. bu phaŋ

I also tentatively include here CHEEK(1), NN *buam (Wa bom-, Ch owom- [= /oam/ or < o om], cf. PTB *(s-)bwam.

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*?-b-

		MALE (OF ANIMALS) (1)	SNAKE	TO BEAR A CHILD	BODY
Yo	p-	-puŋ	po	--	
Mo	p-	-puŋ	pu	--	
No	p-	-poŋ	pu	--	
Wa	p-	-poŋ	pu	--	--
Ky	p-	-poŋ	pu	pu	pəm
Ph	b-	-boŋ	bə?	bə?	bəm
Ch	p-	-paŋ	pi-		-pam-[1]
NN	*?-b-	*?-buŋ	*?-bəw	*?-bəw	*?-bu'm

Chang glosses for BODY

1 in: mat pam bə 'self' (mat = 'person'), yik ɛ pam at 'embrace' (yik = 'arm[s]', at = 'enter')

MALE (OF ANIMALS) cf. Yi. -buŋ, St. -boŋ ~ -poŋ, Ao Mongsen -boŋ, Ao Chongli -puŋ ~ -boŋ, Lhota -(o)poŋ, Ntenyi -sepuŋ (all found in comp. forms for 'cock' and/or 'bull', like those in Northern Naga). Thus the morpheme is general throughout Central as well as Northern Naga, and apparently restricted to these groupings in the sense given. For what may be the same root, but with semantic shift in two different directions, cf. Lu. bo'ŋ-nu 'cow', bo'ŋ-pa 'bull' ('cow' given as se boŋ by Shakespear 1912: 229; cf. the Ntenyi form) and Miri milboŋ (a mi = 'person') 'man, husband, male' (pcPKB).

SNAKE PTB *bəw: WT 'bu points to the glottal prefix; cf. also Kadu (Luish) kə phu

BEAR A CHILD cf. PTB *bu ~ *pu (WT 'bu-ba 'open(of flowers)', Jg. pu 'bloom, bud', WB phù 'bud, swell')

BODY cf. St. jə bəm, Li. ca pum

The critical form for the *2- reconstruction is of course WT 'bu under SNAKE: cf. NN *?-diak, DO/MAKE(4): WT 'deg(s)-pa.

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		*$\underset{v}{C}$-b-	BAT
Yo			—
Mo			--
No	ph-		phak-
Wa	p-		-pak
Ky	p-		-pak
Ph.			--
Ch.	p-		pak
NN	*$\underset{v}{C}$-b-		*$\underset{v}{C}$-bak

BAT PTB *ba°k. The *$\underset{v}{C}$- element is very likely not a prefix but BIRD, NN *($\underset{v}{C}$-)wa(w), just as for EGG, NN *$\underset{v}{C}$-təy: the Wa and Ky forms retain the BIRD- element.

The difficulty presented by the reflexes of NN labial stops is that, unlike those of non-labial stops, they all retain a labial articulation;[1] consequently, there is little latitude for discrimination among correspondence sets deriving from different varieties of prefixed and unprefixed proto-segments. The set I have reconstructed as *2-b-, for example, differs from that for (unprefixed) *p- only in Phom. The set above differs from both of these only in Nocte, and from that for *ph- only in Konyak. The No ph- : Ky p- correspondence occurs only in BAT, but internal and external comparison converge to favor setting up a distinct proto-segment for this form. The pattern of the reflex-

[1]With the exception of the labiodental articulation of the No reflex of NN *2-p-.

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es of NN stops at other positions suggests that Nocte ph- is unlikely to come from *(-)p-, and that Konyak p- is unlikely to come from *(-)ph-. But both *C_V-g- and *C_V-j- yield an aspirated stop in Nocte and an unaspirated stop in Konyak, and the conformity of the initials for BAT with this pattern dovetails with its PTB *b-.

Thus, the three correspondence sets which I reconstruct with varieties of *(-)b- are all in certain important respects symmetrical with those assigned parallel reconstructions at other positions of articulation. Compare particularly:

Yo	d	b		p	d	
Mo	t	b	t	p		
No	d	b	t	p	ch	ph
Wa	d	b		p	t	p
Ky	t	p	t	p	j	p
Ph	ø	ø	d	b	d	
Ch	ø	ø	c	p	s	p
NN	*d	*b	*ʔ-d	*ʔ-b	*C_V-d	*C_V-b

The similarity of the reflexes of *ʔ-b- to those of *p- (and *C_V-p-), differing only in Phom, means that when a Phom form cannot be cited it is not strictly possible to determine whether a cognate set should be reconstructed with *p- or *ʔ-b-. This is actually a general problem, and my procedure here, as elsewhere, is to assign the simpler reconstruction if the discriminating reflex is not attested. Thus I reconstruct *p- for BREAST/FLOWER, BREAK(2), GRANARY, WHITE(3), despite external suggestions of PTB *b- (possibly *ʔ-b- in NN).

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		TREE (1)	FENCE	WHITE (2)	(BREAST/) FLOWER	YEAR	MOTION VERB	*p- GrFa (2)
Yo	p-	pul-	pal-	-poi[1]	-paun		pai 'lift'	
Mo	p-	pul	--	-pi[1]	--	--		--
No	p-	pan 'wood'	pan	-pe[1]	a po	-pa		
Wa	p-	pan			pua	--	pai- 'lift'	a pu[4]
Ky	p-	pi	pe		-peŋ	-paŋ	pei 'come'	a pu
Ph	p-	pə	--		--	(poŋ)	pei 'come'[3]	--
Ch	p-	pu	pa	-pai-	-puŋ[2]	puo	pai 'walk'	pi
NN	*p-	*pul	*pal	*poy	*pu°ŋ	*pa°ŋ	*pa°y	*pəw

also: TO BREAK(2), GARDEN, GRANARY, ISSUE, THIN(3), TOUCH/PUT(2), WHITE(3).

Glosses for WHITE

1 in: Yo ya poi, Mo ya pi, 'moon', No da pe 'month'; the initial elements are also cognate, see MOON(1).

Chang gloss for BREAST/FLOWER

2 in: sam puŋ 'point, rim, mouth' (sam < NN *kyam < PTB *r-ka[ʔ]m '(incl.) edge, rim, mouth'), i.e., ≈ 'mouth-breast' or 'mouth-flower', originally (in its anatomical sense) probably ≈ 'lips', cf. Ky ju peŋ 'flower', ju pen 'lip' (ju = 'mouth').

Phom glosses for MOTION VERB

3 It is the Phom form which ties the set together, as it is glossed not only 'come' (cf. Ky) but also 'stand' (cf. Yo/Wa)

Wancho gloss for GRANDFATHER

4 'ancestor' ('grandfather' not available)

TREE PTB *bul ~ *pul

FENCE cf. Lu. pal, Mpri. sam bal

WHITE cf. WB phwe: 'very white' (pcPKB)

FLOWER cf. Miri buŋ 'swell, swelling' and in comp. 'to be in bud' (pcPKB), Lepcha boŋ 'mouth', Nr. mun poŋ 'bud, flower', Di. a bo 'breast', bo- 'bud'.

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MOTION VERB cf. Angami Khonoma pe se 'raise, thu pe le 'lift', Kohima pe sie 'raise', Mao phe tho 'lift', Sema pfe khe 'raise, lift', Di. phai 'come'.

GRANDFATHER PTB *pəw

*ʔ-p- and *C̬-p-

		GROW(TH) (1)	BREAK (1)	SPINDLE
Yo	p-	a pa	--	--
Mo	p-	-pu [1]	--	--
No	v-	vun [1]	ŋ-wak- [2]	--
Wa	p-	pau [1]	a pak	--
Ky	ph-	phau [1]	phak	phaŋ
Ph	p-			paŋ 'thread'
Ch	-			--
NN	*ʔ-p-	*ʔ-pua	*ʔ-pak	*ʔ-paŋ

		TO FLY
Yo	p-	a pau
Mo	b-	ba
No	p-	pu
Wa	p-	pi
Ky	p-	pu
Ph		--
Ch	p-	pi
NN	*C̬-p-	*C̬-piaw

Glosses for GROW(TH)(1)

1 Yo/Ky 'to grow', Ky also 'forest, jungle' and pe-phau 'bush'; Wa 'forest, jungle, weed' and pau ka 'bush'; No 'forest, jungle' and vun cha 'bush'. Cf. GROW(TH)(2), NN *lyi˜ŋ: Mo/No/Wa Liŋ 'forest', Ch. ciŋ 'to grow' (in comp., 'bush'). The Moshang form is less certain:

Mo -pu is found in ri pu 'cotton'; ri (on comparative evidence) = 'thread' < NN *rəy (Ky wi, both 'thread' and 'cotton').

2 Form given by Brown as ŋuaksyet (Robinson has ŋu-ak-). I suggest that the ŋ- element is separate, possibly a nasalized reflex of the *glottal prefix: *ʔə-pak > *ŋ-ʔə-pwak > *ŋə-wak > ŋuak. Because of the initial ŋ- element, the -w- does not become *v-. The -siet is a ubiquitous Nocte verb of action, glossed 'pull' in isolation but found in such compounds as 'damage (bad-do)' and 'marry (girl-take)'. This etymology is admittedly speculative, but the set and reconstruction for BREAK stand even if the Nocte form is excluded.

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*2-p-

GROW(TH) cf. WB pwa:, Jg. kabawa, 'to grow' (Jg. ka- possibly < *?a-, cf. SPINDLE below).

BREAK PTB *(2)pak (TSR 65)

SPINDLE PTB *pwaŋ, but the glottal prefix is indicated by no fewer than three of the forms cited: WT 'phaŋ, Jg. kəbaŋ (GEM has kabaŋ, cf. 'to grow' above), WB 2a-waŋ.

The hypothesis that NN had a *2-p- was originally suggested by the solution which the WT/Jg./WB forms cited above offer for the problem presented by the unique Ky ph- : Ph p- correspondence in SPINDLE (cf. Ky kh- : Ph k- in CARRY ON THE BACK(1), NN *2-kur, WT 'khur-ba). I add BREAK(1) -- which requires a *prefix of some kind because the unaspirated Wancho form is from Brown -- on the basis of Matisoff's reconstruction; and the Jg. form for 'to grow' suggests, on the analogy of the Jg. form for 'spindle', that it is also the *2- prefix which accounts for the Nocte initial in GROW(TH). If the Nocte form here is truly cognate (not only the initial but also the nasalized rhyme is unusual, though I have one parallel case, see *-ua), the *2-p- reconstruction for this word also receives support from the Nocte form for 'break'. The inclusion of this latter form, dependent upon a speculative etymology, is itself suspect; but the weight of the other evidence is such that, even if both Nocte forms are misplaced here, the *2-p- reconstruction for these words seems sound.

*$\underset{v}{C}$-p-

TO FLY PTB *pyaw. NN *$\underset{v}{C}$- on the basis of Mo b-.

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As in the case of *th-, I present the material for *ph- in two parts, labelled *ph- (1) and *ph- (2), on the two following pages. This is a single proto-segment in NN, the sets listed under *ph- (1) differing from those listed under *ph- (2) only in Chang. The differentiating rule is:

NN *ph- > Ch p-/__a(-), > Ch ph- E.

There is reason to suspect that a parallel rule might govern a Chang discrimination between kh- and k- for NN *kh-, and between th- and t- for NN *th-. Unfortunately, I have no good sets with Chang k(h)a(-) from *kh- or t(h)a(-) from *th- to determine whether or not this is so. This is why I have represented the Chang reflexes of NN *unprefixed aspirated stops in summary tables as kh-/ and th-/ (but ph-/p-; as to the palatals, Hutton does not distinguish between an aspirated and unaspirated palatal stop -- if such a distinction exists at this position). As noted in the discussion of Chang initials in Section 2.2.1 above, Weidert represents all Chang stops with capitals, and there are indeed a good number of cases (particularly for the dentals) in which obviously or probably synonymous morphemes are given with th- for one gloss and with t- for another. There is just a single instance -- SPIT -- where the Chang reflex of an apparent NN *th- form is available only with t-.

For the labials, however, conditioned variation --

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Chang p- before Chang -a(-), ph- elsewhere -- seems to be the rule. This is not to say that Chang pha(-) does not exist, but that it is rare and may be the result of imperfect recording, particularly of the following vowel (cf. phat 'to hurt (intransitive)', phut 'to be painful'), or that the initial may have a source other than NN *ph-. The only case which is an apparent exception to my conditioning rule is phak co 'shoulder', but the unaspirated initial appears in pak paŋ 'armpit' (paŋ = 'under'); otherwise, the Chang forms with pha(-) are not tracable to NN. Nor are those with tha(-) or kha(-), with the single exception of khau-yek pu ~ khaw ak pu 'bitter' (but cf. kaw ek pu 'bile'), which I derive from a *C-kh-, suggesting that it is a *C- (probably *s-) prefix which accounts for the retention of the aspirated stop, not only in Chang but also in Konyak and Phom, where it is most unusual. SHOULDER could also go back to a *C- prefixed initial (*s- with terms for body parts is common in TB; see STC 106), but I prefer to leave this in the form of a comment rather than set up another proto-segment for just this one root. There are no PTB *s-p- roots cited in the STC, and I have no NN *C-b- or *C-p-, so that it is just possible that there is a constraint on this combination.

The tables for *ph- (1) (> Ch ph-) and *ph- (2) (> Ch p-/__a(-)) follow.

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*ph- (1)

	CLOUD /MIST	VOMIT	FIG	BEAT (1)	HOOK	MEAT/ FLESH(2)
Yo ph-	a pham 'wet'	phai	--		--	--
Mo ph-	pham	--	--		--	--
No ph-	phuam	phat	--			
Wa ph-/p-	/-phum[1]	--	/puk-	/pit	--	
Ky ph-	-phom	phai	phok-			
Ph ph-	phum	--		phei	-phak	phai
Ch ph-			phok	-phet-[2]	phek-	pheh
NN *ph-	*phuam	*pha˚t	*phə˚k	*phe˚t	*phek	*phay

also: BEAN, GIVE(2), GRASP, JOIN(1)/FORK/BRANCH, SAND(1).

1 This is the only instance in which Peal gives a form with ph-.

Chang gloss for BEAT

2 In: o yo phet yu 'discord' (o yo ~ o yu = 'to quarrel', yu ≈ 'together', see QUARREL(2) and AMONG).

Wa ph- (Brown)/ = /p- (Peal)

CLOUD/MIST PTB *(s-)bwam 'swollen'. Cf. Di. ra bam di 'dew' (also one of the Wa glosses; ra- possibly related to NN *rəŋ 'sky'-- the initial element in the Wa and Ky compounds for CLOUD/MIST -- and -di = 'water'). The semantic slippage would appear to run SWOLLEN (Jg./Lu.) > CLOUD (No/Ky/Ph) > MIST (Mo/Wa/Ky) > DEW (Di/Wa) > WET (Yo).

VOMIT cf. PLB *C-pat (TSR 38; WB phat), Jg. mphat.

FIG cf. Lhota tsəpekhi, Ze. mbeuchi (machi, hechi = 'fruit'), Lu. theipui (theirah = 'fruit')(Wa/Ky also in comp. with 'fruit').

BEAT cf. Meluri phe, TN ka phe, Yacham-Tengsa ta phet -- another root (cf. MALE(OF ANIMALS)(1) linking Northern and Central Naga.

HOOK cf. Mk. vek

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*ph- (2)

	-ROUND- (1)	DIVIDE (2)	SHOULDER (1)	UNDER	AFTER
Yo ph-	-phim[1]	a phal	--	--	--
Mo ph-	-phum[1]	--	--	--	--
No ph-		phan-	phak-[3]		--
Wa ph-/p-		--		-phaŋ/-paŋ	/pai-
Ky ph-			phak-	phaŋ-	phei-
Ph ph-			phak-	phaŋ-	phei-
Ch p-	pam-[1]	-pan[2]	pak-[3]	-paŋ	pai-
NN *ph-	*phum	*phar	*phak	*phaŋ	*pha°y

also: TO DRUM, JUDGMENT, MARKET, TO PLUCK, SAND(2).

One set, PALM/SOLE(1), may be either *ph- (1) or (2).

Glosses for -ROUND- (of bodyparts)(1)

1 in: Yo yak phim, Mo yok phum 'arm' (Yo yak = 'hand', Mo yok pha, but -pha refers to the PALM, cf.); Yo yak/Mo yok are from NN *glək, whose reflexes in other Northern Naga languages can mean both HAND and 'arm'. Ch yik pam 'thumb' (yik = 'hand, arm'), pam sam bə 'round'. "Both the 'arm' and the 'thumb' are 'rounded parts'" (Benedict, pc); see the external comparisons below.

Chang glosses for DIVIDE

2 in: phat pan 'to inherit' (phat = 'inheritance'), jam pan 'sept' ([jam]=/cam/'house').

Glosses for SHOULDER

3 in: No phak tham 'upper arm', Ch pak paŋ 'armpit' (-paŋ = 'under').

Wa ph- (Brown)/ = /p- (Peal)

-ROUND-(1) cf. Sema, Ze. -pum- 'round', Lu. pum 'rounded out; belly', Jg. phum 'fat, plump', lə phum 'upper arm' (lə- < *lak, STC 32, from PTB *g-lak > NN *glək > Yo/Mo/Ch y-k, see note 1 above: the Jg. construction is exactly parallel to that in Yo/Mo).

DIVIDE PTB *par (pcPKB)

SHOULDER PTB *pak (STAL)

UNDER PTB *paŋ (pcPKB)

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		ALL(1)
Yo		
Mo	p-	a paŋ 'many'
No	ph-	phaŋ-
Wa	p-/p-	paŋ-/paŋ-
Ky		
Ph	ph-	-phoŋ[1]
Ch	p-	pen-[2]
NN	*C$_V$-ph-	*C$_V$-pheŋ

1 in: ham phoŋ 'we(incl. pl.)', am phoŋ 'you(pl.)', jom phoŋ, 'they(pl.)'

2 in: pen to 'every one' (~ pan do 'all'), pen dou 'whole', pen to a (~ pan to wa) 'everywhere', pom pen to 'ever; always, often; frequently', (~ pom pan to 'always'), pom ben to 'frequently'. There would seem to be little question that there is a single morpheme here, sometimes transcribed pan but most often pen; for the -to element, see ONE(2).

This is a example of a construction, rare in the other Northern Naga languages but not uncommon in Chang, in which two morphemes, both of which have isolated or isolable cognates elsewhere, but neither of which occurs in isolation in Chang itself, are bound together in a compound whose sense is carried by cognates of either of the two components in other Northern Naga languages (cf. sam pun 'rim, mouth' under EDGE/MOUTH (1) and EDGE/MOUTH(2)).

ALL(1) cf. Di. ga baŋ 'much, many', TN ka poŋ 'whole'.

This set differs from that for (unprefixed) *ph- in having unaspirated reflexes in Moshang, Wancho, and (before -e) in Chang. Only the loss of aspiration in Wancho follows the pattern of other *C$_V$- prefixed aspi-

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rated stops, but the other plausible alternative, *$\underset{v}{C}$-b-, seems unlikely in view of the Phom ph- here in the face of Phom d- < *$\underset{v}{C}$-d-.

This completes my presentation of the system of NN initial stops and of the vicissitudes of their development in the seven Northern Naga languages. The table on the following page recapitulates the entire system and its pattern of reflexes.

In Tibeto-Burman generally initial stops are maintained, and are positionally stable, but devoicing and aspiration are common and secondary voicing is not unusual. In some languages (e.g., Jg., Di.), the manner of articulation of a stop carries no implication for that of its prototype; in others (e.g., WB, Lu.), the presence of aspiration suggests an unvoiced prototype (see STC 17-18). Against this pattern, the following developments in Northern Naga are of special interest:

1. Fricitivization of *k- in Yo/No/Wa, and of *c- in all languages except Chang;
2. Fronting of *g- and *j- to t- in Konyak;
3. A general tendency to shift all *velar stops to a palatal fricative in Phom;
4. A general tendency to shift *unvoiced dental/alveolar stops to a palatal affricate (or fricative) in both Konyak and Phom;
5. Development of aspiration in the reflexes of *prefixed voiced stops in Nocte;
6. Elision of d- < *d- and b- < *b- in Phom and Chang.

The overall pattern is as follows:

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INITIAL STOP CORRESPONDENCES: SUMMARY

Yo	k		k/kh	k	h	h	h		kh	kh	kh
Mo	k		k/		g	g	g		kh	kh	kh
No	k		kh	kh	h	h	h	h	kh	kh	kh
Wa	k		k	k	h	h	h	h	kh	k	kh
Ky	t		t	š	k	kh	k	k	š	š	kh
Ph	š		š	š	k/š	k/š	g	š	š	š	kh
Ch	k		k	š	k	k	k	š	kh	kh	kh
NN	*g		*C$_V$-g	*C-g	*k	*ʔ-k	*C$_V$-k	*C-k	*kh	*C$_V$-kh	*C-kh
Yo	ts		s	s	š			š	c		š
Mo	j		y	š	š			š			
No	c		ch	ch	s	c	c	h	th		
Wa	ts		tz	tz	h	h	h				
Ky	t		t	ø	h	th	h		j	j	š
Ph	h		h	h	h				j	j	
Ch	s		y	ø	c	c	š		c	š	c
NN	*j		*C$_V$-j	*C-j	*c	*ʔ-c	*C$_V$-c	*C-c	*ch	*C$_V$-ch	*C-ch
Yo	d		d		t		t	t	th/s		š
Mo	t	t			t		d		th/		s
No	d	t	ch		t		t	t	th	th	th
Wa	d		t		t		t	t	th/c	t	t
Ky	t	t	j		t/j		j	j	š/h	j	j
Ph	ø	d	d		t/j		t	j	š/	j	j
Ch	ø	c	s		t		t	c	th	th	c
NN	*d	*ʔ-d	*C$_V$-d		*t		*C$_V$-t	*C-t	*th	*C$_V$-th	*C-th
Yo	b	p			p	p	p		ph		
Mo	b	p			p	p	b		ph	p	
No	b	p	ph		p	v	p		ph	ph	
Wa	b	p	p		p	p	p		ph	p	
Ky	p	p	p		p	ph	p		ph		
Ph	ø	b			p	p			ph	ph	
Ch	ø	p	p		p	p	p		ph/p	p	
NN	*b	*ʔ-b	*C$_V$-b		*p	*ʔ-p	*C$_V$-p		*ph	*C$_V$-ph	

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3.3 Stop + Glide Clusters.

PTB has a substantial array of initial stop + glide clusters (STC 37), including all combinations of {g,k} + {y,r,l,w}. NN not only preserves a number of these, but further differentiates them in accordance with its expansion of the two PTB manner-series to three: it has all combinations of {g,k,kh} + {y,r,l}. (Note that -w- is lacking: PTB forms having the shape CwV(C) are in NN generally reinterpreted as CuV(C); i.e., the glide is treated as a part of the rhyme rather than of the initial [*pw- constitutes an apparent exception.])

As we saw in Chapter II, however, no initial clusters of any kind occur in any of the seven data languages. Therefore in this area we are particularly dependent upon external evidence as a guide to the shape of the reconstructed segments.

In his 1953 paper Shafer reconstructed Baric *khr- for several sets which I reconstruct with NN *(C-)kr-. He also recognized the correspondences for NN *(-)gy- and *(-)gl-, but interpreted the former as Baric affricates and the latter as simply a variety of *l-.

In addition to the full set of nine NN velar stop + glide clusters, I reconstruct *cr-, *pr-, and *pw-.

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*gy-

		LIGHT (-wt.)	STAND (1)	SAMBAR	HIGH (1)	HIGH (2)	PIERCE
Yo	c-	caŋ	cap	--	--	--	--
Mo	c-	a can	cap	--			--
No	c-	ca	cap	cok 'deer'			
Wa	c-	cia		cok	cuok		--
Ky	t-	--		tok		tau-	tep
Ph	š-	šaŋ-		--[1]	šak- 'above'	šou-	
Ch	s-	so-	-sab 'rise'	sak	sok-		sap
NN	*gy-	*gya'ŋ	*gyap	*gyuk	*gyo'k	*gyaw	*gyup

1. The expected form, šok 'deer', is attested for the related Tamlu dialect.

also: WOOD/FIREWOOD(1)

LIGHT PTB *r-ya'ŋ ~ *g-ya'ŋ (Jg. tsaŋ; see STC 71)

STAND PTB *g-ryap (> *g-yap [pcPKB], [>] Jg. tsap)

SAMBAR PTB *g-ryuk ~ *g-ryik (pc JAM); cf. also Gurung (Tibetan-Kanauri) gyuu 'sheep' (pcPKB)

HIGH(1) cf. Di. bo khro 'above'

HIGH(2) cf. Jg. tsau

PIERCE cf. WB khyup 'sew', Gyarung tekyep 'needle'

The external comparisons for the first three forms suggest the possibility of a *gry- or a *(C-)ry- for this set; but, with respect to the first possibility, there is no reason to posit such a complex cluster for NN until simpler alternatives have been exhausted; and, with respect to the second, the NN reflexes clearly point to a stop component in the prototype. Note their similarity to the reflexes for *g-. PTB *g-ry- > NN *gy- is preferable to > NN *gr- because of the parallel with Jg. ts- <

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*gy- (STC 51-52). A *Cr- > Cy- shift is common in TB.

*C̬-gy- and *C-gy-

		EIGHT			TIGER	BEAR	CLEAR
Yo	c-	tə cat	Yo	c-	ca	—	—
Mo	c-	ta cat	Mo	c-	ca	ca[p]-	—
No	s-	i sat	No	s-	sa	sa(p)- a sa	
Wa	c-	a cat	Wa	c-	ca-	cap	—
Ky	t-	tet	Ky	š-	ša-	šep	—
Ph	š-	šət	Ph		—	—	—
Ch	s-	sat	Ch	s-	sau-	sap	sau-
NN	*C̬-gy-	*C̬-gyat	NN	*C-gy-	*C-gya^B	*C-gyap	*C-gya^B

*C̬-gy-

EIGHT PTB *(b-)g-ryat (> *(b-)g-yat [pcPKB], [>] Jg. mə tsat [cf. STAND above]).

*C-gy-

TIGER cf. Burmese-Lolo *(k-)la (WB kyà), which Benedict identifies as "ultimately a loan from Austro-Asiatic *k(u)la" (STC 177-178, n.472) — the Khasi is u-kla (Robinson 1849: 348). If this is the source of the NN form, the NN development paralleled the WB one. The prefix is undoubtedly the PTB *s- 'animal prefix' (STC 106-108).

BEAR cf. Jg. tsap (< *gyap) and, much farther afield, Miao-Yao krəp (pcPKB)(Yao kiep [GEM 728]). As for TIGER, NN *C- < PTB *s- 'animal prefix'.

CLEAR cf. WT skya-bo 'light (bright)'

also: COMB.

We have among these prefixed forms two more correspondences (for EIGHT and BEAR) with Jg. ts- to go with the three (for LIGHT, STAND, and HIGH(2)) for (unprefixed) *gy-. The reflex pattern for *C̬-gy varies from that for

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(unprefixed) *gy- only in the substitution of s- for c- in Nocte (very possibly by way of *š-, which, it will be recalled, does not occur in Nocte). The reflex pattern for *C-gy- then varies from that for *C$_{v}$-gy- only in the substitution of š- for t- in Konyak. The overall reflex pattern for *(-)gy- is thus strikingly similar to that for *(-)g-:

Yo	k	k/kh	k	c	c	c
Mo	k	k/		c	c	c
No	k	kh	kh	c	s	s
Wa	k	k	k	c	c	c
Ky	t	t	š	t	t	š
Ph	š	š	š	š	š	
Ch	k	k	š	s	s	s
NN	*g	*C$_{v}$-g	*C-g	*gy	*C$_{v}$-gy	*C-gy

In comparison to the evidence for *(-)gy-, the evidence for *(-)ky- is fragile. One of the problems here is that one of the two best sets, that for CLAW, consists entirely of forms found only in compounds in which the first syllable is the word for 'hand', which ends in -k. As a result, it is not possible to state with assurance that the second-syllable initials, for 'claw' proper, constitute a correspondence set which we should expect to find replicated elsewhere. Nonetheless, the No kh-: Ky k- correspondence also appears in WALK, whose Wa h- may be quite plausibly inferred for CLAW, (thus) Wa cak [h]in (given [only] by Peal as cakin [cak = 'hand']) on the model of cak [h]i 'finger' (Peal: caki; Brown: cakkhi, and in the very closely related Muthun dialect, cakhi) -- recall Peal did not record aspiration.

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*ky-

		CLAW	TO FLEE	TO WALK	LAW	TO GUARD
Yo		--	--	--	--	--
Mo	th-	-thin	-thot[1]	--	--	--
No	kh-	-khin 'nail'	-khoak[1]	khoam	--	
Wa	h-	-[h]in		a ham	--	--
Ky	k-	-kən	--	kem	-kiaŋ	--
Ph	k-	--	--	kam	-koŋ	--
Ch	s-	-san	sat		soŋ	-saŋ[2]
NN	*ky-	*kyin	*kyo°t	*kyo°m	*kyo°ŋ	*kyoŋ

Glosses for TO FLEE

1 in: Mo ka thot: GEM has under 'go out' but the gloss in the LSI is 'go away'; ka = 'go'

No a ŋak khoak 'retreat' (a ŋak = 'return')

Chang glosses for TO GUARD

2 in: maŋ saŋ 'beware, take precaution'; ñek saŋ 'be vigilant'; tit saŋ ko 'attentively' (maŋ = 'mind'; ñek = 'eye'; tit = 'hear').

also: WOOD/FIREWOOD(2), EDGE/MOUTH(2).

CLAW PTB *(s-)yin, "with the *k- in NN and Magari [arkin] (prefixed there by *r-) from the -k of *lak 'arm/hand'" (pc PKB, 1/21/82).

FLEE The best comparison is of Ch pi juŋ sat 'fly away' (pi = 'fly') with TN yoŋ(zat) 'fly', but the source of TN z- is itself obscure. Cf. also Yi. ə khiə 'go out' and the forms attributed to PTB *g-lwat in the STC, including Jg. lot 'escape, be free, unrestrained' and WB khywat 'release, free'; also Mk. akyoi 'free'. Perhaps NN *kyo°t is from an earlier **klo°t. For yet another possibility, cf. WT skyod 'move'.

WALK cf. TN yam thui (thui = 'move').

LAW cf. Ao Chongli o jaŋ (o = 'word', as in Ky/Ph. Cf. Ao Ch. jə 'water' < PTB*s-khyu°ŋ [see WATER(2)]; also te me jəŋ 'claw'), Li. ta ceŋ, both 'law'.

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GUARD PTB *kyâŋ ~ *kyoŋ 'guard; tend cattle',

*C$_V$-ky-

		TO GATHER	-DIRT	ANT(2)
Yo	c-	ge com		
Mo	th-	--	-tha 'ashes'	
No	kh-	a khoan-[1]	-kha- 'soot'	
Wa		--		
Ky	j-	-jim; jim- 'together'		jem-
Ph	j-	jam- 'together'		
Ch	k-	kam- 'assemble'	-kak 'charcoal'	
NN	*C$_V$-ky-	*C$_V$-kyo°m	*C$_V$-kya°k	*C$_V$-kyum

1 in: a khoan 'assemble', a khoan se 'collect', a khoan siet 'earn', khoan siyet 'gather'; -siet is a general verb of action. The -n may be a result of assimilation to the following -s-, even though the latter is missing in the form for "assemble', which may be derived from a compounded form; but see also below.

GATHER cf. Mpri. khom jan, Ntenyi ghomohu, Lhota khio thro, Sema khyə pə loŋ, but Jg. ma gon, with final -n as in Nocte. This is very probably a prefixed variant of NN *kyo°m, WALK, having the general sense 'come together', with the prefix originally (i.e., in NN) carrying the sense of 'together'.

This may be seen in the Yogli form, where the ge- element (also to be found in 'meet' and 'join') apparently has just this sense. The Chang form is explicitly glossed "tr. and intr." (Hutton 1929a: 57; emphasis mine). On this hypothesis, the transitive sense would be derived.

In this connection, cf. also Jg. khon 'walk'.

DIRT cf. WT rkyag(-pa) ~ skyag(-pa) 'dirt, excrement' (STC 146, n.399).

ANT cf. Jg. ka gyim 'ant'.

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*C-ky-

		TO QUARREL(1)	TO ENCLOSE
Yo		--	--
Mo		--	--
No	kh-	-khe 'quarrelsome'	-khoam 'surround'
Wa	h-	a he	--
Ky	š-	še	--
Ph		--	--
Ch	c-		-cam
NN	*C-ky-	*C-kye	*C-kyo˜m

QUARREL cf. Sema ki-i 'quarrel', WT gyed 'fight'

ENCLOSE cf. WB gyam 'trap'. This may be, like GATHER, yet another prefixed variant of NN *kyo˜m, WALK. Just as GATHER ≃ 'come together' > 'put together', ENCLOSE ≃ 'go around' > 'put around'. The full form for No 'surround' is tum khoam (a tum = 'round') and Ch kai cam 'enclose, encircle' (kai = 'revolve, wind') has the variant kai jam(pu) 'around' (cf. Ky jim-/Ph jam- 'together'). Once again, there is a possibly related Jg. form with a simple velar initial (cf. khon 'walk', ma gom 'gather'): ma kham 'trap'.

Recall that the *gy- comparisons cited above for QUARREL and ENCLOSE are not incompatible with an NN *ky- (particularly following an unvoiced prefix) because the binary vd./vl. contrast of PTB (and WT) becomes a ternary contrast in NN. The correspondence sets reconstructed as *(-)ky- are similar to those reconstructed as *(-)k- in having h- in Wancho, in showing aspiration (though not loss of closure) in Nocte, and in retaining in the unprefixed variant a k- in both Konyak and Phom.

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*khy-

	TO SEE	RING	WINTER/ COLD(2)
Yo kh-	khoi	--	
Mo kh-	khi		
No kh-	khe	khap	
Wa k-/k-	--	/kap- 'bracelet'	-kam/ 'cold'
Ky š-	ši-[1]	šep-	-šəm 'winter'
Ph			
Ch k-		-kap 'armlet'	kam 'cold'
NN *khy-	*khyoy	*khyap	*khyəm

Konyak gloss for SEE

1 in: ši pa 'witness' (pa = AGENT NOUN SUFFIX)

SEE cf. Jg. coi < *kyoi 'know, understand'

RING cf. Jg. -cop < *kyop

WINTER /COLD PTB *kyam (Jg. gyen ~ khyen ~ cen 'snow, ice')

The grouping above represents the only case in which I propose, on the basis of external comparisons, a more complicated reconstruction than is strictly required by the Northern Naga materials: SEE and RING could come from NN *(C$_V$-)kh-, WINTER/COLD from *C$_V$-kh- (prefix required because of the unaspirated initial recorded by Brown); the unaspirated initials in Chang do not pose a problem because of the possibility that, as with *ph-, *kh- > Ch k-/__a(-). But the external comparisons (PTB *ky- regularly becomes Jg. c-; see STC 51) uniformly suggest a *k(h)y; so I suggest that *kh- and *khy- fell together, except possibly in Wa and Ch.

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		100	SUMMER
Yo	š-	ša-	—
Mo	š-	-ša-	—
No	c-	ca	—
Wa			—
Ky	j-		jo
Ph	š-		šou
Ch			
NN	*Ç$_V$-khy-	*Ç$_V$-khya	*Ç$_V$-khyu

HUNDRED PTB *r-gya

SUMMER cf. Mpri. noŋ ju tha (second syllable; 'winter' is niŋ tham tha), Sema mtsə. Compare 'claw': NN *kyin, Mpri. khu jil (khu < khut 'hand', cf. khu bi 'finger'), Sema mtsə. The m- prefix in 'summer' is general in Central as well as Southern Naga: cf. Ko. medzə, Ao Chongli meyi, St. məzyə, Yi. muzhu, and especially Lhota nzə- 'summer', nzoa 'hundred'.

The reflexes above, attributed to *Ç$_V$-khy-, and the very similar set for *C-khy- on the following page, both with palatalization throughout, represent a radical departure from those for (unprefixed) *khy-, to a degree which has generally led me to rule out such a similar reconstruction (but cf. *th- > Yo/Mo/Ch th-, *C-th- > Yo š-/Mo s-/Ch c-). The external comparisons, however, suggest that this is the appropriate solution: the reconstruction for '100', with its aspirated initial (cf. HEAD(I), PTB *(-)gow > NN *khow) is as it were halfway between the voiced PTB and the fricitivized Northern Naga.

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		TO SING(2)	WOMAN	WOLF	TO TIE(2)	*C-khy- TO KNOW(2)
Yo				--		--
Mo	š-	a šir		--	--	--
No	c-		ciak-[1]	--		
Wa	š-	šun	ši-	šan	--	
Ky	š-	šu 'play music'	šek-	šo	šin	šiŋ
Ph	š-			šo		
Ch	š-			šo	šen	šen 'recognize'
NN	*C-khy-	*C-khyu°r	*C-khye°k	*C-khyual	*C-khyin	*C-khyeŋ

1 in: ciak phe 'to divorce', a ciak min 'divorce'; -phe also appears in the verbs 'abandon', 'acquit', 'free', 'push', 'throw', and 'vomit', -min in 'barter', 'fight', and 'quarrel'. My principal reason for suggesting that ciak in '(to) divorce' carries the sense of 'woman' (or 'wife') is its similarity to -hiak (in de hiek ~ de hiak 'woman') which I derive from a related root, *C-ci°k, -FEMALE(2), cf.

WOMAN cf. Lahu qɛ̀2 'female', < PLB *C-kyak (pcPKB; the form is from Matisoff).

WOLF cf. Jg. cyəkhyon 'fox, wolf, wild dog' (a variant of the Chang form, šuo, is also glossed 'wild dog'). On the basis of the Jg. and NN, Benedict reconstructs PTB *kywal (pc). *C- (& Jg. cyə-?) < PTB *s-.

TIE cf. WB khyán 'bind, fasten' (WB -án < PTB *-in, STC 76, 79), possibly also WT 'chin 'tie'.

KNOW cf. PTB *(m-)kyen (but Jg. cyeŋ, with velar final), possibly also Lu. hre ciaŋ 'understand'. Lhota has ntsi (cf. NN *C-khy-: Lhota nz-) for both 'to tie' and 'to know'.

The lack of solid external evidence for the postulated *C- prefix leaves open the possibility that this set may actually represent (unprefixed) *khy-, with the

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forms attributed to the latter going back to *(C-)kh-, as discussed above.

*gr-

		WORD(1)	TO BURN(2)	CRAB
Yo	c-	kə ca		--
Mo	c-	ka ca 'call'		--
No	.	--		--
Wa	š-	--	šun	šan
Ky	t-		ton 'ignite'	--
Ph	š-	ša?		--
Ch	h-		han- 'torch, lamp'	hin
NN	*gr-	*gra	*grə'n	*gra'n

WORD PTB *(s-)gra (pcPKB). The Tangsa k-'s are prefixes.

BURN cf. WT sgron 'light(ignite)', sgron ma 'lamp', skron ma 'torch', TN ron 'ignite'.

CRAB PTB *d-gra'y (pcPKB), with the -n from PTB *-n, 'collective' plural suffix, as in Jg. (cyə)khan (STC 99, n.284).

N.B. also the Jg. cyə- prefix, identical to that for 'wolf' (preceding page). This supports my suggestion that Jg. cyə- may be (along with sə- and šə-, see STC 107), a reflex of PTB *s- (< *sya = *sa 'animal', STC 106) 'animal prefix', and raises the possibility of a *C- prefix for NN CRAB.

We have here a perplexing situation in which three apparent cognate sets, though scantily attested in Northern Naga itself, all have solid external referents not only for the proto-cluster but also for one or another prefix. I reconstruct (unprefixed) *gr- because the sets on the next page have reflexes demanding prefixed sources.

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	ANT(1)		VILLAGE
Yo	--	Yo	
Mo	--	Mo	
No		No	
Wa t-	tik-	Wa t-	tiŋ-
Ky t-	tik-	Ky j-	jiŋ
Ph	--	Ph j-	jəŋ
Ch t-	tak-	Ch s-	saŋ
NN *C̥-gr-	*C̥-grik	NN *C-gr-	*C-griŋ

ANT PTB *g-rwak.

VILLAGE PTB *grwa-ŋ (Matisoff 1972c: 278).

These two reconstructions are possible only because of the identical development shown by the rhyme in both, PTB *-wa- > NN *-i- /*-r__{ŋ,k} (possibly as a result of *-wa- > *-ya- /*-r__). Cf. PTB *ŋwa 'cattle' > NN *ŋya, MITHAN. Alternatively, the development could have been like that in Burmese, where -waŋ > -we ~ -wi, -wak > -we? (STC 49, n.159), with the *-w- then being dropped. Actually, there may be proto-variation in the PTB rhyme for 'ant': Matisoff (1972c: 277) reconstructs PTB *g-ri-n 'ant' on the basis of TN rəy-sa, WT gre-mog-hbu[1], suggesting the possibility of a PTB *g-ri ~ *g-rwak, to which, on the basis of NN, may be added the form which links the two, *g-rik.

For ANT, cf. also Kh. me krə/Ko. me kru 'white

[1]Also Jg. kəgyin, but for this see NN *C̥-kyum, ANT(2).

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ant' (this is also the gloss for the Ky and TN forms, but not for the WT, Wa, and Ch, indicating that the sense of the morpheme in question transcends the 'ant'/'white ant' [termite] distinction); these Angami forms not only show retention of the cluster in a Naga language -- otherwise it is retained only in Tibetan -- but also, and uniquely, show the additional (voiced) prefix required for the NN reconstruction.

For VILLAGE, cf. Jg. kriŋ-muŋ 'hill' (attributed by STC to *gliŋ 'land'), Mpri. ciŋ, id. -- Naga villages are always sited on hill- or ridge-tops -- which show the -i- vocalism missing in the languages cited by Matisoff for *grwa-ŋ (WT, WB, Bisu [Loloish], and Lu. -- TN kha is noncommittal). This -iŋ vocalism common to Jg., Mpri., and NN may reflect common development from the proto- *-wa-ŋ.

It should perhaps be noted that the Northern Naga forms for 'village' cannot themselves be attributed to an NN *(-)k(h)liŋ < PTB *gliŋ, given the reflex patterns to which I assign this set of reconstructions on other grounds (see below) -- instead, I relate PTB *gliŋ to NN *C$_{V}$-khliŋ, PLACE. Although the forms for 'ant' of course point simply to a *t-, it is notable that no external comparisons are available for the indicated NN *tik. Both problems are resolved by the remarkable concordance of rhymes illustrated above, together with the compatibility of the initials with *-gr- antecedents.

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*kr-

		MEET(WITH)/ FIND	GOOD (1)	SOUR	TO WEEP	YOUNG	LOW (2)
Yo	kh-	ge khim 'meet'	a khul	--			--
Mo	h-		a hal	ə hi 'acid'		--	--
No	s-		a san	a si	sap		
Wa	s-			si	sap		a se
Ky	š-			ši-	šəp	-ši	še-
Ph	th-			thi-	thep	-the-	--
Ch	h-	hap (both)		hai-	hap	he-	
NN	*kr-	*krum~*krup	*krul	*krəy	*krəp	*krə'y	*kre

also: DOG [b].

MEET/FIND cf. WB krum 'meet', Jg. khrum 'meet, find' ~ khrup 'find'

SOUR PTB *kri(y)

WEEP PTB *krap

YOUNG cf. Ko. khrie sa

LOW cf. Ko. pe khre 'whisper' (cf. Ph nem nem, 'whisper', Ch ñam ñam, 'mutter' < NN *nium, LOW(1) < PTB *ñam 'low').

With *(-)kr-, we are back on solid ground with unprefixed and prefixed variants whose reflexes (except possibly in Ch, see below) show only minimal and expectable divergence.

There is one question here. Wancho has both s- and š- reflexes for *(-)kr- at large. I have presented this difference as reflective of prefixation, with Wa s- < NN *(C-)kr- and Wa š- < NN *C_v-kr-, but there is another possibility which is equally consistent with the data, for all of the forms with s- come from Brown, all

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of the forms with $\overset{x}{s}$- come from Peal, and there are no cross-checks: no instances in which the same form is given by both. Peal, for example, does not give a form for 'weep' or 'cry', and those that he gives for 'sour', 'acid', and 'low' are from altogether different roots. On the other side, Brown's limited vocabulary does not include 'bridge', 'wet', 'morning', 'dawn', or 'dove'. A check of words reconstructed with PTH *kr- against both sources for possible isolated derivatives comes up blank. Thus it could easily be the case that the difference is a function of recording rather than of proto-morphology, as we have noted in other instances. My reasons for choosing the latter interpretation are:

1. Brown does give forms with $\overset{x}{s}$-, and Peal with s-, from other, related, proto-segments (*gr-, *C-khy-, *C-khl-);
2. Of the four forms with $\overset{x}{s}$-, attributed to *$\underset{v}{C}$-kr-, two belong to sets for which a *$\underset{v}{C}$- is indicated; there are no such indications for any of the sets with Wa s-, or for any of the other sets attributed to *(C-)kr- on other grounds (Ph and/or Ch reflexes);
3. It seems methodologically preferable to posit conditioned variation rather than recorder difference in the absence of definitive evidence of the latter.

A second question concerns the Chang reflex of *$\underset{v}{C}$-kr- (next page): the forms cited for SHADOW and DOVE agree in suggesting a t-, but both are suspect. The Ch form for 'dove' presents a rare case of uncertain sylla-

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bification, obscured by reduplication, and might not be cognate at all. That for 'gloom', which I suggest is from NN SHADOW, is open to an entirely different interpretation, for -tam could also be -tam 'idiomatic intensive adjectival suffix', applied sometimes in addition to the usual -bu (Hutton)/-bə (Marrison), as in mai bu 'good', mai bu tam 'very good' (Hutton 1929a: 15-16), but apparently also sometimes in place of it, as in li bu~li tam 'cool', lamai bu 'warm', lamai tam 'hot'. The fact that Hutton chooses an English noun as his gloss suggests that the interpretation of -tam as from SHADOW is correct, but is hardly decisive, particularly in view of the fact that the NN *(-)kr- is apparently derived from a PTB *g-r-; so that not only fusion but also reprefixation would have been required to arrive at NN *C_V-kr-; on the other hand, fused (PTB) forms are rare in NN, so that in this case the juxtaposition of an additional prefix might actually account for the fusion. In any case, except for the unsupported possibility of the k- in 'dove', there are no other candidates for the Ch reflex of *C_V-kr-, so that, with the qualifications stated above, I provisionally suggest the t-. Ch t- < NN *C_V-gl- may offer a parallel.

If the Ch form cited for SHADOW is not cognate, and if Wa š- is simply an artifact of recorder variation, the four sets given for *C_V-kr could all be shifted to *kr-, with those under *N-kr reverting to simply *C_V-kr-.

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*C̥-kr- and *N-kr-

		BRIDGE	WET	MORNING	SHADOW	DOVE	WRONG (2)
Yo		--		--	--	--	--
Mo	h-	hi	--	--	--	--	--
No	s-	si	a san		--		
Wa	š-	šai	šun 'damp'	šom- 'dawn'	--	-šu	--
Ky	š-	šai	--	šum	-šim	-šo	
Ph	th-/dh-	--	--	thom	-thəm	a dhu-	a dhu-
Ch	t-	--			-tam[1]	tu-	
NN	*C̥-kr-	*C̥-kray	*C̥-krə̆l	*C̥-krom	*C̥-kru·m	*N-kru	*N-kru

1 in: nak təɣ tam 'gloom (in day time)' (nak tə bə = 'dark')

Ph (non-nasal) *C̥-kr- > Ph th-, *N-kr- > Ph dh-.

BRIDGE cf. Di. kha rai, Jg. ma khrai. TN šai also implies a prefixed prototype (Matisoff 1972c: 276-278); cf. TN na šə 'dove'.

SHADOW PTB *rim ~ *rum 'dark, dusk, twilight'; for the velar element, cf. the apparent allofam represented by WT 'grib-pa 'decrease; grown dim', grib 'shade, shadow', WB ărip 'shadow, shade' (STC 113, n.318); possibly also Garo grim 'cave', bol-grim 'forest' (bol = 'tree')(pc PKB for the Garo cf.)

DOVE PTB *m-krəw. The voicing of the Phom initial is interpreted as the reflex of the lost nasal prefix (represented by the a-), just as in Lahu (Matisoff 1972b: 38, n.123). Cf. WRONG.

WRONG cf. Jg. nkhru 'wicked' and the identical form for DOVE (Jg. khru).

Although, as discussed above, the attribution of a prefixed prototype to the first four sets shown may be in error, the reconstruction of a nasal prefix for DOVE and its exact homonym, WRONG, is solidly supported by both internal (Ph a-) and external evidence.

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*C-kr-

		TO PULL	BUG(2)	TO STAB	TO BUY (2)	TO SIT
Yo		--		--		
Mo		--		--		
No	s-	siet	sip- 'ant'	su		
Wa	s-			--	sak	
Ky	š-				šak	šut
Ph	š-	šia			šak	
Ch	s-	-sat- 'push'	-sap 'gad-fly'	su[1]	sak 'expend'	sat
NN	*C-kr-	*C-kriat	*C-krip	*C-kru	*C-krak	*C-kru't

Chang gloss for STAB:

1. 'to cut or pierce with a spear'

also: DEBT.

BUG PTB *krep (Jg. krep ~ šə krep 'bug', šə- < PTB *s- 'animal prefix' STC 107), but (note for rhyme) PLB *ʔkrip, also (note for semantic linkage of the No and Ch forms) Rawang rip < *khrip 'flying ant' (STC 74, n.230); the high vowel is also indicated for Karen, *gri(p) ~ *kri(p) 'ant' (STC 146, n.400).

STAB cf. Jg. khru 'to pierce'.

BUY cf. Ko. khrə (Ko. drops all final consonants). The stability of PTB *(-)kr- in Angami (particularly in Ko. khr-) provides an excellent set of comparisons for NN; cf. YOUNG and LOW(2) under *kr-, and, under *C̬-kr-, Ko. khrə 'shadow' and me khru 'dove'.

SIT cf. Lu. thut thlêŋ 'chair' (Lu. t(h)- < PTB *kr- ['weep', 'dove'], STC 38) ≈ 'sitting-place': the Ky and Ch constructions for "chair/seat' are identical, compounds of TO SIT + PLACE, NN *C̬-khliŋ (Lu t(h)l- < PTB *kl-, STC 39).

The reflexes in this set differ from those for (unprefixed) *kr- only in Phom and Chang. In Phom, note the regular loss of closure in the reflexes of *k(+glide)- following an unvoiced prefix:

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Ph	k/š	g	š	th	th/dh	š	ø	j	š
NN	*k	*$\underset{v}{C}$-k	*C-k	*kr	*$\underset{v}{C}$-kr	*C-kr	*kl	*$\underset{v}{C}$-kl	*C-kl

(I have no examples for Phom from *C-ky). In Chang, *kr- > h-, *C-kr- > s- parallels *s- > h-, *$\underset{v}{C}$-s > s-.

*khr-

		CLOTH (1)	ANGRY	NARROW	HOLLOW	MOSQUITO
Yo	kh-	khai	—	--	--	--
Mo				--	--	--
No	kh-	khat	-kha		--	
Wa	s-		sa	sip	--	
Ky	k-	-kai[1]		kip-	-kok[2]	
Ph	š-			šip-	-kok[2]	
Ch	k-		kau-	kip-	kok[2]	kaŋ-
NN	*khr-	*khra·t	*khra[B]	*khri·p	*khrə·k	*khraŋ

Konyak gloss for CLOTH

1 in: piaŋ kai 'cotton' (piaŋ < *pu·n, FLOWER, cf.); hence, 'cotton' ≈ 'cloth-flower'

Glosses for HOLLOW

2 in: Ky ka kok 'valley' (ka = 'earth')
Ph yuŋ kok 'well' (yuŋ = 'water')
(*khr- > Ph k-/..ŋ __)
Ch kok 'to be hollow', kau kok 'natural pit' ~ gau kok 'valley' (kau ~ gau 'earth'), kok lok kan 'ditch'

CLOTH cf. TN khat sa 'skirt' < *krat sa, on the model of khet < *kret 'scratch' (Matisoff 1972c: 277); also Ko. pfe 'cloth', pfe kra 'clothes', Chokri khwə, khwə kra, id.

ANGRY cf. TN kakharar, WT khro ba.

NARROW cf. Ko. kerepfə, Ze. keribe, Li. karibu, 'thin'.

HOLLOW cf. PTB *grok 'ravine' (WB khyauk, Jg. khəro) and Mao o khro bvə 'ditch; hole'.

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MOSQUITO PTB *kraŋ.

This last comparison furnishes solid evidence that k- is indeed among the Chang reflexes of NN/PTB *(-)k(h)r-. The reconstruction of *khr (rather than *kh-) for CLOTH must be provisional in the light of the speculative linkage of the Ky to the Yo/No forms, as well as of the external comparisons; but this reconstruction seems well-supported for the other sets shown, hence for all of the indicated reflexes except the Yogli — though kh- is what we should expect here. HOLLOW appears to provide yet another example (cf. HEAD(I), HUNDRED) of PTB *(-)g(G)-[1] > NN *(-)kh(G)-; as the comparisons for HOLLOW show, this shift is also attested for WB and Jg. (as well as for Barish; see STC 17). The Ky stop for *khr- is a surprise, but carries over for the prefixed sets (see below).

The reconstruction of *$\underset{v}{C}$-khr- for the proto-initial in KNOCK, particularly in the face of the Nocte k- (next page), is one of the most problematical solutions I have to present. This apparently straightforward set of forms (semantically identical, vocalically regular for *-uŋ, and without any suggestion of a prefix in Northern Naga) has a unique set of initials, and has been one of the most difficult sets to place. It is supported by the sets for NEEDLE[b] (for Phom kh- < NN *-khr-, see also *C-khr-) and for TO TAKE(3).

---

[1](G) = (glide), i.e., {y,r,l,w}.

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*C̥-khr-

		TO KNOCK	NEEDLE [b]	TO TAKE (3)
Yo		--	--	
Mo		--	--	
No	k-	koŋ	-ku	a kap also 'elect'
Wa	k-	--	-koi	kap
Ky	k-	koŋ		
Ph	kh-	khoŋ		
Ch	k-	kaŋ	-ku	
NN	*C̥-khr-	*C̥-khruŋ	*C̥-khruə˙y	*C̥-khrap

KNOCK cf. Mao ko khru. This form is the only external comparison for the -r- under the gloss 'knock'. Di. khu raŋ 'noise' might be related; cf. TN ka kuŋ 'knock', ka khoŋ 'noise'.

NEEDLE cf. Kuki-Naga*khrwi(y) 'to sew'.

TAKE cf. WT bkrab 'to choose'.

*C-khr-

		TO FEAR	DRY(3)	WORSHIP (2)
Yo	kh-	a khiar		--
Mo	h-	a hi	--	--
No	c-	ce	coak	
Wa				--
Ky	kh-			khəm
Ph	kh-	khea 'tremble'	--	khəm
Ch	h-	hat		
NN	*C-khr-	*C-khra˙y	*C-khro˙k	*C-khru˙m

FEAR PTB. *kri(y). An *s- prefix is required by Ch -at (see below under rhymes); cf. Garo anskit 'quail, shudder' (STC 99).

DRY cf. WB khrok, Jg. khro.

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WORSHIP cf. WT skurim 'sacrifice', TN kho rum 'worship', implying a lost prefix (PTB [unprefixed] *kr- > TN c-)(Matisoff 1972c: 277-278).

PTB *-khr- > Ph kh- also in 'sparrow', Ph a je kra, Khonoma ce kra.

I come now to a remarkable set of correspondences ultimately deriving from PTB *g-l-. Because these reflexes are very different from those for NN *l- (an identity correspondence); because I have in any case well-supported sets not only for *l- but also for *N-l-, *$\overset{C}{V}$-l-, *C-l-, and *ly-; and because the correspondences at issue themselves show sufficient diversification to justify setting up both voiced- and voiceless-prefixed prototypes, I reconstruct NN *(-)gl-. That is, the NN initial segment is taken to represent only the first stage in the development from PTB *g- prefixed *l- to the simple initials (c-, j-, y-, d-, t-, s-, l-) found in the several Northern Naga languages, by way of fusing the PTB syllabic prefix into an initial cluster. The reflex which demands so remote a reconstruction (placing NN, in effect, closer to PTB itself than to any of its own daughter languages) is Phom l- (pcPKB). Of course, it is always possible that NN retained *g-l- (and also, at least) *C-g-l-, distinct (like *N-l-) from *$\overset{C}{V}$-l-, but I also reconstruct *(-)kl- and *(-)khl-, so a *(-)gl- is expectable. The set of correspondences in question has been a prominent problem for some time: Shafer (1953: 248-251) atributed it to a variety of (Baric) *l-

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(without attempting to specify how it differed from other varieties of Baric *l-) and Benedict in the STC attributed its Barish correspondents to a *dy- (< PTB *g-l-).

		HAND	LEG	DAO	MOON (1)	BIG(1)	INSECT /WORM	WIND	*gl-
Yo	y-	yak	ya	yaŋ	ya-	a juŋ[1]			
Mo	y-	yok-	ya	yauŋ	ya-			--	
No	d-	dak	da	daŋ	da	a doŋ	-doŋ[2]		
Wa	c-	cak	cia	caŋ		coŋ	coŋ[2]	-ce	
Ky	y-	yak	ya	yaŋ		yoŋ-	yoŋ[2]		
Ph	l-	lak	la			loŋ-	loŋ-[2]		
Ch	y-	yik	you			yaŋ-	yaŋ[2]	yei	
NN	*gl-	*glək	*gla[A]	*glaŋ	*gla	*gluŋ	*gluŋ	*gle·y	

1 NN *gl- > Yo j-/(Yo)PFX __ . (cf. *C-gl-)

Glosses for INSECT/WORM

2 in: No maŋ doŋ 'mosquito', Wa coŋ 'caterpillar; beetle', Ky yoŋ 'worm', yoŋ wan 'caterpillar', Ph loŋ thə 'worm', Ch yaŋ 'caterpillar; insect generally'.

also: TO CUT WITH A KNIFE(1), FALSE, FROG(2), PERSON(1), SELF.(1)

HAND PTB *g-lak.

LEG PTB *g-la.

MOON PTB *(s-)(g-)la (rev. of STC *s-gla, pcPKB).

BIG cf. Di. -yuŋ, Jalpaiguri/Atong (dialects of Koch, a Barish language) cuŋ-, all cited by Shafer (1953: 249), these initials being the same as those for 'hand' and 'foot' in these languages. Cf. also Ahom/Khamti luŋ: the apparent absence of TB cognates (other than Barish) suggests the possibility of a loan into Barish and NN from Ahom.

INSECT /WORM PTB *(s-)(g-)luŋ (pcPKB); also St. ghu ləŋ 'beetle'.

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WIND PTB *g-lәy.

*$\underset{V}{C}$-gl-

		GROW/ GROWING	TO CROSS OVER
Yo	y-	yaŋ [1]	yan
Mo	y-	-yan [1]	--
No	d-	--	dan
Wa	c-	--	cun 'far'
Ky			--
Ph	l-	loŋ [I]	--
Ch	t-	-taŋ- [1]	tan
NN	*$\underset{V}{C}$-gl-	*$\underset{V}{C}$-gloŋ	*$\underset{V}{C}$-glə̆ˀn

Glosses for GROW/GROWING

1 in: Yo nau ku yaŋ 'child; young', yaŋ 'to become', Mo no yan 'child', Ph loŋ 'to grow', Ch na šo taŋ a 'in infancy'. Yo nau/Mo no/Ch na by themselves are from a basic NN root for 'child', see CHILD/YOUNGER BROTHER. Ch šo ≃ 'young', < he šou 'young; young man, boy', also šo(u) 'son' and -šo(u) ≃ '-son, -child, -young, -small' in many compounds, including na šo si 'child, baby, boy' (šo si = 'childhood'). Ch -a = '-in'.

GROW/GROWING cf. Mk. klaŋ 'to grow'; possibly also Jg. groŋ (< *gloŋ) "start afresh; begin a new growth' (pc PKB) -- cf. kuŋloŋ 'young' -- and Lu. tlaŋ vaˀl 'young man' (Lu. tl- < *PTB *kl-, STC 41). Cf. also Lu. thaŋ 'grow' and teˀk < *gleˀk 'meteorite, thunderbolt' (STC 41).

CROSS OVER cf. WT rgyaŋs 'far', which shows the prefix. The WT and Wancho forms, glossed 'far', and the Yo/No forms, glossed 'cross (over)' are, I suggest, drawn from the broader semantic field represented by Chang tan 'cross (go beyond)', tan ko 'across', tan an ki 'beyond' (-an possibly < NN *yər, OPEN(2), cf.).

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*C-gl-

		SOUL	ELEPHANT (1)	-FEMALE (3)	TO THANK	TO LICK
Yo	j-	-ja	--		--	--
Mo	j-	-ja	jan		--	--
Mo	d-	da-			--	
Wa	c-	ca-		-cia[1]	--	--
Ky	y-	ya-		-ya[1]	yoŋ	yai
Ph	l-	la-	--	-la[1]	-loŋ-	lai
Ch	s-	sou-		sau[1]	-saŋ	se
NN	*C-gl-	*C-gla[A]	*C-gla[A]ŋ	*C-gla[B]	*C-gluŋ	*C-glay

Glosses for -FEMALE(3)

1 in: Wa nau cia 'girl', Ky nau ya 'young woman, girl', Ph ne la 'young woman', ne la ña 'girl'; Ky nau = 'child' and Wa nau is cognate, see CHILD/YOUNGER BROTHER; the Ph form in this set is naə 'child', which may be the source of the Ph ne- in 'young woman' via ne the (pə) 'young; young man'. Thus in all three languages 'young woman/ girl' ≃ 'female child'.

The Ch form appears in a similar context in ñaŋ sau 'MoBrDa, FaSiDa' (ñaŋ i 'MoBrSo, FaSiSo', ko ñaŋ bo 'brother-in-law', ñaŋ < NN *niŋ, 'CROSS-COUSIN, cf.); hence ñaŋ sau ≃ 'female cross-cousin'. In isolation, sau is glossed 'clan (of women)', paralleling paŋ 'clan (of men)' < NN*ʔ-buŋ, -MALE(OF ANIMALS)(1).

SOUL PTB *(s-)(g-)la[A] (rev. of STC, partly based on NN, pcPKB).

ELEPHANT cf. WT glaŋ (the NN reconstruction is possible only because of this correspondence). The *C- would be the familiar 'animal prefix'.

-FEMALE PTB *(g-)la -- in Kuki-Naga, 'feminine affix, used especially of young females'(pcPKB); cf. particularly TN ŋalanao 'young woman, girl', parallel to the Wa/Ky/Ph constructions except that the form is prefixed rather than suffixed.

LICK PTB *g-lay (pcPKB).

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		SLAVE	NECK	MAT	TO COME OUT/ ARISE/ASCEND	TO FALL (1)	*kl- WINTER/ COLD(3)
Yo	kh-/x-	kha-/	khiŋ/	--	/xuŋ 'come out'	--	
Mo	d-	da	--	dam	--	--	
No	h-	ha 'servant'		ham	hoŋ 'come out/arise'		
Wa	d-	--	din-	dam	--	dat	daŋ 'cold'
Ky	ø-	a-	əŋ	əm	oŋ 'ascend'		
Ph	ø-	--	əŋ	--	oŋ 'ascend'		
Ch	ø-	au		am-	aŋ 'go up'	at	-aŋ* 'winter'
NN	*kl-	*kla^{B}	*kliŋ	*klam	*kluŋ	*klat	*klaŋ

Yo kh- (Walker)/ = /x- (Weidert)

*Chang -aŋ 'winter' could equally well be the reflex of WINTER/COLD(1), *C-juŋ, cf.

SLAVE cf. WT gla-mi 'hired workman' (gla = 'wages', mi = 'person')(pcPKB).

NECK PTB *(g-)liŋ 'tube' > 'neck' (pc PKB; the STC has just *liŋ 'neck').

MAT PTB *(s-)klam^{B} 'spread' > 'mat' (pcPKB). Reconstruction partly based on NN.

-/ASCEND PTB *kluŋ (pcPKB), based on NN and WB khyoŋ ~ khroŋ 'ascendingly, as smoke'.

FALL PTB *kla(-t)(Jg. khrat also shows the suffix).

-/COLD PTB *glaŋ 'cold (weather)'.

The Yo kh-/x-: Mo d-: No h- here is reminiscent of both *k- > Yo h-: Mo *h- > g-: No h- and *kr- > Yo kh-: Mo h-: No s-, but the voiced stop in Wa and the zero-initial in Ky/Ph/Ch are developments which do not appear elsewhere among the reflexes of velar stops or stop + glide clusters. If *d- was an intermediate development in these languages, however, it would regularly have been lost in Ph/Ch (though not in Ky).

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*C_V-kl- and *C-kl-

		ONE(2)	GRAVE			DUNG	BEAT(3)
Yo	kh-/	-kha/[1]	--	Yo	/x-	/xʌi2	
Mo			--	Mo	d-	di	dat
No			--	No	h-	hi2	
Wa	t-	ta	--	Wa		--	
Ky	j-	ja	-joŋ	Ky	š-	ši	šet
Ph	j-		-coŋ	Ph		--	
Ch	t-	-to[2]	-taŋ-	Ch	s-	sat	sat- 'rough'
NN	*C_V-kl-	*C_V-kla[A]	*C_V-kluŋ	NN	*C-kl-	*C-klɘy	*C-klat

Glosses for ONE

1 in: Yo ša kha '100': ša alone is cognate with other forms for HUNDRED; cf. Mo -ša ši '100' (ši < a ši 'one', cf. ONE(1); this kind of construction is common).

2 in: Ch pen to 'every, every one' ~ pen dou 'whole' ~ pan do 'all' (pen ~ pan ≈ 'all', see ALL(1)); perhaps also in sau to cie '21', sau to ñi '22' etc.: sau is cognate with other forms for TWENTY, cie = '1', ñi = '2'; 'twenty' is sau cie (≈ 20-times-1; 'forty' = sau ñi, etc.).

ONE cf. Jg. ma khra 'all; whole'. For Jg. k(h)r- < *kl, see STC 39.

GRAVE cf. Di. maŋ kho laŋ (maŋ : NN *maŋ, CORPSE > Ky/Ph maŋ-, also the first syllable in 'grave' in these languages), Kh. mo khru/Ko. me khru (mo/umo 'body', kr- < *kl- in 'fall'), WB. saŋ khyuiŋ twaŋ (twaŋ = 'hole', khyuiŋ 'concave; concave piece of ground, valley' (STC 39, attributed to PTB *klu°ŋ 'valley' — perhaps also the source of NN GRAVE through a different line of development than that which led to NN *C-yu°ŋ, WATER(2) < 'river' < 'valley', cf.)).

DUNG PTB *klɘy, but the WT form is analyzed as implying an earlier *s- prefix (STC 39, n.127), hence should be *(s-)klɘy.

BEAT cf. Jg. kayat 'beat'.

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*khl- and *C$_{v}$-khl-

		TO BOIL (2)	FIGHT (1)			PLACE	SIDE (of body)
Yo			—	Yo		—	—
Mo		—	—	Mo		—	—
No	th-	-thak		No	th-	-thiŋ	—
Wa			—	Wa			—
Ky	h-	hok	hok	Ky	j-	jiŋ	-jiaŋ
Ph	h-	—	hok- 'war'	Ph	š-	šiŋ	-šoŋ
Ch	j-	-jok-[1]	jak	Ch	š-	-šaŋ	
NN	*khl-	*khlə˚k	*khluk	NN	*C$_{v}$-khl-	*C$_{v}$-khliŋ	*C$_{v}$-khlo˚ŋ

Chang gloss for BOIL

1 in: thuŋ bə jok bo cəm 'kitchen' (thuŋ = 'to cook', cəm = 'house'; such 'redundant' constructions are common in Chang)

*khl-

BOIL PTB *glak ~ *klak.

FIGHT cf. WT 'khrug 'to quarrel', 'khrug pa 'war'

As discussed in Chapter II, Ch j- is generally only a free variant of c-, but as the only two forms traceable to this prototype both have a j- given, I leave open the possibility that the voicing in these cases is primary rather than secondary; cf. NN *gl- Ch y-. For *khl- > Ky/Ph h-, cf. *kl > Ky/Ph Ø-.

*C$_{v}$-khl-

PLACE PTB *gliŋ 'ground, land, country, region'. The Ch forms include ki šaŋ 'abode' (ki = 'abide, dwell') and cam šaŋ 'house-site' (cam = 'house'). Cf. also WT kluŋs 'land, field'.

SIDE cf. Mpri. nak thaŋ (cf. ma thi 'dung', PTB *kləy).

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*C-khl-

		DRUM	SLEEP (2)	DISH
Yo		—		--
Mo				--
No	th-	tham		—
Wa	s-	sam		
Ky	š-	šam	ši	šeŋ
Ph	š-	—	ši	šoŋ
Ch	š-	—	-ši	
NN	*C-khl-	*C-khla˚m	*C-khli	*C-khle˚ŋ

DRUM cf. Di. kha ram ~ khram, Garo kram (last two forms from Shafer 1953: 246). An alternative Wancho form, kham, is given by Srivastava (1973: 182). There is no comparative evidence for an *-l- rather than an *-r- cluster; this reconstruction is based on the Nocte initial.

SLEEP cf. Mk. kli 'lie down' (also Ky ši, Ph -ši).

DISH cf. Lu. thle˚ŋ (Lu. thl- < PTB *kl-, STC 41).

This completes my presentation of NN *velar stop + *glide clusters, and of the comparative evidence for the reconstructions chosen. The second line of evidence, particularly important for sorting out differentially prefixed variants, is that of pattern symmetry, which can be read off the summary table on the following page. Note, for example, that the Ky/Ph reflexes of *-k(h)y- and *-k(h)l- are identical, suggesting that in these languages *-k(h)l- may have become *-k(h)y-, thereafter sharing a common development. Note also that *C_v-{g,k}{r,l} > Ch t- while *C-{g,k}{r,l} > Ch s-, suggesting an intermediate merging of these four clusters,

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probably into *$\overset{C}{V}$-kl, *C-kl (*k- rather than *g- because voiceless phones predominate in Chang, and because the ultimate reflexes [t-,s-] are unvoiced; *-l- rather than *-r- because NN *r- regularly becomes Ch l- initially).

Yo	k	k/kh	k	h	h		kh	kh	kh	
Mo	k	k/		g	g		kh	kh	kh	
No	k	kh	kh	h	h	h	kh	kh	kh	
Wa	k	k	k	h	h	h	kh	k	kh	
Ky	t	t	š	k	k	k	š	š	kh	
Ph	š	š	š	k/š	g	š	š	š	kh	
Ch	k	k	š	k	k	š	kh	kh	kh	
NN	*g	*$\overset{C}{V}$-g	*C-g	*k	*$\overset{C}{V}$-k	*C-k	*kh	*$\overset{C}{V}$-kh	*C-kh	
Yo	c	c	c		c		kh	š		
Mo	c	c	c	th	th		kh	š	š	
No	c	s	s	kh	kh	kh	kh	c	c	
Wa	c	c	c	h		h	k		š	
Ky	t	t	š	k	j	š	š	j	š	
Ph	š	š		k	j			š	š	
Ch	s	s	s	s	k	c	k		š	
NN	*gy	*$\overset{C}{V}$-gy	*C-gy	*ky	*$\overset{C}{V}$-ky	*C-ky	*khy	*$\overset{C}{V}$-khy	*C-khy	
Yo	c			kh			kh		kh	
Mo	c			h	h				h	
No				s	s	s	kh	k	c	
Wa	š	t	t	s	š	s	s	k		
Ky	t	t	j	š	š	š	k	k	kh	
Ph	š		j	th	th/dh	š	š	kh	kh	
Ch	h	t	s	h	t	s	k	k	h	
NN	*gr	*$\overset{C}{V}$-gr	*C-gr	*kr	*$\overset{C}{V}$-kr	*C-kr	*khr	*$\overset{C}{V}$-khr	*C-khr	
Yo	y	y	j	kh/x	kh/	/x				
Mo	y	y	j	d		d				
No	d	d	d	h		h	th	th	th	
Wa	c	c	c	d	t				s	
Ky	y		y	ø	j	š	h	j	š	
Ph	l	l	l	ø	j		h	š	š	
Ch	y	t	s	ø	t	s	j	š	š	
NN	*gl	*$\overset{C}{V}$-gl	*C-gl	*kl	*$\overset{C}{V}$-kl	*C-kl	*khl	*$\overset{C}{V}$-khl	*C-khl	

On the following pages I present the evidence for the three *stop + *glide clusters at forward positions.

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*cr- and *C$_V$-cr-

	ARRIVE (1)	ALIVE (1)
Yo th-	thau	
Mo	--	
No h-	hu	hiŋ
Wa	--	
Ky		
Ph š-	ša 'enter'	-šiŋ[1]
Ch s-	saɣ	
NN *cr-	*craw	*criŋ

	GRASS (/GREEN /RAW)		
Yo th-	thiŋ-		--
Mo th-	--	--	a thiŋ
No h-	hiŋ	a hiŋ	a hiŋ
Wa h-	hiŋ	hiŋ	
Ky h-	həŋ	ə həŋ-	ə hiŋ
Ph th-	thiŋ	thiŋ-	--
Ch s-	saŋ	saŋ-	saŋ-
NN *C$_V$-cr-	*C$_V$-criŋ		

Phom gloss for ALIVE(1)

1 in: Ph u šiŋ 'seed'; u- is probably from an NN *bu 'seed', related to WT 'bru, id.

ARRIVE cf. Lhota thri-yi 'enter'

ALIVE/ GRASS PTB *šriŋ 'live, alive, green, raw'

I have departed from my usual procedure in this chapter to show the full range of glosses for which the root I reconstruct as NN *(C$_V$-)criŋ is well attested. Because of the affixes attending the forms glossed 'green' and 'raw', 'grass' would appear to be the core meaning of the *C$_V$- prefixed variant in NN, with the adjectives being derivative. If the Ph form for 'seed' is cognate, however, GRASS itself is probably derivative from a yet more basic sense 'alive' (attested for Nocte by Brown, under '(to) live', without prefix). All of these glosses are among those of PTB *šriŋ. In Northern Naga, however, I distinguish no fewer than three addi-

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tional sets drawn from the same word-family: ALIVE(2), NN *ryəŋ; ALIVE(3), NN *C-raŋ; and ALIVE(4), NN *C-rin. This variation is not limited to Northern Naga, but exists in TB generally: Benedict's original solution was to reconstruct proto-variation, PTB *s-riŋ ~ *s-raŋ, and the Northern Naga evidence suggests that this is preferable (whatever shapes the allofams finally assume). One can, for example, cite NN *ryəŋ : WT rjen pa 'raw'; NN *C-raŋ : WB hraŋ 'live, be alive'; NN *C-rin : Nung šin 'grass'. Or, one can collapse the three NN forms given above into a single composite form at a pre-NN level: *(C-)r(y)əŋ, further related to NN *criŋ, ALIVE(1), through reinterpretation of the initial *c- in the latter as a prefix. There are many possibilities, whose reduction depends upon a thorough study of all of the related forms throughout TB, a task which is well beyond the scope of this study. What is clear is that at the NN level at least two (probably three, very possibly four) distinct roots are involved: one having an initial *r(y)-, and the other -- ALIVE(1)/GRASS -- presenting one of the more difficult problems of reconstruction which we shall have to consider.

First, I believe that a direct reflection of the PTB cluster, *šr-, must be excluded, as NN apparently has no initial *š-. The problem which then confronts us is the possibility that there is no *-r- in the NN initial at all: that all of the TB forms with -r- are

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related to the other NN root(s) for ALIVE. I have suggested that the core meaning of NN *C$_{\text{V}}$-criŋ is 'grass'; the one other language for which 'grass' is given as a gloss for a form which Benedict derives from PTB *šriŋ is Jinghpaw, which does not have an -r-: tsiŋ 'grass; grassy, green', katsiŋ 'fresh, green, raw, unripe' (STC 85). Jinghpaw ts- is the reflex of PTB *ts-~*dz-, and the Northern Naga reflexes are certainly compatible with derivation from an NN dental/alveolar affricate, particularly if a three-way distinction among these affricates, parallel to that among stops, were to be set up. I prefer to leave this as an alternative possibility, however.

My reason for reconstructing an *-r- cluster for NN is the similarity of the reflex pattern in question to that for *(-)kr-. Only *kr- has aspirated stops in Yogli and Phom and fricatives elsewhere. Compare:

NN	Yo	Mo	No	Wa	Ky	Ph	Ch
*kr-	kh-	h-	s-	s-	š-	th-	h-
*C$_{\text{V}}$-cr-	th-	th-	h-	h-	h-	th-	s-

The other established set to which that exemplified by GRASS is most similar is *c-:

*c-	š-	š-	s-	h-	h-	h-	c-

Finally, in the apparent absence of an NN *š-, NN *cr- is probably one of the two most likely developments from PTB *šr- (the other, NN *sr-, has a distinct set of reflexes; see below). It is possible that the two Phom forms with š- do not belong to the sets to which they

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have been assigned (or that the š- in Ph 'seed' is conditioned by the preceding syllable — but see the forms below); in that case the *C_v- prefix could be removed from the reconstructed initial for GRASS. A prefix is attested, however, in the Jg. form kətsiŋ cited above, and particularly in the Nung forms məšiŋ 'green', which Benedict explicitly derives from a *m-šriŋ, and əthiŋ 'unripe, uncooked' (STC 85; cf. Nung thil 'spittle' < PTB *m-cril [STC 55], with *C_v-cr-, as posited for NN).

One additional form shows a distinct initial in Moshang and is provisionally assigned to *C-cr-:

		-BEING	(/CATTLE)	*C-cr-
Yo				
Mo	s-		man su	
No				
Wa	h-		mai hu	
Ky	h-		ma hu	
Ph	th-	moŋ jam thə; loŋ thə; ou thə; mi thə 'friend' 'worm' 'bird'		
Ch	s-	po su ; mei su ; 'man, male' 'macaque'	ma su	
NN	*C-cr-	*C-crə'w		

cf. Di. ma su 'cattle', su buŋ 'person, people, man(kind)', Lhota ncyua 'person', Li. ta thyu 'animal'.

Here again I break precedent, this time to give full forms in all cases, in an attempt to dispel the ready inferenece that the Northern Naga forms for 'cattle' are simply variants of mithan (English, from Assamese

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mithun, cf. Di. mithan 'mithan' [but ma su 'cattle', mu su 'cow', mu sup 'buffalo'], Khasi mynthyna 'gaur, wild bull' (Simoons 1968: 226)[1]; Ko. mi thu 'cattle' and similar forms in other Central and Southern Naga languages — always for 'cattle', etc., not 'mithan' — are probably rather to be related to the Northern Naga forms). The two words may be related at some level, but the regularity of the Northern Naga correspondences for the second syllable of 'cattle' argues against a recent loan, and the additional forms cited from Phom and Chang provide a partial etymology for 'cattle' and indicate that the morpheme in question is of very general application. That it has developed a special association with 'cattle' throughout the Naga area cannot, however, be denied.[2]

---

[1]See this work for an inconclusive discussion of the possibilities for the origin of the word "mithan".

[2]When one examines the general Naga initial correspondences for the -BEING element in 'cattle', one finds that the most extensive set of matches — Ko./Chokri th- : Sema/Yi. š- : Ao Mongsen/Lhota/Ntenyi/Meluri s- — is with the initials for 'meat', presumably from PTB *ša 'meat, animal', but it is difficult to decide whether this is because a single word is involved (though the vocalism differs, and in some other languages the initials do fail to match); because the 'animal' term has come to form part of that for 'cattle' in some languages, though not in others; or because the two words, though distinct, go back to the same proto-initial, pointing to a Southern/Central Naga *-šəɔ̃w (u ~ o ~ ə vocalism throughout, except Sema/Yi. ši [= 'meat' in only these two lgs.]).

There is no evidence for an *-r- in all of this, but cf. the Jg. element cyə-, found in both 'crab' and 'wolf', which I suggested above may be a variant of šə- < *ša, but which could also be from a *crəɔ̃w 'being'.

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*pw- and *pr-

	FATHER	GrMo	THIN (1)		BEGIN	WASH
Yo b-/v-	a ba/a va	a bi/vi-[1]	--	Yo	--	--
Mo v-	va	vi-[1]	a var	Mo	--	--
No v-	(i)va	vi		No b-	a baŋ-	
Wa p-	a pa	--		Wa	--	--
Ky p-	a pa	a pi	pe-	Ky w-	waŋ	wao
Ph p-	pa	--	--	Ph p-	paŋ	paə
Ch p-	a po(u)	pi		Ch		
NN *pw-	*pwaʌ	*pwi	*pwe˚r	NN *pr-	*praŋ	*pra˚w

Yo b- (Dutta)/ = /v- (Walker). also for *pw-: PALM/SOLE (2)

Tangsa glosses for v- forms for GRANDMOTHER

1 in: Yo vi kau, Mo vi kru 'old woman' (also No vi ku [for the second syllable in these forms, see -FEMALE(I)], Ky pi yoŋ)

FATHER PTB *pwa

GrMo PTB *pəy, but cf. also *pwi(y) 'female, feminine affix' (Jg. -wi, paralleling (ə)wa 'father'). The former term could in NN have been supplanted by the latter under the influence of *pəw, GRANDFATHER.

THIN PTB *pe˚r (based on Di. gepher, Lu. pe˚r, but these [Di. -ph-, Lu. p-] are also the initials for 'father' in these languages; thus a PTB *pwe˚r is also possible).

Cf. also: Ko. a pfu/Kh. a pfo 'father', Kh. tsa pfə 'grandmother' (but pu tsau 'grandfather'), Kh./Ko. ke re pfə 'thin'.[1]

BEGIN cf. PTB *praŋ 'dawn, morning' (Mk. praŋ 'dawn'), Mk. a phraŋ 'first, before' (cf. Ky a waŋ pa 'first'), Jg. phaŋ 'begin'. These comparisons provide the only external evidence for an NN *pr-, which is thus provisional.

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[1] Matisoff (1980) has shown that Ko. pf- < PTB *kw-; this demonstrates that *pw- is another possible source.

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3.4 Dental/Alveolar Affricates.

*dz-

		EAT (1)	STAR [b]	SHOULDER (2)	SUFFER (2)	VEGETABLE	NAVEL (2)
Yo	s-	sa	-sei	--		--	--
Mo	s-	sa	-si	--		--	--
No	ch-	cha		chuak-	a chat		
Wa	s-	sa	-si	suak-		sui	suŋ
Ky	h-	ha				hui-	
Ph	h-	hak				--	--
Ch	š-	šau			šat		šuŋ
NN	*dz-	*dza^{B}	*dzi	*dzuak	*dzat	*dzui	*dzŭ°ŋ

also: CURRY.

EAT PTB *dza^{B}.

STAR[b] probably from PTB *zəy 'small, minute'.

SUFFER PTB *tsa, with suffixed *-t, also attested in Lu. ša ~ šat 'hot', as well as in Chinese dz'iət/dz'iet 'sickness, pain' (STC 159, n.429).

VEGETABLE cf. the related NN *dzo°y, CURRY, whose reflexes appear in forms for 'mustard', and WT ske tshe 'mustard'.

NAVEL cf. WT gžuŋ 'the middle, midst' (STC 17, n.63).

The reflexes above recall particularly those of *-j- (Yo/No/Ph) and, with their prefixed variants (next page), which differ only slightly, those of *(-)c- (Yo/Mo/Ky/Ph/Ch). Although in our present state of knowledge, reconstructions of PTB affricates are themselves uncertain, the external comparisons for the above forms and those which follow suggest either a voiced fricative or an affricate. To consider only

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three of the best-attested sets, Benedict has proposed *dz- (STC) and *dzy- (pc) for 'eat'; *ts- and *z- for 'child/son'; and *š- (STC) and *ž- (pc) for 'grandchild'. As Shafer commented:

> Because of morphosymphonic alternation of initials and the falling together of several primitive affricates or sibilants into a single phoneme in so many Tibeto-Burmic languages there may always be some difficulty in determining the precise nature of the primitive affricate initial in some Tibeto-Burmic roots. (1953: 252)

After experimenting with many other possibilities, I have settled on Shafer's own solution of reconstructing *(-)dz- for 'eat', 'child' (my SON)(=)'ant'[b], 'ill' (my SUFFER), and "arrow" (plus nine additional sets).

		ARROW			SON	*C̬-dz and GrCh	*C-dz- BAD(2)
Yo		--	Yo	š-	a ša	a šao	
Mo	s-	-san	Mo	š-	šan	--	
No	ch-	-chan	No	ch-	cha	chu	a chi
Wa	s-	-san	Wa	s-	-sa	--	
Ky	h-	-han	Ky	h-	a ha	hu	
Ph		--	Ph	h-	ha	--	
Ch	c-	-cin	Ch	s-	šo(u)	ši	šet 'spoilt'
NN	*C̬-dz-	*C̬-dza·n	NN	*C-dz-	*C-dza[A]	*C-dzəw	*C-dzi(y)

also: ANT[b], SOUL[b]-- both < SON ('-child') -- and TO DO.

ARROW cf. Lahu -ce < *-can (pcJAM); for initial, cf. Lahu câ 'eat': NN *dza. The *C̬- may = *la-, BOW, regularly the first syllable in the compound, possibly (also in Lahu) ≃ 'bow-children' (SON + *-n 'collective suffix' [STC 99, n.284], pcPKB). Cf. NOSE, where *C̬-gu·ŋ = *na gu·ŋ.

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SON PTB *tsa or *za 'child', the latter yielding Di.-sa, Jg. -Ša, Lu. fa, all 'son'.

GRANDCHILD PTB *Šu(w) (STC)(Di. su, Jg. Šu), or possibly *Žəw (pcPKB).

BAD cf. Lu. chhia, Ze. ke sia be, Mz. ke sia, Khoirao ka si ba, Maram si; No. phaŋ chi 'ugly', Lu. hmelchhia, Maram si, id.; a voiced initial appears in Angami: Ko. zie suo 'ugly', Kh. ze so 'wicked'.

*ts-

		MORTAR	BEFORE /FIRST	BASE	BITE (2)	BOIL (3)
Yo	th-	thim		--		
Mo	th-	thum	--	--		--
No	th-	tham	-thoŋ-[1]	--		
Wa	ts-/t-	--		-tsiŋ/-tiŋ 'root'	tsat /	/tɔ
Ky	j-	--		--	jei	jau
Ph	Š-	--	Šoŋ- (both)	--	--	--
Ch	Š-	Šam	Šaŋ- 'first'	Šiŋ		
NN	*ts-	*tsum	*tsuŋ	*tsi˚ŋ	*tsat	*tsow

Nocte glosses for BEFORE/FIRST

1 in: a thoŋ hun 'to remember; to plan (think)'; hun, here ≃ 'think', is a general verb of emotion/cognition. The indicated etymology for both glosses is ≃ "before-think", in different senses.

Wa ts- (Brown)/ = /t- (Peal)(See Section 2.2.1 above.)

MORTAR PTB *tsum^{B} (pcPKB).

BEFORE /FIRST cf. Jg. Šoŋ 'before; first', Ao Mongsen mo-thuŋ ko 'before'.

BASE cf. TN a ziŋ 'under'.

TO BITE cf. PLB *Ø-tsat (pcJAM).

TO BOIL PTB *tsyow.

Shafer included MORTAR in his table of words

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tentatively reconstructed with Baric *tš-, but was forced to note that the initial in Moshang -- the only Northern Naga language for which he had a form available -- was irregular for this set ("Borrowed from Katśin?"; but the Jg. form, also thum, was similarly irregular [Shafer 1953: 255]).

*$\underset{V}{C}$-ts-

		ONE(1)	OIL(1)	TO PLAY
Yo	š-	a ši	—	—
Mo	š-	a ši	—	—
No	th-	-the	-thi	
Wa				
Ky				
Ph				—
Ch	c-	cie	-ci	-cai-
NN	*$\underset{V}{C}$-ts-	*$\underset{V}{C}$-tse	*$\underset{V}{C}$-tsi	*$\underset{V}{C}$-tsa˚y

ONE cf. Di. se, Mk. i si (Di./Mk. s- < PTB *ts-; see STC 27(62), 64(276)].

OIL PTB *tsil or *(r-)tsay.

PLAY PTB *(r-)tsya˚y.

NN *ts- > Ch. š-, but *$\underset{V}{C}$-ts- > Ch c- matches *dz- > Ch. š-, *$\underset{V}{C}$-dz- > Ch c- (ARROW).

PTB *(-)tsy- apparently becomes NN *(-)ts- (TO BOIL, TO PLAY), but the material here is insufficient to rule out the possibility of a *(-)tsy- in NN also. An aspirated variant (*ths-) is a further possibility: NN *(-)dz-, *-j- > No ch-, but No th- < NN *ch- (not *c-).

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3.5 Fricatives and Fricative + Glide Clusters.

		WHO?	BUILD	OPEN (1)	*h-
Yo	h-	hau	hon	--	
Mo			--	--	
No	h-	ha-	hoan	hap 'free'	
Wa			--	--	
Ky	Ø-	au-	-en[1]	ep	
Ph	Ø-	ə-	an[1]	ap	
Ch	Ø-	au	-on[1]	ip	
NN	*h-	*ha°w	*ho°n	*ha°p	

Glosses for BUILD

1 in: Ky no-en 'to raise; to lift'--so given, with hyphen indicating syllabification; for no-, see TO TAKE (UP)(4).

Ph an 'to lift'.

Ch bam on 'to raise' ('completely', as vs. 'partially', for which see TO GRASP); bam probably = pam in kam pam 'to complete, finish' (kam = 'do, make'). Thus it is on which carries the sense 'to raise'.

WHO? cf. PTB *ha°w "announce, bespeak'.

OPEN PTB *a°p (pcPKB). For another example of the PTB *Ø- > NN *h- correspondence, see THIS, under *C-h- (next page).

An NN *(-)h- is desirable not so much to account for the sets shown above, which are all amenable to other interpretations (< *kl-, < *Ø-), as to account for those attributed to *-h- on the following page. If an NN *(-)h- is required for the latter, the forms grouped above may be plausibly attributed to an *h- in the absence of internal or external evidence pointing elsewhere.

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*C̬-h- and *C-h-

	MATCH		BLOOD(1)	THIS
Yo	--	Yo h-	a hai	
Mo	--	Mo g-	ta gri	
No h-	-hiet	No h-	he	
Wa	--	Wa h-		ha-
Ky	--	Ky h-		ha-
Ph	--	Ph h-		ha
Ch s-	-sat	Ch h-	hai	ho
			'marrow'	
NN *C̬-h-	*C̬-hiat	NN *C-h-	*C-hə̆ʔy	*C-ha[A]

MATCH PTB *hyak (Lu. hiat 'scratch', WB yak 'strike with a stroke toward one's self, scratch'), perhaps in view of the NN now better set up with final *-t (pcPKB); add TN hat 'scratch'. (The NN forms are in comp. with 'fire-'.)

Another possible reconstruction for this set is *C̬-kleʔt: cf. TN khet 'to strike a match', referred by Matisoff (1972c: 277) to PTB *kret (Jg. mə khret -- note prefix --, WB khrac 'scratch', but Jg. khr- < PTB *kl- in 'fall', WB khr- < PTB *kl- in 'marrow' [both STC 39], so a *kl- is also possible). Finally, cf. Jg. ma chyit, also 'scratch'.

BLOOD PTB *(s-)h(y)wəɬʔy. The Wa/Ky/Ph/Ch forms for 'blood' are referred to a separate root in NN, BLOOD(2), *syi (Ch si). These two NN roots could be the result of differential reductions of the complex PTB (prefix +) initial; or, as Matisoff has suggested (1978: 184), the dichotomy could go all of the way back to PST, with the following correspondences:

Chinese	Jinghpaw	Chang	NN
xiwet/xiwet 'blood'	sai 'blood'	hai 'marrow'	*C-hə̆ʔy BLOOD(1)
swia/swiẹ: 'marrow'	lə̆ səwi 'marrow'	si 'blood'	*syi BLOOD(2)

In any case, a *C-h(...)- initial is well attested for 'blood' in PTB.

THIS PTB *a , 3rd person pronoun (> NN *(-)ha, pcPKB).

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In addition to *(-)h-, NN has an *(-)s-, and there is evidence for three *s + *glide clusters: *sy-, *sr-, and *sw-. I present *sy- first because of the similarity of its reflexes to those of *(-)h-:

		BLOOD (2)	POOL (2)
Yo			—
Mo			—
No			—
Wa	j-	a ji	-ji 'lake'
Ky	ø-	i	
Ph	ø-	i	
Ch	s-	si	si
NN	*sy-	*syi	*syi

		*sy- and *C$_V$-sy-	
		EVENING	TO LEARN
Yo		—	—
Mo		—	—
No	h-	-ham 'sunset'	he
Wa			—
Ky	š-	šum- 'late'	ši
Ph	ø-	om	
Ch	s-	-sam	
NN	*C$_V$-sy-	*C$_V$-sya˚m	*C$_V$-sya˚y

BLOOD(2) PTB *(s-)h(y)wət˚ly. See discussion on preceding page, under BLOOD(1). The likely immediate antecedent of a *syi from such a source, *s-yi, is in fact posited by Benedict (STC 51, n.169) to account for Lu. thi < *si.

POOL The words for 'pool' and/or 'lake' and for 'blood' are identical in a number of Naga languages, including Ao Mongsen, a yi 'pool; blood' and Mao o zhi 'pool, lake; blood'.

EVENING PTB *syim 'black, blue, dark, darkness'. The Di. forms have variants with -im and -um. For the semantics, the No and Ch forms are in comp. with 'sun-': ≈ 'sun-dark'; cf. also No a ham 'blue'. For the relation to the initial in 'blood', cf. also Angami z(h)- for both sets, e.g., Ko. zie 'blood', ke zie 'dark'.

LEARN PTB *syey 'to know' (Garo masi, Di. mathi ~ mithi). In NN the prefix is associated with the semantic shift from 'know' to 'learn': cf. KNOW(1), NN *C-ya˚y (*s-y- < *sy-).

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		(LIVE/) BREATHE	FRUIT (1)	FRUIT (2)	TO DIE	NEST	NEW	*s- DEEP
Yo	d-	da-	-di		--	--		—
Mo	t-	a ta- 'live'	-di[1]		ti		--	—
No	r-	--	a ri		ri	a rup		
Wa	z- ~ j-	—		-jak	zi ~ ji	-zap	-zan ~ -jan	zu
Ky	l-	lao-		-lik	li	-lep	-la-	lu-
Ph	j-			-jɔk	(di)	jep	ja-	jɔ-
Ch	h-	hak-		-hek	hai	hap	han	hau-
NN	*s-	*sa˚k	*sey	*sek	*sɔy	*siup	*sa˚r	*sɔw

Moshang gloss for FRUIT

1 in: cun di 'bullet', with d-/n__; Hutton etymologizes the Ch word for 'bullet' (from a different root) as 'gun-fruit', and Matisoff (1972c: 279, n.36) glosses PTB *siy (= Benedict's *sey) as 'fruit/small round object'.

also: FAT, FINGER(2), TO GO(2), TO HIDE, OLD(of things), TO SWEEP, VEIN.

BREATHE PTB *sak.

FRUIT PTB *sey.

TO DIE PTB *sɔy.

NEST Speculatively, PTB *s- 'animal prefix' + PTB *yup 'to sleep' (rev. of STC *yïp, pcPKB).

NEW PTB *sar.

DEEP cf. Di. thu ba, Lu. thu˚k (Di./Lu. th- < PTB *s-).

With this initial, we return to a reconstruction bountifully supported by external evidence (see also *C$_{v}$-s- below, differing only in having Ch s-). That these extremely divergent Northern Naga reflexes go back to a simple *s- was recognized by Shafer, who cited FRUIT(1), TO DIE, NEST, and DEEP. Wancho has yet another variant,

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r-, in ri, 'to die'. An *s- > t(h)- shift is common in TB, but the shift to a liquid (No/Wa(?)/Ky) seems to be peculiar to Northern Naga.

		*$\underset{V}{C}$-s- THREE	LIVER	TO AWAKE	TO CHOOSE	LIZARD
Yo	d-	a dim	a din	--	--	--
Mo	t-	a tum	--	--	--	--
No	r-	-ram				
Wa	z- ~ j-	a zam ~ a jam	--	jo	--	
Ky	l-	lem	--	-lou	li	
Ph	j-	jəm	--		je	--
Ch.	s-	sam	san-		sa-[1]	su
NN	*$\underset{V}{C}$-s-	*$\underset{V}{C}$-sum	*$\underset{V}{C}$-sin	*$\underset{V}{C}$-so'w	*$\underset{V}{C}$-səl	*$\underset{V}{C}$-sa'ŋ

Chang glosses for TO CHOOSE

1 in: sa no(u) 'show favor, love, be kind, pity', coŋ sa 'reward' (coŋ ≈ 'get', see GET(2), also in coŋ: sak 'gift', sak = 'expend').

THREE PTB *g-sum.

LIVER PTB *m-sin.

AWAKE PTB *m-sow.

CHOOSE PTB *sal (Balti [Tibetan dialect] psal-ba, Rawang rəsal-ši [< *r-sal?], Jg. san 'select, choose', khriŋ-san 'chosen, elected, set apart'), all pcPKB.

LIZARD PTB *r-sa'ŋ.

These five words, four of which have PTB reconstructions with definite (rather than optional) prefixes, comprise the best evidence for (1) prefix-conditioned variation in Northern Naga initials, and (2) the equivalence of different voiced prefixes as conditioners.

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*2-s-

		TO KILL	SAND(3)	THINK/ WISH/HOPE	TO WASH/ TO BATHE(2)
Yo	j-	a jaut	(-cai)		--
Mo	t-	tat			--
No	s-		se	a soam[2]	suan
Wa	s-		sak		--
Ky	t-	toi			to 'wash(face)'
Ph	j-	jə		-jam-[2]	
Ch	t-	-tad[1]		tam[2]	
NN	*2-s-	*2-sot	*2-sa°y	*2-so°m	*2-suar

Chang gloss for KILL

1 in: khu tad 'to behead' (khu = 'head'); cf. Garo sot 'kill', sko ra sot 'behead' (sko = 'head', ra = 'cut; reap', ra sot 'clip, crop, sever').

Glosses for THINK/WISH/HOPE

2 in: No a soam 'to pray, to worship', Ch tam 'think, wish, hope', tam an 'recollect, remember', Ph moŋ jam thə 'friend' (moŋ = 'heart', -thə ≃ -BEING, cf.), ≃ "heart's desire"(?).

TO KILL PTB *g-sầt ~ *a-sầt (for the latter, pcPKB). (PTB *a- > NN *2-, as in WT, Jg.).

SAND cf. WB sai, Jg. hsai brue, Sema a sai.

THINK/ ... PTB *səm 'breath, voice, mind, heart, soul, spirit, thought, think'.

WASH/ BATHE PTB *šwar (WT 'tšhor-ba [WT /'-/ = [2(ə)-], < PTB *a-, STC 123, n.339]) 'flow, pour'.

This is all very doubtful, but appears to present the best solution to the problem of the initials in the Northern Naga forms for 'to kill'. As noted above, *s- > t(h)- is a common TB development (> tš- in Chutiya [Shafer 1953: 251]). The Ky/Ch t- here, however, may be

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the result of a development parallel to that which gives WT lt- < *?l- (pcPKB), i.e., *?-s- > *?s- > *st- > t-. The Mo t- and Ph j- are of course the regular reflexes of NN *s-. The No/Wa s- may represent simply a retention of *s- under the "protection" of the *?- prefix, paralleling Garo sot < *?sot -- normally, PTB *s- > Garo th- (pcPKB). Yo j- probably represents an intermediate phase in the NN *s- > Yo d- development, and is thus also closer to the proto-initial than is the "regular" d-. In sum, the initials for 'to kill' (and for the other sets given above) are more plausible reflexes of an NN *s- than are the actual reflexes of that (unprefixed) proto-initial. Cf. the similar "protective" influence of *?- in NN *d- > Ph Ø- but *?-d- > d-, *b- > Ø- but *?-b- > b-. The effects of PTB *a- constitute a topic only touched on in the STC: Benedict does not actually propose any PTB reconstructions with this prefix, so that its possibly distinctive reflexes in key TB languages remain uncertain. Thus my NN reconstructions with *?- must all be considered provisional, but offer workpoints for a study of *a- > *?- in TB generally.

The reflexes for *sr- (next page) are similar to those for *s-, but the Mo th- (rather than t-) in 'seek' and 'smell' demands a distinctive prototype, and the Mo th- in 'louse' (together with Mk. r- in both 'louse' and 'look for/seek') suggests an -r- cluster for these verbs, but given Yo d-/No r-, *sr- rather than *šr-.

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*sr-

		LOOK FOR	TO SMELL	LOUSE (1)	LOUSE (2)	LOUSE (3)	TO WRAP
Yo	d-	dai	diŋ	--	--	--	--
Mo	th-	thi 'seek'	a thiŋ		thik		--
No	r-	--				rit	a rap[1]
Wa			--	--	--	--	--
Ky	š-			-šek 'flea'	šik		
Ph	š-		--	--	--	--	šep
Ch	h-	hai-	-hi	hek		hat	
NN	*sr-	*srəy	*sri˚ŋ	*sre˚k	*sri[˚]k	*srəy	*srəp

Nocte gloss for WRAP

1 'to twist (cloth)'

LOOK FOR cf. Mk. ri 'look for, seek' (PTB *s- > Mk. th-), Mpri. thi, id. (PTB *s- > Mpri. h- ~ s-).

SMELL cf. Jg. siŋ 'smell, scent, odor, as of fresh, raw, or unprepared food' (pcPKB), which, however, suggests an *s-, as does PTB *suŋ. It is possible that the Yo/Ch forms are from a *si˚ŋ, with the Mo form being the same word as a thiŋ 'raw' (note the gloss for Jg. siŋ), < NN *$\underset{V}{C}$-criŋ.

LOUSE PTB *šryək (pcPKB, revising STC *šrik). The Northern Naga evidence suggests that the difficulties presented by the rhymes in TB forms for 'louse' may reflect a doublet rather than the more complex rhyme now reconstructed by Benedict. In this case Mk. rek would go with NN LOUSE(1).

WRAP cf. Mk. rip 'to bind'. The glosses 'wrap', 'twist', and 'bind' are among the aspects of a semantic field represented by a large number of TB roots.

Although vowel length is strictly indeterminate in LOUSE(2), the rhymes in the other two variants suggest that the vowel is long here as well. LOUSE(3) could be reconstructed *srit, but the -t could be secondary in both

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forms (for No, cf. 'to die', ri [Robinson, Brown] ~ a rit [Das Gupta], < NN/PTB *səy [the form for 'louse' is also from Das Gupta]; for Ch, -et ~ -at is a common secondary reflex of *-i ~ *-ə[°]y in *C- [=*s-] -prefixed forms; here the initial *s- in the *sr- cluster might have had the same effect on the rhyme). A reconstruction in *-əy fits better with the other two variants than one in *-it in the absence of a -t in some other Northern Naga language, allowing a composite *sre°k ~ *sri°k ~ *srəy, which could well be from an earlier **šryə(k).

Recall that the Ky/Ph reflex of *sr-, š-, is also the reflex of *th-, which, in view of the Mo th- < *sr-, could well have been an intermediate phase here, i.e., NN *sr- > pre-Ky/Ph *th- > Ky/Ph š-. If so, this could constitute a link to the last initial to be presented in this section, *sw-, whose Ky/Ph reflex is ph-, as if from *ph-. Ch h- < *sw- but š- < *C_V-sw- parallels Ch h- < *s-, s < *C_V-s- (*C_V- in this case probably representing the attested preceding morpheme in the two compounds given, rather than a prefix, as we have occasionally found elsewhere). NN *sw- seems in most cases to have been derived from a PTB *s-w-, but the syllabic prefix may be retained as such in NN. The data demand reconstruction of the cluster as distinct from *C-w-. The two initial segments co-exist as variants at the NN level in RAIN(2), *C-wa°t (= *s-wa°t) ~ RAIN(3), *swa°t; cf. TO KNOW(1), *C-yə°y (= *s-yə°y) ~ TO LEARN, *C_V-syə°y.

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		TOOTH	NIGHT (2)	RAIN (3)	TO GNAW
Yo	p-	pa	--		--
Mo	v-	va	--		--
No	p-	pa	-pan	-pat	--
Wa	v-	va	a van	-vat	--
Ky	ph-	pha	-phi[1]		--
Ph	ph-	pha			--
Ch	h-	hau			hit
NN	*sw-	*swa^{B}	*swər	*swa·t	*swa·t

		*sw- and *C_{V}-sw-	
		CALF (of leg)	TO SPIN
Yo		--	--
Mo	v-	-vuin	--
No		--	--
Wa		--	--
Ky	ph-	--	phik
Ph	ph-	--	phak
Ch	š-	-šan	-šik
NN	*C_{V}-sw-	*C_{V}-swun	*C_{V}-swi·k

Konyak gloss for NIGHT

1 in: waŋ phi laŋ pu 'lightning' (waŋ = 'sky', as in No 'night', raŋ pan; the Ch analogue of -laŋ pu, laŋ pun, is glossed 'lightning' in isolation).

TOOTH PTB *s-wa^{B}.

NIGHT Cf. B-G *war (pcPKB); (> Di. horh, with h- as in 'tooth', ha). Cf. also Shafer 1953: 241-243.

RAIN PTB *r-wa (Di. ha, with h- as above; Benedict comments "with loss of prefix" [STC 109], but more likely the h- is the reflex of an *s-w- resulting from prefix substitution, also giving rise to the NN *sw-; in any case *r-~*s- prefix alternation is common in PTB, with many cases documented in the STC). That the NN *-t goes back to an earlier level is indirectly attested by Matisoff's (1972c: 281) reconstuction *rwas, for PTB *-s > NN *-t, as in TO HEAR and THICK.

GNAW PTB *wa-t 'bite, chew'; although an *s- element is not attested, this root, as Benedict comments, is "probably connected with" *s-wa, 'tooth' (STC 106), a connection made even more probable by the gloss for the Ch form.

CALF In comp. with 'leg-', the actual sense of this morpheme is probably much more general, perhaps ≈ 'flesh' or 'muscle'. The *C_{V}- here is probably *gla-, 'leg', with Ch huan 'crop (of bird)' also cognate, < (unprefixed) *swun (add also Ky ta phen 'chin'). *(-)swun is probably an allofam

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of NN *(C-)wur, SKIN(2)/FLESH, with external comparisons in Lu. vun, Mpri. un, Maring (w)un, all 'skin'. *(-)swun would be from PTB *s-wun, with *s- = 'body part prefix' (STC 106).

SPIN cf. PTB *(s-)mwəy 'twirl about, spindle', > *smwəy + -k > *swəyk > *swi'k, with the *C- = (Ch) lei 'thread' producing the s- initial in Chang. The only questionable part of this postulated development is the NN addition of -k to the open-syllable PTB root, but there is an exact parallel in 'fruit', PTB *sey > NN *sey (Yo/Mo/No) but NN *sek (Wa/Ky/Ph/Ch). It is even possible to speculate on the function of the suffixation, for the Ky/Ph/Ch forms for 'fruit' (in comp. with 'tree-') are also glossed 'to bear fruit' (in isolation in Ky/Ph). Perhaps *sey 'fruit' + *-k = 'to bear fruit', *swəy 'spindle' + *-k = 'to spin', at least in these languages.

In summary, NN has only two fricatives, *h- and *s-, plus the clustered versions of the latter. Whereas NN stops combine to form clusters with *-y-, *-r-, and *-l- (but not with *-w-)[1], *s- combines with *-y-, *-r-, and *-w- (not *-l-). This at least is the documentable inventory at present.

---

[1]Except *pw-.

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3.6 Semi-vowels, Liquids, and Zero-initial.

The four continuants which we have already encountered as glides in combination with NN *stop- and *s- -- *y, *r, *l, and *w -- also occur as initials in their own right, with unprefixed and prefixed variants amply attested. They also combine to form two additional clusters, *ry- and *ly-. These six initials form a semi-autonomous set within Northern Naga; that is, their reflexes are largely drawn from this set, on the one hand, while on the other they rarely appear as the reflexes of other proto-initials, the reflexes of *gl- and *s- (No r-, Ky l-) constituting the prominent exceptions. (On other dimensions of contrast, the labials generally, and particularly the nasals at all positions also form semi-autonomous sectors of the Northern Naga field of initials -- this reflecting the pattern in TB at large.)

An unusual feature of *(-)y- is that, if my discrimination is correct, prefixed roots substantially outnumber those without prefixes, the discriminator being *y- > Ch Ø- but *-y- > Ch y- (paralleling Ch Ø- < *h-/*kl-/*d-/*b-, but retention of some consonant as the reflex of the prefixed versions of these initials). Apparent free variation between j- and z- is characteristic of the Wancho reflex of *y- as it is of *s-, although one would expect j- (> z-) in the former case but z- (> j-) in the latter.

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*y-

		IRON	STAND (2)	OPEN (2)	DESCEND	RICE-BEER
Yo	y-/tž-	yan/tžan		—	—	—
Mo	y-	yan	yuŋ 'high'	—	—	
No	j-	jan	.	jan	—	
Wa	j- ~ z-	jan	a joŋ	—	ju-	zu
Ky	y-	yan	yoŋ		yu	
Ph	y-	yan 'dao'	yoŋ		yiə	yiə
Ch	ø-	in 'dao'	aŋ- 'sloping'	-an		i
NN	*y-	*ya°n	*yuŋ	*yər	*yəw	*yəw

Yo y- (Walker]/ = /tž- (Weidert). Weidert also gives tž- for No j-.

IRON cf. PTB *sya°l (reconstruction based on Kiranti, a doublet of *syi°r). The two roots are too similar not to be related at some level, possibly as yet another doublet formation, PTB *sya°l ~ *(s)ya°n, but Benedict (pc) suggests a loan into NN from some language having -n for PTB *-l.

STAND The root also occurs in Central Naga: Ao Mongsen yuŋ li, Maring ma yuŋ 'to stand'.

OPEN PTB *ya°r ~ *yâr "to expand, to be unrolled, to spread sail". The NN vowel is actually indeterminate on the basis of just these two forms.

DESCEND PTB *yu(w) (*yu or *yəw); on the basis of the NN, *yəw.

RICE-BEER PTB *yu(w); as for DESCEND, on the basis of the NN, *yəw.

Note TO DESCEND//RICE-BEER, PTB *yu(w) > NN *yəw > > Ch i, contrasting with RAT, PTB *b-yəw > NN *C$_{v}$-yəw > Ch yi- (next page). This would appear to rule out the possibility of the Ch ø-/y- contrast being somehow conditioned by the rhyme.

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		RAT	TO FAN	NIGHT (1)	SLEEP (1)	TO SELL (2)	*C̬-y- FOREIGNER
Yo	y-/tž-	/tžau-	/tžʌp	--			--
Mo	y-	--	--	-ya			--
No	j-	ju-	jʌp	-ja	a jup		--
Wa	j-~z-	ju~zu	-zep		jup		--
Ky	y-	yu	--	-ya		yao	yin-
Ph	y-	--	--	ya		yu	yen-
Ch	y-	yi-	-yep	-yo	yep	yak	yem- 'stranger'
NN	*C̬-y-	*C̬-yəw	*C̬-yep	*C̬-ya[A]	*C̬-yu·p	*C̬-ya·k	*C̬-yen

Yo y- (Walker)/ = /tž- (Weidert). Weidert also gives tž- for No j-.

also: AMONG, TO DO/TO MAKE(1).

RAT PTB *b-yəw.

TO FAN PTB *ya·p. Prefixes in WT g-yab-mo, Miri məyap 'fan', TN kəyap 'to fan' (STC 32).

NIGHT PTB *ya. Among ten instances of this morpheme in Northern Naga, only the Ph form cited above is not bound to an initial element having the form CV-. The forms in the critical language for discriminating between *y- and *C̬-y-, Chang, are typical: mi yo 'last night', ni yo 'tomorrow night'. The conditioning could even be specific to Chang, but Benedict reconstructs *g-ya for pre-Karen (STC 138, n.371).

TO SLEEP PTB *yup (pcPKB, rev. of STC *yip)(Jg. ʔyup).

TO SELL cf. PTB *ryak 'to show, layout'. The NN root is also attested in Ao: Mongsen yuk, Chonglï a yok.

FOREIGNER cf. WT yan, also probably Lhota yam poe, with -n > -m/__p- as in Chang (yem pu), Lhota initial as in 'sleep', yip, and particularly Ntenyi kejənyi (initial as in 'night', a ja), showing the prefix. In the absence of a Wa form and of external evidence, however, a decision between *C̬- and *C- is arbitrary.

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*C-y-

		WATER (2)	TO FLOW	TO KNOW (1)	SEROW	LANGUR
Yo			—	—	—	—
Mo	y-	yeŋ	—	—	—	—
No	j-	jo	jan	i jet	—	—
Wa	š-	šua- 'river'	—		—	—
Ky	y-	yiaŋ	-yin 'river'		-ya	-yo
Ph	y-	yuŋ	yen	yeə?- 'wise'	—	—
Ch	y-	yuŋ- 'river'	yan 'descend'		yau	yuo
NN	*C-y-	*C-yuˀŋ	*C-yən	*C-yəˀy	*C-ya^{B}	*C-yual

WATER cf. PTB *kluˀŋ 'valley, river' (WT kluŋ 'river'), also Lepcha kyoŋ, id. (STC 40, n. 129); also WB khyuiŋ 'valley', attributed by STC to *kluˀŋ, but khyoŋ 'river', Dï. dikhoŋ, Ao Mongsen a yuŋ ~ yuŋ ba, Yi. youŋ, St. yoŋ khi, all 'river'.

TO FLOW cf. Mpri. cen.

TO KNOW PTB *syey.

SEROW PTB *ya^{B} 'wild goat, antelope, serow' (pcPKB). PLB *ʔya 'antelope' (pcPKB) suggests, and Lu. sa za 'serow', < *s-ya, confirms, the presence of the PTB *s- 'animal prefix' for this root.

LANGUR cf. Zemi he zua 'monkey'. Zemi he- prob. < PTB *s-, also in (e.g.) 'bear', 'crab', 'dog', 'wolf', initial z- also in 'to sleep' and 'night', both in he za 'rat'; Zemi does not have final -l.

As the distinction between NN *C-y- and *C-y- is based on a single form, Wa šua ko 'river' (also in šua nu 'small river', šua ta ha 'dike'), it must remain provisional, as must the assignment of the other four forms to this prototype on the basis of external evidence only, although that for TO KNOW is compelling. (I place TO FLOW here on the basis of a possible connection with WATER.)

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*ry-

		TO ASK FOR	ALIVE (2)	RIPE (1)	HAIL	TO DANCE	OIL(2)
Yo	r-	rau 'wish'		--	--		--
Mo	r-	--	-roŋ		--		--
No	c-	cu 'beg'		a cum	--		
Wa	j- ~ z-		a zaŋ	jum	jun	a zai	
Ky	y-	yu		ə yim	--		yao
Ph	y-	yiə	yaŋ-*		--		
Ch	s-	-səɣ 'wish'		sam-	sən	sai	-sak
NN	*ry-	*ryəw	*ryəŋ	*ryu°m	*ryə°r	*rya°y	*rya°k

*Ph yaŋ- 'to be alive' could equally well be the reflex of ALIVE(4), *C-raŋ, cf.

ASK FOR PTB *r-yu(w).

ALIVE cf. WT rjen pa 'raw'; the Wa morpheme also appears in e zaŋ 'green'.

HAIL cf. Kuki-Naga *ryal (Ao rer ~ rər; STC 54).

DANCE cf. PTB *rya-t 'to laugh', but also (in WT) 'sport, play'.

OIL PTB *ryak (Lu. -hriak) 'fat, oil, grease', in WB 'juice of flowers' (cf. Ch glosses: məɣ sak [məɣ = 'sky'] 'very dark blue; black dye'].

Despite my inability to find any external comparisons for the best set in this group, that for RIPE, an NN *ry- seems well motivated, with reflexes which are a mix of those for *(-)r- (Yo/Mo/Ky/Ph) and those for *y- (Wa/Ky/Ph), with No c-/Ch s- perhaps reflecting a development parallel to that for *gy- (for Ch, also for *sy-).

As an outside possibility for an allofam of RIPE, cf. PTB *jim 'well-tasted, sweet-scented, delicious'.

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		SKY (1)	SIX	ENEMY	THREAD /...	CANE	HORN	BONE	*r- CREEPER /ROPE
Yo	r-	hraŋ	tə ruk	ral	rai	--	--	--	--
Mo	r-	roŋ	ta ruk	--	ri-[2]	ri	a ruŋ	a ran	--
No	r-	raŋ	i rok	ran	-ri	ri	roŋ	a ra	ru
Wa	r-	raŋ	a rok	--	--	re	roŋ ho	ra	ru
Ky	w-	waŋ	wok	wi-	wi	wei	ə woŋ	wan	wu
Ph	v-	vaŋ-	vok	ve-		--	voŋ	vaŋ	və
Ch	l-	loŋ-[1]	lak	la	lei	li	laŋ	luo	ləɣ
NN	*r-	*rəŋ	*ruk	*rəl	*rəy	*rey	*ruŋ	*ra'ŋ	*rəw

Chang gloss for SKY

1 in: loŋ mak 'thunder'; 'thunder' is a compound whose first syllable is the word for 'sky' in all Northern Naga languages except Ch and Yo (unavailable), and < NN *rəŋ muk, THUNDER, cf., in Mo/No/Ph/Ch; for Ch 'sky', see SKY(2).

Moshang gloss for THREAD/...

2 in: ri pu 'cotton' (Ky wi also = 'cotton').

SKY(1) cf. Garo raŋ-ra 'sky', PTB *m-raŋ 'high', Khasi ba je raŋ 'high' ~ na je roŋ 'above' (cf. Mo roŋ 'sky' but raŋ 'above'). I have no explanation for the hr- initial given for Yogli, attested only in 'sky' and its (many) compounds; an *hr- is possible but does not seem justified to account for only this one divergent reflex.

SIX PTB *d-ruk. This root is troublesome because its reflexes in the languages which discriminate between *r- and *C$_y$-r- are those of the unprefixed initial. Though it would be possible to reconstruct *(C$_y$-)ruk, I think it likely that the Yo/Mo/No/Wa prefixes, which are identical for 'nine', 'eight', 'seven', and 'six' are secondary in all but the first of these numerals.

ENEMY cf. PTB *(g-)ra'l (PST *g-râl, STC 178, n.472; 191, n.488) 'war', also NN *ral 'war'.

THREAD/(<LINE>)/BOUNDARY (identical forms in comp. for latter gloss), PTB *rəy 'mark, draw a line; boundary'.

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CANE PTB *rey.

HORN PTB *ruŋ (STC, original reconstruction; Benedict suggested revising to *rwaŋ, but the Northern Naga forms offer clear support for the earlier solution).

BONE PTB *(m-)raŋ (STAL 173), revise to *(m-)ra·ŋ on the basis of the NN (pcPKB).

CREEPER /ROPE PTB *rəw^{B} (pcPKB).

also: BAMBOO(3), TO BUY(1), TO DO/TO MAKE(3), DRY(1), HARD(3), TO LEAD, OLD (of persons), RAIN(1), TO REAP, RIVER/CURRENT, ROOT, SHAME(1)(2), TO TEACH, TO TEACH, TEN(1), THIN(2), WAR, WINTER/COLD(4).

As the inventory above demonstrates, *r- is among the most common NN initials. Furthermore, of the 27 roots I reconstruct with NN (unprefixed) *r-, twenty have Ky w- and/or Ph v-, making it virtually certain that these are in fact the reflexes of the unprefixed initial. The alternative reflex is Ky/Ph y-, which I attribute to NN *-r- (next pages). This interpretation has an exact parallel in my treatment of the reflexes of *(-)l-: here the most common Ky/Ph reflex is l- itself; again, it is y- which is the alternative reflex, from *-l-. The Chang pattern is also perfectly symmetrical, with *(C-)r- > l- but *C$_{v}$-r- > y- and *(C-)l- > l- but *C$_{v}$-l- > y- (very probably a common development following *(-)r- > *(-)l-). This statistical evidence, and the evidence from pattern symmetry, is important in view of the strong case for a prefix in NN SIX (as well as internal evidence for a prefix in HORN and BONE; Shafer (1953: 244) reconstructs Baric *-r- for all three of these roots, as well as for

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WING and GOAT(2) [below] on the basis of the Barish evidence, without recognizing that the two latter roots are also set apart by Ky y-). 'Six', however, also has y- in the Phom dialect of Tamlu. Perhaps we should note explicitly here that there is no reason to expect that any NN prefix would necessarily leave its traces in a divergent initial in one of the seven dialects treated in this study. Without the Chang evidence, we would be unable to distinguish between *s- and *$\underset{v}{C}$-s-. Thus, any reconstruction with an unprefixed initial in NN should be understood to imply, not "no prefix", but rather "prefix not attested"; strictly speaking, *r-, for example, should be read *(-)r-. Once again, there are seven distinct PTB prefixes systematically discussed in the STC. My use of *$\underset{v}{C}$- as a cover symbol for what are probably in NN, as in PTB, *g-, *d-, *b-, *r-, and *m- (also *l-) seems to be justified in some cases by convergent reflexes in Northern Naga languages, but is admittedly insufficient to account for all of the likely variation, particularly variation arising from differential interaction of a prefix with varying root-initials. PTB *g-s- > NN *$\underset{v}{C}$-s- > Ph j- in 'three', just as if from *s-, but PTB *g-r- (based on Bodo-Garo, see below) > NN *$\underset{v}{C}$-r- > Ph y- in 'wing'; perhaps PTB *d-r- > NN *d-r- > Ph v- in 'six', just as if from *r-. It is the ability to reconstruct a prefix, even without being able to specify its shape, which makes a signifi-

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cant contribution to the interpretation of a root; an inability to do so can mean no more than that the particular dialects chosen as data languages are undiscriminating with respect to a particular *prefix + *initial segment.

At least the roots below, then, definitely have prefixed *r- (i.e., *-r-) in NN, and by extension probably in PTB as well:

		*$\underset{V}{C}$-r- WING	WASH/ BATHE(1)	TO KEEP	ALIKE	JUNGLE
Yo		--	--	--	--	
Mo	r-	-roŋ	--	--		
No	r-	a raŋ	a ru 'to clean'	riem	-raŋ	
Wa	r-	raŋ	--	--	--	
Ky	y-	yaŋ	yo-			
Ph	y-	yaŋ		yom		yem-[2]
Ch	y-		yu		-yen[1]	yam
NN	*$\underset{V}{C}$-r-	*$\underset{V}{C}$-raŋ	*$\underset{V}{C}$-ru	*$\underset{V}{C}$-riam	*$\underset{V}{C}$-reŋ	*$\underset{V}{C}$-ram

Chang gloss for ALIKE

1 in: a yen 'to be unequal (of soil, etc.)'; a- = 'not-'.

Phom gloss for JUNGLE

2 in: yem ha 'animal'; cf. Lu. ram 'country', ram sa 'animal', Ch yamat < *yam mat 'hunter' (mat = 'man').

WING cf. Bodo-Garo *g-raŋ (pcPKB).

WASH/ BATHE cf. PTB *krəw (Di. du gru) but also Di. gu ru bi 'clean', Mpri. i ru ja 'to bathe'.

KEEP cf. Jg. rem. No evidence for prefix, could be *C- as well as *$\underset{V}{C}$-.

ALIKE cf. Jg. ma ren 'Like'.

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JUNGLE cf. Lu. ram, Zemi ram 'land, country', Lu. ram hnuai, Ao Chongli a rem, Yi. rim 'forest, jungle', Li. ca ram, Nr. rəm kiaŋ 'land', Nr. rəm kək 'jungle', Mk. ram 'jungle.

*C-r-

		ALIVE (3)	ALIVE (4)	GOAT(2)	OTTER	-ROUND- (of bodyparts)(2)
Yo				--	--	
Mo					--	
No					--	
Wa	r-	a raŋ		roan	-rom	-(z)roŋ [1]
Ky	y-		a yin 'life'	yon	--	yoŋ- [1]
Ph	y-	yaŋ- *	yem 'life'	yom	--	
Ch	l-	laŋ		luan	lam	-laŋ [1]
NN	*C-r-	*C-raŋ	*C-rin	*C-ruan	*C-rom	*C-ruŋ

*Ph yaŋ- 'to be alive' could equally well be the reflex of ALIVE(2), *ryəŋ, cf.

Glosses for -ROUND- (of bodyparts)

1 in: Wa ke roŋ 'hip', Ky yoŋ keŋ 'thigh', Wa ke/Ky keŋ < NN *geŋ, -LEG-; Wa bom zroŋ, Ch owom laŋ 'cheek', Wa bom/Ch (ow)om < NN *buam, CHEEK(1); also Ch kək laŋ 'chest', ñek laŋ 'eyeball', tam laŋ 'testicle'.

ALIVE PTB *s-raŋ (3) ~ *s-riŋ (4) — Benedict's original solution for the extensive collection of forms later attributed to *šriŋ. As discussed above, under *cr-, there are several allofamic roots here at the NN level, if not earlier.

GOAT cf. Di. bu run, < general Bodo-Garo *bu run (cited by Shafer 1953: 245 for Baric *-r-), incl Tripura puan [~pun], showing the rhyme, presumably with prefix substitution (*s- 'animal prefix' for *b-) in NN.

OTTER PTB *sram, probably with clustered *s- reinterpreted as the *s-- 'animal prefix'.

Note the Wa form for 'cheek', bom zroŋ, apparently preserving the *s- prefix in an uncanonical cluster.

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		ROAD	FOUR	LONG	EAGLE /HAWK	BOW	BED	STAR[a] /MOON(2) *l-
Yo	l-	lam	bə lai	a lu	laŋ	--	--	(lik-)
Mo	l-	lam	ba li	--	--	la	--	
Nc	l-	lam	be li	a lo	la	la-	liaŋ	-liet 'moonlight'
Wa	l-	lam	li	lo	-la 'raven'		lia 'bench'	lit-
Ky	l-	ləm	pe li	lau-	-lan	lah	leŋ	lin-
Ph	l-	lem	a li	lu-	laŋ-	--	ləŋ	lit-
Ch	l-	lam	lei	lo-	-lu	lau	leŋ 'lie down'	lit-
NN	*l-	*ləm	*bə ləy	*low	*la'ŋ	*la[B]	*liaŋ	*li't

also: ASHES, TO BE(2), BLAZE, BOAT(2), TO BURY, ELEPHANT(2), FALSE(2), TO FIGHT(2), TO FORGET, FROG(1), HEAVEN, HOT(1)/SWEAT, KIND(SORT), LEAF(1), LEAF(2)/BOOK, TO LIE DOWN, LIGHTNING, -MALE(2), -MALE(of animals)(2), MUCH(2), SEED, TO SEIZE/TO CATCH(1), SMOOTH, THIRSTY, TO TOUCH/TO PUT(1), TO TURN(1), WHITE(1), TO WORSHIP(1).

ROAD PTB *lam.

FOUR PTB *b-ləy (see below for discussion).

LONG PTB *low.

EAGLE /HAWK PTB *laŋ (STC), rev. to *la'ŋ, partially on the basis of NN (pcPKB).

BOW cf. PTB *bla 'arrow', with apparent semantic shift in NN, ARROW being generally represented by the compound *la dza'n, cf.

BED cf. Nr. laŋ 'bed', Ao Chongli laŋ baŋ, Lhota pi laŋ 'table'.

STAR /MOON probably not TB; cf. Khamti lən 'moon', and for a possible source of both this and the NN, Khasi ba lih 'white' (ba = adjectival prefix) (Robinson 1849: 346, 348).

*l- is probably the most common NN initial. As for *r-, the principal question of interest is the discrimination of unprefixed and variously prefixed varie-

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ties. As discussed above, some sets from an *(-)l have Ky/Ph y-, and two or three have Ky/Ph/Ch y-. The identity correspondence, however, is in a clear majority: of the 35 roots listed above, 23 have Ky and/or Ph l-, while only eight roots (below) have Ky and/or Ph y-. The indicated conclusion, that Ky/Ph/Ch l- < NN *l-, is confounded by the identity correspondence in FOUR, from PTB *b-lə̀y, with the *b- prefix actually attested in five of the Northern Naga languages (NN *b- regularly > Ky p-/ Ph ∅-, so that this prefix is in fact unique in being reconstructible -- i.e., in its specific shape -- in NN; see NUMERAL PREFIX). The situation is reminiscent of that for SIX, PTB *d-ruk, but apparently simply *ruk in NN despite t- prefixes in Tangsa. I suggested that the prefixes with the Northern Naga forms for 'six' (Yo/Mo/ No/Wa) are secondary, modelled on those for 'nine', PTB *d-kə̀w > NN *ç̬-gə̀ʷw = *d-gə̀ʷw, as they are identical to those with 'eight', with PTB *b- rather than *d-, and with 'seven', with PTB *s- (No/Wa; Tangsa has an entirely different construction here), while allowing for the possibility that Ky/Ph/Ch do not discriminate between NN *r- and NN *d-r-.

Neither of these explanations, however, is applicable to the problem of the Ky/Ph/Ch retention of *(-)l- in 'four'. On the one hand, there is no warrant for suggesting that the prefixes with the Northern Naga forms for 'four' are not directly descended from PTB

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*b-. On the other, we have an apparent instance of NN *C_V-l- = *b-l- > Ch y- in PTB *bleŋ ~ *pleŋ (Di. be leŋ ba 'straight') > NN *b-leŋ > Ch yen ti 'rectify' (≈ "make right", -ti = CAUSATIVE).

The retention of *(-)l- in Ky/Ph is explicable if it is posited that the shift in root-initial occurs only in the process of prefix-reduction. This is not ordinarily an issue for these languages because (like Chang) they retain almost no prefixes: 'four' is the only numeral which is prefixed in Ky/Ph. A further explanation, however, is required for Chang. A solution is suggested by the very rarity of the retention of the prefix in Ky/Ph: as pointed out above, 'four' is the only word in all of Northern Naga for which the initials of a prefix enable the specific shape of that prefix to be reconstructed for the protolanguage, just as if it were a root-initial. This suggests that the prefix in 'four' was reinterpreted as the first syllable of a compound in Ky/Ph, and that this is why it was not dropped (as a prefix normally would be) and why the original root-initial *(-)l- was not modified; if the same reinterpretation took place in Chang, its initial would not be modified either, for the loss of the first syllable would then have been a case of compound- rather than prefix-reduction. Although this is speculative, it accounts for the data; hence, I reconstruct NN FOUR as *bə ləy rather than *b-ləy.

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*$\underset{V}{C}$-l- (including *N-l-)

	BEAD	TO DRINK (1)	TO DRINK (2)	RIGHT	
Yo -/n-	—	niŋ		—	(NN *N-l- > Yo/Mo n-; cf. *$\underset{V}{C}$-th-)
Mo l-/n-	lik-	niŋ		—	
No l-	lik			—	
Wa l-	lik	liŋ		—	
Ky y-	yik	yiŋ			
Ph y-	yək- 'pearl'	yiŋ			
Ch y-	yak		yuŋ	yen-[1]	
NN *$\underset{V}{C}$-l-	*$\underset{V}{C}$-lik	*N-li°ŋ	*N-lu°ŋ	*$\underset{V}{C}$-leŋ	

Chang gloss for RIGHT

1 in: yen ti 'rectify' (-ti = CAUSATIVE, ≈ 'make right').

BEAD cf. Ao Mongsen lik 'bead', Mpri. lik, Mk. lek 'bead, necklace'.

DRINK PTB *li[°]ŋ ~ *lu°ŋ (pcPKB).

RIGHT PTB *bleŋ ~ *pleŋ (Di. be leŋ) "straight', Zemi ke pe liŋ be 'right'.

There is external evidence for a voiced prefix with DRINK as well as with RIGHT if Shafer is correct in comparing Chutiya ni 'drink' with (e.g.) Di. liŋ, Bodo luŋ, id. (1953: 246; n.b.: he does this without citing [Yo/]Mo niŋ, which confirms both comparison and prefix). Cf. also for DRINK(2) AoM yuŋ, Yacham ñuŋ. Along with DRINK, Shafer recognized TONGUE, STONE, SEEK, and GIVE/TAKE(1) (next page) as exemplifying distinct varieties of Baric *(-)l-.

The problematic reflex above is the Ch y- in 'bead' (itself without any indication of a prefix); the

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Ch y- in 'drink' offers the solution, a *C_V- conditioner, if the identity of Ch yuŋ 'drink' and yuŋ- in 'river' < NN WATER(2) is discounted and the posited vocalic alternation in the protoform(s) accepted -- but the external comparisons point to an *-u°ŋ for PTB, so this should be no problem. The more usual Ch reflex of *-l- is l-:

		TONGUE	STONE	BUFFALO (1)	SEIZE/ CATCH(2)	TO SEEK	*C-l- TAKE(1) /GIVE
Yo	l-	li	luŋ	loi	a lap 'to get'		
Mo	l-	-li	luŋ				
No	l-	-li	loŋ	le		lam	la-
Wa	l-	le	loŋ	lui	—	lam	la
Ky	y-	yi	yoŋ			yem	ya
Ph	y-	yei	yoŋ	yoi- 'fool'	yep	yem	ya2
Ch	l-	li-	laŋ		lap	lam	
NN	*C-l-	*C-ley	*C-luŋ	*C-lua°y	*C-lap	*C-lam	*C-la^B

also: FLAME, TAKE(2).

TONGUE PTB *m-lay ~ *s-lay (STC), revise to *-ley (pcPKB).

STONE PTB *r-luŋ, with prefix substitution in NN -- unless, because NN (root-)initial *r- regularly becomes Ch l-, NN *r-l- > Ch *l-l- > Ch l- (rather than y-).

BUFFALO PTB *lwa°y (STC), revise to *(s-)lwa°y (*s- = 'animal prefix'; pc PKB). Cf. also TN si lui, Puiron sa loi. The semantic link between bovines and 'fool' (also 'mad') is speculative, but may also obtain between NN *ŋa^A, DUMB (~ 'fool' ~ 'mad') and NN *C-ŋa^B(~ A) MITHAN ('buffalo' in Mo), cf. PTB *ŋwa 'cattle'.

SEEK cf. Yacham-Tengsa lam, Yi. yim, Ao Mongsen yimya. Shafer cites "Kuki" lam.

TAKE/ GIVE PTB *(-)la^B (Lepcha lyo < *slo < *s-la; pcPKB); cf. also Di. se la 'take'.

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The next initial to be presented in this section has been set up to account for a number of sets, particularly HEAVY and 'forest', for which Chang appears to have c- as a reflex for a PTB and what would otherwise be an NN *(-)l-. The assignment of the Chang forms with c- to these sets is open to question, and if it proves to be erroneous they can be reconstructed simply with *(-)l-. There is a good analogue, however, for the development of a palatal affricate from *(-)l- before front-vowel rhymes (which characterize all of the sets in question): it occurs in WT, where *(-)l-/___{y,i,e} > *ly- > ldž- ~ ltš- ~ dž- ~ ž-, depending upon the presence and shape of the prefix (STC 33, n.104). There are in fact WT cognates of four of the five sets given below, all, according to Benedict (STC), resulting from a shift of this kind.

The problem is that it appears that in WT *(-)l- always undergoes palatalization before front-vowel rhymes, whereas in Chang it does not: Chang has l- in (e.g.) 'four', 'star/moon', and 'tongue', as well as in li- 'seed', < NN *li < PTB *li(y) -- i.e., in both prefixed and unprefixed roots. There thus appears to be something other than vocalic or prefixial conditioning underlying the Chang c- reflex. I follow the lead offered by the development in WT and reconstruct an *ly- cluster for NN for those sets having Ch c-, as well as one possibly related set having Ky y- : Ph l-:

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*ly-

		HEAVY	GROW(TH) (2)	TURN(2)/ RETURN(2)	(TO) BARTER	CHANGE/ EXCHANGE
Yo		—		—	—	—
Mo	l-	a li	liŋ [1]	—	—	—
No	l-	a li	liŋ [1]	a lit 'turn'	a lit-	—
Wa	l-	li	liŋ [1]	—		—
Ky	y-	yi-		yi	-lei 'market'	—
Ph	l-			-lei		—
Ch	c-	-cei-	ciŋ [1]		-ci	ce(i)
NN	*ly-	*lyəy	*lyi˚ŋ	*lyey	*lyey	*lyay

Glosses for GROW(TH)(2)

1 Mo/No/Wa liŋ 'forest', Ch ciŋ 'to grow', a ciŋ a lam bu pu 'bush'. Cf. GROW(TH)(1), *2-pua, also found in forms variously glossed 'to grow', 'forest', and 'bush'.

HEAVY PTB *(s-)ləy (WT ldži < *lyi < *li [STC 33, n. 104]).

GROW(TH) PTB *b-liŋ 'forest' (citations include Di. ha-bliŋ 'jhum field in second year of cultivation'). Benedict adds (STC 80, n.246):

"T źiŋ 'field, ground, soil, arable land' may belong with this set, since it appears to be from *lviŋ (n. 104), as indicated by Lepcha lyăŋ 'land, field' . . . [but] the forms cannot be related with any confidence."

The Northern Naga set recapitulates the diversity of the glosses for the forms cited by Benedict, so that if the Chang form is truly cognate with the Mo/No/Wa terms for 'forest', the WT and Lepcha forms can be subsumed under a PTB *(b-)li˚ŋ 'to grow; field, forest'. Cf. also Ao Mongsen liŋ 'to sow'.

TURN/ RETURN cf. Mpri. lei sin, TN ši rei (cf. 'heavy': kha rit), Zemi nrei waŋ ('heavy': ke re ta be), Rengma nri ('heavy': kensu ri), Ko. rə rei, all 'to turn'. (No. a lit < *a li).

BARTER PTB *(r-)ley (WT rdže-ba < *r-lye < *r-le 'barter' [STC 64, n.205]).

CHANGE PTB *lay (WT rdže-ba, as above, 'change').

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The juxtaposition of two distinct Ky forms, yi 'to return' and hat lei ~ phei lei jəg 'market', both attributed to the same prototype, *lyey, demands a note. The usual Ky(/Ph) reflex of *-e(ˀ)y is -ei, so that a *yei would be expected in both sets. In TONGUE, however, NN *C-ley > Ky yi, so apparently *-ei > Ky -i/y__; such a rule is required to account for the Ky rhyme in 'tongue', and is supported by 'to return'. The Ky l- in 'market' is more equivocal, as it requires an ad hoc "rule", *ly- > Ky y-/#__, > l- E.

It is entirely possible that the last two sets shown above -- possibly even the last three -- should be combined in a single set, BARTER/EXCHANGE/CHANGE (/TURN/RETURN), NN *lyey -- Ch -ci comes from 'barter (n.)', while the verb has ce-. Benedict, however, separates *lay 'change, exchange' and *(r-)ley 'barter, buy' in PTB, despite the combination of both sets of meanings in WT rdže-ba (STC 64, n.205), so I have shown them separately here as well.

This brings us to *(-)w-, where, on the basis of differential patterning of the reflexes v-, w-, and Ø-, I distinguish among sets which I attribute to NN *w-, *ʔ-w-, *C_{∇}-w-, and *C-w-; the critical languages are Yogli, Konyak, and Chang:

Yo	v	w	w	w
Ky	Ø	Ø	Ø	w
Ch	Ø	w	w	Ø
NN	*w	*ʔ-w	*C_{∇}-w	*C-w

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		PIG	BELLY	TO SWIM	TO COME	TO BRING	MONKEY	CHIEF	*w- BIRD (3)
Yo	v-	vak	vuk	-vai	vaŋ		--	--	
Mo	v-	vak	vak	--		-van 'take'	vi-	--	
No	v-	vak	vok		vaŋ	van	ve	-vaŋ	va-[2]
Wa	v-	vak	vok	--		van		vaŋ-	
Ky	ø-	ak			oŋ 'enter'	in		aŋ	a-[2]
Ph	ø-	ok		--	oŋ 'go'		--	oŋ	a-[2]
Ch	ø-	ok	ok-[1]	-it		-an 'load'	o 'gibbon'		
NN	*w-	*wak	*wuk	*wā˚t	*woŋ	*wən	*wo˚y	*waŋ	*wa

Chang gloss for BELLY

1 in: ok si 'bowels'; ok poŋ 'bladder'. Cf. the 'cave/cavity' glosses for forms traced to PTB *buk ~ *pu˚k 'belly' and the semantic link between 'bowels' and 'belly' demonstrated for TB by Matisoff (1978: 124-126, 215-216).

Glosses for BIRD(3)

2 in: No va kha 'crow", va khu 'owl'; Ky a tui 'feather'; Ph a Ša 'crow', a je kha 'sparrow', a ti "egg'.

also: SKIN(2)/FLESH

PIG PTB *pwak.

BELLY PTB *wuk, a lenited doublet of STC *buk ~ *pu˚k, reconstructed by Matisoff (1978: 125) on the basis of Garo, TN/Maring, and Karen, for which the NN root provides solid confirmation.

SWIM PTB *s-wa 'be in motion' (Jg. wa, Kuki *wa, both used as verbal affixes [STC 105, n.298]). The NN forms are in comp. with 'water-'; cf. the same construction ('water-move[-in]') in Angami (Ko./Kh.)/Rengma dzə və and Ao Mongsen atsə-wa, while Ao Chongli demonstrates the special affinity of this verb for water by having simply a wa, all 'to swim'. The NN form, like all of the above, is without prefix, and has added *-t, which has a directive function in TB generally (STC 100-101).

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COME PTB *hwaŋ (STC), probably better *waŋ (pcPKB); cf. particularly WT 'oŋ-ba 'come', Lepcha vón 'enter into' (pcPKB), both with back vowel.

BRING PTB *wan (pcPKB).

MONKEY PTB *(b)woy.

CHIEF PTB *bwaŋ 'father's brother'. Cf. Nr. guaŋ, Zemi he guaŋ 'chief, king', prob. < *g-waŋ, suggesting reinterpretation of the *b- as a prefix and substitution of *g-; in NN CHIEF the *b- is simply dropped, but Yo a vaŋ ~ a baŋ 'uncle' probably reflects the clustered prototype, NN *pwaŋ, on the model of Yo a va ~ a ba 'father', < NN *pwa.

BIRD(3) PTB *(b)wa.

*ʔ-w-

		FIRE	TO COUNT
Yo	w-	wal	—
Mo	v-	var	—
No	v-	van	ve
Wa	v-	van	—
Ky	Ø- ~ k-	a ~ ka	ke
Ph	Ø-	o	e
Ch	w-	wan	wie
NN	*ʔ-w-	*ʔ-wa˚r	*ʔ-we

FIRE PTB *bwâr ~ *pwâr, with WT 'bar-ba, Garo waʔl, and particularly Jg. ʔwan all indicating an earlier *a- = ʔa- (STC; 23, n.78).

COUNT No comparisons for 'count', but the semantic field of this root also includes 'to read' (also No ve, Ch ue, prob. /we/, a doublet of wie) and 'to see' (also Ph e); cf. Rengma swə 'read', swhi 'see'.

FIRE, with its velar-initial variant in Konyak, is the single best set supporting the reconstruction of glottal prefixes for NN (Ky is the only language among all of those listed in GEM which has a velar for 'fire').

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*$\underset{V}{C}$-w-

		BAMBOO (2)	LEECH	AXE	SPEAK (2)	SHOUT
Yo	w-	wʌ[1]	--	--	--	--
Mo	w-	wa	ta wat		--	--
No	v-	va	(-vot)[2]	va-	van-[3]	--
Wa	v-		vat	va	van[4]	--
Ky	ø-		--	a	i	aŋ-
Ph	ø-	--	--	a	e	
Ch	w-	wau	wat	wo	-wan-	woŋ 'bark'
NN	*$\underset{V}{C}$-w-	*$\underset{V}{C}$-wa[B]	*$\underset{V}{C}$-wat	*$\underset{V}{C}$-wa[A]	*$\underset{V}{C}$-wər	*$\underset{V}{C}$-woˀŋ

1 Form from Weidert, given as vʌ2. As discussed in Chapter II, when there is not a systematic difference between Weidert's and Walker's transcriptions, I show Weidert's forms as they would have been transcribed by Walker, the major source. Walker does not transcribe -2 on (what are otherwise, and categorically) open-syllable rhymes; thus we have no way of knowing whether or not glottalization is present in most cases, and thus I omit it from consideration (Nocte also).

As to the initial, Weidert does not give any Yo forms with w-, so, although no confirmatory equation is available, I assume that Weidert's Yo v- = Walker's v-/w-, just as Weidert's Yo tz- = Walker's j-/y-, and represent Weidert's v- in 'bamboo' as /w/ on the premise that NN *(-)w- > Yo v-/#__, > w- E. In any case, the reconstruction of BAMBOO is not at issue, only the representation of the Yo initial.

2 -vat expected.

3 In: van the 'one", va[n]ñi 'two', van ram 'three', presented as an interesting possibility. There is no analogue for such a construction elsewhere.

4 Form from Brown, given as wan. This is the only occurrence of a w- in our Wancho corpus, and I assume [wan] = /van/.

BAMBOO PTB *g-pwa.

LEECH PTB *r-pat, but Benedict had originally suggested a doublet, *r-wat. The NN evidence points to the latter, or to a combination of the two in

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a PTB *r-pwat.

AXE PTB *r-pwa^{A}.

SPEAK cf. Khoirao wa 'say', also Khamti wa, Ahom ba 'speak'. (GEM 222).

In addition to the problems noted above, of w- ~ v- alternation in Yogli ('bamboo') and Wancho ('speak'), the w- given for Mo 'bamboo' is suspect; Mo regularly has w- intervocalically (as in 'leech', cf. also vuŋ 'uncooked rice' but po wuŋ 'maize', both from NN *C-wuŋ), but this is the only instance of its occurrence word-initially. As discussed in Section 2.2.1(3), w- ~ v- variation in Nocte (as apparently in Wancho) is sub-phonemic, and this could also be true of Moshang.[1] In this case the reflexes of NN *$\overset{C}{V}$-w- would not differ from those of *ʔ-w-, except for the Ky k- variant for the latter. Voiced prefixes are well attested for BAMBOO, LEECH, and AXE, however, and there is no reason to suspect a glottal prefix for the other two sets.

As against the ambiguity of the w- ~ v- reflexes of *(-)w- in Mo/No/Wa, the contrast between Ch w- < NN *$\{\overset{C}{V}, ʔ\}$-w- and Ch ø- < NN *(C-)w-, and between Ky w- < NN *C-w- and Ky ø- from all other variants of *(-)w- seems relatively clear-cut.

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[1] See also vu 'bird' but wu 'chicken', wu roŋ 'wing', wu kha 'crow'.

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*C-w-

		BIRD (1)	UNCOOKED RICE	BETEL NUT [b]	HUSK	RAIN(2)
Yo	w-	wu	—	—	—	
Mo	v-	vu	vuŋ	—	—	
No	v-	vo	voŋ	-ve	—	
Wa	v-		voŋ	-vai	—	
Ky	w-		woŋ	-wei	wek	wai
Ph			—	—	—	
Ch	ø-		aŋ		ek	
NN	*C-w-	*C-waw	*C-wuŋ	*C-wa°y	*C-we°k	*C-wa°t

BIRD(1) PTB *(b)wa; for prefix, cf. Lu. sa va, and see below for discussion of the NN variation in BIRD.

UNCOOKED RICE No clear comparisons, which is surprising for such an apparently solid NN root. One possibility is that, as in RAIN (see below), as well as in a number of other cases, NN has substituted *s- for a PTB *r-, the latter being reflected in Di. mai roŋ (mai = 'paddy') < *r-wuŋ.

BETEL NUT [b] The first syllable of the Northern Naga forms for 'betel nut' (No ka, Wa ko, Ky koi, also Ch kui), as well as (e.g.) Ao Chongli kwei- and Di. goai, is apparently a loan from Khasi kwai (GEM 211). Although in No/Wa the entire word could be from this source (No kave < *kawe, Wa kovai < *kowai), the Ky form suggests a compound, and the second syllable of the No and Wa forms is just what would be expected as cognate to the Ky -wei, possibly from PTB *wa-t 'bite, chew' (> Di. wai); cf. NN *rya°y, TO DANCE, < PTB *rya-t 'laugh, sport, play'.

HUSK Probably to be referred to PTB *pwa°y 'husks, chaff' via a compound like Mk. phe ke, id. An *s- prefix is attested for the PTB root in Rangkhol (Kuki) šəbai ~ səvai.

RAIN(2) PTB *r-wa (STC) ~ *rwas (Matisoff 1972c: 281), with prefix substitution in NN. Cf. NN RAIN(3), *swa°t, where the *s- prefix has merged with the root-initial in a cluster.

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		BIRD (2)	Cf.: BIRD (1)	BIRD (3)
				*Ø-
Yo			wu	
Mɑ			vu	
No			vo	va-
Wa	Ø-	o		
Ky	Ø-	au-		a-
Ph	ǿ-	ou-		a-
Ch	Ø-	au		
NN	*Ø-	*ua	*C-waw	*wa

BIRD(2) PTH *(b)wa.

As we have seen, zero-initial is not uncommon in Ky/Ph/Ch, but although Wancho has a few VC forms, none can be related with confidence to forms in other Northern Naga languages. The Wancho form for 'bird', however, demands an accounting. My solution is to posit zero-initial for this form in NN, but as the unusual *-ua rhyme suggests, this is a special case, involving only the reinterpretation of the initial semi-vowel in NN BIRD(3), *wa, as a vowel. All three of the NN forms for BIRD are closely related, as follows: *C-waw > *wa (with dissimilative loss of final glide accompanying loss of prefix) > *ua. Note that the *wa form is reflected only in compounds, and that the other two instances of NN *(-)wa, BAMBOO and AXE, which do not shift to *ua, are both prefixed in NN (*C_{v}-wa). Ch au could actually be from BIRD(3), which could then be reconstructed *wa^{B}, but

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there is another candidate in Ch o khoŋ ba 'owl', which would imply *wa^{A}. It seems more judicious to group Ch au only with the other forms for 'bird' itself in the languages apparently most closely related to it. The *wa > *ua shift could in fact be restricted to these languages if, as is possible, they form a subgroup within Northern Naga. But even if *ua does establish a zero-initial for NN, its peculiar development makes it unsurprising that no further *Ø- sets can be found. As we shall see shortly, in two cases a PTB *Ø- apparently yielded NN *ŋ-, though one of the two suggests that a nasal prefix may have been involved.

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3.7 Initial Nasals.

Northern Naga nasal initials constitute virtually an autonomous set, NN *nasals having (with a related pair of exceptions) only nasal reflexes, and nasal initials in the daughter languages always (with the exception of the very few forms noted above from *N- prefixed roots) going back to nasal initials in NN. Unprefixed nasal initials may be confidently reconstructed at all four positions established by the stop series -- thus we have *ŋ-, *ɲ-, *n-, and *m- -- on the basis of identity correspondences at each position (Wa n- < *ɲ- is the sole exception). Alongside these identity correspondences, however, are a sizable number of mixed correspondence sets. To account for these it is necessary to posit not only variation resulting from proto-prefixation, but also recorder variation for Wancho and extensive vocalic conditioning in Chang. One proto-cluster, *ŋy-, is also indicated. The Ky/Ph proclivity for palatalization is evident throughout, Ky/Ph ñ- being the reflex not only of *ŋy- and *ɲ- but also of *C-ŋ-, *-n-, and *-m-, while Chang has ñ- as a vocalically conditioned variant reflex of every nasal proto-segment, prefixed and unprefixed, except the velars. Two forms indicate that, in Wancho, a nasal becomes a homorganic stop following a voiced prefix in velar or labial position.

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		I	(GAME) ANIMAL	PLANTAIN	SILVER	SPEAK (3)	DUMB	*ŋ- LIGHT/ TO SHINE
Yo	ŋ-	ŋa		--	--		--	--
Mo	ŋ-	ŋa	ŋam [1]	-ŋa	--		--	--
No	ŋ-	ŋa	ŋam [1]		ŋun	-ŋa [2]		
Wa	ŋ-			ŋa	ŋun		--	-ŋai
Ky	ŋ-			ŋao	ŋin	ŋao	ŋa-	-ŋai
Ph	ŋ-			--	ŋin	ŋaə 'voice'	ŋa-	-ŋai
Ch	ŋ-	ŋo	ŋam- [1]		--	ŋa 'call'	ŋo- [A]	ŋe- 'dawn'
NN	*ŋ-	*ŋa [A]	*ŋam	*ŋa·k	*ŋuil	*ŋa·w	*ŋa [A]	*ŋay

Glosses for (GAME)ANIMAL

1 in: Mo ŋam 'deer'; No ŋam 'beast; meat', ŋaŋ hap 'hunting' (a hap = 'to shoot'); Ch ŋam cap 'snare' (cap = 'to snatch) — though this is uncertain, as Ch ŋaŋ (also?) = 'neck'. Cf. also Yo ŋə̀ myeŋ (< *ŋam myeŋ?) 'cat', but the other glosses point, as I have indicated, to a game animal.

Nocte gloss for SPEAK

2 in: a san ŋa 'to admire' (a san = 'good', also in comp. 'beautiful, charming').

also: TO ARRIVE(2), PRIEST, SPEAR, WORD(2).

I PTB *ŋa [A].

PLANTAIN PTB *(s-)ŋak.

SILVER PTB *(d-)ŋul.

SPEAK PTB *a·w 'cry out'; cf. also *gaw ~ *kaw 'call'.

DUMB PTB *(m-)a. The word has a broader compass, however, in Northern Naga and beyond. After giving another form for Ch 'dumb', Hutton adds: "ŋobu, = 'idiot', is also used" (67); Ch ŋo bə also = 'fool, blockhead, daft, crazy, crazed', and GEM gives Ky ŋa pa 'fool, mad', Ph ŋa pa 'fool' (as well as 'dumb'). Cf. Mpri. aŋaoba, Lu. a· 'mad', Lu. mi-a· 'fool', with the Lu. forms supporting the PTB *a and Mpri. ŋ- paralleling NN.

LIGHT < Proto-Tai *hŋaay (pcPKB). Cf. Mpri. ŋal ~ ŋan.

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*C̥-ŋ- and *C-ŋ-

		FIVE				MITHAN	EASY	TO GRIND
Yo	ŋ-	ba ŋa	Yo			--	--	--
Mo	ŋ-	ba ŋa	Mo	ŋ-		ŋa 'buffalo'	--	--
No	ŋ-	ba ŋa	No	ŋ-		ŋa	--	--
Wa	g-	a ga	Wa			--	--	--
Ky	ŋ-	ŋa	Ky	ñ-		ña	ñai-	--
Ph	ŋ-	ŋa	Ph	ñ-		--	i ñai-	ñu
Ch	ŋ-	ŋau	Ch	ŋ-		ŋau		ŋan
NN	*C̥-ŋ-	*C̥-ŋa^{B}	NN	*C-ŋ-		*C-ŋa^{B}	*C-ŋuay	*C-ŋur

*C̥-ŋ-

FIVE PTB *l-ŋa^{B} ~ *b-ŋa^{B}.

Shafer notes that the Wa g- has an analogue in "West Bodish dialects ɣa 'five', although *n̥ is regularly preserved there. These may be instances of nearly parallel development due to prefixes" (1953: 237, n.4). As remarked above, this is the only g- in the Wancho corpus, but see below for Wa b- < NN *C̥-m-. The Ky/Ph ŋ- should be noted as possibly furnishing yet another example of apparent retention in these languages of the reflex of an unprefixed initial for a prefixed numeral term (see SIX and FOUR), as Ky and Ph regularly have ñ- for all other prefixed nasals; but as no other examples of *C̥-ŋ- are available, there is no reason not to accept Ky/Ph ŋ- as its regular reflex.

*C-ŋ-

MITHAN PTB *ŋwa^{B} (Jg. ŋa), NN *C- = *s- 'animal prefix'.

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EASY cf. PTB *ŋoy 'gentle, quiet, moderate', perhaps better reconstructed *ŋoy ~ *ŋway, the latter form being indicated not only by NN but also by variant forms cited in the STC: Jg. ŋoi ~ ŋwi, WB ŋwé, Lu. ŋoi ~ ŋui ~ ŋuai. The vocalic prefix in Jg. əŋoi-ša ~ əŋwi-ša agrees with that in Phom in suggesting that NN *C- here = *ʔ-. The reconstruction of a velar initial for this root in NN is based solely on this comparison, for Ky/Ph ñ- can be from a prefixed nasal initial at any position. The root has an allofam in NN *ŋa°y, SOFT(2), cf.

*ŋy-

		FISH	BAMBOO (1)	TO CALL
Yo	ŋ-	ŋa	--	--
Mo	ŋ-	ŋa		
No	ŋ-	ŋa		
Wa	ñ-	ña	ñad	--
Ky	ñ-	ña		ñek
Ph	ñ-	ñaʔ	--	ñək
Ch	ŋ-	ŋau	ŋat	ŋek 'shout'
NN	*ŋy-	*ŋya^{B}	*ŋyat	*ŋye°k

FISH PTB *ŋya^{B}.

BAMBOO cf. St. ŋu, the only comparison I can find with initial ŋ-; St. does not have final -t. The vowel is really indeterminate on the basis of Wa and Ch alone, but although the St. suggests *-ut, which is possible, St. also has ŋu for 'fish'; as the NN root could easily be from *ŋya(-t), with St. ŋu from the unsuffixed variant, I provisionally reconstruct the more common *-at.

CALL So reconstructed (rather than as *C-ŋe°k) because of its apparent NN allofam, *ŋiak, WORD(2) Ch ŋəɣ 'word, language, news, bark (of dog)', cf. WT ŋag 'speech'.

The correspondence set which I reconstruct as *ŋy-

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cannot be distinguished from that which I reconstruct as *C-ŋ- on the basis of the forms available. I tentatively set up *ŋy- as well as *C-ŋ- because of the Wancho ñ- in 'fish' (attested by both Brown and Peal). Although a Wa ñ- < *C-ŋ- is possible, Wancho (unlike Konyak and Phom) does not palatalize its nasal reflexes of *-n- and *-m-,[1] nor even that of *ɲ-. 'Fish' and 'bamboo' are the only reconstructible roots with initial ñ- in Peal's Wancho vocabulary.[2] Thus the Wa ñ- : PTB *ŋy- corespondence in 'fish' constitutes strong (and uncontroverted) evidence for the retention of the PTB cluster in NN, the alternative being to posit secondary re-palatalization in Wancho as well as in Ky/Ph. There is no evidence for a *-y-, however, in PTB 'cattle'/NN MITHAN or PTB 'moderate'/NN EASY (the latter, if reconstructed with *ŋy-, would have the implausible shape *ŋyuay), so an NN *C-ŋ, with ŋ- as the expected Wancho reflex, is preferable for these roots.[3]

---

[1]Brown does give Wa ñ-/__i (but n- elsewhere) from NN *-n-, but Peal has n- in the same roots.

[2]Peal also gives ña kan ~ ña lu 'eel' and ñek kan 'fin', the former certainly, and the latter possibly, a compound of 'fish'. In addition to the ñ-/__i < NN *-n- roots ('two', 'cloth', 'day', 'laugh', with their compounds) mentioned in n.1, Brown gives only i ñiŋ- 'thus' and a ña 'play'. The latter has a cf. in TN ŋa reo, id., but the source of these two forms is indeterminate.

[3]It is possible that 'fish' should also be reconstructed with a prefix, i.e., *C-ŋya = *s-ŋya (*s- 'animal prefix', attested in Lu. and TN (Central Dialect) sa nga (GEMa: 317)). Weidert (1979: 121) reconstructs PTB *sŋa2(dh), ignoring the considerable evidence for the *ŋy- cluster (WT, Chepang, Baric [Shafer 1953: 237-238; cf. STC 54], Karen, Chinese [thus also PST], and now NN).

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There is one additional root which I tentatively reconstruct with NN *-ŋ- , requiring separate discussion. This root is represented by No a ŋak, Ph ñok- 'to return'. If only these two forms were at issue, a number of reconstructions would be possible, but Ky has ck 'to arrive', and this is a gloss which in Northern Naga shares a semantic field with 'to return': cf. Ky/Ph ŋoi 'to arrive', Ch ŋai 'to return' < NN *ŋoy. TO ARRIVE(2). Now, Ky has apparently dropped a nasal initial in 'two' (Ky i), NN *C-ni, PTB *g-ni-s; Shafer included the Ky form (Wakching dialect, also i) in his list of Baric cognate forms for 'two' but could only note: "The reason for dropping *n here is not clear" (1953: 238, n.4). The Ky form for 'arrive' now furnishes what I take to be a comparable case of *-N- > Ky ∅-, though the two sets do not go back to the same proto-segment, for No has ñ- for 'two' but ŋ- for "to return'. A third set, from yet another proto-segment, shows a similar pattern: for ELDER SISTER, whose reflexes otherwise point to NN *ŋa, Ky has a ya-.

Though the direct evidence for such a reconstruction is admittedly slender, I suggest that the Ky ∅(y)- in these three sets reflects an NN *ʔ-N- (< PTB *a-N-). Matisoff reconstructs PTB *(ʔ)nok 'behind, after, afterwards' (TSR 155) and has suggested (pc) that this may be the source of NN *-Nok 'return'. This comparison points to NN *ʔ-n- for this root, but this is hardly possible

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with No ŋ- in the face of No ñ- in *ʔ-ni, TWO; thus, I reconstruct NN *ʔ-ŋok, TO RETURN. See below for *ʔ-ɲa, ELDER SISTER, and for TWO.

*ɲ-

		MOTHER	BIG(2)	TO SLIP	SOFT(2)
Yo	ñ-	a ñau		ñal	
Mo	ñ-	ñu		a ñar	--
No	ŋ- ~ ñ-	-ŋu ~ -ñu 'wife'		ñan 'slippery'	
Wa	n-	a nu	nut 'fat'	nan	nai
Ky	ñ-	ə ñu	ñu- 'broad'	--	ñei- 'cheap'
Ph	ñ-	ñə	-ñə[1]	ñə- 'smooth'	
Ch	ñ-	a ñu	-ñu[2]		-ñai-
NN	ɲ-	*ɲə·w	*ɲə·w	*ɲar	*ɲa·y

1 in: ka tok ñə 'world' (ka tok = 'earth').

2 in: thu ñu 'elephant'; cf. Ky mei ñu, id., glossed by Marrison "beast-big" (134)(Ky mei = 'animal').

MOTHER PTB *nəw 'breast, milk'; cf. No ñu po 'milk'. The extension of meaning is not limited to NN, however; cf. Jg. nu 'mother', Lu. nu tak 'mother', nu pui 'wife', Puiron a nu 'mother', and many C. and S. Naga forms for 'wife', including Maring a nu, Rengma a nu, Khoirao nu. The palatal initial may be reflected in Lhota e ɲə and/or Yi. neu be 'wife'. Cf. also Yi. niu 'milk'.

BIG(2) cf. Li. nnu2 bu 'thick'.

SLIP cf. the forms cited by Weidert (1979: 120) for 'slippery', including Lu. na·l and Jg. mə nyen; also Mpri. nal ba 'smooth'.

SOFT PTB *na·y (WB nai) 'knead, twist'; cf. WB jhe: nai 'cheap', and as further evidence for the 'cheap' ≈ 'soft' association in NN semantic structure, Ch sek bə 'expensive', sek ok bə 'hard', < NN HARD(2), *jek.

As the two sets with NN *-ɲ- (next page) further

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demonstrate, the external comparisons for NN *(-)ɲ- do not discriminate between this initial and *(-)n-. An NN *(-)ɲ- is required, however, to account for those sets having Yo/Mo ñ-, and for those having Ch ñ- which cannot be attributed to an NN *Ni(...) -- i.e., those which are not explicable in terms of palatalization of the Chang initial before *-i-. The alternative explanation, that these reflexes are somehow attributable to proto-prefixation, is precluded by sets demonstrating that, for all varieties of prefix (*C$_{V}$-, *C-, *Ɂ-), NN *(-)n- > Yo/Mo n-, and that NN *(-)n- > Ch n- even before NN *-əy. If this analysis is correct, it implies either a divergent development of PTB *(-)n- into NN *(-)n- on the one hand and NN *(-)ɲ- on the other, or -- what is more likely -- that PTB *(-)ɲ- (*ń-), represented by only seven roots in the STC, so often merges with *(-)n- in most TB languages that it is difficult to distinguish correspondences reflecting the former initial from those, much more common, reflecting the latter. In this case, the preservation of the distinction in NN would constitute an important source of evidence for identifying roots with PTB *(-)ɲ-.

With respect to the two roots presented below, reconstructed with *-ɲ-, the question is whether the Ch n-, which distinguishes these correspondence sets from that in 'mother', is a result of proto-prefixation or of vocalic conditioning. As a conditioning rule which would

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discriminate between the forms below, with Ch n-, and those attributed to (unprefixed) *ɲ- above, with Ch ñ-, would have to be complicated, and proportionately implausible; and as a prefix is otherwise required for ELDER SISTER and attested by external comparison for BLACK, I attribute the *(-)ɲ- > Ch n- shift in both sets to proto-prefixation.

*C-ɲ- and *ʔ-ɲ-

		BLACK			ELDER SISTER
Yo	ñ-	a ñak	Yo	ñ-	a ña
Mo	ñ-	a ñak	Mo		—
No	ŋ- ~ ñ-	-ŋak ~ a ñak 'dark'	No	ŋ- ~ ñ-	i ŋa ~ i ña
Wa	n-	-nak	Wa	n-	a na
Ky	ñ-	ñak-	Ky	y-	a ya-
Ph	ñ-	ñak-	Ph	ñ-	-ña
Ch	n-	nak-	Ch	n-	a no(u)
NN	*C-ɲ-	*C-ɲak	NN	*ʔ-ɲ-	*ʔ-ɲa[A]

BLACK PTB *nak (STC) but *(s-)nak (TSR 142).

ELDER SISTER PTB *(m-)na. Although a number of the forms referred to this prototype in the STC have vocalic prefixes, I have no compelling external evidence for the glottal prefix, which is reconstructed in order to account for the Ky y- on the model of Ky ok < NN *ʔ-ŋok (see above) and especially Ky i < NN *ʔ-ni (see below).

I have no examples for the remaining possibility, NN *C_V-ɲ-, for which, on the model of NN *C_V-n-, we should expect No ŋ-. On the model of Ch ñ- < NN *(-)n-/__i(-), I would also expect Ch ñ- < NN *-ɲ- with this environment.

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*n- (1)

		EAR	THOU (1)	THOU (2)	WE	(yBr/) CHILD	TO RUB	DAY (2)	SHARP
Yo	n-	na	mnaŋ[2]		naŋ-[3]	nau-	--	-nap[5]	--
Mo	n-	na	mnaŋ[2]		ni-	no-	--	-nap[5]	
No	n-	na	naŋ		ni-	na-	net[4]	-nap[5]	a na
Wa	n-	na	naŋ			nau-	--		a na
Ky	n-	na	naŋ			nau	noi	-nep[5]	nao-
Ph	n-	na-[1]	nəŋ			naə	noi		--
Ch	n-	nou		nuo	-nei-	na-		-nap[5]	
NN	*n-	*na[A]	*naŋ	*na°ŋ	*nəy	*na°w	*nua°y	*nap	*na°k

1 in: na min 'cheek'; cf. Wa na vem, id.

2 The Yo/Mo preposed m- seems to be a local development, limited to these two languages.

3 in: naŋ taŋ < *nai taŋ.

4 net < *ne; suffixation of -t after open front-vowel rhymes is common in Nocte, cf. ri ~ a rit 'die', khet < *khe 'sow', NN *C-ga°y (Di. gai).

5 in: Yo/No ni nap, Mo i nap 'tomorrow', Ky te nep 'today', Ch tou nap me nap 'nowadays' (tou = 'now').

also: TO TAKE(4).

EAR PTB *r-na[A] ~ *g-na[A].

THOU PTB *naŋ (STC) ~ *na°ŋ (pcPKB).

WE cf. SW Naga: Puiron a ni, Nr. a niu, Ze/Mz. a nui.

CHILD (This root is also the word for YOUNGER BROTHER in all Northern Naga languages, in this usage generally prefixed, rather than, as in 'child', compounded.)

PTB *na°w 'younger sibling'.

RUB cf. Lu. nuai ~ nwat (probably suffixed -t as in No), Nr. nuai2.

DAY cf. Ao Chongli ta nəp 'today', Mk. pe nap 'tomorrow'.

SHARP cf. Ao Chongli/Mk. nok, Ao Mongsen a nok, Yi. nuk, all 'dao', also (in comp.) 'sword'. For the 'sharp'/'sword' association, see STC 53, n.179.

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*n- (2)

(/__i- > Ch ñ-)

		LOW(1)	COOKED RICE	CROSS-COUSIN
Yo		--	--	--
Mo		--		--
No	n-	a num		--
Wa				--
Ky	n-	nəm 'sink'	nik	(niŋ)[1]
Ph	n-	nem nem 'whisper'	--	--
Ch	ñ-	ñam ñam 'mutter'	ñak	ñaŋ-
NN	*n-	*nium	*nik	*niŋ

1 This form, taken from von Fürer-Haimendorf (1969: 108), is from the Wakching dialect, presumably the same dialect as that given in Marrison, but there are many differences between von Fürer-Haimendorf's and Marrison's transcriptions. As a result of these differences, the former source cannot be conflated with the latter when phonological precision is at issue.

I nonetheless show the form supplied by von Fürer-Haimendorf here to lend internal support to the reconstruction of an NN front vowel for this word in the face of Yo a nuŋ 'WB, ZH' (Dutta 1959: 52), apparently from a doublet *nuŋ, which would have yielded Ch *naŋ-.

LOW(1) PTB *ńam; cf. also St. amaŋnyem.

CROSS-COUSIN PTB *niŋ (Jg. niŋ)(pcPKB).

Chang forms from NN *ni- and *mi- (see below for the latter) show a transfer of palatality from rhyme to initial, the latter becoming ñ- in both cases. This shift also takes place in Ch forms from (open-syllable) *-ni (see below), so that it is possible to write a composite rule, NN *(-)n- /__i(-) > Ch ñ-. The Chang rhyme is not affected, NN *-iC regularly becoming Ch -aC.

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		TO LAUGH	SEVEN	CLOTH (2)
				*$\underset{V}{C}$-n-
Yo	n-	ni		
Mo	n-	ni		
No	ŋ-	ŋi	i ŋit	
Wa	n-/ñ-//n-	ñi//--	a nat//a nat	ñi//ni
Ky	ñ-	ñi	ñit	ñi
Ph	ñ-	ñi	ñet	ñi?
Ch	n-/ñ-	ñi	ñet	nei
NN	*$\underset{V}{C}$-n-	*$\underset{V}{C}$-ni	*$\underset{V}{C}$-nit	*$\underset{V}{C}$-nəy

Wa ñ-/__i, n- E (Brown)// = // n- (Peal). This equation applies to the Wancho reflexes of all varieties of *-n- and very probably holds for those of *n- and *(-)ŋ- as well (no test cases available).

NN *(-)n-/__i(-) > Ch ñ-.

LAUGH PTB *m-nwi(y) (Jg. mə ni, Di. mi ni, both showing simplification of the rhyme as well as the *m- prefix, well-attested wherever the root appears [S.Naga, C.Naga, Barish, Kuki-Chin, Mikir; see GEMa: 144, STC: 47, 118-119, Shafer 1953: 238]).

SEVEN PTB *s-nis. The *s- prefix for 'seven' is as well-attested -- in this case throughout TB -- as the *m- prefix for 'laugh', but here the No i-/Wa a- prefixes indicate that NN has made a substitution. These prefixes are the same as those for 'six', 'eight', and 'nine' in these languages, corresponding to Yo tə-/Mo ta- in all three cases, and ultimately derivable from PTB/NN *d- in 'nine' (PTB *d-gəw, NN *$\underset{V}{C}$-gə˚w [=*d-gə˚w]). Benedict documents several cases of such replacement of a numeral prefix by that of the following numeral at STC 94-95, including Kuki-Naga *d- in 'eight' from the *d- in 'nine'. For the extension of the replacement to 'seven' in C.Naga, cf. (e.g.) Ao Changki to ku '9'/te zet '8'/te ni '7'; for S.Naga, cf. (e.g.) Kh. the ku '9'/the tha '8'/ the na '7'. Tangsa, which would be expected

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to show t- prefixes for 'seven', has instead substituted an entirely different construction (Yo mi ši/Mo ma ši); but the No i-/Wa a- (Ky/Ph/Ch Ø-) correspondence is sufficient to confirm that in these languages, 'seven' follows the pattern set for NN by 'nine' and continued in 'eight' and 'six', and that it is properly reconstructed with a voiced rather than an unvoiced prefix.

CLOTH PTB *b-ni(y) 'skirt'. In the absence of a Nocte cognate, this root could be reconstructed with either *C- or *$\underset{v}{C}$-. I provisionally assign it to the latter in part because of the voiced prefix attested elsewhere in TB, but primarily because it shows an unexpected ŋ- reflex in three of the Northern Naga dialects reported by Brown which are not data languages for this study: Muthun (a dialect of Wancho), Mulung, and Tablung (dialects of Konyak) all have ŋi 'cloth'(Brown 1851: 161). Elsewhere in Northern Naga, an *(-)n- > ŋ- shift takes place only under the influence of a voiced prefix (*$\underset{v}{C}$-n- > No ŋ- in the sets under discussion) so *$\underset{v}{C}$- is probable here as well. The initial itself is in question, however, for the dialects cited have n- for 'laugh' and 'seven'; it is possible that the prototype is the missing *$\underset{v}{C}$-ŋ-, but, again, these dialects have n- or ñ- for other roots reconstructed with *(-)ŋ-. The likely solution is that it is the specific identity of the prefix which is responsible for the ŋ- reflexes: e.g., the indicated *b-, as contrasted with the *m- indicated for 'laugh' and the *d- indicated for 'seven' -- but a voiced prefix in any case.

The reflexes of *$\underset{v}{C}$-n-, *C-n-, and *ʔ-n- are virtually identical, the first being set off only by No ŋ- (as contrasted with ŋ̃- ~ ñ̃-), and the last only by Ky Ø-. With these exceptions, they share a pattern: Yo/Mo n- distinguishes these sets from those derived from *(-)ŋ-, which have Yo/Mo ñ̃- (where Yo/Mo cognates are missing, as for CLOTH, I reconstruct *-n- rather than *(-)ŋ- because the latter is generally rarer). Sets from *-n- are, in

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turn, distinguished from those from (unprefixed) *n- by the palatalized reflexes in Nocte, Konyak, and Phom (and -- redundantly -- by the special reflexes [No ŋ-, Ky Ø-] noted above).

All of this palatalization, including the conditioned palatalization in Chang and in Brown's transcription of Wancho, led Shafer to reconstruct *ñ- rather than *n- for LAUGH, SEVEN, DAY (NN *C-ni), and TWO (NN *ɜ-ni). The solution adopted here, and outlined above, allows these roots, which, along with CLOTH and three of the five additional roots reconstructed with *C-n- (see below), have prefixes well-attested elsewhere in TB, to be reconstructed with *-n-, thus agreeing with the PTB reconstructions given in the STC.

It should be noted here that if my interpretation of the conditions yielding sometimes Ch n- and sometimes Ch ñ- (NN *(-)n-/__i(-) > Ch ñ-, NN *(-)n- E > Ch n-) is correct, the Chang initial may in turn be used to help identify the NN rhyme, and beyond it the PTB, where this is otherwise ambiguous.

The circumstance that it is only Nocte which (with the exception of Ky Ø- in TWO) shows a contrast in the reflexes of *-n-, suggesting that this contrast reflects the difference between *C_{v}-n- and *C-n-, makes the external evidence for one or the other type of prefix particularly important for supporting the asserted distinction. The evidence for each, however, is good:

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*C-n-

		SOFT (1)	DAY(1)	BEE	TO SET (of the sun)
Yo	n-	a nen	--	--	--
Mo	n-	--	-ni	--	--
No	ŋ̃-~ñ-	a ñen	-ŋ̃i	ŋ̃a~ña-[1]	-ñap [3]
Wa	n-/ñ-//n-	a ñi//a ni 'today'		na-[2]// na	
Ky	ñ-	ñin-	ñi	ña-	-ñip-[3]
Ph	ñ-	ñen-	ñi?	ña?	
Ch	n-/ñ-		ñet	nau	-nap[3]
NN	*C-n-	*C-nen	*C-ni	*C-na[B]	*C-nup

Wa ñ-/__i, n- E (Brown)// = // n- (Beal).

NN *(-)n-/__i(-) > Ch ñ-.

Glosses for BEE

1 in: na so 'wax' (also ∝ 'beeswax' in Ch, Di., Lu.).

2 in: na sa 'mosquito' (-sa = 'son'); cf. Ao Mongsen a nah 'bee', me nah 'bug', Yacham-Tengsa na na 'fly'.

Glosses for TO SET (of the sun)

3 in: No sa[n] ñap (san = 'sun'), Ky waŋ hi ñip jiŋ (waŋ hi = 'sun', jiŋ = 'place'), Ch ca nap (ca = 'sunlight'), all 'west'.

also: TO BE(3)/BEING, LEFT-HAND.

SOFT cf. WT mñem pa, Lu. ne˚m, Puiron ma nem nu, Kh./Ko. ke me ne, pointing to a PTB *m-ne˚m. One may speculate as to whether a replacement of the *m- prefix by *s- in NN might not have triggered an assimilative shift in the final.

DAY PTB *nəy (STC), revised to *(s-)nəy (pcPKB) (Jg. šə ni).

BEE cf. Ao Mongsen a nah 'bee', nah ti 'hornet', Ao Chongli na ti 'hornet', Yacham-Tengsa na na 'fly' (root apparently limited to C. and N. Naga), with *C- = *s- 'animal prefix'.

TO SET PTB *nu˚p~*ni[˚]p -- NN *(-)nup fills out the set of possibilities. Cited forms include

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WT nub-pa 'set (sun, moon)', nub 'west', and

> "B-G *(h)nap < *(h)nup 'set(sun), ...' . . . The initial cluster in B-G is probably from *sn-" (STC 84, n.250).

Thus, there are good external comparisons for an *s- prefix for DAY and TO SET, as well as the good possibility that BEE, as an "animal term", carried an *s- prefix in the protolanguage.

*ʔ-n-

		TWO
Yo	n-	a nei
Mo	n-	a ni
No	ñ-	-ñi
Wa	n-/ñ-//n-	a ñi//a ni
Ky	ø-	i
Ph	ñ-	ñi
Ch	n-/ñ-	ñi
NN	*ʔ-n-	*ʔ-ni

TWO PTB *g-ni-s. Again, as with SEVEN, the *ʔ- prefix indicated for NN by Ky ø- differs from the *g- prefix attested elsewhere in TB. A *ʔ- may be reflected, however, in Nung ə ni (STC 16, n.60); cf. Nung ə khö 'uncle', ə na 'ear', ə pha 'adhere', ə tśuŋ 'sag', all referred to PTB *a- = *ʔa- (STC 121,122). Langsing (Tangsa) ha nai ("Sounds in italics are weak and barely pronounced"; Steen 1948: 297-298) is also suggestive. But the *ʔ- reconstruction remains primarily a hypothesis advanced to account for the Ky ø- in TWO (all dialects), as well as in TO RETURN, *ʔ-ŋok, and for the y- (ñ- expected) in ELDER SISTER, *ʔ-ŋa. It should be noted that if the Ky ø- in 'two' were ignored, the NN reconstruction would still be *C-ni rather than *C$_{y}$-ni, so that either prefix substitution in NN, as for SEVEN, or variable prefixation in PTB itself would still have to be posited to account for the Northern Naga forms.

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		HAIR(1)	DREAM	TO BLOW	THUNDER	WOUND	TO LOSE	GOOD (2)	*m- (1) FAST
Yo	m-	-mil	maŋ	mi	--	--	--		
Mo	m-	-mul	--	--	-muk	--	--		--
No	m-		maŋ		-mok	ma	--		
Wa	m-	-mun 'fur'	--	--		--	ma-	mai	
Ky	m-	min	maŋ	mei		ma-	ma	mei-	məm-
Ph	m-	min- 'soft'	maŋ		-mok	ma	ma	mei-	
Ch	m-	min- 'woolly'	maŋ	mat	-mak	mou	mau	mai-	-mem-[1]
NN	*m-	*muil	*maŋ	*mut	*muk	*ma^{A}	*ma^{B}	*ma·y	*mem

Chang closs for FAST

1 in: sap sap mem bə 'prompt; agile'.

also: CORPSE, HEART/MIND[a], NEEDLE[a], SKY(2), TO DO/TO MAKE(2), and MEAT/FLESH(1).

HAIR(1) PTB *mwil (rev. of STC *(-)mil ~ *(-)mul, pcPKE).
DREAM PTB *r-maŋ.
TO BLOW PTB *(s-)mut.
THUNDER Cf. Ao-tsuŋ muk, Jg. mu2, attributed (STC 77, n. 236) to PTB *r-mu·k.
WOUND PTB *r-ma.
TO LOSE PTB *ma^{B}.
GOOD PTB *may.

The comparisons above demonstrate the readiness with which PTB prefixes may simply be lost in NN. Perhaps *r- prefixes are particularly susceptible to loss or substitution in this group, for the two sets I reconstruct with *C-m- (below) also have PTB *r-m- (cf. STONE, PTB *r-luŋ but NN *C-luŋ). Apparently PTB *r-- > NN {*s--, *ø--} -- or perhaps NN *C- = *r- as well as *s-.

Chang has a palatalized reflex for *m-, as for *n-:

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*m- (2)
(/__i- > Ch ñ-)

		EYE (1)	NAME	TO EXTINGUISH	CAT	RIPE(2)
Yo	m-		--	--	-mieŋ	--
Mo	m-		(miŋ)	--	--	a muin
No	m-	mik	min	mut-	miaŋ	
Wa	m-	mik-	man	a mut	mia	
Ky	m-	mək-	min	mei		
Ph	m-	mək-	men	met		men-
Ch	ñ-	ñek	ñen	ñet		
NN	*m-	*mik	*min	*miut	*miaŋ	*min

EYE(1) PTB *mik ~ *myak (STC). Benedict has since proposed a single reconstructed form, *myək, to account for the variation in rhymes earlier attributed to a doublet. Such a solution might also account for all of the Northern Naga forms, but would require setting up an additional rhyme exemplified by only one root. Benedict also reconstructs *šryək 'louse', but the Northern Naga forms for 'louse' and those for 'eye' cannot be conflated, as Moshang has thik 'louse' but mak 'eye'.

Because of the incompatibility of the Northern Naga rhymes with any single reconstruction (except one which would be ad hoc), I set up an NN doublet, *mik ~ *me°k. (This is also my solution for LOUSE, *srik ~ *sre°k, so that NN does offer support to Benedict's attribution of these two roots, EYE and LOUSE, to the same proto-rhyme -- but not at the NN level.)

This solution is supported by the existence of variant forms in Wancho and Konyak. The forms shown above are those which occur in the compound 'blind'. These are identical to the forms for 'eye' in isolation in No/Ph/Ch, but cf. Wa mi (Peal), Ky mek 'eye'. No -ik and Ky -ek are incompatible. I assign to

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*me°k Yo mik/Mo mak ('blind' not available; the Yo form would more comfortably be assigned to *mik, but at the cost of splitting Tangsa), Wa mi, Ky mek, Ph mək 'eye' (-ək is the Ph reflex of both proto-rhymes).

This discussion of rhyming has been presented here as a necessary prelude to a consideration of the significance of the Chang initial, ñ-. Were it not for the consistency with which we have seen NN *n- become Ch ñ- only in the proto-environment /__i(-), it might be possible to attribute all of the Northern Naga forms for 'eye' to a single prototype, *me°k. (The vowel in Ky mək- 'blind' might be an artifact of compounding, as also the retention of -k in the Wancho compound, though No -ik would have to be admitted as a variant of No -iek < *-e°k; yet just this variation exists in the No reflexes of *-i°k.)

This, however, would also require admitting palatalization of the Ch initial before *-ê°(-) as well as *-i(-), and in the face of NN *C-me°y > Ch mei 'tail' (below). On balance, I believe that the least unsatisfactory solution is to accept proto-variation in this root in NN, as possibly also in PTB (Matisoff 1978: 240-241, n.51).

NAME PTB *r-miŋ (STC, Appendix), but with the doublet PST/PTB *min (STC 165, n.442); the former variant is represented by Mo miŋ.

EXTINGUISH PTB *mit ([but] Di. khu mu 'destroy').

CAT cf. Mk. meŋ.

RIPE(2) PTB *s-min.

The question here is whether the Ch forms with ñ- for 'eye', 'name', and 'to extinguish', where all of the other Northern Naga languages have m- from PTB *m-, are the result of (a) a palatalized initial cluster, *my-, in NN (as suggested by Solnit 1979: 4-5), (b) a prefixed prototype in NN, or (c) vocalic conditioning; and, if

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the last, how the conditioning environment should be specified.

With respect to the first of these possibilities, that of a proto-cluster *my-, recall that I reconstruct a parallel velar cluster, NN *ŋy-. This palatalized velar nasal differs from its unpalatalized analogue *ŋ-, however, in having the palatal reflex ñ- in Wa/Ky/Ph, while Ch ŋ- is unaffected. The reflex pattern for *m-(2) is just the opposite, with Wa/Ky/Ph (the latter two moreover being pre-eminently "palatalizing languages") having an unpalatalized m-, while Chang is divergent. Furthermore (as we shall see presently), Konyak at least does palatalize m- in other sets. Thus I think that the possibility of a proto-cluster for the sets at issue can be rejected. This does not exclude the possibility of a PTB *-y- (in PTB part of an initial cluster) being reflected in an NN rhyme; NN *miut, TO EXTINGUISH, in fact suggests a more complex PTB prototype than the STC's *mit, i.e., PTB *myut. And, if Yo mik were excluded and assigned to NN *mik, NN *miak (< PTB *myak) would be a possible substitute for NN *me'k as the reconstruction for EYE(2), though this set could still not accommodate Ch ñek, as the Ch reflex of NN *-iak is -əɣ.

An explanation of Ch ñ- < PTB *(-)m- in terms of prefixation in NN may also be rejected on grounds of pattern symmetry. As we have seen amply attested, the choice between Ch n- and ñ- < NN *(-)n- is not dependent

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upon prefixation, but solely upon vocalic conditioning. Konyak, however, regularly palatalizes *-n- before any vowel (ña- 'bee' < NN *C-na) but does not palatalize *n- even before *-i- (nik 'cooked rice' < NN *nik). This pattern is replicated for the labial: NN *$\underset{v}{C}$-mi°t, KNIFE (prefix reconstructed on other grounds, see below) > Ky ñit. Thus Ky ə ñei 'tail' (PTB *r-may) must also be derived from a prefixed form in NN (*C-me°y, see below), but the Ch cognate, mei, is unpalatalized, even before -ei < *-e°y. The Ch m- in 'tail' confirms the implication of the Ky m- in the *m-(2) sets, that Ch ñ- in these sets is not the result of proto-prefixation. The Ch retention of m- before -ei < *-e°y in 'tail' further affirms the restriction of the conditioning environment to */__i(-). This was exactly Shafer's solution for 'eye' and 'name': "*m > ny before *i in Tsang" (1953: 239); but Shafer did not see that the rule could be extended to Ch ñ- < *n- as well: (PTB/) NN {*n-, *m-}/__i(-) > Ch ñ-, E > Ch {n-, m-}.

The sets for CAT and RIPE(2) are included under *m-(2) because, given their NN rhymes, the Ch cognates would be expected to have ñ- rather than m-. The apparent problems presented by the rhymes in these *m-(2) sets will be addressed below in the section on rhymes.

Finally, we have distinct correspondence sets for NN *$\underset{v}{C}$-m- and *C-m-:

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*C$_{V}$-m- and *C-m-

		KNIFE			TAIL	MAN (GENERIC)
Yo		--	Yo	m-	ʌ mi	mai
Mo			Mo	m-	a mi	mi
No	m-	mit-	No	m-	a me	mi-
Wa	b-	bit-	Wa	m-	me-	mi
Ky	ñ-	ñit	Ky	ñ-	ə ñei	
Ph		--	Ph		--	
Ch			Ch	m-	mei	mat
NN	*C$_{V}$-m-	*C$_{V}$-mi•t	NN	*C-m-	*C-me•y	*C-məy

*C$_{V}$-m-

KNIFE No TB comparisons; very probably a loan into NN from Ahom. Cf. Ahom/Khamti mit 'knife' (GEM 221).

*C-m-

TAIL PTB *r-may.

MAN PTB *r-mi(y).

The *C$_{V}$-m- reconstruction for KNIFE is based on the analogous *C$_{V}$-n- reconstruction for FIVE, with Wa g-. With Wa b- established as the reflex of *C$_{V}$-m-, TAIL, with Wa m-, must be assigned to *C-m-, where it agrees with MAN, whose *C- prefix is indicated by the Ch form in final -t (see below). I noted above the possibilities that PTB *r-- regularly becomes NN *s--, or that my NN cover symbol *C- really embraces NN *r-- as well as NN *s--.

The complex pattern of reflexes of NN initial nasals is summarized in matrix form on the next page.

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INITIAL NASAL CORRESPONDENCES: SUMMARY

Yo	ŋ	ŋ			ŋ
Mo	ŋ	ŋ	ŋ		ŋ
No	ŋ	ŋ	ŋ	ŋ	ŋ
Wa	ŋ	ɢ			ñ
Ky	ŋ	ŋ	ñ	ø	ñ
Ph	ŋ	ŋ	ñ	ñ	ñ
Ch	ŋ	ŋ	ŋ		ŋ
NN	*ŋ	*$\overset{}{C_{v}}$-ŋ	*C-ŋ	*ʔ-ŋ	*ŋV

Yo	ñ		ñ	ñ
Mo	ñ		ñ	
No	ŋ̃~ñ		ŋ̃~ñ	ŋ̃~ñ
Wa	n(/ñ)		n(/ñ)	n(/ñ)
Ky	ñ		ñ	y
Ph	ñ		ñ	ñ
Ch	ñ		n(/ñ)	n(/ñ)
NN	*ɲ		*C-ɲ	*ʔ-ɲ

Yo	n	n	n	n
Mo	n	n	n	n
No	n	ŋ	ŋ̃~ñ	ñ(~ŋ̃)
Wa	n(/ñ)	n/ñ	n/ñ	n/ñ
Ky	n	ñ	ñ	ø
Ph	n	ñ	ñ	ñ
Ch	n/ñ	n/ñ	n/ñ	ñ(/n)
NN	*n	*$\overset{}{C_{v}}$-n	*C-n	*ʔ-n

Yo	m		m	
Mo	m		m	
No	m	m	m	
Wa	m	b	m	
Ky	m	ñ	ñ	
Ph	m			
Ch	m/ñ		m(/ñ)	
NN	*m	*$\overset{}{C_{v}}$-m	*C-m	

Symbols in parentheses represent expected but unattested conditioned variants.

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3.8 Initial Consonants and Initial consonant Clusters: Summary.

In summary, I reconstruct the following initial consonants and initial consonant clusters for NN:

b			d		j		gl	gr	gy	g
p	pw	pr	t	cr	c		kl	kr	ky	k
ph			th		ch		khl	khr	khy	kh
			dz							
			ts							
	sw	sr	s	sy						h
w			r	ry	y					
			l	ly						
m			n		ɲ			ŋy		ŋ
										ø

These compare with the following basic inventory for PTB (I include only those PTB initials represented by at least two numbered roots in the STC list 199-209):

b	bw	bl	br	by		d	dy		j		gl	gr		g
p	pw	pl	pr	py	tw	t	ty	cw cr	c	kw	kl	kr	ky	k
						dz								
						ts	tsy							
						z								
						s	sy	šr	š					hw h
w					rw	r	ry		y					
					lw	l	ly							
m	mw	ml	mr	my		n			ɲ			ŋr	ŋy	ŋ
														ø

NN initials do not by any means always have the same shape

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as their apparent sources in PTB. Nevertheless, the following comments on the differences between the two inventories may be instructive. Except for the aspirated stop series, NN has only three clustered initials which do not appear in the PTB table above: *gy-, *sr-, and *sw-. PTB *gy- is represented by a single root, *r-gya 'hundred', which on the evidence of Yo/Mo š- (rather than *c-) appears to have become aspirated in NN, *c̆-khya (or *C-khya). NN *gy- is instead derived from PTB *g-(r)y-, the prefix becoming fused with the root.

PTB *sr- is represented by a single numbered root, *sram 'otter', originally reconstructed *s-ram. As in a number of other cases, NN *(C-)rom supports the original reconstruction. NN *sr- may have one of its sources in PTB *šr- (missing in NN); the one traceable NN *sr- root is LOUSE, NN *srik ~ *sre˚k (~ *sraɣ), for which Benedict has proposed the successive reconstructions (PTB) *s-rik, *šrik, *šryək.

PTB *sw- is again represented by just one root, *swa˚r 'sour', which is not represented in Northern Naga. NN *sw- comes from PTB *s-(m)w-, like *gy- < PTB *g-(r)y- a product of prefix fusion (as well as, in some cases, reduction of the original PTB cluster). This process is not limited to these two clusters which are rare in PTB but common in NN, but underlies other NN roots with clustered initials: cf. SHADOW, NN

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*(C-)kru˚m < PTB *g-ru[˚]m; LEG, NN *gla < PTB *g-la; NECK, NN *kliŋ < PTB *g-liŋ; BLOOD(2), NN *syi < PTB *(s-)h(y)wə[˚]y (via *s-hywi); TO ASK FOR, NN *ryəw < PTB *r-yu(w).

PTB has two simple initials, *š- and *z-, which are not represented in NN. PTB *z- is represented in the STC by three numbered roots. One of these, *zik 'leopard', is not found in Northern Naga. The other two, *za 'child' and *zəy 'minute'[1], may correspond to NN roots probably better reconstructed with affricates: *C-dza, SON, and *dzi, STAR[b]. If this is correct, it suggests the possibility that the more complex reconstruction might be extended to PTB as well. PTB *š- is also very rare, being represented by just two numbered roots, neither of which has cognate roots in Northern Naga. The cluster *šr-, however, is represented by three, each of which has distinct correspondences in Northern Naga. Like 'otter', PTB *sram (orig. *s-ram), > NN *(C-)rom, 'ashamed, shy', PTB *šrak (orig. *s-rak), > NN *ra˚k, SHAME(2), is either better reconstructed with a prefix rather than a cluster or has had its clustered initial reinterpreted as a prefixed initial in NN, the prefix then being dropped.

---

[1]That is, 'small, minute'. This reconstruction is given in the STC as *žəy (orig. ziy), but Benedict (pc) now feels that *z- is preferable. PTB (as distinct from PLB) *ž- is even more questionable than *š- and *z-, represented only by this one doubtful reconstruction (and one *žr- cluster). Benedict (pc) has recently speculated on the possibility of *ž- for the initial in 'grandchild' (STC *šu(w) [unnumbered]) but this is another NN *C-dz-.

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The second PTB *šr- root, 'louse', PTB *šryək (STC *srik, orig. *s-rik) > NN *srik ~ *sre:k (~ *srəy), was noted above as suggesting a PTB *šr- > NN *sr- development. The third, *šriŋ (orig. *s-riŋ ~ *s-raŋ) 'live, alive, green, raw', points in two different directions, suggesting, as discussed above (3.3), that there is more than one allofamic root here in PTB. Benedict's revised, composite solution, *šriŋ, appears to correspond to NN *(C$_{V}$-)criŋ, ALIVE(1) // GRASS(/GREEN/RAW), pointing to a PTB *šr- > NN *cr- development; note that this is parallel to the apparent PTB *z- : NN *dz- correspondences discussed above. But NN also has *C-raŋ, ALIVE(2) ~ *C-rin, ALIVE(3), approximating Benedict's earlier solution and/or reflecting a reinterpretation of clustered *š- as a prefix, as in SHAME.

There were presented above a number of examples of the transformation of a prefixed initial semi-vowel or liquid in PTB into a stop/fricative + glide cluster in NN. The converse process is also amply attested. In addition to OTTER, SHAME(2), and ALIVE(2)/(3), cf. (e.g.) NN *C$_{V}$-ya°k, SELL(2) and PTB *ryak 'layout, to show'; NN *C-yə°y, KNOW(1), PTB *syey 'know'; NN *C$_{V}$-ru, WASH/BATHE(1), PTB *krəw, id.; NN *la 'ashes', PTB *pla; NN *C$_{V}$-leŋ, RIGHT, PTB *bleŋ ~ *pleŋ, 'straight'; NN *wak, PIG, PTB *pwak. As the last example shows, the initial element of the PTB cluster may simply be lost in NN (possibly after having been

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reinterpreted as a prefix).

As the comparative tables above show, PTB has an extensive inventory of initial clusters only some of which are represented in NN. PTB clusters with *-w- constitute a special case, for the glide, which in most TB languages and groups is interpreted as a part of the initial (rhyme correspondences remaining unaffected by it), is in NN often interpreted as a part of the rhyme, so that initials correspondences are regular for the first element of the cluster while a distinct set of rhyme correspondences is produced. Cf. (e.g.) 'dog', PTB *kwəy > NN *kuəy; 'sweet', PTB *twi(y) > NN *tuəy; 'buffalo', PTB *(s-)lwa'y > NN *C-lua'y; 'white', PTB *lwaŋ > NN *luaŋ; 'skin', PTB *kwər > NN *C-khuar; and PTB *(s-)bwam 'swollen' > NN *phuam, CLOUD/MIST. In the light of this tendency (as well as the tendency for PTB *pw- ~ *bw- clusters to reduce to NN *w- [PIG, FIRE, BAMBOO(2), AXE]), the general absence of initial clusters with *-w- in NN is less surprising than that one such cluster -- and that a labial, *pw- -- is nevertheless indicated.

Two classes of PTB initial clusters are generally retained in NN: those beginning with a velar (including *ŋy-) and those beginning with a dental/alveolar continuant (*sy-, *ry-, *ly-). PTB initial clusters beginning with a dental/alveolar or labial stop or nasal are generally unrepresented (*pw- and *pr- are the excep-

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tions). Some of the many PTB clusters suggested in STC reconstructions are perhaps of doubtful status; others are rare. For PTB *tsy-, I reconstruct NN *tsow, TO BOIL(3), < PTB *tsyow, and NN *C_V-tsa°y, TO PLAY, < PTB *(r-)tsya°y, but both of these NN reconstructions are based on only one or two forms, so that an NN *tsy- is still possible. A number of other PTB forms with *-y- clusters show the same development as that generally followed by the *-w- clusters: the glide becomes a part of the rhyme. But whereas in the case of the *-w- clusters, this process creates a whole series of NN open-syllable rhymes -- *-ui, *-uay, *-uay, *-ua°y -- in the case of the *-y- clusters, it appears, with one possible exception, to be restricted to closed syllables (*-iaC). The exception is PTB *pyaw > NN *C_V-piaw, TO FLY.

With 22 initial consonants and four glides, the PTB syllable canon allows (even after phonologically implausible combinations are excluded) for a very large number of possible diphonic clusters. As no clusters survive in the Northern Naga languages themselves, the reconstruction of initial clusters for NN has been heavily dependent upon matching well-attested PTB prototypes to Northern Naga cognate sets with plausible initials correspondences differing from those attributable to simple initials in NN/PTB. Thus it is not surprising that the inventory of initial clusters reconstructible for NN should be poorer than that for PTB, which can draw upon

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languages where proto-clusters have been preserved. It may be that the process of simplification of initials which eventually eliminated all clusters in the Northern Naga languages had already been set in motion before the NN stage, so that the inventory of clusters presented above is reasonably complete. Or it may be that the clusters reconstructed here are only the commonest ones. In either case, NN is limited in the degree to which it can contribute to a more accurate representation of the full range of PTB initials.

In the case of the rhymes, to which we shall now turn, the situation is reversed. In the Northern Naga languages, simplification of initials (including elimination of prefixes and reduction of clusters) was balanced by stability in rhyme. Virtually the full range of PTB rhymes is represented -- and discriminable -- in NN. (NN actually goes further, in suggesting an expansion of the PTB inventory). Thus, I begin each of the two following sections -- on open-syllable and closed-syllable rhymes, respectively -- as I ended the treatment of initials: with a consideration of how the set of NN rhymes reconstructed below partially replicates and partially differs from the PTB rhyme pattern.

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3.9 Open-syllable Rhymes.

In the STC (58; 57, n. 188), Benedict reconstructs the following open-syllable rhymes for PTB (rhymes closed with the semi-vowels *-y and *-w are best considered in the class of open-syllable rhymes, rather than with those closed with consonants, and are generally so considered in TB studies):

i	e			a		o	u
əy	ey	ay	oy	ew	aw	ow	əw
		a°y			a°w		

I reconstruct the following set of open-syllable rhymes for NN:

i	e			a	o	u
əy	ey	ay	oy	aw	ow	əw
ə°y	e°y	a°y	o°y	a°w	o°w	ə°w
ui				ua		
uəy		uay		iaw		
uə°y		ua°y				

The differences between the two solutions are as follows:

1. There is only one PTB open-syllable rhyme which cannot be attested for NN: *-ew. But, as Benedict points out, this rhyme cannot actually be reconstructed for any PTB roots either; it is suggested only on the basis of a few (variable) correspondences between Lushai and Lakher and/or Mikir (STC: 68). If it exists at a level deeper than Proto-Kuki (including Mikir), it is extremely rare.[1] Its most probable reflex, -eu, does not

[1]Chang does have two forms which support these *-ew correspondences: kei 'to pick', K-N *d-k(h)ew; se 'to waste', K-N *m-hew. These could be from an NN *-e°w.

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occur in any Northern Naga language, although the parallel reflex, -oi (whose sources include NN *-o(°)y) is present in four of these languages (Yo/Wa/Ky/Ph).

2. Benedict reconstructs contrastive vowel length in dipthongs only for *-a(°)-. Variation in Northern Naga reflex patterns suggests that, in NN at least, vowel length is contrastive in all dipthongs. Benedict does speculate on the possibility that *-aw and *-a°w contrast in PST (STC 184, n.483) and that the vowel in 'blood' is long in PTB itself, *-a°y (pc), so that this suggestion is not without precedent or support. NN may well prove to be a fertile source of evidence for the reconstruction of vowel length in PTB, in both open and closed syllables.

3. Finally, the rhymes below the line are special developments in NN, from PTB *-w- clusters (and one *-y- cluster), as discussed above.

NN *-a is unique in that, in this one case, we are able to specify tone on the basis of the Chang reflex, reconstructing *-a^A or *-a^B (^{A} and ^{B} are Benedict's symbols for the two most common PTB accents). Final *-a is generally stable throughout TB, but the Chang alternation between -o(u) and -au had already been noted by Benedict in the original text of the STC (58), though treated there as free variation. In an earlier draft of this thesis I suggested that the difference might be attributable to differences of tone in NN, on the basis of fragmentary (illustrative) tonal data provided by Das Gupta (1971: 2) for Nocte. This was confirmed by a check

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of NN *-a forms against Benedict's recent work on the reconstruction of PTB accents (pcPKB), with these results:

		EAR	ELDER SISTER	I	GO (1)	MALE(OF ANIMALS) (2)	AXE	*-a^{A} — NIGHT (1)
Yo	-a	na	a ñ̃a	ŋa	ka		--	--
Mo	-a	na	--	ŋa	ka	-la		-ya
No	-a	na	i ñ̃a	ŋa	ka	-la	va-	-ja
Wa	-a	na	a na			-la	va	
Ky	-a	na	a ya-				a	-ya
Ph	-a	na-[1]	-ñ̃a				a	ya
Ch	-o(u)	nou	a no(u)	ŋo	ko	-lo	wo	-yo
NN	*-a^{A}	*na^{A}	*ʔ-ŋa^{A}	*ŋa^{A}	*ga^{A} 'go!'	*-la^{A}	*C$_{\text{v}}$-wa^{A}	*C$_{\text{v}}$-ya^{A}

1 in: na min 'cheek'; cf. Wa na vem, id.

also: ANT[b], CROW, TO DIVIDE(1), DOOR, DUMB, FATHER, LEG, PADDY, SON, SOUL[b], WOUND, all with Ch -o(u).

EAR PTB *r-na^{A} ~ *g-na^{A}: all accent symbols are (pcPKB).

ELDER SISTER PTB *(m-)na^{A}.

I PTB *ŋa^{A}.

TO GO PTB *ga^{A}.

MALE(OF ANIMALS) PTB *-la^{A}, masculine gender suffix used with words for animals (STC 96). Note that this is distinct from NN *la(B), -MALE(2) [of persons], > Ch lau 'husband'.

AXE PTB *r-pwa^{A}.

NIGHT PTB *(s-)ya^{A} (pcPKB).

It is not yet possible to reconstruct accent for all PTB roots. The sets presented in the table above are those for which NN *-a^{A} is confirmable. Among the others, only DUMB (Ch -o but PTB *-a^{B}) is contradictory to rule.

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		EARTH [a]	FIVE	FISH	EAT (1)	TOOTH	BITTER	CHIN	*-a^{B} BOW
Yo	-a	ha	ba ŋa	ŋa	sa	pa	kha	ka	—
Mo	-a	ga	ba ŋa	ŋa	sa	va		—	la
No	-a	ha	ba ŋa	ŋa	cha	pa	a kha	ka	la-
Wa	-a	ha	a ga	na	sa	va	kha	ka-	
Ky	-a	ka	ŋa	ña	ha	pha	kha-	ta-	lah
Ph	-a	ka-	ŋa	ña2	hak	pha	kha-	--	--
Ch	-au	kau	ŋau	ŋau	sau	hau	khau-	kau-	lau
NN	*-a^{B}	*ka^{B}	*C$_{V}$-ŋa^{B}	*ŋya^{B}	*dza^{B}	*swa^{B}	*C-kha^{B}	*ga^{B}	*la^{B}

also: ANGRY, BAMBOO(2), BEE[a], CLEAR, -FEMALE(3), TO LOSE, -MALE(2), MITHAN, SEROW, SLAVE, TIGER, TWENTY, all with Ch -au.

EARTH PTB *r-ka^{B}: all accent symbols are (pcPKB).

FIVE PTB *l-ŋa^{B} ~ *b-ŋa^{B}.

FISH. PTB *ŋya^{B}.

TO EAT PTB *dza^{B}.

TOOTH PTB *s-wa^{B}.

BITTER PTB *ka^{B}

CHIN PTB *(m-)ka^{B} ~ *(s-)ka^{B}.

BOW cf. PTB *bla^{B} 'arrow', with apparent semantic shift in NN, ARROW being generally represented by compounds < NN *la dza'n (cf.)

TO LOSE, HUSBAND, and SEROW also have PTB *-a^{B}; the other sets listed do not have external comparisons for accent (but of course themselves point to PTB *-a^{B}). There are no contradictory instances. The roots cited on these two pages do not exhaust the list of roots reconstructed with NN *-a; only those sets having Chang cognates (thus reconstructible with ^{A} or ^{B}) are given.

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The list of *-a sets for which no Chang cognate is available is: TO CARRY ON THE BACK(2), COMPLETE(1), TO GIVE(2), HUNDRED, MOON(1), PALM/SOLE(1), PERSON(1), PUT, RIGHT-HAND, TO TAKE(1)/TO GIVE, TO TIE(1), WOOD/FIRE-WOOD(2), WORD(1). Two of these sets, TO TAKE(1)/TO GIVE and WORD(1), have Phom -aʔ, as in FISH (also BEE [aʔ]). Glottalization is in TB generally a reflex of the *-B accent (with -ʔ in Garo and Chepang)(pcPKB), so that these two sets can be reconstructed with NN *-a^B even in the absence of a Chang cognate; this is verifiable for TO TAKE(1)/TO GIVE, NN *C-la^B < PTB *(-)la^B. Weidert gives Yo and/or No -aʔ for a number of NN *-a^B forms (BITTER, CHIN, EARTH, EAT), and Yo boʔ, No baʔ, TO CARRY ON THE BACK(2), (hence) NN *ba^B (PTB *ba; the Yo -o- is probably a result of the labial initial).

Phom also shows an apparent *-a > -o shift in two of the sets listed above, having to(-) for NN *ta in COMPLETE(1) (Ph to pə 'end, last'; cf. WT mtha 'end', tha ma 'last') and in TO PUT (Ph to, PTB *ta).

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		TWO	STAR [b]	GrMo	TO LAUGH	*-i (1) BLOOD (2)
Yo -i ~ -ei/-ʌi ~ -i		a nei/ʌ nʌi	-sei/	vi-[1]/	/ni	
Mo	-i	a ni	-si	vi-[1]	ni	
No	-i	-ñi		vi	ŋi	
Wa	-i	a ni	-si	--	ñi	a ji
Ky	-i	i		-pi	ñi	i
Ph	-i	ñi		--	ñi	i
Ch	-i	ñi		pi	ñi	si
NN	*-i	*ʔ-ni	*dzi	*pwi	*C$_V$-ni	*syi

Yo -i ~ -ei (Walker)/ = /-ʌi ~ -i (Weidert)

1 in: Yo vi kau, Mo vi kru 'old woman' (No vi ku, Ky pi yoŋ).

also: OIL(1), POOL(2), SEED, TO SLEEP(2).

TWO PTB *g-ni-s.

STAR probably from PTB *zəy 'small, minute'.

GrMo PTB *pəy. But, as suggested in the discussion of the initial, the NN root may instead be from *pwi(y) 'female, feminine affix'.

LAUGH PTB *m-nwi(y) (Jg./Di. -ni, both showing elision of the *-w-).

BLOOD PTB *(s-)h(y)wəl:ʔy. See discussion under BLOOD (1), NN *C-hə°y, and BLOOD(2) under initials. I suggest that NN *syi is a result of the same process which yielded Lu. thi, as reconstructed by Benedict (STC 51, n.169): *s-hywi > *s-yi > {NN *syi, pre-Lu. *si > Lu. thi}. Benedict also speculates on the possibility that the PST rhyme for 'two' is *-ə°y (STC 186, n.486), so that NN *-i may be an alternative reflex of *-ə°y at the PST level.

Except for *-a, pure vowels are much less common than dipthongs in PTB, but simplification of the latter to pure vowels in many TB languages makes discrimination dif-

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ficult; hence, the large number of STC reconstructions having the form *-u(w) or *-i(y) -- i.e., in the revised formulation, *-u or *-əw, *-i or *-əy. Among the Northern Naga languages, -i is the reflex of both *-i and *-əy in Mo/No/Wa/Ky/Ph, but divergent developments in Yogli and Chang make discrimination between the two proto-rhymes possible in most cases. These developments, however, are complex.

In Chang, the usual reflex of NN *-i is -i, as illustrated in the table above, while the usual reflex of NN *-əy is -ei. This at least seems straightforward, but is potentially complicated by the variation discussed in Section 2.2.2(7); this variation, however, does not appear to obtrude upon the reflexes of these two proto-rhymes. Chang has both -i and -ei in other correspondence sets, but these sets are clearly set off by reflexes other than -i in other languages.

In Yogli, *-əy > -ai (Walker)/-ʌi (Weidert), an equation supported by the parallel development of *-əw, > -au (Walker)/-ʌu (Weidert). As the forms in the table above illustrate, however, the development of *-i in Yogli appears to be variable. The contrast between TWO and FOUR seems clear-cut enough if one looks only at Walker's transcription:

	PTB	Yogli(Walker)	Chang (thus):NN	
TWO	*g-ni-s	a nei	ñi	*-ni
FOUR	*b-ləy	bə lai	lei	*-ləy

But Weidert has Yo ʌ nʌi 'two' (as if from *-əy), while

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giving Yo ni 'to laugh' (Ch ñi). This apparent variation in Weidert's transcription is matched by Walker, who has vi kau 'old woman' (Ch pi 'grandmother'). As GRANDMOTHER and TO LAUGH, with their identity correspondences in -i, can hardly be attributed to any prototype other than *-i,[1] and as the *-i reconstruction for TWO seems firm on grounds of both internal and external comparison, I reluctantly admit variation in the Yogli reflexes of *-i in both sources. Except in the case of Weidert's -ʌi for 'two', however, the contrast with the Yogli reflexes of *-əy remains. Any number of conditioning factors might be proposed to account for the variation, but the data are insufficient to justify writing a rule.

The forms I list under *-i (2) differ from those listed under *-i (1) only in Chang; as a parallel distinction must be drawn for *-əy, I defer presentation of these until after that of *-əy (1) and *-əy (2).

It should be noted that the contrast between Ch -i < *-i and Ch -ei/-ai < *-əy is sufficient to distinguish these two proto-rhymes wherever a Chang cognate having either of these two rhymes is included in a set having -i elsewhere (except in Yogli); the only *-i/*-əy set without such a Chang cognate is STAR[b] above, assigned to *-i on the basis of Yo -ei (Walker), matching Walker's -ei in TWO. The Yogli forms are otherwise confirmatory.

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[1]PTB *m-nwi(y) for LAUGH suggests the possibility of NN *-ui or *-uəy, but the reflexes of both of these proto-rhymes (see below) include forms in -u and -ui.

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		FOUR	THREAD /...	HEAVY	WATER (1)	EGG	CLOTH (2)	WE *-əy (1)
Yo	-ai/-ʌi	-lai/	/rʌi	--				naŋ-[2]
Mo	-i	-li	ri-[1]	-li		-di		ni-
No	-i	-li	-ri	-li	ti 'soup'	ti		ni-
Wa	-i	li	--	li	ti	-ti	ni	
Ky	-i	-li	wi	yi-	-ji- 'honey'		ni	
Ph	-i	-li			-ji- 'honey'	-ti	ni2	
Ch	-ei	lei	lei	-cei-	tei	-tei	nei	-nei-
NN	*-əy	*-ləy	*rəy	*lyəy	*təy	*C_V-təy	*C_V-nəy	*nəy

Yo -ai (Walker)/ = /-ʌi (Weidert)

1 in: Mo ri pu 'cotton' (Ky wi also = 'cotton').

2 in: Yo naŋ taŋ < *nai taŋ (form from Walker).

FOUR PTB *b-ləy.

THREAD/(< LINE >)/BOUNDARY (identical forms in comp. for latter gloss), PTB *rəy 'mark, draw a line, boundary'.

HEAVY PTB *(s-)ləy.

WATER PTB *ti(y).

EGG PTB *ti(y) 'water', in comp. with 'bird' or 'fowl'.

CLOTH PTB *b-ni(y) 'skirt'.

WE Cf. SW Naga: Puiron a ni, Nr. a niu, Ze./Mz. a nui.

The attribution of Ch -i to NN(/PTB) *-i and of Ch -ei to NN(/PTB) *-əy (as in TWO and FOUR, respectively) is here supported by external comparisons pointing to PTB *-əy for LINE and for HEAVY, while the NN reconstructions favor the same PTB prototype for WATER and CLOTH.

The sets listed under *-əy (2) (following page) differ from those above only in having Ch -ai in place of -ei, with a specifiable conditioning factor: -ei > -ai/h__.

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*-əy (2)

		SOUR	TO DIE	TO LOOK FOR
Yo	-ai/-ʌi	--	--	dai/
Mo	-i	ə hi 'acid'	ti	thi 'seek'
No	-i	a si	ri	--
Wa	-i	si	zi ~ ji	
Ky	-i	si-	li	
Ph	-i	thi-	(di)	
Ch	-ai	hai-	hai	hai-
NN	*-əy	*krəy	*səy	*srəy

SOUR PTB *kri(y).

TO DIE PTB *səy.

TO LOOK FOR cf. Mk. ri 'look for, seek', Mpri. thi, id.

The conditioning factor here could be general, i.e., Ch -ei > -ai/h__, but a precisely parallel situation exists with the Chang reflex of *-əw after h-, so that it is preferable to write: NN *-əy > Ch -ai/(Ch)h__, NN *-əw > Ch -au/(Ch)h__. The two rules could of course be compressed into one, as a single development is involved; but the other Chang reflexes of these two proto-rhymes show no such parallelism.

Chang has still another reflex of *-əy: -at (possibly ~ -et after palatal initial), a development also found in *-i (2) > Ch -et (and yet again in *-ə°y > [-ei ~ -ai ~] -at). These Ch -t reflexes of NN open-syllable high-front-vowel rhymes are apparently a result (though not an invariable result) of NN *s- prefixes:

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*-i (2) and *-əy (3)

	URINE	DAY (1)	BAD(2)
Yo -i	ši	--	
Mo -i	--	-ni	
No -i		-ñi	-chi
Wa -i	--	-ñi 'today'	
Ky -i	ši	ñi	
Ph -i	--	ñi2	
Ch -et	cet	ñet	šet 'spoilt'
NN *-i	*C-chi	*C-ni	*C-dzi(y)

		MAN (GENERIC)	DUNG
Yo	-ai/-ʌi	mai/mʌi	/xʌi2
Mo	-i	mi	di
No	-i	mi-	hi2
Wa	-i	mi	--
Ky	-i		ši
Ph	-i		--
Ch	-at	mat	sat
NN	*-əy	*C-məy	*C-kləy

Yo -ai(Wa.)/ = /-ʌi(We.)
also: LOUSE(3).

URINE PTB *ci.

DAY PTB *(s-)nəy, but NN *-i is required to account for the palatalized initial in Chang.

BAD cf. Lu. chhia, SW Naga si(a).

MAN PTB *r-mi(y).

DUNG PTB *(s-)kləy.

The NN *-i reconstruction for URINE is indicated by both external (PTB *-i) and internal (Yo -i) considerations. The NN *-i reconstruction for DAY, as noted above, is required, even in the face of PTB *-əy, to account for the palatalized initial in Chang (see Section 3.7). Together with MAN and DUNG, this establishes a basic contrast of *-i > Ch -et / *-əy > Ch -at for these -t forms. *-i is thus indicated for BAD as well, though there is the possibility that the vowel here has been raised by the palatal initial; this does not, however, apply to DAY, where, given NN *-n-, it is the initial

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which must be explained. DAY thus joins STAR[b] as a case in which a PTB *-əy (based in both cases on WB -e) apparently yields an NN *-i.

The idea that it was an *s- prefix which produced the Ch -t in DAY is Benedict's (pc), based on an identical development in Chinese. I have generalized this suggestion to account for the -t in the other sets shown above. The *s- prefix (NN *C-) is required to account for the initials in DAY and DUNG, and has been reconstructed for URINE (which requires some kind of prefix) and for BAD and MAN (which do not) on the basis of the Ch -t. The only negative case -- where I have reconstructed an *-i or *-əy set without Ch -t with a *C- prefix -- is TO SLEEP(2), *C-khli.

As the NN system of open-syllable rhymes took shape, it fit into the PTB framework outlined in the STC fairly well in most cases. There remained, however, some cognate sets which resisted inclusion in a matrix isomorphic with that presented in the STC. A number of these sets suggested the presence of front and back long-vowel dipthongs in addition to the STC's *-a°y and *-a°w. Thus, in addition to *-i and *-əy, I set up NN *-ə°y. The data available on the sets assigned to this proto-rhyme are fragmentary, however, so that these assignments must be considered tentative.

Chang appears to show the same variable development from *-ə°y as from *-əy, with -ai/h__ and one -at:

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		DO/MAKE (3)	KNOW (1)	TO LEARN	SHAME (1)	BLOOD(1)	TO FEAR *-ə°y
Yo	-ai/-ʌi		--	--	--	-hai/-hʌi	-khiar[2]
Mo	-i		--	--	--	ta gri	-hi
No	-e(i)	re 'do'	-jet[1]	he(i)	re-	he	ce
Wa				--	--		
Ky	-i	wi 'make'		ši			
Ph	-eə		yeə?- 'wise'		veə		kheə 'tremble'
Ch	-e(i)	-lei 'work'				hai 'marrow'	hat
NN	*-ə°y	*rə°y	*C-yə°y	*C̬-syə°y	*rə°y	*C-hə°y	*C-khrə°y

Yo -ai (Walker)/ = /-ʌi (Weidert)

1 i jet *i je + -t. Cf. (e.g.) ri ~ a rit 'to die'.

2 a khiar: -r is not a canonical final in Yogli; *-r > Yo -l. The form is probably derived from a reduplicated prototype (see discussion in Chapter IV); it is useful for the initial but not for the rhyme.

also: YOUNG.

DO/MAKE cf. Yi. rhi mo 'work' (mo < PTB *mow 'move, work, do'), possibly also WT rigs pa 'necessary' (the Ch form for 'work' is also glossed 'necessary').

KNOW PTB *syey. Note that the Garo and Di. forms attributed to this root have -i rather than the expected *-e(i), "to be explained on the basis of the medial y element of this root (e dropped between y's)" (STC 65, n.206). Perhaps a similar explanation accounts for the NN vowel.

LEARN also PTB *syey, with the NN prefix associated with the semantic shift from 'know' to 'learn'.

SHAME cf. WB hi ri 'shame'.

BLOOD PTB *(s-)h(y)wə[°]y. The STC has just *-əy, but Benedict (pc) now reconstructs *-ə°y.

FEAR PTB *kri(y).

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The cornerstone of this precarious correspondence set was TO FEAR, with (whatever its other oddities and omissions) its Mo -i : No -e(i) (Das Gupta has a cei 'afraid') correspondence on the one hand, and the clear indication of a high front vowel in PTB *kri(y) on the other. Mo -i : No -e(i) can come from *-a°y or *-o(°)y, but as we have seen, the Nocte reflex of both *-i and *-əy is always -i.

The same Mo -i : No -e correspondence recurs in BLOOD(1), here associated with Yo -ai/-ʌi, which, as we have seen, is the Yogli reflex of *-əy. Now, these forms could also be from *-a°y (cf. Jg. sai 'blood'), except that we should expect Yo -ai/-ai in that case. But Matisoff, in suggesting that there are really <u>two</u> PST/PTB roots for BLOOD/MARROW (1978: 184), still appears to group Jg. sai with Chinese *xiwet, and Benedict (pc) now derives both of these from a PST/PTB *(s-)hwə°y. Nowhere is there a suggestion that the rhyme in any PST/PTB root for BLOOD is anything other than a high-front-vowel rhyme.

Thus the external comparisons for BLOOD and FEAR seem to point to an *-ə°y (*-əy and *-i being precluded by No -e(i)) for the Yo -ai/-ʌi : Mo -i : No -e(i) correspondence. Two problems remain: why should NN *-ə°y yield No -e(i)? And, what are the reflexes of this purported proto-rhyme in the other Northern Naga languages?

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An answer to the first of these questions can be phrased in terms of pattern symmetry. As we shall see, No -i is not only the reflex of *-i and *-əy, but also of *-ey and *-ay; on the other hand, No -e is the reflex of both *-e˚y and *-a˚y. That is, the distinction between No -i and -e does not reflect the distinction between high and mid vowels in proto-dipthongs, but rather the distinction between short and long vowels.

What, then, are the reflexes of *-ə˚y in Wa/Ky/Ph /Ch? The words for 'blood' in these languages all have -i: Wa -ji, Ky i, Ph i, Ch si. But *-h- > Wa j- seems unlikely, and the Chang for 'to fear' (Wa/Ky/Ph draw on entirely different roots for this word) is hat. This form is derivable from a *C- ... -əɬ˚y, but it is difficult to see it coming from the same proto-rhyme as the Ch -i in 'blood'.

At this point Matisoff's argument for two PST/PTB roots for BLOOD/MARROW may be invoked, as the Chang form for 'marrow', hai, is just what we should expect as the reflex of an NN *(-)həɬ˚y (unfortunately, we do not have the term for 'marrow' in any other Northern Naga language). Thus I suggest that it is this form, hai, which is cognate with the Yo/Mo/No forms for 'blood', and that the Chang form for 'blood', si, along with the Wa/Ky/Ph forms in -i, is attributable to a different NN(/PTB /PST) root, whose rhyme is simply *-i.

If Ch -ai (/h__, in 'blood') and -at (< *C-, in

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'fear') are among the reflexes of NN *-ə̆ˑy on the pattern for *-əy we should expect the usual Ch reflex of *-ə̆ˑy to be -ei. Confirmation appears to be secured in the set for TO DO/TO MAKE(3), whose No -e : Ky -i : Ch -ei correspondence is not assimilable to any other proto-rhyme. (The glosses for this set, which also include 'necessary' and 'busy' in Chang, comprise a semantic field in Northern Naga; cf. the glosses for the forms attributed to PTB *mow 'move, work, do', also 'work, business', STC 64.) This establishes -i as the Ky reflex of *-ə̆ˑy.

There is one unresolved problem with the set for BLOOD(1). I have reconstructed *C-hə̆ˑy for this set, on the model of PTB *(s-)hwə̆ˑy, but a *C- prefixed *-əɬˑɨy form should give Ch -at, just as in FEAR, rather than -ai. The probable solution is that the NN prefix for BLOOD(1) should be *C̬- rather than *C-. Note that Moshang retains a rare consonantal prefix for 'blood' -- at least that is probably how the ta- is to be interpreted -- and that this prefix, ta-, is the same as that found in the Moshang forms for the numerals 'six', 'eight', and 'nine', where it is to be attributed to NN *C̬- (= *d-). This prefix is also found in Angami (Ko. the zie, matching that for 'nine', Ko. the ku) and in Liangmai (ta zai 'blood', cf. ta cat 'eight', Ko. the tha). It thus seems probable that NN, along with Southern Naga, has substituted *d- for *s- in BLOOD(1), and this would explain why Chang has hai rather than

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hat in this set.

The next step in the construction of the correspondence set for *-ə°y was the recognition that this rhyme might be the source of the rare Phom -eə, found only in the three forms shown above (and in 'teacher', also yeə?-, a compound of TO KNOW). The key form in this regard is kheə 'tremble', whose initial fits well with the *-khr- for FEAR.[1] A shift from *-əy > -i to *-ə°y > -eə in Phom would parallel the -i to -e(i) shift in Nocte, and the three additional sets shown above, the related KNOW(1) and LEARN, and SHAME, provide some additional support for the correspondence. No Wancho cognate form for any of these sets could be found.

The correspondences for *-e°y are in fact very similar to those for *-ə°y, but the two sets are contrasted in Yogli, Konyak, and Phom:

	*-ə°y	*-e°y
Yo	-ʌi (Weidert; as for *-əy)	-i (We.; as for *-ey)
Ky	-i (as for *-əy)	-ei (as for *-ey)
Ph	-eə	-ei (as for *-ey)

[1]The remarkably similar Khasi form khiu?, 'tremble' (GEM 213) must be noted, but cf. also Lhota khyut 'to fear'. If a loan is involved, it is more likely into Khasi, as TB *kri(y) is widespread (WT, Jg., Lu.).

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		TO BUY (1)	TO BE (2)	CANE (1)	(TO) BARTER	TONGUE	*-ey TURN(2)/ RETURN(2)
Yo	-i ~ -ei/-i	-rei/ri	lei/	--	--	li/li	--
Mo	-i	ri		ri	--	-li	--
No	-i	ri		ri	-lit-	-li	-lit 'turn'
Wa	-e		le	re	--	le	--
Ky	-ei(-i/y_)			wei	-lei[1]	yi	yi 'return'
Ph	-ei				--	yei	-lei 'return'
Ch	-i			li	-ci	li-	
NN	*-ey	*rey	*ley	*rey	*lyey	*C-ley	*lyey

1 in: hat lei 'market'

Yo -i ~ -ei (Walker)/ = /-i (Weidert)

also: TO EAT(2), Yo sei/, Ky hei 'food', NN *they; cf. Mz. tei.

FRUIT(1), Yo /-di, No -ri, NN/PTB *sey.

I give the data for these two additional sets to show that NN *-ey is not invariably associated with an initial liquid, though it is true that TO EAT could also come from *-e°y and that the Nocte form for 'fruit' has a liquid even though its prototype does not. It is not the case, however, that No -e > -i/r__; cf. the No re(-) forms < *re°y.

TO BUY PTB *b-rey.

TO BE cf. Mpri./Ze./TN lei, Maring Lai, Ao (a)li, all 'to be'. PKB points out that, except in Ze., these rhymes are the same as those for 'fire', PTB *mey.

CANE PTB *rey.

BARTER PTB *(r-)ley.

TONGUE The STC has PTB *m-lay ~ *s-lay, but Benedict (pc) now reconstructs the rhyme as *-ey.

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TURN/RETURN cf. Mpri. lei sin, TN Ši rei, Ze. nrei waŋ, Rengma nri, Ko. rə-rei, all 'to turn' (NN *ly-: TN/Ze./Rengma r- also in 'heavy').

Walker's -i (rather than -ei) in the Yogli form for TONGUE would be more distressing if it were not for the necessity of positing -i ~ -ei variation in Walker's Yogli for *-i as well (above). The variation could be a matter of morphology, with Walker's dipthongs representing the non-finite forms of verbs (and numerals, i.e., TWO): cf. Yo lu (F)/loi (NF) 'catch', thu (F)/thoi (NF) 'dig' (Weidert), but Weidert gives Yo ri for both forms of 'to buy'. Initial conditioning seems ruled out by the juxtaposition of Yo li 'tongue' with lei 'to be', but the latter could as easily come from *-e°y; this, however, would still leave an improbable cotrast between li and -rei 'to buy', which cannot come from *-e°y. Thus I leave the matter as a case of unexplained variation in the Yogli rhyme, as for *-i.

The Chang reflex, though consistent, also presents a problem, because an *-ey > -i shift in the face of the well-documented Chang *-əy > -ei shift seems implausible. Nevertheless, it should be pointed out that the Chang shifts do parallel those in Yogli:

NN *-i	> Yo	-i ~ -ei/-ʌi ~ -i		NN *-əy	> Yo	-ai/- i	
	> Ch	-i			> Ch	-ei	
NN *-ey	Yo	-i ~ -ei/	-i				
	Ch	-i					

That is, where Walker has -ei as the usual reflex of an NN proto-rhyme, Chang has -i; where Walker's Yogli -ei

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lowers and centers to -ai, Chang -i follows a comparable path, lowering and centering to -ei.

Nevertheless, only three of our NN *-ey forms are represented in Chang. The possibility remains that the Chang reflex of *-ey, as of *-a, may vary with proto-accent; this possibility receives some support in variable Chang reflexes of other proto-dipthongs, as we shall see. If this were the case, FALSE(2) (below) could represent (e.g.) an *-ey^{B}. The other sets shown below, however, are distinct.

*-e˚y

	TAIL	MEAT/ FLESH(1)	WIND	FALSE (2)
Yo /-i	/ʌ mi	--		
Mo -e	a mi	--	--	
No -e	a me	cf. -me-[1]		
Wa -e/-ai	me-/	me-/mai	-ce/-cai 'storm'	
Ky -ei	ə ñei	mei		-lei-[2]
Ph -ei	--			-lei-[2]
Ch -ei	mei	mei 'game'	yei	-lei[2]
NN *-e˚y	*C-me˚y	*me˚y	*gle˚y	*le˚y

Yo /-i (Weidert)

Wa -e (Brown)/ = /-ai (Peal)

1 in: ham-me-cha 'kani paddy' (DG; cha = 'paddy'); cf. Wa mai ku 'cucumber', Ch mei 'sago palm', Šu mei 'bean', Bodo-Garo *m[a,e]y 'rice (paddy)'. This may or may not be the same morpheme.

TAIL cf. PTB *r-may.

MEAT cf. Di. mei 'deer', Mk. me saŋ 'langur', Ze. he mei 'meat, flesh'.

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2 in: Ky ŋao lei 'to lie' (ŋao = 'word'), ta lei pu 'false', Ph ñoŋ phi lei mɔ, Ch to lei 'to deceive'

WIND cf. PTB *g-l y.

FALSE cf. Mk. pa che rei 'false; to deceive'.

In spite of the suggestion of the PTB reconstruction for TAIL, an NN *-aɾˀy is impermissible for this set, as it would require -ai reflexes (see below). The reflex pattern for TAIL is what we should expect for an NN *-eˀy. As noted above, it is similar to that for *-ey but also retains a mid-vowel in Nocte and in Chang.

In Chang, -e and -ei are not contrastive. There is no reason to think this is so for Konyak: there are no morphemes which Marrison gives with -e in one instance and -ei in another, and he lists both rhymes in his phonemic tables for Konyak (GEM 70, GEMa 353) and for Phom (GEMa 363). Ky -e is not uncommon, but few Konyak forms in -e can be related to forms in other Northern Naga languages. In the four cases in which this is possible (other than those with Ky -e < NN *-al), it corresponds to No/Wa/Ph -e and Ch -ie -- which otherwise appears as a variant reflex of *-ay, > Ch -e ~ -ie. These sets, and especially the distinctive Ky -e, point to the existence of an NN *-e in addition to *-ey and *-eˀy. Compare:

Yo	-i ~ -ei/-i	/-i	-i/
Mo	-i	-i	-i
No	-i	-e	-e
Wa	/-e	-e/-ai	-e/
Ky	-ei(-i/y_)	-ei	-e
Ph	-ei	-ei	-e
Ch	-i	-ei	(-e~)-ie
NN	*-ey	*-eˀy	*-e

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		TO QUARREL(1)	LOW (2)	TEA	TO COUNT	ONE(1)	*-e
Yo	-i/	--	--	--	--	a šǐ/	-i (Wa.)/
Mo	-i	--	--		--	a ši	
No	-e	-khe 'quarrelsome'		khe-	ve	-the	
Wa	-e	a he	-se	--	--		
Ky	-e	še	še-	khe-	ke		
Ph	-e	--	--	--	e		
Ch.	-ie			--	wie	cie	
NN	*-e	*C-kye	*kre	*C-khe	*2-we	*$\underset{v}{C}$-tse	

QUARREL cf. WT gyed (with suffixed -d?) 'to fight'.

LOW cf. Ko. pe khre 'to whisper' (cf. Ph/Ch forms for 'whisper, mutter' < NN *nium, LOW(1), PTB *nam 'low').

ONE cf. Di. se, Mk. i si (Di./Mk. s- < PTB *ts-; see STC 27(62), 64(276). Like TB *-e, Di. -e is apparently very rare. The Dimasa reflex of PTB *-ey is -ai (STC 62), and Di. -ai is also atributed to PTB *-e (STC 59: 253, 254), but Benedict (pc) now favors *-ai for the better-attested of these two roots (TO BREAK). Thus the Di. -e in 'one' gives strong support to the NN *-e reconstruction for this root. Against the possibility that the rhyme in ONE might be *-e°y, compare:

	Dimasa	Mikir	NN
TAIL	-mai	-me	*-me°y
ONE	-se	-si	*-tse

My suggestion on the preceding page that Chang may actually have -e ~ -ie for *-e is based on Ch ue (probably /we/) 'to read', possibly an alternative form of wie; Nocte has ve for both 'to read' and 'to count', and Chang has -e(i) ~ -ie for *-ay (below).

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		BRIDGE	FAR(2)	LIGHT/TO SHINE	TO LICK	MEAT/ FLESH (2)	LEAF(2)/ BOOK
Yo		--	--	--	--	--	--
Mo	-i	hi		--	--	--	
No	-i[1]	si					
Wa	-ai	šai	-tai	-ŋai	--		
Ky	-ai	šai	jai-	-ŋai	yai		lai 'book'[2]
Ph	-ai	--	tai-	-ŋai	lai	phai (both)	lai 'book'
Ch	-e(i)∼-ie	--		ŋe- 'dawn'	se	pheh∼phie (both)	lie[2]
NN	*-ay	*C̬-kray	*C̬-tay	*nay	*C-glay	*phay	*lay

*-ay

1 ∼-iet. The common sffixation of -t to Nocte front-vowel rhymes (-i∼-it, -e∼-et) apparently produces in the case of *-ay the distictive reflex -iet (cf. Ch -ie:

TO SURPASS: No a liet-, NN *lay (PTB *lay).

TO SOW(2) : No a khiet, Ch kie, NN *C̬-gay (∼ SOW (2), *C̬-ga°y; cf. Di. gai, Jg. gat).

2 also Ky lai lan 'letter' and possibly hui lai 'vegetable' (hui < NN *dzui, VEGETABLE, -lai ≈ 'leafy'?), Ch nəɣ lie 'book' (nəɣ = 'word', hence ≈ 'word-leaf'), hoŋ lie 'paper' (hoŋ < haoŋ 'foreigner', hence ≈ 'foreigners' leaf').

also: TO BREAK(2), CHANGE/EXCHANGE. PTB *-ay for both.

BRIDGE cf. Jg. ma khrai, Di. yao kha rai, TN šai.

FAR PTB *tay 'great, large' (cf. Wa tai hu 'many').

LIGHT/ SHINE Proto-Tai *hŋaay (pcPKB). Cf. Mpri. ŋan 'to shine', ma ŋal 'light' ('dawn' in comp.)

TO LICK PTB *g-lay (pcPKB).

LEAF/ BOOK cf. Di. ba lai 'leaf', Jg./Mpri./TN lai-, Lu. leh- 'book', Lu./TN also in 'letter' (PTB *-ay > Lu. -ei, STC 62).

This set and the next, for *-a°y, are so soundly supported that the only problem is deciding which is which. But cf. No -i < *-ey, *-əy vs. -e < *-e°y, *-ə°y.

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		GrFa(1)[1] /elBr	BETEL NUT [b]	MOTION VERB	SING (1)	TO SOW (1)	*-a°y SOFT (2)	GOOD (2)
Yo	-ai/-ai	a tai/	--	pai/ 'lift'	/šai	--		
Mo		--	--				--	
No	-e(i)	te(i)	-ve		se(i)	khet[4]		
Wa	-ai	a tai	-vai	pai- 'lift'		--	nai	mai
Ky	-ei	jei-	-wei	pei 'come'	hei-[3]	tei	ñei- 'cheap'	mei-
Ph	-ei	-jei	--	pei 'come'[2]		šei		mei-
Ch	-ai	jai		pai 'walk'			-ñai-	mai-
NN		*-a°y	*C-ta°y	*C-wa°y	*pa°y	*ca°y	*C̬-ga°y	*ña°y	*ma°y

1 'GrFa' in Yo/No, 'elBr' in Wa/Ky/Ph/Ch.

2 It is the Phom form which ties the set together, as it is glossed not only 'come' (cf. Ky) but also 'stand' (cf. Yo/Wa)

3 in: hei lem 'voice'.

4 'to plant' (Robinson), also in khet a li 'seed' (Das Gupta), cf. Ph šei li 'seed' (SEED: NN *li).

Yo -ai (Walker)/ = /-ai (Weidert)

also: AFTER, TO DANCE, TO JUMP, MARKET, NAVEL(1), TO PLAY, SAND(3), TO THINK(1).

GrFa/elBr — possibly related to PTB *ta[°]y 'great, large'. See the parallel semantic field reflected in the similar form *C-tho°y, SMALL (/PARENT'S [y]Z/Br) < PTB *doy ~ *toy '(parent's) younger sibling', but always in comp. with F/M terms and elsewhere also 'short', 'small'.

BETEL NUT [b] — See discussion under initial. First syllable reflects 'betel nut' itself. This is from PTB *wa-t 'bite, chew' (Di. wai). Cf. TO DANCE, NN *rya°y < PTB *rya-t 'laugh, sport, play'.

MOTION VERB — Cf. Angami: Ko./Kh. pe-, Mao phe- 'raise, lift'; Di. phai 'come'.

TO SOW(1) — As for SOW(2), *C̬-gay, cf. Di. gai, Jg. gat.

SOFT — PTB *na°y (WB nai) 'knead, twist; cf. WB jhe:

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nai 'cheap', and as further evidence for the 'cheap' ≃ 'soft' association in Northern Naga semantic structure, Ch sek ba 'expensive', sek ok ba 'hard', NN HARD(2), *jek. Cf. also Ch ñai 'to chew'.

GOOD PTB *ma[°]y.

The distinction between PTB *-ay and *-a°y is difficult, because many TB languages (including five of the six "key" languages used by Benedict to establish TB diphthong correspondences: STC 62, 65) have merged the two rhymes. The exception is Lushai, which (like Chang) has -ei < *-ay but -ai < *-a°y. Benedict treats *-ay as the unmarked member of the pair, writing *-ay rather than *-a[°]y when no Lushai cognate is available (STC 66). His *tay and *may reconstructions for 'great, large" (NN GrFa/elBr) and GOOD are of this order, as I have indicated in my PTB representations for these forms. Determinate reconstructions in *-a°y can be made for three of the above sets, however: SOFT(2), PTB *na°y; TO PLAY, Ch -cai- < NN *C$_V$-tsa°y < PTB *(r-)tsya°y; and TO JUMP, Ph -ei, Ch ai < NN *ba°y (Lu. bai 'to hop'). These three sets establish the Wa -ai/Ky-ei/Ph-ei/Ch-ai correspondence for PTB/NN *-a°y, and the rest (Yo/No) follows. Thus a distinction between *-ay and *-a°y is maintained in at least four of the Northern Naga languages (No/Ky/Ph/Ch) and NN can be added to Lushai as a source for determining vowel length in PTB *-a[°]y forms. Hence, one can now write PTB *ma°y 'good' and PTB *(s-)ta°y 'navel, abdomen' (No -te 'navel') as well as PTB *ba°y 'jump, hop'.

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*-oy

		WHITE (2)	ARRIVE (2)	TO REVOLVE/ ROUND/AROUND	TO SEE
Yo	-oi	-poi[1]	...		khoi
Mo	-i	-pi [1]	—	--	khi
No	-e	-pe [1]	...	-ke[3]	khe
Wa	-oi		-ŋoi-[2]		--
Ky	-oi(-i/š_)		ŋoi	toi- 'round'	ši-[4]
Ph	-oi(-i/š_)		ŋoi	ši- 'round'	
Ch	-ai	-pai- 'return'	ŋai	kai 'revolve'	
NN	*-oy	*poy	*ŋoy	*goy	*khyoy

1 in: Yo ya poi/Mo ya pi 'moon', No da pe 'month'. The first syllable by itself is MOON(1), NN *gla.

2 in: Wa tem tu ŋoi pu 'where come from?' (Peal); tem . . . pu is apparently an interrogative formation, 'what ~ where ~ why?'.

3 in: No hum ke 'court-yard' (hum = 'house'). For the semantics, see the round of meanings encompassed by PTB *hwaŋ, e.g., Jg. waŋ 'surround, encircle; circle, enclosure, compound', Lu. huaŋ 'enclosure, yard'. The Ch form is also found in kai cam 'to encircle'.

4 in: Ky ši pa 'witness' (pa = AGENT NOUN SUFFIX).

WHITE cf. WB phwe: 'very white' (pcPKB); WB -we may come from *-oy as well as *-way (STC 67, see below under REVOLVE/...). For the 'moon'-'white' association, see also WHITE(1) and WHITE(4).

REVOLVE/ ... PTB *koy 'bend round, curve' (WB kwe ~ khwe).

TO SEE cf. Jg. coi < *kyoi 'know, understand'.

The reflexes of NN *-oy are identical to those of *-a°y except for the substitution of -oi for -ai/-ei in Yo/Wa/Ky/Ph (recall that Chang does not have -oi). The reflexes of *-o°y are identical to these except in Chang:

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		SMALL (/PARENT'S [y]Z/Br)	MONKEY	HORSE	CURRY	*-o°y DEBT
Yo	-oi	-šoi 'aunt'	--	--	--	--
Mo	-i	-si 'aunt'	vi-	gi-		--
No	-e		ve			--
Wa		--			--	--
Ky	-oi	joi-/-joi[3]		koi	hoi[4]	--
Ph	-oi(-au/_y)	-joi[1]/ --	-	kau ye	hau yaŋ 'mustard'	--
Ch	-o	-co-[2]	o 'gibbon'	ko-	--	so-[5]
NN	*-o°y	*C-tho°y	*wo°y	*ko°y	*dzo°y	*C-kro°y

1 in: laŋ joi 'table' (laŋ = 'bed'). See under initial for discussion.

2 in: ham bi co bə 'small', co bu 'remainder', co ŋa 'mere', sat co 'small fig', etc.

3 in: a ñu joi 'aunt', a pa joi 'uncle' (a ñu = 'Mo', a pa = 'Fa'). See under initial for proof that these terms refer to parents' younger siblings.

4 also in: yan hoi 'mustard'.

5 in: so bu 'bail, security'.

SMALL PTB *doy ~ *toy, glossed 'younger(youngest) sibling', but almost always found in forms for parent's younger siblings, in comp. with Fa/Mo terms, just as in Ky; also 'short, small'. See under initial for further discussion.

MONKEY PTB *(b)woy.

HORSE Originally a loan from Indic (pcPKB; cf. GEM 223) but apparently sufficiently early for the Northern Naga correspondences to apply to both initial and rhyme.

CURRY cf. WT ske tshe 'mustard'.

DEBT PTB *kroy.

The STC does not set up *-o°y distinct from *-oy, so the NN distinction cannot be justified by external comparisons, but is wholly dependent upon the Chang split.

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As Chang does not have -oi, it is forced to choose as it were between retaining the dipthong and representing mid-vowel quality when confronted with NN *-o[°]y; when the vowel is short it does the former, when long, the latter.

I now come to those NN rhymes which result from the incorporation of a PTB *-w- (from a *Cw- initial cluster) into the NN rhyme as *-u- (giving *-uV[°](y) rhymes). The correspondences for the first of these, *-ua°y, again contrast with those for *-o°y only in Chang. But Wa -ui, which contrasts with Wa -oi, also points to a distinct NN rhyme, which is confirmed by the external comparisons:

		BUFFALO (1)	TO RUB	TO LEAD	*-ua°y
Yo	-oi	loi	--	--	
Mo			--	--	
No	-e	le	net < *ne	--	
Wa	-ui	lui	--	--	
Ky	-oi		noi	woi	
Ph	-oi	yoi- [1] 'fool'	noi		
Ch	-ei			lei-	
NN	*-ua°y	*C-lua°y	*nua°y	*rua°y	

1 Cf: NN ŋa^{A}, DUMB (all forms also 'fool'), *C-ŋa^{B}, MITHAN ('buffalo' in Mo). The *-B accent (confirmed by PTB) is based on Ch ŋau (GEM), but Hutton gives ŋou, suggesting a variant in *-A.

BUFFALO PTB *s-lwa°y.

TO RUB cf. Lu. nuai ~ nwat (probably suffixed -t as in No, Nr. nuai2.

TO LEAD cf. Lu. hruái (pcPKB).

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*-uay

		SEIZE/ CATCH(1)	COMB	BUG(1)/ BEE[b]	EASY
Yo	-oi	-loi	--	--	--
Mo	-u	lu	cu	--	--
No	-u	lu	--	-khu-[2]	--
Wa	-oi	--	--	-koi[2]	--
Ky	-ai		šai-	-tai[2]	ñai-
Ph	-ai		--		-ñai-
Ch	-e(i)	le[1]	-sei	-ke-[2]	
NN	*-uay	*luay	*C-gyuay	*C-guay	*C-ŋuay

1 in: le "to surround", phe le "to importune" (phe = "to ask"; Hutton [1929a: 40] explicitly identifies the -le in "importune" as le "surround"). Cf. No a loat (non-finite form of lu [Robinson] ~ lo [Das Gupta, Weidert] "seize, catch"), "to hold (catch)", also (in comp.) "to entreat" (both from Das Gupta).

2 in: Ky ñ̃a tai "bee", No. ñ̃a khu ti "honey". In these two compounds, the first syllables alone are cognate with other Northern Naga forms for BEE[a], < NN *C-na, while it is just the -ti element (< NN *təy, WATER(1)) which expresses the idea of "honey" in the No form: "honey" in Northern Naga is "bee-water" (Wa na ti, Ch nau tei, Ky ñ̃a tai ji lo). No "bee" is just ŋ̃a, but the form for honey preserves the disyllabic compound found not only in Ky but also in Angami (Kh. ma kwi "bee", ma kwi dzə "honey"), SW Naga (Nr. ŋkhoi "bee", ŋkhoi dui "honey"; Li. ma khui "bee", khui dui "honey") and C Naga (Ntenyi a ñ̃i khu "bee", a ñ̃i khu tsə "honey"; Yi. mu khu "bee", mu khu ke "honey"). On the evidence of these other Naga languages, the standard NN form for BEE[a], *C-na, represents either the reinterpretation of what was originally a nasal prefix as a root, or a root which was reinterpreted as a prefix elsewhere. Note that among all of the variations of the rhyme in BEE[b]-- -wi/-ui/ -oi/-u -- it is only Ky which retains the low vowel of the PTB dipthong. (PTB *kwa˘y)

Wa ve koi "bug" (ve ≃ "creature"?; cf. No vi

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kha "porcupine") and Ch ñiŋ ke kap tuŋ "snail; slug" (kap tuŋ = "shell" in Wancho) suggest that PTB *kwa'y "bee", having been displaced in that sense by NN *C-na via the compounded form *(C-)na C-guay, was reinterpreted in the more general sense of "bug" or "wug" (a life-form class referring to a "small creature other than those included in "fish", "bird", and "snake"" [Brown and Witkowski 1982: 99]).

SEIZE/ CATCH — I have no comparisons for NN *luay, but this form is probably related to Jg. lu "to get" (also Ze. lu, Sema ithu lu), Ze./Li./Sema/Yi. lu, Rengma/Kezhama/Maram/Puiron lo, Khoirao lau, all "to take" -- to be distinguished from Jg./Lu. la, Di. se la < PTB *(-)la "to take" > NN *C-la, TO TAKE(1)/TO GIVE. If this is so, Ch le "to take" is the same word as Ch le "to surround", and the front vowel again points back to a rhyme such as *-uay; cf. also Kh. le "take", ŋu le "get", Ko. lie "take", ŋu lie "get", te lie "catch". (Angami also has a front vowel for PTB *s-lwa'y "buffalo [Kh. re li/Ko. rə li], NN *C-lua'y [above]).

In all of this, the only form to suggest a common source for both the front-vowel rhymes in Chang and Angami and the back-vowel rhymes elsewhere is Yo a loi "to seize" (Walker). According to Weidert, Yo loi is the non-finite form of lu "to catch". Elsewhere (as in "to dig": Yo thu (F)/thoi (NF)) it is the finite form which checks out comparatively (cf. PTB *du ~ *tu > NN *thu, TO DIG) -- and which Walker cites (as for TO EAT(1), TO GIVE(1), TO GO(1)). I suggest that in this case, an original loi < *luay was, because of its form, interpreted as non-finite, and that lu (F) is derivative, reversing the usual procedure.

COMB — cf. the forms cited for PTB *kwi(y) "comb" (Digaro se-kwi, Lu. khui2), which could be reflexes of a more complex prototype, as suggested here.

BUG/ BEE[b] — PTB *kwa'y.

EASY — cf. PTB *ŋoy "gentle, quiet, moderate" (WB ŋwe, Lu. ŋuai).

As will no doubt be appreciated, the proposed correspondences for *-uay rest on an unusually high ratio of hypotheses to evidence; still, I believe these hypothe-

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ses are worth setting out, if only to focus attention on the problems presented by the forms they attempt to account for. The next rhyme to be presented, with excellent comparisons, shows the same correspondence of Mo -u(i)/No -u to Ch -e(i) whose justification in the sets proposed above is so tenuous:

*-uəy

		DOG [a]	SWEET	FINGER (1)	SUGAR CANE
Yo	-i	hi-	--	-ǰi	--
Mo	-ui(-i/ǰ_)	gui-	--	-ǰi	--
No	-u	hu	-tu	-su	--
Wa	-i	hi	ti	-[h]i	--
Ky	-ui	kui			wui
Ph	-i	ǰi	--		--
Ch	-ei(-i/c_)	kei	tei-	-ci-	--
NN	*-uəy	*kuəy	*tuəy	*cuəy	*rui(y)

DOG PTB *kwəy.

SWEET PTB *twi(y).

FINGER cf. Di. yao si (yao = 'hand' [same construction in the Northern Naga forms], Di s- : NN *c- in SALT, THORN). Possibly related to PTB *(r-)crəy 'to count' (orig. *r-tsiy, medial *-r- missing in WT, Jg., Di. si expected), with PTB *-r- > *-w- > NN *-u-. Cf. Mo -gui 'dust', possibly < PTB *krəy 'dirt, filth'; 'dog' and 'dust' provide the only examples of Mo -ui.

The data tabulated by Shafer (1953: 253-254) show that -si ~ -ǰi forms for 'finger' are general in Bodo-Garo, but that Bodo itself has -su, paralleling Nocte.

SUGAR CANE PTB *(s-)rwi(y). 'cane'.

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*-uə˚y and *-ui

	HAIR (2)	NEEDLE[b]	MUCH (2)		VEGETABLE
Yo		--	--	Yo	--
Mo -u	ku-	--		Mo	--
No -u		-ku		No	
Wa -oi	-koi[1]	-koi	loi	Wa -ui	sui
Ky -ui	-tui[1]			Ky -ui	hui-
Ph -oi			-loi[2]	Ph	--
Ch -u	ku-[1]	-ku	-lu-[2]	Ch	
NN *-uə˚y	*guə˚y	*C$_{v}$-khruə˚y	*luə˚y	NN *-ui	*dzui

1 in: Wa ɔ koi, Ky a tui 'feather' (Wa ɔ = 'bird', see BIRD(2); for Ky a-, see BIRD(3)), but also Ky wan tui 'skull' (Ky wan = 'bone', hence 'skull' ≅ 'hair-bone'). The Ky form for 'skull' establishes the semantic source of the Wa/Ky terms for 'feather' as 'hair', while the appearance of Ky -tui in 'feather' indicates that in 'skull' it is to be interpreted as 'hair' rather than 'head'. This is important because of the ambiguity of 'head'/'hair' terms in Chang (and Moshang). Ch/Mo 'head' is khu, < NN *khow, HEAD(1). But Moshang has ku mul 'hair' (despite Yo khu mil) and Chang has ku lo 'human head hair', ku sei 'comb', ku jin 'razor'. Despite Ch ku ŋum 'to nod' and khu šu 'to shave', I believe the Chang forms are best interpreted as reflecting two convergent roots.

2 in: Ph jə loi pə 'deep' (var., also just jiə [= /jə/] pə, < NN *səw, cf.); Ch la lu ji 'how much?' (Hutton 1929a: 18; la- is an interrogative marker [la to 'where?', la toŋ 'when?'], combined with ...-ji in one other construction, la lok ji 'how long?'.

HAIR(2) Because of the similarity in form between the separate roots posited here for HEAD(1): TOP OF THE HEAD, NN *khow, PTB *-gow, and HAIR(2), NN *guə˚y, it becomes difficult to separate possible comparisons for the latter from those for the former. Cf., however, TN kui 'head', kui sam 'head hair'. Matisoff (1972c: 276, 280, n.40) derives

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TN kui from PTB *-gow, but on his analysis TN -ui can come from *-(w)a(°)y as well as from *-ow (280, Nos. 48, 49).

NEEDLE[b] cf. Kuki-Naga *khrwi(y) 'to sew' (STC 41).

VEGETABLE cf. the related NN *dzo°y, 'CURRY.

These two (partial) correspondence sets fill out a matrix of hypotheses regarding the sources of the four varieties of Wa/Ky -oi:-ui correspondences, viz.:

Wa	-ui	-oi	-ui		-oi
Ky	-ui	-ui	-oi	-oi	-oi
NN	*-ui	*-uə°y	*-ua°y	*-o°y	*-oy

Noting the first two Wa/Ky correspondences would be the only contribution of the two sets above if it were not for the No/Wa/Ch correspondence in 'needle', whose -u forms make the posited correspondence between Wa/Ky 'feather'/Ky 'skull' and Ch/Mo 'hair' plausible, and whose external comparison points to a *-ui(°y) rhyme. The assignment of these sets to *-uə°y and of VEGETABLE to *-ui is based on the greater likelihood of Wa -oi being from *-uə°y than from *-ui, as well as on the apparent relation between VEGETABLE and CURRY, with long vowel in the latter.

Before presenting NN's open-syllable back-vowel rhymes, I summarize on the next page the correspondences for open-syllable front-vowel rhymes presented above (including those for *-o(°)y and with *-w- > *-u- on-glide, whose reflex patterns place them with the class of front-vowel rhymes rather than the reverse).

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OPEN FRONT-VOWEL RHYME CORRESPONDENCES: SUMMARY

| | | |

The variability that we have seen in the Chang reflexes of NN open-syllable front vowel rhymes becomes even greater when we consider the open-syllable back-vowel rhymes. As discussed above, for NN *-ə(°)y Chang usually has -e(i) -- except for two questionable sets one could write simply -ei -- but also two variant reflexes, -ai (/h__) and -at (< NN *C- ...). For the parallel back-vowel rhymes (NN *-ə(°)w), however, Chang has no fewer than eight phonetically distinct reflexes. Of these, three are restricted to a single set each, but five are general. A part of this variation may be attributed to a contrast between long and short vowel in the proto-rhyme, although Chang does not make such a distinction for *-ə(°)y. Thus I set up, as a basic contrast, NN *-əw > Ch -əɣ but NN *-ə°w > Ch -u. A plausible variant of the former has Ch -ək (rather than -əɣ) after Ch k- (i.e., Ch -əɣ > Ch -ək /k__). This local conditioning rule is insufficient, however, as Chang also has kəɣ 'to bind', < NN *kiak (WT 'khyig-pa), see TO TWIST/TO BIND, so we must write: NN *-əw > Ch -ək / Ch k__. A parallel rule, NN *-ə°w > Ch -ok / Ch k__, accounts for Ch kok 'to steal' (see below for independent evidence of a long vowel in this root). On the other hand, Ch cak 'thorn' < NN *cəw seems just irregular; it may be noted, however, that for two basic roots Marrison gives variants in -cə- where Hutton has că- (SALT, Ch cǎm(H), cəm(M), < NN *cu°m; HOUSE, Ch

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cǎm(H), cəm(M), < NN *kium -- both with back vowels in NN); perhaps this is a correction, which should also apply to 'thorn', cǎk > *cək. In any case, it appears that initial c- has an effect similar to that of initial k- on the Chang treatment of NN *-əw.

The third unique reflex is Ch -uh in guh 'nine', which I treat as merely a phonetic variant of -u, < *-ə°w.

Ch *-əw has variant developments, conditioned by the initial, not only after k- (and c-) but also after h-, on the one hand, and after y-, š-, and p-, on the other. The shift to a dipthong after h-, NN *-əw > Ch -au/(Ch)h__, is exactly parallel to NN *-əy > Ch -ai/(Ch)h__, as discussed above under the latter. After the palatal continuants y- and š-, and also after p-, Chang effects the most drastic shift of all, to -i. (It should be noted that the syllables *yəɣ, *səɣ, and *pəɣ do not occur in Chang, while cəɣ does; cf. NN *-iak > Ch -əɣ generally, including /c__, but > -aɣ/y__.) This shift to a front vowel, along with those to -əɣ and -ək, offers strong support for Benedict's revision of his original reconstruction of PTB *-uw to *-əw (similarly *-iy to *-əy; STC 57, n.188 et infra) and is one of the reasons I reconstruct *-ə(°)y/*-ə(°)w (rather than *-i(°)y/*-u(°)w for NN. To summarize:

NN *-əw > Ch -au/(Ch)h__; > Ch -i/(Ch){y,š; p}__; > Ch -ək/(Ch){k,c}__; > Ch -əɣ E.

NN *-ə°w > Ch -ok/(Ch)k__; > Ch -u(h) E.

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*-əw (1)

		-FEMALE(1)[3]	KNEE	ASCEND (2)	SMOKE	THORN
Yo	-o ~ -au/-ʌu	-ko ~ -kau/		--	/khʌu2	/sʌu2
Mo	-(r)u[1]	-kru			-kru	su
No	-u	-ku	-ku	ku	-khu	su
Wa	-u(t)[2]		-kui	-ku[4]	-khut	huk
Ky	-u(-i/š_)		-tu		-ši	hu
Ph	-ə		-šə2		--	hə2
Ch	-ək(h)(-ak/c_)		-kək	-kək[4]	-kəkh	cak
NN	*-əw	*gəw	*gəw	*gəw	*khəw	*cəw

Yo -o ~ -au (Walker)/ = /-ʌu (Weidert)

1. Recall that Proto-Tangsa *-au (as reflected in Yogli) becomes Moshang -ru/{k,g}__ (Section 2.2.1(2) above).

2. Wancho also has -ut in two forms from *-ə'w (below), so that suffixation of -t to -u appears (like suffixation of -t to No -i ~ -e) to be a general option in Wancho, though no conditioning factor can be specified. Wa -ui in 'knee' may be literally a "rhyme" with the first syllable of the compound, ci- < cia 'leg'. The -k in 'thorn' is unique and unexplained.

3. in: Yo wu ko 'hen' (wu = 'bird'; cf. wu puŋ 'cock', -puŋ = MALE(OF ANIMALS)(1), NN *2-buŋ), Mo gui hen kru 'bitch' (gui hen = 'dog', with -la [= MALE(OF ANIMALS)(2), NN *-la] 'male dog' [LSI]); Yo vi kau, Mo vi kru, No vi ku, 'old woman' (cf. Mo vi kan wa 'old man', -kan- < NN *ga'ŋ, MAN(MALE)).

4. in: Wa suo ku 'East' (cf. suo toŋ 'West' and other Northern Naga forms for 'East', analyzable as 'sun-rise(-place)', with '-rise' from NN *kluŋ, COME OUT/ARISE/ASCEND(1); Ch tei kək 'spring' (tei = 'water').

FEMALE cf. Sema au ku 'hen' (au du 'cock'), Lhota han khə (ham poŋ), Nr. nruai kui (nruai dui), id., and compare Li./Ze./Mz. N-rui pui 'hen', < PTB *pwi(y) 'female, feminine affix'.

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KNEE cf. Di. -su gu, Garo -sku 'knee' (both in comp. with 'leg-', like all of the Northern Naga forms), also Garo -gu 'bend', WT dgu-ba 'bend (ing), bowing, stooping' (pcPKB).

ASCEND cf. PTB *ku 'take up, lift', in Bahing ku-to (tr.) 'bring up', ku-wo (intr.) 'ascend' (STC 99, n.281). Also Di. su gu 'lift, raise', ga khu 'ascend', Nr. ku, Rengma kə, St. kə tu, Ko. kuo, all 'ascend'.

SMOKE PTB *kəw.

THORN PTB *tsow ~ *tsuw (= *tsəw), STC 69, with the latter variant based on Di. bu su.

-əw (2)

		TO ASK FOR	ARRIVE (1)	CREEPER /ROPE	OLD(of persons)	SKY (2)
Yo	-au/-ʌu	rau/ 'want'	/thʌu	--	--	
Mo		--	--	--	--	
No	-u	cu 'demand'	hu	ru		
Wa	-u	--	--	ru	-ru- 'aged'	
Ky	-u	yu		wu	wu-	
Ph	-(i)ə[1]	yiə	šə 'enter'	və	və-	
Ch	-əɣ	-səɣ 'want'	səɣ	ləɣ		məɣ
NN	*-əw	*ryəw	*crəw	*rəw	*rəw	*məw

1 NN *-əw > Ph -iə/{y,j}__ (see below for other examples).

Yo -au (Walker)/ = /-ʌu (Weidert). (In each table I show only those variations which are pertinent to the sets which are presented in that table.)

ASK FOR PTB *r-yu(w).

CREEPER /ROPE PTB *rəw[B] (pcPKB).

OLD possibly related to PTB *(s-)raw 'dry, dead, old'.

SKY PTB *(r-)məw.

Thus far, we have three definite comparisons for *-əw rather than *-u (SMOKE, CREEPER, SKY).

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*-əw (3)

		SNAKE	GrFa (2)	GrCh	RAT	TO DESCEND	RICE-BEER
Yo	-o ~ -au/-ʌu	po/		-šau/	/tžʌu-	--	--
Mo	-u	pu	--	--	--	--	
No	-u	pu		chu	ju-	--	
Wa	-u	pu	-pu	--	ju ~ zu	ju-	zu
			'ancestor'				
Ky	-u	pu	-pu	hu	yu	yu	
Ph	-(i)ə[1]	bə	--	--	--	yiə	yiə
Ch	-i	pi-	pi	ši	yi-		i
NN	*-əw	*ʔ-bəw	*pəw	*C-dzəw	*C$_{v}$-yəw	*yəw	*yəw

1 NN *-əw > Ph -iə/{y,j}__.

Yo -o ~ -au (Walker, Dutta [GrCh]/ = /-ʌu (Weidert)

also: TO BEAR A CHILD.

SNAKE PTB *bəw.

GrFa PTB *pəw.

GrCh PTB *šu(w)(STC) or possibly *žəw (pcPKB).

RAT PTB *b-yəw.

DESCEND PTB *yu(w).

RICE-BEER PTB *yu(w).

Here we add three more definite comparisons (SNAKE, GRANDFATHER, RAT) for a total of six.

*-əw (4)

		DEEP	TO SWEEP
No	-u		-ru
Wa	-u	zu	--
Ky	-u	lu-	--
Ph	-(i)ə	jiə-	--
Ch	-au	hau-	hau
			'gather up'
NN	*-əw	*səw	*səw

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		TO STEAL	NINE	MOTHER	BIG (2)	*-ə˚w SHORT (1)
Yo	-o ~ -au/-ʌu	-hau/hʌu?	-kau/-kʌu?	-ñau/		-to/
No	-(r)u	-gru-[1]	-kru	ñu		--
No	-u	hu	-khu	-ñu 'wife'		
Wa	-u(t)	-hu	-ku	-nu	nut 'fat'	tut
Ky	-u	ku	tu	-ñu	ñu- 'broad'	
Ph	-ə	gə?	šə	ñə	-ñə in 'world'	--
Ch	-u(h)(-ok/k_)	kok	guh	-ñu	-ñu[2]	tu-
NN	*-ə˚w	*C$_{V}$-kə˚w	*C$_{V}$-gə˚w	*ɲə˚w	*ɲə˚w	*tə˚w

1 in: a gru wa 'thief' (wa = AGENT NOUN SUFFIX).

2 in: thu ñu 'elephant'; cf. Ky mei ñu, id. (mei = 'animal'), glossed by GEM (134) "beast-big".

Yo -o ~ -au (Walker)/ = /-ʌu (Weidert). also: -BEING.

STEAL PTB *r-kəw, but at STC 184, n.483, Benedict suggests that the rhyme may rather be PST(/PTB) *-ə˚w.

NINE PTB *d-kəw ~ *d-gəw (STC). The Dimasa and Chinese forms for 'nine' do not, however, share the peculiarities which lead Benedict to suggest *-ə˚w for 'steal', but are regular for *-əw. Thus the Chang -uh rhyme may be yet another conditioned reflex of NN *-əw.

MOTHER PTB *(s-)nə˚w^{B} 'breast, milk' (pcPKB). The STC has *nəw, but this is another of the roots for which Benedict suggests PST(/PTB) *-ə˚w at STC 184, n.483, and he has recently confirmed this reconstruction, as indicated. For the semantic transfer, cf. No ñu po 'milk' and the forms listed under my discussion of the initial, including Jg. nu, Lu. nu- 'mother'.

SHORT PTB *təw^{A} (pcPKB).

The comparisons for STEAL and MOTHER suggest that the reconstruction of *-ə˚w for the correspondence sets above is correct. Furthermore, Ch kok in STEAL and Ch -su in -BEING contrast with Ch -kək in KNEE, ASCEND, and

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SMOKE and Ch (-)sɔɣ in ASK FOR and ARRIVE, so it is improbable that the sets above represent only additional conditioned variants of *-ɔw. The discrimination of PTB *-ɔˀw from PTB *-ɔw (attempted only in late notes to the STC on the basis of apparent Chinese cognates) is so little advanced that it is worth noting any candidate for the long-vowel rhyme -- even, with the qualification entered above, NINE.

For *-u, I have (only) one good set, TO DIG, but if the rhyme for this root has bred true in Northern Naga, it establishes Ky -o as the unexpected reflex of *-u, corresponding to -u elsewhere. NN *-u > Ky -o becomes more plausible when it is noted that nowhere (except in the aberrant and questionable TO FLY) does Konyak have a pure vowel as the regular reflex of an NN dipthong.

On the other hand, the apparent occurrence of Phom -ou/š__ as a conditioned reflex of *-u is troubling. It should be noticed that the environment /š__ is of the first importance for sorting out the affiliations of Phom back-vowel rhymes. We have Ph (-)šɔ(2) for KNEE, ARRIVE, and NINE, from NN *-ɔɾˀɪw; Ph šu(-) for HEAD(1) and TO GIVE, from NN *-ow; and Ph šou(-) for HIGH(2) from NN. *-aw. So far, this seems apposite, as does Ph -u as the regular reflex of *-u, but Ph šou for TO DIG and SUMMER, also from NN *-u, breaks the pattern. Much therefore depends upon the coherence of the Northern Naga cognate set for TO DIG, and on its referral to a firm PTB *-u.

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		TO DIG	OWL	WASH/ BATHE(1)	DOVE	TO HIDE	SPEAR	*-u SUMMER
Yo	-u	thu	—	—	—		—	—
Mo			—	—	—	—		—
No	-u	thu	-khu	-ru 'to clean'		—		—
Wa	-u	tu-[1]	—	—	-šu	—		—
Ky	-o	šo	…[2]	yo-	-šo	lo	ŋo	jo
Ph	-u(-ou/š_)	šou	—		-dhu-	ju	ŋu	šou
Ch	-u	thu		yu	tu-	hu		
NN	*-u	*thu	*khu	*C$_V$-ru	*N-kru	*su	*ŋu	*C$_V$-khyu

1 in: tu pa 'mole' (pa = AGENT NOUN SUFFIX, GEM 113); possibly also ruk tu 'to bury'. GEM gives Wa tao 'to dig', but this is a misleading phonemicization of Peal's tâ = /tɔ/ ("as in naught"), which Peal distinguishes from -au ("as in loud"). These two phones are also distinguished on comparative and historical grounds: Peal's -â = /ɔ/ = Brown's -o, < NN *-ow; Peal's -au = Brown's -au, < NN *-a°w (see below). But 'to dig' (not given by Brown) is given by Peal only in the form ha tâ le (ha = 'earth', le = VERBAL SUFFIX, PRESENT TENSE [GEM 126], ≈ 'to be', appended to many verbs in Peal's vocabulary but regularly omitted by GEM). I think it likely, in view of the form tu pa 'mole' (also Peal), that the vowel in -tɔ- 'to dig' has been lowered in assimilation to the -a of ha-, possibly also influenced by its medial position before -le; and that -u, as in 'dove', is the true Wa reflex of NN *-u.

2 Solnit's plausible suggestion that Ky may have -au for *-u, based on Ky ñakau 'owl', runs aground on the analysis of this form as 'night-bird' (waŋ ñak 'night', au 'bird').

TO DIG PTB *du ~ *tu. also: TO STAB, WRONG. (2)

OWL PTB *gu ~ *ku.

WASH/ BATHE PTB *kraw (Di. du gru), but cf. also Di. gu ru bi 'clean', Mpri. i ru ja 'to bathe'.

DOVE PTB *m-kraw. For both WASH/BATHE and DOVE, di-

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vergent as to their initials in NN but identical roots in PTB, PTB *-əw (based on WB khyui 'bathe', khrui ~ khyui 'dove') has apparently yielded NN *-u. I can offer no explanation for this shift.

SPEAR The root is general in S Naga: Kh. re ŋu, Ko. rə ŋou, Sema a ŋu, Maram a ŋu, Li. ca ŋiu, Ze. he ŋeu (but Mz. pe ŋei, Khoirao ŋai). However, these are the "bizarre" correspondences pointed out by Benedict (STC 58) for PTB *-a sets, including FIVE, PTB/NN *C-ŋa; cf. also Mao po ŋo 'five', i ŋho 'spear'. Ky and Ph of course have ŋa for FIVE. The SPEAR root appears to be restricted to Northern and Southern Naga.

SUMMER cf. Mpri. nɔŋ ju tha (second syllable; 'winter' is niŋ tham tha); for Mpri. j-: NN *(-)k(h)y- see under initial.

NN *-o and *-o°w are even rarer than *-e and *-e°y, but can be reconstructed for a few fragmentary sets (which nevertheless demand an accounting). They contrast in that *-o > Ky -o but *-o°w > Ky -ou (cf. *-e > Ky -e, *-e°y > Ky -ei):

		*-o	
		COME/RISE	TOUCH/PUT(2)
Yo			
Mo	-o	-lo 'come'	
No			
Wa	-o		-po 'put down'
Ky	-o	lo 'rise'	po 'touch'
Ph			
Ch	-o ~ -u ~ -uo	lo ~ lu ~ luo[1]	po ~ -pu[2]
NN	*-o	*lo	*po

1 Ch lo 'to come', lo ~ lu 'to rise (from sitting [as vs. recumbent] posture)', luo 'to stand up, to stand'.

2 Ch po 'to set down' (also in: an tin po 'to hang up'

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[for an-, see UP, NN *dian]), -pu 'put' (in: yep ti an-pu 'to lay' ["= 'put lying'"]; also probably in: hu din pu 'to hide' [tr.; intr.: hu]). For the evidence that 'put' and 'touch' are glosses tapping a single Northern Naga semantic field see also TOUCH/PUT(1), NN *lum.

TO COME/ TO RISE — cf. Lu. lo kal (kal = 'to go'; cf. the Mo form, ka lo [ka = 'to go']), Mpri. lau, both 'to come'; Rengma so lo 'to stand'. Lu. -o/Mpri. -au contrast with Lu. -ou/ Mpri. -ou < PTB *-o[ʔ]w.

TO TOUCH/ TO PUT — cf. Mk. pho 'to touch', pe pho 'to lie down'.

It is always possible that TO COME and TO RISE are distinct, in which case the former could be from a *lo°w (but cf. the Lu./Mpri. forms) and the latter from a *lu; but the Ch -o ~ -u variation recurs not only in TOUCH/PUT but also for both NN *-ow and NN *-aw (see below). The further extension of the array of Chang cognates for COME/RISE to luo 'stand (up)' is speculative, but is worth including because of the parallelism that would then be established between *-o > Ch -o ~ -u(o) and *-e > Ch (-e ~) -ie. Contrast:

		TO AWAKE	TO FIND	TO GET(1)	LUNGS	*-o°w
No	-u/-o		-cu/co	-cu/co	--	No -u (Robinson, Brown, Butler)/ = /-o (Das Gupta).
Wa	-o	jo	--		--	
Ky	-ou	-lou	tou	thou	lou	
Ph					--	
Ch	-o				-lo-	
NN	*-o°w	*C$_V$-so°w	*jo°w	*ʔ-co°w	*lo°w	

TO AWAKE PTB *m-sow. Cf. Ky lau- 'long' < NN/PTB *low.

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TO FIND// TO GET cf. Li. dou 'find, get, receive', Nr. la tou 'get, receive', but Sema i tu lu 'find', i thu lu 'get', with -/+ aspiration paralleling that in Ky.

LUNGS cf. WT globa.

Again, the STC does not set up an *-o'w distinct from *-ow, but the distinction is clearly indicated by the contrast between Ky lau- 'long' and -lou 'awake'.

		HEAD(1): TOP OF THE HEAD	LONG	TO GIVE(1)	TO BOIL(3)	*-ow WHITE (5)
Yo	-u	khu	-lu	ku		
Mo	-u	khu	--	ku	--	
No	-o	kho	-lo	ko		
Wa	-o/-o ~ -ɔ	kho/ko ~ kɔ 'hair'	lo/lɔ		/tɔ	
Ky	-au	-šau in 'hat'	lau-	tau 'receive'	jau	
Ph	-u(o)	šu 'hair'	lu-	šuo	--	šu
Ch	-u ~ -o	khu	lo-	ku		thu-
NN	*-ow	*khow	*low	*gow	*tsow	*thow

Wa -o (Brown)/ = /-o ~ -ɔ (Peal)

HEAD(1) PTB *m-gaw ~ *(s-)gaw (STC), but Matisoff (1972c: 276) reconstructs *m-gow ~ *s-gow, citing (280, n.40) TN kui (TN -ui < PTB *-ow, PTB *-aw > TN -aw). If the Phom form is cognate, NN supports Matisoff's reconstruction in *-ow; cf. TO GIVE below. Both Benedict and Matisoff, however, cite Di. sə-gau, whereas the Di. form cognate with NN *khow is almost certainly kho ro 'head; top' (also in kho ro thu 'hat'; Ch khu is also glossed 'top'), as cited by Shafer (1953: 233). This would appear to give further support to a reconstruction in *-ow rather than *-aw.

LONG PTB *low (Jg. gə lu, precluding *-aw).

GIVE(1) cf. TN khui 'take, receive' (TN -ui < PTB *-ow, Matisoff 1972c: 280, n.40).

BOIL(3) PTB *tsyow.

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The disconcerting feature of the sets above is the juxtaposition of Ch -u in HEAD(1) and GIVE with Ch -o in LONG. Ideally, this contrast should be sufficient to require assignment of these sets to different proto-rhymes. But the only practicable disjunction would be to reconstruct LONG as *law (NN *-ow > Ch -u, NN *-aw > Ch -o), and *low (Jg. -lu) would appear to be definite for PTB (unlike Benedict's reconstruction of HEAD in *-aw, which could just as well be in *-ow). This would still be a preferable solution were it not for Chang -u ~ -o variation elsewhere: for *-o (above) and for *-aw (below); cf. also the Ch -e(i) ~ -ie variation for *-ay and possibly for *-e, and the suspicious Ch -i reflex for *-ey. Given this variation in the Chang reflexes of other open-syllable rhymes, not all of which is likely to be only apparent (recall again Ch phe(h) 'meat' ~ phie 'flesh' < NN *phay), it seems preferable to maintain an *-ow reconstruction for LONG as well as for HEAD and GIVE.

It should perhaps be noted here that the -u in Ph šu 'head hair', which is the critical reflex indicating an *-ow rather than an *-aw reconstruction for HEAD(1), is supported by Ph šu le 'pillow', whose parallel compound formation in Wa/Ky employs the reflex of NN HEAD (2); i.e., Ph šu means not only 'head hair' but also (in comp.) 'head' itself (cf. also Ph šə 'top').

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*-aw

		BIRD (1)	AMONG	HIGH (2)	QUARREL (2)
Yo	-u	wu	--	--	--
Mo	-u	vu	--		--
No	-o	vo	jo-[2]		
Wa					
Ky	-au(-u/y_)		yu-[2]	tau-	
Ph	-ou[1]			šou-	--
Ch	-u ~ -o		-yu ~ -yo[2]		o-
NN	*-aw	*C-waw	*C̬-yaw	*gyaw	*daw

1 Recall that Ph -ou is (interpreted as) the conditioned reflex of *-u (otherwise > Ph -u) in the environment š__. This variation in Phom could also be the reflex pattern for *-aw; i.e., the usual Phom reflex of *-aw could (as for *-u and *-ow) be -u. Even if this is the case, however, Phom still distinguishes between *-ow and *-aw at least after š-.

2 In: No jo ka 'to accompany' (ka = 'to go'; 'accompany" ≃ "among-go"); Ky yu me 'among' (me = 'in, on, at'); Ch yu a 'among' (a = 'in, on, at, LOCATIVE CASE SUFFIX!), ye yu 'to mix' (ye = 'to pour'), also many other verbs describing interaction (e.g., 'converse', 'meet', 'exchange', 'copulate', 'make war'); -yo is less common but appears in (e.g.) 'bet' and 'wrestle', and cf. particularly o yu ~ o yo 'to quarrel', o yo phet yu 'discord' (for phet-, see TO BEAT(1), NN *phe't), and lay yo cai yu 'to play'.

BIRD(1) PTB *(b)wa, but a back-vowel rhyme is required for the forms above, and *-aw is the most likely candidate. See under *Ø- for discussion of the divergent development of BIRD in NN.

AMONG PTB *ryaw 'mix, intermix, mingle'. Cf. particularly Ch ye yu 'to mix (of liquids)' (ye= 'pour'), ke yu ~ sah yu 'to mix (of solids)'. It is on the basis of this PTB comparison that NN AMONG is reconstructed with *-aw rather than *-ow.

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HIGH(2) cf. Jg. tsau (Jg. ts- < PTB *gy-, but the form is indecisive for the rhyme, which could come from *-ow).

QUARREL PTB *daw 'defy, interfere (in a quarrel), be at enmity with'; also 'resent an insinuation', cf. Ch o cak 'to be annoyed'.

Among these fragmentary sets, only HIGH, with its Ph -ou, requires a reconstruction in *-aw rather than *-ow; the other sets are placed here because of their external comparisons. *-a°w, however, is quite distinct:

		(yBr/) CHILD[1]	SPEAK (3)	WHO?	BROAD	*-a°w FAT
Yo	-au/-au	nau-/nau-		hau/	—	—
Mo	-o	no-			—	—
No	-a	na-	-ŋa[2]	ha-	-kha	
Wa	-au	nau-			khau	—
Ky	-au	nau	ŋau	au-		—
Ph	-au ~ -aə(ə/#_)	(-nau/)naə	ŋaə 'voice'	ə-		—
Ch	-a(au/#_)	na-	ŋa 'call'	au		ha-
NN	*-a°w	*na°w	*ŋa°w	*ha°w	*kha°w	*sa°w

1 The same root is used for both senses in all languages, generally prefixed for 'yBr', usually the head of a compound for 'child, boy' (shown), with only Phom showing variation in the rhyme, which I take to be sub-phonemic.

2 In: a san ŋa 'to admire' (a san = 'good' and [in comp.] 'beautiful, charming').

also: TO WASH. Yo -au (Walker)/ = /-au (Weidert).

CHILD PTB *na°w.

SPEAK PTB *a°w 'cry out' (In one other case, DUMB, NN *ŋa < PTB *(m-)a, an NN root in *ŋ- has an apparent PTB prototype in *Ø-.) Cf. also PTB *gaw ~ *kaw 'call'.

WHO? cf. PTB ha°w 'announce, bespeak'.

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FAT PTB *sa˚w.

One additional PTB *-w- > NN *-u- rhyme, whose reflex pattern differs from those given above with their similarity to front-vowel rhymes, remains to be presented. The variation here is such that these rhyme reconstructions are entirely provisional:

		HOE	BIRD (2)	TO GO (2)	TO GO (3)	TO GROW /GROWTH(1)[1]	*-ua
Yo	-a	--				-pa	
Mo	-u	gu-				--	-pu
No	-un	-hun-				--	vun
Wa	-o/-ɔ(-au/p_)	/hɔ	o/ɔ		pau	--	pau
Ky	-au	--	au-	lau 'walk'		phau/phau	
Ph	-ou	--	ou-				
Ch	-au	kau	au	hau			
NN	*-ua	*kua	*ua	*sua	*pua	*ʔ-pua	

1 TO GROW: Yo a pa, Ky phau; GROWTH: Ky phau 'forest, jungle', pe phau 'bush'; Wa pau 'forest, jungle, weed', pau ka 'bush'; No vun 'forest, jungle', vun cha 'bush'; and, speculatively, Mo ri pu 'cotton' (on comparative evidence, Mo ri = 'thread', NN *rəy, hence 'cotton' in Mo ≈ 'thread-plant'; cf. Ky wi, both 'thread' and 'cotton').

HOE cf. Mk. ku, Di. kho di, Sema a ku pu, 'hoe', Di. kho di dao bṛa, Sema a ku-wa, Chokri khwə, 'rake', Chokri pha khwə, 'broom', delineating a semantic field HOE/RAKE/BROOM (cf. Wa hɔ 'hoe', hɔ ja 'broom'), with the *-ua rhyme perhaps reflected in the underlined forms.

BIRD(2) PTB *(b)wa. See under *Ø- for discussion.

TO GO(2) PTB *s-wa.

TO GO(3) possibly from a *b-wa (*s-wa with prefix substitution).

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TO GROW cf. WB pwa:, Jg. ka ba wa, 'to grow'.

Finally, a unique set of rhymes in the Northern Naga forms for TO FLY leads me to posit a single PTB *-y- > NN *-i- development:

*-iaw

		TO FLY
Yo	-au/-ʌu	-pau/pʌu
Mo	-a	ba
No	-u	pu
Wa	-i	pi
Ky	-u	pu
Ph		
Ch	-i	pi
NN	*-iaw	*C$_V$-piaw

(-au [Walker]/ = /-ʌu [Weidert])

TO FLY: PTB *pyaw.

The correspondences for Yo/No/Ky/Ch are as for *-əw, but Wa -i is otherwise found only as the reflex of NN *-i~ *-(u)əy, and Mo -a only for NN *-a. It is of course possible that two (or more) roots could be involved, but there are no additional forms which could be factored in to construct a plausible second set. The Wa -i: Ky-u correspondence is unique in itself, and is supported by Wa pi tuak : Ky pu sek 'butterfly', cognate throughout, < NN *C$_V$-piaw tho°k, see BUTTERFLY. As a unique correspondence set is thus already required to account for the Wancho form, there is no reason to exclude the Moshang

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form, although without it I would reconstruct *-iəw; the Moshang -a suggests that the NN rhyme is a direct reflection of the PTB *-iaw.

The following table is a companion to that presented above for the front-vowel rhymes. On the next page I show the major front- and back-vowel rhyme correspondences together so that the reader can assess their degree of symmetry.

OPEN BACK-VOWEL RHYME CORRESPONDENCES: SUMMARY

Yo		-o ~ -au/-ʌu	-u		
Mo		-(r)u			
No		-u	-u		
Wa		-u(t)	-u		
Ky		-u(-i/š_)	-o		
Ph		-(i)ə	-u(-ou/š_)		
Ch		-əɣ//-ək/-au/-i	-u		
NN		*-əw	*-u		
Yo		-o ~ -au/-ʌu	-u		
Mo		-(r)u	-u		-o
No		-u	-o	-o/-u	
Wa		-u(t)	-o/-o ~ -ɔ	-o	-o
Ky		-u	-au	-ou	-o
Ph		-ə	-u(o)		
Ch		-u(h)//-ok	-u ~ -o(u)	-o	-u(o) ~ -o
NN		*-ə°w	*-ow	*-o°w	*-o
Yo	-a	-au/-au	-u		
Mo	-u	-o	-u		
No	-un	-a	-o		
Wa	-o/-ɔ(-au/p_)	-au			
Ky	-au	-au	-au(-u/y_)		
Ph	-ou	-au ~ -aə(ə/#_)	-ou		
Ch	-au	-a(au/#_)	-u ~ -o		
NN	*-ua	*-a°w	*-aw		

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PRINCIPAL OPEN-SYLLABLE RHYME CORRESPONDENCES: SUMMARY

Yo	-iʷ-ei/-ʌiʷ-i	-ai/-ʌi	-ai/-ʌi	-oʷ-au/-ʌu	-oʷ-au/-ʌu	-u
Mo	-i	-i	-(r)i	-(r)u	-(r)u	
No	-i	-i	-e(i)	-u	-u	-u
Wa	-i	-i		-u(t)	-u(t)	-u
Ky	-i	-i	-i	-u	-u	-o
Ph	-i	-i	-eə	-ə	-ə	-u
Ch	-i	-ei	-e(i)	-u	-əɣ	-u
NN	*-i	*-əy	*-ə°y	*-ə°w	*-əw	*-u

Yo	-i/	-iʷ-ei/	ʷ-i	/-i		-u
Mo	-i	-i		-i		-u -o
No	-e	-i		-e	-o/-u	-o
Wa	-e	-e		-e/-ai	-o	-o -o
Ky	-e	-ei		-ei	-ou	-au -o
Ph	-e	-ei		-ei		-u(o)
Ch	(-eʷ)-ie	-i		-ei	-o	-uʷ-o -(u)(a)
NN	*-e	*-ey		*-e°y	*-o°w	*-ow *-o

Yo			-ai/-ai	-au/-au	-u
Mo		-i		-o	-u
No		-i	-e(i)	-a	-o
Wa		-ai	-ai	-au	
Ky		-ai	-ei	-au	-au
Ph		-ai	-ei	-auʷ-aə	-ou
Ch		-ieʷ-e(i)	-ai	-a	-oʷ-u
NN		*-ay	*-a°y	*-a°w	*-aw

Yo		-oi	-oi	-a
Mo		-i	-i	-a
No		-e	-e	-a
Wa		-oi		-a
Ky		-oi	-oi	-a
Ph		-oi	-oi	-a
Ch		-ai	-o	-au//-o(u)
NN		*-oy	*-o°y	*-a

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3.10 Closed-syllable Rhymes.

In the STC, Benedict reconstructs ten medial vowels for PTB, the product of five positional variants and a length contrast. In the note (STC 57: n.188) in which *-əy and *-əw are introduced as revisions of the original *-iy and *-uw, Benedict comments that "there are also indications that medial *ə still existed in certain positions at the reconstructed TB level". In further notes a handful of PTB roots originally reconstructed with *-a- are reassigned to an *-ə-, but *-a- and *-ə- merge in most TB languages, so that disambiguation at the PTB level is difficult. Both *-ə- and *-ə°-, however, are reconstructed for PST (STC 183-184, n.482).

All twelve of these medial vowels are reconstructed for NN, though because of the lack of external TB comparisons for *-ə- and *-ə°-, reconstructions with these vowels are provisional. In addition, the PTB *-y- > NN *-i- and PTB *-w- > NN *-u- developments operate in closed as well as in open syllables, giving rise to two additional series of NN rhymes, which I represent as *-ia- and *-ua-. Finally, (PTB *-yu- >) NN *-iu- and (PTB *-wi- >) NN *-ui- must be recognized, though only before a restricted set of final consonants (see below). The result is that I reconstruct the following array of medial vowels and dipthongs for NN:

*-i°-	*-i-	*-iu-	*-ə°-	*-ui-	*-u-	*-u°-
*-e°-	*-e-		*-ə-		*-o-	*-o°-
		*-ia-	*-a-	*-ua-		
			*-a°-			

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As it is apparent that the PTB *-y- > NN *-i- and PTB *-w- > NN *-u- developments could occur before any (PTB) vowel, the restriction of the resulting NN rhymes to *-ia-/*-ua- and *-iu-/*-ui- is probably an oversimplification; there is no reason why NN should not have, for example, *-ua°- or *-uə- in addition to *-ua-. The available data do not allow further discrimination in this area, however; as a result, my *-ia-/*-ua- should be read as cover symbols for "falling dipthong". It is of course also possible that the various PTB rhymes potentially encapsulated by these cover symbols did merge in NN, or at least in all or most of the data languages.

The sixteen medial vowels and dipthongs specified above combine with eight possible final consonants to yield a maximal set of no fewer than 128 possible closed-syllable rhymes for NN. Although there are continuities among the vocalic reflexes of a given proto-vowel across different final consonants, these do not necessarily hold across all finals; the No/Wa/Ky/Ph reflexes of *-u-, for example, are entirely different before velars than before dentals and labials. Thus each rhyme has a potentially unique set of vocalic correspondences in the data languages.

The chaos which would obtain if this potentiality were realized in a large number of cases is forestalled by several factors. First, *-iu- and *-ui- can be reconstructed only for a limited range of finals: *-t/*-p/*-m

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in the case of the former, *-l in that of the latter. Second, continuities appear to be the rule, even if their compass is less than the set of all finals; although the vocalic reflexes of *-u- before velars differ from its reflexes before other finals, each of these two sets of reflexes is consistent within its specified range of environments. Third, the final consonants themselves are in Northern Naga (unlike in other Naga groups) highly stable.

The eight final consonants of NN comprise a symmetrical array of three nasals (*-ŋ/*-n/*-m) and three stops (*-k/*-t/*-p), all of which, with systematic exceptions, are generally retained in all seven data languages; and of the liquids *-r and *-l. *-r is retained only in Moshang, becoming -l in Yogli. *-l is retained in both Yogli and Moshang. *-r and *-l both become -n in Nocte and Wancho, and are both lost in Konyak and Phom, but Chang distinguishes between them, *-r becoming Ch. -n and *-l being lost. *-r and *-l are thus distinguished from *-n in all languages except No/Wa, but from each other only in Chang and in Moshang. In practice, however, because of the relative wealth of our data on Chang and the availability of external comparisons, the discrimination of sets going back to *-l from sets going back to *-r presents little difficulty.

The resultant ease with which final consonants can be reconstructed for NN contrasts with the difficulty of identifying the nuclear vowel in closed-syllable rhymes.

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The STC provides few comparisons for *-e(˚)- and *-o(˚)- and virtually none for *-ə(˚)-, while even for the more common vowels, the cases in which vowel length can be definitely specified are relatively few. The potential contribution of NN to the discrimination of the twelve basic PTB rhymes is therefore great, in direct proportion to the unconfirmability of many of the reconstructions presented below.

*-i˚- and *-i- are distinguished from all other medial vowels in having -i- as a regular or variant reflex in all languages except Phom and Chang. They are best distinguished from each other by Chang, which has -i(-) < *-i˚- but -e- ~ -a- < *-i-:

		GINGER	TO SMELL	ROOT	GROW(TH) (2)	TRUE	BASE	*-i˚ŋ TO DRINK (1)
Yo	-iŋ	tsiŋ-	diŋ	--		--	--	niŋ
Mo	-iŋ	--	-thiŋ	--	liŋ[1]	--	--	niŋ
No	-iŋ	.ciŋ		-riŋ	liŋ[1]		--	
Wa	-iŋ	--	--		liŋ[1]	-tziŋ	-tsiŋ 'root'	liŋ
Ky	-iŋ	tiŋ				-tiŋ	--	yiŋ
Ph.	-iŋ	--	--			hiŋ-	--	yiŋ
Ch	-i(ŋ)	si	-hi	li	ciŋ[1]	yiŋ	šiŋ	(yuŋ)[2]
NN	*-i˚ŋ	*ji˚ŋ	*sri˚ŋ	*ri˚ŋ	*lyi˚ŋ	*C$_V$-ji˚ŋ	*tsi˚ŋ	*N-li˚ŋ

1 Mo/No/Wa liŋ = 'forest', Ch ciŋ = 'to grow', a ciŋ a lam bu pu 'bush'; cf. the same range of glosses for GROW(TH)(1), NN *2-pua.

2 Ch yuŋ < NN *N-lu˚ŋ, TO DRINK(2).

also: TO PROMISE(2).

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GINGER cf. Di. ha jiŋ. Weidert (1979: 118) compares the Northern Naga forms to Lu. so? thi°ŋ, and so reconstructs *-i°ŋ.

TO SMELL cf. Jg. siŋ 'smell, scent, odor'(pc PKB).

ROOT Matisoff (pc) suggests the possibility of a relationship with Lahu ɔ̀-gə, with a PTB *N-k(-)ri°ŋ as a possible common antecedent. PTB *-i°- > Lahu -ə.

GROW(TH) PTB *b-liŋ 'forest'. See discussion under initial.

BASE cf. TN a ziŋ 'under'.

TO DRINK PTB *(m-)li[°]ŋ ~ *lu°ŋ (pcPKB), with length attested for the back-vowel variant.

Chang retains the final -ŋ only after palatal initials, so that it is possible to write a rule *-i°ŋ > Ch. -iŋ/{c,š,y}_, > -ĩ E. This is the first of a number of systematic exceptions to the general rule that (except for the regular developments of *-r and *-l detailed above) final consonants are retained without alteration in all Northern Naga languages; when they are dropped, however, it is almost always, as in this case, after long vowels.

The loss of -ŋ after -i°- in Chang is one of only three deviations from a general pattern which has *-i°- > -i- across all finals in all Northern Naga languages. The second of these deviations is in Nocte, where *-i°- > No -i- ~ -ie- (the latter also being the Nocte reflex of *-e°- and *-ia-). The third is in Phom, for which three forms point to an unaccountable -i- ~ -a- alternation for *-i°-. NN *-i°- is rare except before -ŋ, with as many sets having *-i°ŋ as all of the other finals combined. I can find no instances of *-i°r, *-i°l, or *-i°m.

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		-FEMALE (2)	TO TEAR	KNIFE	STAR[a]/ MOON(2)	NARROW	*-i°- BEAT (2)
Yo	-i-	-šik [1]	-šit [2]		(lik-)	--	
Mo	-i-	-šik [1]	--			--	
No	-i(e)-	-hiek [1]	-siet	mit-	-liet 'moonlight'		
Wa	-i-			bit-	lit-	sip	
Ky	-i-		hit	ñit	lin-	kip-	tip 'hit'
Ph	-i-∼-a-				lit-	šip-	ap
Ch	-i-		cit-		lit-	kip-	ip 'pat'
NN	*-i-	*C-ci°k	*ci°t	*C$_{V}$-mi°t	*li°t	*khri°p	*di°p

1 in: Yo e šik 'wife', Mo ya šik, No de hiek, both 'woman', cf. Yo ya cik 'woman', Yo ya/Mo ya/No de∼da < NN *gla, PERSON(1), probably the same root as SOUL[a], NN *C-gla. Also very probably No hik 'left-hand'.

2 in: Yo keŋ sit 'belt' (keŋ, on comparative evidence, = WAIST; cf. Ky šiŋ hit 'belt', šiŋ = 'waist').

also: TO POUR OUT, TO SPIN, THIN(2).

-FEMALE cf. Bodo-Garo *-cik∼*-jik 'female suffix', Garo jik 'wife', me?-cik 'wife, woman, female'.

TO TEAR cf. PLB *jit (pcJAM), PST *-i°t (pc PKB).

KNIFE cf. Ahom/Khamti mit 'knife'.

STAR/ MOON cf. Khamti lən 'moon', Khasi ba lih 'white' (Robinson 1849: 346, 348).

TO BEAT PTB *dup∼*dip, *tup∼*tip.

For the Phom -i-∼-a- alternation, see also Ph lat, Ch lit nam 'salary' (Ch nam = 'money'), ≃ 'monthly(wages)' < MOON(2). For another example of *-i°- > No -i-, see THIN(2): No -rin 'lean', Ch -lin- 'thin (of persons)', < NN *ri°n.

NN *-i- differs from *-i°- in having Wa -i-∼-a-, Ph -e- after dentals and labials, and Ch -e-∼-a-:

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*-iŋ

		(RAW/)GRASS	STRAIGHT	PLACE	VILLAGE	NECK
Yo	-iŋ	thiŋ-	--	--		khiŋ
Mo	-iŋ	-thiŋ/--	--	--		--
No	-iŋ	-hiŋ/hiŋ	-tiŋ	-thiŋ		
Wa	-iŋ	hiŋ	(taŋ)[1]		tiŋ-	din-[2]
Ky	-iŋ ~ -əŋ	-hiŋ/həŋ	tiŋ-	jiŋ	jiŋ	əŋ
Ph	-iŋ ~ -əŋ	thiŋ		šiŋ	ciŋ ~ jəŋ	əŋ
Ch	-aŋ	saŋ	taŋ-	-šaŋ	saŋ	
NN	*-iŋ	*C̥v-criŋ	*tiŋ	*C̥v-khliŋ	*C-griŋ	*kliŋ

1 Wa -an and -at are attested as reflexes of *-i- (see below) but this is the only instance of Wa -a- as a possible variant of -i- before a velar.

2 in: din ku 'neck', apparently < *diŋ ku, with dissimilation of the final of the first syllable; cf. Wa cak diŋ 'wrist'/ci diŋ 'ankle' (Wa cak = 'hand', ci < cia 'foot') and din ko ~ ho diŋ 'above'.

also: ALIVE(1), CROSS-COUSIN.

GRASS PTB *šriŋ 'live, alive, green, raw'. See discussion under initial.

STRAIGHT cf. PTB *di·ŋ (STAL 173); this is probably from a doublet.

PLACE PTB *gliŋ "ground, land, country, region'.

VILLAGE If it were not for the contrast in the Chang initial, I would be inclined to see these forms as simply variants of those for PLACE; possibly they have been influenced by the latter, for the comparison for the initial, PTB *grwa-ŋ (Matisoff 1972c: 278) does not have a front vowel. But see ANT, under *-ik.

NECK PTB *(g-)liŋ "tube' > 'neck' (pcPKB; the STC has just *liŋ 'neck').

Some of the variation in the Northern Naga reflexes of *-i- is not yet apparent here, but *-iŋ is clearly set off from *-i·ŋ by Ch -aŋ as vs. -i(ŋ), with Ky/Ph -əŋ corresponding only to the former.

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		*-ik					
		BEAD (/PEARL)	POT	LOUSE (2)	ANT(1)	COOKED RICE	EYE (1)
Yo		--	--	--	--	--	
Mo	-ik	lik-	tik	thik	--		
No	-ik	lik	tik				mik
Wa	-ik	lik	--	--	tik-		mik-[1]
Ky	-ik ~ -ək	yik/yək-	tək	šik	tik-	nik	mək-[1]
Ph	-ək	-- /yək-	dək	--	--	--	mək-[1]
Ch	-ek ~ -ak	yak	cak		tak-	ñak	ñek
NN	*-ik	*C$_V$-lik	*2-dik	*srik	*C$_V$-grik	*nik	*mik

1 in comp. forms for 'blind'; for the Wa/Ky/Ph forms for 'eye' in isolation, see EYE(2), NN *me'k.

BEAD cf. Ao Mongsen lik 'bead', Mpri. lik, Mk. lek 'bead, necklace'.

POT cf. WT dig, Garo dik, Di. -dik, all words for various kinds of pots and kettles (pcPKB).

LOUSE PTB *šrik (STC). Benedict now reconstructs *šryək, but the Northern Naga evidence suggests (at least) doublets rather than this more complex rhyme, as for EYE; cf. LOUSE(1) and (3), NN *sre'k ~ *srəy, and under EYE below.

ANT PTB *g-rwak. See VILLAGE (preceding page), NN *C-grin < PTB *grwa-ŋ (Matisoff 1972c: 278); these two unlikely derivations support each other. See full discussion under initial.

EYE PTB *mik ~ *myak (STC). Benedict now reconstructs *myək, but, as for LOUSE, the Northern Naga evidence points to more than one root at the NN level. See extensive discussion under initial.

The vocalic correspondences for *-ik are identical to those for *-iŋ except on two points. Although Ky again shows alternation between -i- and -ə-, Phom has only -ək. While this could be accidental -- note that where Ky has -ik (rather than -ək) in the sets above, no

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Phom form is available for the same gloss -- it is nevertheless the case that there is no instance of -ik in the entire Phom corpus. (The only Phom entry under *-i°k, for TO SPIN, has -ak.) Thus I show only -ək, rather than (-ik ~)-ək, as the Phom reflex of *-ik.

The second difference between *-iŋ and *-ik is that whereas Chang has only -aŋ for the former, I admit -ek ~ -ak variation for the latter in order to accommodate the Chang form for 'eye'. As we shall see, -e- ~ -a- variation must be posited for the Chang reflexes of *-i- before all dental and labial finals, so that admitting this variation before -k merely extends the dominant pattern to the velars. The apparent contrast between Ch ñek 'eye' and ñak 'cooked rice' argues against this extension (the Ky nik: Ch ñak correspondence for COOKED RICE, confirmed in compounds, can reflect only a *nik), as does the absence of any Ch -eŋ forms from *-iŋ. On the other hand, the Chang treatment of other proto-vowels before -ŋ and -k is sometimes divergent; see particularly *-o°-, where Chang has only -oŋ for *-o°ŋ but -o- ~ -a- before other finals, including -k. In addition, there is a single word, among the many compounds of Ch ñek 'eye', which lends a gram of support to the posited -ek ~ -ak variation: the si ñek ~ the ñak 'face'. But if my specification of the conditioning factor which transforms a (PTB/)NN (*ɲ-/ *n-/)*m- into a Chang ñ- -- i.e., /__-*i-, see Section 3.7 above -- is correct, Ch ñek 'eye' (as well as ñak 'cooked

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rice') can only be from *-ik. (The other possibilities -- *-i°k, *-iuk, *-iak -- are precluded by more serious mismatches of reflexes in one or another language; as noted above, Benedict's *-iək remains a possibility, but would have to be posited for NN to cover only a single set, that for EYE. With the Ch -e- ~ -a- variation for *-i- before dentals and labials well-established, its extension to *-ik seems a preferable solution.)[1]

In reconstructing the NN system of closed-syllable rhymes, I have made every attempt to refer contrasts in the data languages to contrasts in the protolanguage. Despite the expansion of the system from ten to twelve basic medial vowels, however, there remains a certain amount of irreducible variation in the data languages, particularly in Chang. In some cases (e.g., for the Chang reflexes of *-in) this variation may be conditioned by the initial, but the data are hardly sufficient to decide. In others (e.g., Ch -lep ~ -lab for TO BURY, lem- ~ lam- for HOT(1)), conditioning by the initial is not a possibility. Thus, where there is evidence of variation over an entire conjunctive set of rhymes (as for the Ch reflexes of *-i- except before -ŋ), I assume that the possibility of free variation obtains for all members of the set, and write simply (e.g.) *-i- > Ch -e- ~ -a-.

---

[1] If this analysis is correct -- if Ch -ek is a canonical variant of Ch -ak from NN *-ik -- Ch hek 'louse' may belong with the forms assigned to LOUSE(2), which could also accommodate No rit < *rik (cf. No lik 'bead', lit 'necklace'), thus establishing a single set for LOUSE.

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*-in

		LIVER	NAME	TO TEACH	ALIVE (4)	CLAW	RIPE (2)
Yo	-in	-din	--	--		--	--
Mo	-in	--	(miŋ)[1]	--		-thin	-muin[5]
No	-in		min	-rin[3]		-khin 'nail'	
Wa	-in ~ -an	--	min[2] ~ man	--		-[h]in	
Ky	-in ~ -ən	--	min		-yin 'life'[4]	-kən	
Ph	-en	--	men	ven	yem 'life'	--	men-
Ch	-en ~ -an	san-	ñen	len		-san	
NN	*-in	*C-sin	*min	*rin	*C-rin	*kyin	*min

1 Probably from PTB *r-miŋ (see below).

2 This form is suspect. It is given by GEM [al71, also 77], but is from neither Brown (who has man) nor Peal (who does not give a form for 'name' but has bi la man pu 'what name?'). If it is fallacious, -in 'claw' is left as the only example of a Wancho -i- < *-i- before a dental or labial.

3 No a rin = 'to advise'; cf. the alternative glosses for Ch len: 'inform, tell, explain', as well as 'teach'.

4 Cf. Ky yon/Ph yom (-n also in Wa/Ch) < *C-ruan, GOAT (2). Apparently there is a dissimilative shift, *-n > Ph -m/*C-r..__ (Phom has y..n forms < *-y-).

5 Cf. Mo -vuin (*-vun expected) < *C-swun, CALF(of leg). These are apparently effects of the labial initials before -n: Mo {-un,-in} > -uin/{v-,m-}__.

also: JUDGMENT, TO TIE(2).

LIVER PTB *m-sin.

NAME PTB *r-miŋ (STC, Appendix), but with the doublet PST/PTB *min (STC 165, n.442), with all of the Northern Naga forms except the Moshang from the NN representative of the latter.

TEACH cf. Jg. ša rin ya 'to teach'.

ALIVE cf. PTB *s-riŋ.

CLAW PTB *(s-)yin, "with the *k- in NN and Magari [arkin] (prefixed there by *r-) from the -k of *lak 'arm/hand'" (pcPKB, 1/21/82).

RIPE PTB *s-min.

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The correspondences for the remaining finals are the same as those for *-in, differing from those for *-ik in having Wa (-i-~)-a- and Ph -e-:

		SEVEN	EARTH (2)	TO BURY	BUG(2)	TO TURN	HOT(1)/ SWEAT *-i-
Yo	-i-			—			-lim[4]
Mo	-i-			lip			
No	-i-	-ŋit	pit 'field'		sip- 'ant'		
Wa	-a-	-nat					
Ky	-i-~-ə-	ñit				lip	-ləm[4]
Ph	-e-	ñet	pet-[1]				lem-[4]
Ch	-e-~-a-	ñet		-lep~-lab[2]	-sap[3]	lap	lem-~lam-[4]
NN	-*-i-	*C-nit	*pit	*lip	*C-krip	*lip	*lim

1 in: pet i vək pə 'earthquake'.

2 in: tika kai lep 'to cover', kai lab 'to confine'.

3 in: au sap 'gad-fly' (because so given, with a hyphen, and because au = 'bird', probably to be understood in its primary, literal sense).

4 in: Yo (hraŋ)lim 'hot' (hraŋ = 'sky'), Ky waŋ ləm 'sweat' (waŋ = 'sky', the entire construction thus being cognate with the Yo compound, and thus by inference having a broader sense than simply 'sweat'), also ñi nəŋ ləm 'noon' (ñi [nəŋ] = 'day'), Ph lem o (< *lem mo?) 'sweat', Ch lem li 'sweat', lam bə 'hot'.

also: TO DO, TO WORSHIP(1).

SEVEN PTB *s-nis. There is no reason to posit an *-s for NN; PTB *-s > NN *-t.

EARTH cf. Lepcha făt < *p[i,u]t (pcPKB).

BURY cf. Lepcha lap, Rawang lip (pcPKB), also Jg. lup, possibly from *lip~*lup, possibly also related to *lip 'dive, sink, drown' (often in comp. with 'water').

BUG cf. PTB *krep (STC 74), based on Jg. and Kiranti, but a high vowel is indicated by Lolo-Burmese

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(PLB *2krip) and Rawang rip < *khrip 'flying ant' (STC 74, n.230), and by Karen *gri(p)~ *kri(p) 'ant' (STC 146, n.400).

TURN cf. Ao Chongli me yip.

HOT PTB *lum, but Di. lum~lim 'to be hot', gulum di ~ gilim di 'sweat' points to a front-vowel doublet.

Thus *-it/*-ip/*-im; I have no instances of *-ir or *-il.

The reflexes exhibited in five cognate sets which I reconstruct with *-iut/*-iup/*-ium are most similar to those of *-i-. On the basis of external comparisons, these sets might sustain reconstructions in either *-i- or *-u-, but they display correspondences which cannot be assimilated to either of these rhymes at the NN level. Compare the following vocalic reflexes for the relevant finals:

Yo			-im		-ip	-im	-i	-ip	-im
Mo		-ip			-ip	-im			-um
No	-it	-ip		-ut	-up	-um		-ap	-am
Wa	-at			-ut	-ap	-am			-am
Ky	-it	-ip	-əm	-ei	-ep	-əm	-ei	-ep	-em
Ph	-et		-em	-et	-ep	-em		-ap	-əm
Ch	-et	-ep~-ap	-em~-am	-et	-ap	-em~-am	-at	-ap	-am
NN	*-it	*-ip	*-im	*-iut	*-iup	*-ium	*-ut	*-up	*-um

The three languages which decisively discriminate these three proto-rhymes are Nocte, Konyak, and Phom. Nocte has *-i- > -i- (three sets, including SEVEN [see above]) and *-u- > -a- (five sets, including THREE and MORTAR, both with excellent TB comparisons for *-u-) before these finals. This in itself is sufficient to demand a distinct prototype for the Nocte forms in -ut/-up/-um; but the sets containing these forms also have Ph -e- (contrasting

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with Ph -ə- < *-u-) and Ky -e- (contrasting with Ky -i- < *-it/*-ip). Only before -m are the reflexes of the sets assigned to *-iu- indistinguishable from those assigned to *-i-.

This does present a problem for the solution offered here. What is required to clinch the argument is a Nocte form in -im < *-im, but not only is none available; Nocte does not have any forms with -im in the vocabularies available, and the only form with -ip is the one cited for BUG(2), sip cak 'ant' (Butler; but Das Gupta has cup cak 'ant). This raises the possibility of an (*-ip/)*-im > (-up/)-um shift in Nocte. Nevertheless, the weight of the evidence -- including particularly the external comparisons for the two sets reconstructed with *-ium, HOUSE and LOW(1) -- supports setting up a distinct *-iu- for NN. As we shall see, an *-uil is required as well, making the inclusion of the obverse dipthong in the NN system less implausible.

The set for HOUSE is perhaps the critical one for the hypothesis of an NN *-iu- distinct from *-i-. As noted above, its rhymes are indistinguishable from those for *-im. But this word, widely attested in TB, although originally reconstructed as PTB *kim (STC 26), was in the final version of the STC (25, n.82) reconstructed with a medial glide (*kyim ~ *kyum), and Benedict (pc) has now settled on the latter form as the sole prototype required: PTB *(s-)kyum 'house'. Now, with such a form, NN has the

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option of treating the medial glide as part of an initial cluster, *(-)ky-. If this reconstruction were indicated for the NN initial, NN *C-kyim would do for the entire form. The Nocte reflex of NN *(-)ky-, however, seems to be kh- (see Section 3.3 above), while the h- in No hum 'house' is regular for NN *(-)k-. Thus, it would appear that (in spite of deviant initials in Chang and Moshang) NN treated the medial glide in its received form for 'house' as a part of the rhyme rather than of the initial: NN *kium (*k- + *-ium) rather than *C-kyim (*ky- + *-im). This interpretation has the advantage of agreeing with Benedict's present analysis of 'house' as originally having a back vowel. As for the deviant initials, Mo yam~yim (rather than *gim) < *hium < *kium seems more likely than Mo yim (rather than *thim) < *C-kyim; and while Ch c- is regular for *C-ky-, it could also be the result of the same sort of palatalization of the initial which regularly produced Ch ñ- for *(-)ɲ-/*(-)n-/*(-)m- before NN *-i-. The decisive factor for the reconstruction of HOUSE as *kium, however, is the parallel between its rhyme correspondences -- particularly No -u- -- and those for NEST and TO EXTINGUISH, which could be reconstructed with *-i- rather than *-iu- only at the price of admitting Ky -e- as a variant of -i- < *-i-; the contrast between Ky lip 'to turn' and Ky ə lep 'nest' is all-important here. The rhyme correspondences for NEST and TO EXTINGUISH demand a reconstruction other than *-i-, and the

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shape of that reconstruction is indicated by PTB *(s-)kyum 'house':

		TO EXTINGUISH	NEST	ROOF (1)	HOUSE	LOW(1)	
Yo	-i-	--	--	šip	him	--	--
Mo	-i-	--		šip	yim	--	--
No	-u-	mut-	-rup	sup	hum	-num also	-- 'down'
Wa	-u-~-a-[1]	-mut	-zap		ham		--
Ky	-e-~-ə-[2]	mei[3]	-lep			nəm 'sink'	--
Ph	-e-	met	-jep		šem	--	nemnem 'whisper'
Ch	-e-~-a-	ñet	hap		cam	ñem- ; 'sink'	ñamñam 'mutter'
NN	*-iu-	*miut	*siup	*ciup	*kium		*nium

1 This variation may be only apparent. Wa a mut 'to extinguish' is from Peal, who sometimes gives -u- (without a diacritic)~ -a-, as in mut~a nat 'seven', and indeed in "ham (humm)", 'house'; that is, Peal's [-u-] may = /-a-/.

2 Although this is expressed as alternation, it may be conditioned: -e-/__{t,p}, -ə-/__m, particularly as it is paralleled by *-i- > Ky -i-/__{t,p}, -ə-/__m.

3 The replacement of final -t by -i in Konyak also occurs for NN *-ut (also > Ky -ei), as well as for NN *-a't (> Ky -ai). Final -t is also sometimes dropped or replaced by -i in Yogli and Phom.

EXTINGUISH PTB *mit ([but] Di. khu mu 'destroy'). Note the Chang initial ñ-, which requires an NN *-i-. Despite the possibility that NN (*-ip/)*-im > No (-up/)-um, this could not be so for *-it in view of No i ŋit 'seven' and pit 'field' (see *-it above).

NEST Speculatively, PTB *s- 'animal prefix' + PTB *yup 'to sleep' (rev. of STC *yip, pcPKB). Ch hap is given for 'cave, lair, nest, cocoon', in comp. nau hap 'honeycomb' (nau = 'bee'), ao hap 'bird nest' (ao = 'bird'). Cf. Di. bu thup 'nest' (bu is cognate with Lu. bu 'nest', thup < *sup), pointing to a back vowel, but Jg. tsip, id., pointing to

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a front vowel. The root is widespread in S and C Naga (Ao -sep, St. -səp, Yi. sap, TN -thip, all from *s..p).

ROOF PTB *cip or *cup (pcPKB).

HOUSE PTB *(s-)kyum (pcPKB, rev. of STC's *kyim ~ *kyum). See extensive discussion above.

LOW PTB *ńam (Jg. nem, WB nim, Lu. hniam), with the rare PTB *ń- initial based on the Lushai form. This is the only case where an NN root has an external comparison which Benedict attributes to PTB *ń-. It is just possible that the palatal quality in the PTB initial is regularly treated by NN as a component of the rhyme, as in Lushai.

I reconstruct the converse high dipthong, *-ui-, for only two sets, HAIR(1) and SILVER. External comparisons indicate that both of these are derived from prototypes with final *-l:

		HAIR(1)	SILVER	*-uil
Yo	-il	-mil	--	
Mo	-ul	-mul	--	
No	-un		ŋun	
Wa	-un	mun 'fur'	ŋun	
Ky	-in	min	ŋin	
Ph	-in	min- 'soft' [1]	ŋin	
Ch	-in	min- 'woolly'	--	
NN	*-uil	*muil	*ŋuil	

1 cf. No. nap pa 'body hair', vo nap 'feather', a noap 'soft'.

HAIR(1) PTB *mwil (rev. of STC's *(-)mil ~ *(-)mul, pcPKB).

SILVER PTB *(d-)ŋul.

Not only do these two sets have a unique pattern of

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vocalic correspondences; they also share a unique treatment of the final, for in all other cases, *-l is simply dropped in Konyak, Phom, and Chang. For this reason, and in spite of its PTB *-l, I would reconstruct SILVER as NN *ŋuin were it not for the perfect parallelism with HAIR, also with PTB *-l, confirmed for NN by the Tangsa forms. (It is possible that doublets -- i.e., *mu(i)l ~ *m(u)in -- are involved, but this seems less likely than the solution adopted.) It is also striking that both sets have a nasal initial, so that the *-l > -n shift in Ky/Ph/Ch may be a function of the initial, of the unusual rhyme, or of the conjunction of the two.

I present this correspondence here because of its similarity to that for *-iu-, particularly *-iut, with its No/Wa -u- juxtaposed to front-vowel rhymes in Ky/Ph/Ch. The Moshang -u- in HAIR, however, is reminiscent of Mo -u- < *-u-; the Moshang reflex of *-iu- is -i-. The composite character of the proto-rhyme is indicated by the following affinities: Yo -iI/Mo -ul, as if from *-ul, No/Wa -un, as if from *-u°l or *-iul, Ky/Ph/Ch -in, as if from *-i°l > *-i°n. Fortunately, Benedict's most recent conclusions regarding the shape of the PTB prototype for the root reconstructed as *(-)mil ~ *(-)mul in the STC point to just the sort of composite rhyme demanded by the Northern Naga forms: PTB *mwil > NN *muil. The Northern Naga evidence not only supports this PTB reconstruction, but also points to an identical proto-rhyme for SILVER. There is

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independent evidence for the latter: Muthun, the second Wancho dialect reported by Brown, has ŋwun 'silver', with the medial glide intact.

The four medial vowels and dipthongs presented so far -- *-i°-, *-ï-, *-iu-, and *-ui- -- form a set with respect to their development in the data languages, so that it will be useful to summarize their reflex patterns before proceeding:

Yo	-il	-iŋ	-ik	-in	-it					
Mo	-ul	-iŋ	-ik							
No	-un	-iŋ	-iek -ik	-ien -in	-iet -it					
Wa	-un	-iŋ			-it	-ip				
Ky	-in	-iŋ	-ik		-it	-ip				
Ph	-in	-iŋ	-ak		-it -at	-ip -ap				
Ch	-in	-iŋ -i	-ik	-in	-it	-ip				
NN	*-uil	*-i°ŋ	*-i°k	*-i°n	*-i°t	*-i°p				

Yo		-iŋ	-ik	-in			-im	-ip	-im	
Mo		-iŋ	-ik	-in		-ip		-ip	-im	
No	-ut	-iŋ	-ik	-in	-it	-ip		-up	-um	
Wa	-ut	-iŋ (-aŋ)	-ik	-in -an	-at			-ap	-am	
Ky	-ei	-iŋ -əŋ	-ik -ək	-in -ən	-it	-ip	-əm	-ep	-əm	
Ph	-et	-iŋ -əŋ	-ək	-en	-et		-em	-ep	-em	
Ch	-et	-aŋ	-ek -ak	-en -an	-et	-ep -ap	-em -am	-ap	-em -am	
NN	*iut	*-iŋ	*-ik	*-in	*-it	*-ip	*-im	*iup	*ium	

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I next present the correspondences for the mid-front-vowel rhymes *-e°- and *-e- and the front falling dipthong *-ia-. The ground is uncertain here. These rhymes are relatively rare, and few solid external comparisons are available for guidance. Two generalizations regarding the divergent development of long and short vowel rhymes with velar finals may be brought into play here, however.

The first of these generalizations is that, when the vowel is short, its vocalic reflexes before *-ŋ and *-k tend to be identical in all languages; that is, where shifts have occurred, they have occurred in the composite environment /__{ŋ,k}. When the vowel is long, its development before *-ŋ and before *-k has been divergent; here, the vocalic reflexes associated with *-k tend to be more similar to those before dental and labial finals. Thus, with short vowels, there is a basic cleavage between a reflex pattern associated with *-ŋ and *-k and one associated with dental and labial finals; with long vowels, the reflex pattern associated with *-ŋ is set off from that with all other finals.

This general tendency is most clearly seen among the mid and back vowels, but traces of it may be discerned even among the high front vowels, where it is weakest: for *-i°-, the variant reflexes No -ie- and Ph -a- do not occur before *-ŋ, but appear to be possible before any other final, while Chang maintains the proto-rhyme except in the case of *-i°ŋ. For *-i-, Phom maintains -i- ~ -ə-

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before velars, but shifts to -e- before dentals and labials.

The second generalization is that, with the regular exceptions of *-r and *-l, and the sporadic exception of *-t (see above), final consonants are always maintained after short vowels but sometimes dropped after long vowels, *-ŋ being particularly susceptible to elision after a long vowel, as with *-i°ŋ > Ch -i. Wancho, for example, sometimes drops a final velar nasal after *-u°- and *-o°-, and always does so after *-a°-, so that its -e < *-e°ŋ shift is not unexpected.

Although my examples for *-e°ŋ are fragmentary, parallels with the reflex patterns of other long-vowel rhymes decisively distinguish the correspondences for *-e°ŋ from those for *-eŋ. The Yo -eŋ/Mo -en correspondence is attributed to *-e°ŋ rather than *-eŋ on the basis of its parallelism with *-a°ŋ > Yo -aŋ/Mo -an (but *-aŋ > Yo/Mo -aŋ). The Konyak variation between pure vowel and dipthong replicates a similar variation for *-u°ŋ and *-o°ŋ; Konyak never has a medial dipthong as the reflex of a short vowel rhyme.

Ky -eaŋ ~ -eŋ and Ph -oŋ are also among the reflexes of NN *-o°ŋ. DISH and BAMBOO are reconstructed with *-e°ŋ rather than *-o°ŋ on the basis of their external comparisons.

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		DOG [b][1]	BACK (1)	-LEG-	WHITE (4)	DISH	*-e°ŋ BAMBOO (3)
Yo	-eŋ	-kheŋ	kheŋ-			--	--
Mo	-en	-hen	khen- 'yoke'			--	
No						--	
Wa	-e		khe- 'waist'[2]	ke-[3]	ce		
Ky	-eaŋ~-eŋ			-keŋ[3]	heŋ-	šeŋ	weaŋ
Ph	-oŋ					šoŋ	--
Ch	-eŋ				-theŋ[4]		
NN	*-e°ŋ	*kre°ŋ	*khe°ŋ	*ge°ŋ	*the°ŋ	*C-khle°ŋ	*re°ŋ

1 This second syllable in the Yo/Mo forms for 'dog' appears, so far as I can determine, only in these two languages. Although I have no idea of its meaning, the forms are clearly cognate; I list them because of the paucity of evidence for *-e(°)- correspondences.

2 For evidence of the semantic linkage, cf. Kh. ce, Chokri uce, Ao Chongli teperem, all both 'back' and 'waist', Lahu cɔ̀2-pɛ̄-ni 'small of back, waist' (the last from Matisoff 1978: 222).

3 In: Wa ke roŋ 'hip', Ky yoŋ keŋ 'thigh', both ≃ 'leg-round' -- for Wa roŋ : Ky yoŋ, see -ROUND-(OF BODYPARTS)(2), NN *C-ruŋ.

4 In: theŋ thou 'firefly' ~ theŋ do 'glowworm', (lit ñu) kam theŋ 'full moon' (lit ñu = 'moon'). Cf. glosses for external comparisons below.

-LEG- PTB *keŋ (Lu. ke; STC 70, n.218); the apparent Chinese cognate cited is from a *g-.

WHITE cf. Lu. eŋ 'yellow', e°ŋ 'to shine; light(bright)', Mk. theaŋ 'to shine', ke theaŋ 'light(bright)', theŋ tom 'torch', Lhota eŋ 'sun'.

DISH cf. Lu. thle°ŋ (Lu thl- < PTB *kl-, STC 41).

BAMBOO cf. Li. ta riaŋ, Nr. nreŋ.

Note the long vowels in Lushai e°ŋ 'to shine; light' and thle°ŋ 'dish'.

*-e°- developed differently before other finals:

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		EYE (2)	WOMAN	TO CALL	HUSK	BUFFALO (2)	*-e°k LOUSE (1)
Yo	-ik	mik		--	--		--
Mo	-ak	mak			--		
No	-iak		ciak-[1]		--		
Wa	-i	mi	ši-	--	--		--
Ky	-ek	mek	šek-	ñek	wek	tek	-šek 'flea'
Ph	-ək	mək		ñək	--	--	--
Ch.	-ek			ŋek 'shout'	ek	tek	hek
NN	*-e°k	*me°k	*C-khye°k	*ŋye°k	*C-we°k	*te°k	*sre°k

1 in: ciak phe 'to divorce'. Cf. No de hiak 'woman', hiak < *C-ci°k, -FEMALE(2), and discussion under initial *C-khy-.

EYE(2) PTB *myək (pcPKB, rev. of STC's *mik ~ *myak). The Northern Naga evidence, however, points to a doublet at the NN level: contrast Wa mik-/Ky mək- in 'blind', < NN *mik, EYE(1), and see the extensive discussion under the initial and rhyme for this root. See also under LOUSE, below.

WOMAN cf. Lahu gɛ̀2 'female' (Matisoff), which Benedict (pc) derives from a PLB *C-kyak.

TO CALL cf. the closely related NN *ŋiak, WORD(2), and WT nag 'speech'.

HUSK Probably to be referred to PTB *pwa°y 'husks, chaff', via a compound like Mk. phe ke, id., accounting for the final -k. For a parallel development, cf. FRUIT(2), PTB *sey but NN *sek.

LOUSE PTB. *šryək (pcPKB, rev. of STC's *šrik). Just as for EYE (above), for which Benedict now proposes the same PTB rhyme, *-yək, an NN doublet is indicated: contrast Ky ku šek 'flea' (ku < kui 'dog') and Ky šik 'louse', < NN *sri[°]k, LOUSE(2), and see under the initial and rhyme for this root.

Except in Phom, the vocalic reflexes of *-e°- before dental and labial finals are the same as before *-k:

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		THIN (1)	TO SEND	PUT/ KEEP(1)	BEAT (1)	TO CUT WITH A KNIFE(2)	FALSE (1) *-e°-
Yo		--	--				
Mo	-a-	-var	tar			--	
No	-ie-			thien (both)			diep-[2]
Wa	-i-		--		pit		
Ky	-e-	pe-	tei 'take'	hen 'put'		met	
Ph	-e-	--	tei		phei	mei	
Ch	-e-				-phet-[1]	--	yep-[2]
NN	*-e°-	*pwe°r	*te°r	*the°n	*phe°t	*me°t	*gle°p

1 in: o yo phet yu "discord" (o yo ~ o yu = "to quarrel", -yu ≃ "together, among", see QUARREL(2), NN *daw > Ch o, and AMONG, NN *C$_V$-yaw > Ch -yu ~ -yo).

2 in: No diep daŋ "to pretend" (daŋ = "to be"), diep cha "to cheat"; Ch yep [p]e "to lie (speak falsely); wrong (false)"; cf. Ch yep pe ca we "liar".

THIN PTB *pe°r (but a PTB *pwe°r is also possible; see under initial). This is the best single comparison for -e°- except before *-ŋ, and both Northern Naga forms are significant: Mo -a- < *-e°- (supported by TC SEND), hardly an expected reflex, supports the *-e°k reconstruction for EYE(2); and Ky -e- < *-e°- contrasts with Ky -i- < *-e- (see below).

SEND cf. Lu. ti°r "send" (showing the vowel length but with assimilation of vowel quality to the initial; contrast Lu. pe°r "thin"), Ze. tei waŋ "bring" (waŋ = "come").

PUT/ KEEP cf. Lu. en kol "keep", Ze. tei "keep", Di. deŋ (both).

BEAT cf. Meluri phe, TN ka phe, Yacham-Tengsa ta phet.

CUT.. cf. NN. *C$_V$-mi°t, KNIFE.

The reflexes of *-e°- (except before *-ŋ) show continuity with those of *-i°-, and again with those of *-ia-, in Nocte and Wancho. (Recall [Section 2.2.3(3)] that

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Nocte does not have a phonemically distinct -e- in closed-syllable roots, No -e- in such roots appearing only before dentals as an allophone of -a-.) No -ie- ~ -ia-, which we encountered as a variant reflex of *-i°-, is the regular Nocte reflex of *-e°- and *-ia- (as No -ua- ~ -oa- is the reflex of the parallel back-vowel rhymes, *-o°- and *-ua- [see below]).

Wancho -e- is even rarer than No -e-, occurring in only one reconstructible form, -zep 'to fan' < NN *C_V-yep. With the exception of its open-syllable -e < *-e°ŋ, Wancho has a high front vowel for *-e°- and *-ia- as it does for *-i°-.

In Konyak, Phom, and Chang the mid-vowel is generally maintained for *-e°-. The only exception is before both velar finals in Phom, as for the Phom reflexes of *-i-, which becomes Ph -e- before dentals and labials but not before velars. The *-eŋ and *-ek rhymes do not in fact occur at all in Phom; if this apparent constraint upon rhyming possibilities in Phom is taken as prior, the seeming irregularity of *-e°ŋ > Ph -oŋ/*-e°k > Ph -ək is diminished.

Thus, except in Tangsa, all of the Northern Naga reflexes of *-e°- are entirely plausible, and *-e°- is clearly differentiated from the high-front-vowel rhymes by Ky -i- ~ -ə- < *-i(°)- but Ky -e- < *-e°-.

As to Tangsa, I noted above the possibility that Yo mik 'eye' could be the reflex of EYE(1), NN *mik, rather

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than of EYE(2), *me˚k; I place it under the latter, without support or contradiction from any other Yogli form from *-e˚- (except before *-ŋ), in preference to splitting the two Tangsa forms between the two NN roots for EYE. It may be noted, however, that the resultant discrepancy between Yo -e-/__ŋ and Yo -i-/__k is paralleled by Wa -e < *-e˚ŋ but -i < *-e˚k.

As noted above, the most implausible development is *-e˚- > Mo -a- (except before *-ŋ), particularly in the light of the apparent *-e˚k > -ik shift in Yogli. But Mo a var "thin": NN/PTB *p(w)e˚r (along with Mo tar "send": Lu. ti˚r) constitutes strong evidence that such a shift actually did take place. There may be a partial parallel in NN *-u- > Yo -u-~-i- but > Mo -u-~-a-.

The most sensitive problem in distinguishing among these mid-front-vowel rhymes is not that of discriminating *-e˚- from *-e-, but of discriminating *-e˚- from *-ia-. Thus I will present the latter next. Only in the case of final *-k is this discrimination reasonably clear, because of the unusual Chang reflex of *-iak, -əɣ (as from *-əw!). Otherwise, Chang appears to have -a- < *-ia- before dentals (I have no Chang examples before labials), contrasting with -e- < *-e˚-, but so few forms are involved that, in view of the Chang -e-~-a- alternation for *-i(u)- (and perhaps more pertinently, its -o-~-a- alternation for *-o˚-), it is uncertain whether this contrast is genuine. The problem is most acute before *-ŋ:

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*-iaŋ

		CAT	BED	BEAN	CHEEK (2)	WINTER/ COLD(4)
Yo	-ieŋ	-mieŋ	--	--		
Mo		--	--	--	--	
No	-iaŋ	miaŋ	liaŋ	--		
Wa	-ia	mia	lia 'bench'	pia-		
Ky	-eŋ		leŋ	pheŋ	meŋ-	weŋ-
Ph.	-əŋ		Iəŋ	--		viŋ-
Ch	-eŋ		leŋ 'lie down'			-leŋ- in'wet'
NN	*-iaŋ	*miaŋ	*liaŋ	*phiaŋ	*N-biaŋ	*riaŋ

CAT cf. Mk. meŋ.

BED The available comparisons in other Naga languages give no evidence of the dipthong, but perhaps help to dissociate this correspondence set from the very similar one for *-e°ŋ: Nr. laŋ 'bed', Ao Chongli laŋ baŋ, Lhota pi laŋ "table" (cf. Ph. ləŋ joi 'table').

BEAN cf. Jg. (šə)preŋ (pcPKB), possibly from a PTB *preŋ, > pre-NN *p(h)yeŋ.

CHEEK cf. Lu. biaŋ, Nr. biaŋ, Li. ca byaŋ, Ze. mi bia pi, Mz. n'bia, all 'cheek'. This remarkable "set", consisting of the single Ky form, not only provides the best external comparison for NN *-iaŋ but also supports the hypothesized NN *N-d- > Ky n- development in STORM (see under *N-d-).

The Northern Naga language which appears to most effectively discriminate between *-e°ŋ and *-iaŋ is Wancho, which very neatly has -e for the former and -ia for the latter. This must be qualified, however, as all three of the forms cited above are from Peal, while Brown has me- 'cat'. Nevertheless, of the three Wancho forms with -e cited for *-e°ŋ, two (for BACK and -LEG-) are also from Peal, so that in Peal's transcription the contrast holds.

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(Only WHITE, with Wa ce, from Brown [but cf. nak ce 'blue', from Peal {nak = 'black'; hence 'blue' ≈ 'light black'?}] is strictly ambiguous as between the two rhyme reconstructions.) This is important, because the reflexes of the two proto-rhymes are identical in Konyak and Chang, and barely differentiated by a single form in Yogli and Phom, while Nocte has no comparisons for *-e°ŋ (though we should expect *-e°ŋ > No -e on the model of *-o°ŋ > No -o and *-a°ŋ > No/Wa -a) and Moshang has no comparisons for *-iaŋ. External comparisons become important here: I place WHITE under *-e°ŋ on the basis of the contrast between Lu. e°ŋ 'to shine; light (bright)' and Lu. biaŋ 'cheek', and BAMBOO under *-e°ŋ on the basis of the contrast between Nr. nreŋ 'bamboo' and Nr. biaŋ 'cheek', but the possibility of variant reflexes in these languages renders all such fine judgments tentative. As noted above, much rides upon the excellent external comparisons for Ky meŋ-, CHEEK.

It is in part because of the No -iaŋ/Wa -ia reflexes for the rhyme under consideration that I represent this rhyme as *-ia- rather than *-ie-. Nocte generally has -ie- before other finals (see below), but it is more likely that the -e- in this realization is the result of raising under the influence of the -i- than the reverse; and, as this rhyme has its source in PTB *-ye-~*-ya- segments, and as *-a- is much more common than *-e-, so NN *-ia- is probably a more appropriate reconstruction for most sets on these grounds as well.

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*-iak

		DO/MAKE(1)	DO/MAKE(4)	BLAZE	TWIST/BIND	WORD(2)
Yo	-ak	ʻyak 'work'		--	--	
Mo				--	--	--
No	-iak ≈ -iek		tiek 'make'	--		--
Wa				--	--	--
Ky				--		
Ph	-ək		dək 'do'	--		
Ch	-əɣ	yaɣ 'make'	-cəɣ[1]	-ləɣ	kəɣ	ŋəɣ
NN	*-iak	*C$_{V}$-yiak	*ʔ-diak	*liak	*kiak	*ŋiak

1 in: kam an cəɣ 'to endeavor' (kam = 'do, make, work')

DO/MAKE(1) cf. Ao Chongli iñak 'to do', though the set may well reflect a reinterpretation of the *d- initial in DO/MAKE(4) as a prefix.

DO/MAKE(4) PTB *dyak (WT 'deg(s)-pa)(pcPKB).

BLAZE PTB *(-)lyak 'lick; tongue'. The semantic gap is bridged by the related roots PTB *(s-)lyaʷ 'lick (as flames); tongue' and PTB *(s-)lyam "tongue; flame" (STC 48). Cf. also NN *liap, LIGHTNING, < PTB *(s-)lyap 'glitter, flash; lightning".

TWIST/BIND cf. PTB *kik (WT "khyig-pa 'bind", WB kyats 'twist hard and tight').

WORD(2) cf. WT ŋag 'speech' and NN *ŋyeʔk, TO CALL.

The Chang -əɣ reflex is distinctive; its derivation from *-iak is supported by the PTB comparisons for DO/MAKE(4) and BLAZE, and if its contrast with Ch -ek < *-eʔk is genuine, it nicely discriminates between these two proto-rhymes.

The remaining correspondences for NN *-ia- differ from those for *-eʔ- in having Mo -e- (rather than -a-) and Ch -a- (rather than -e-):

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*-ia-

		GOAT (1)	UP	CANE (2)	TO PULL	MATCH	LIGHTNING
Yo		--		--	--	--	--
Mo	-e-	ke-[1]	-ten[2]	het	--	--	-lep
No	-ie-	kien			siet	-hiet	liep- 'to lick'[5]
Wa	-i-		din- 'above'			--	
Ky	-e-		-ten[3]	še-		--	
Ph				--	šia	--	
Ch	-a-		an-[4]		-sat- 'push'	-sat	
NN	*-ia-	*gial	*dian	*kriat	*C-kriat	*C$_v$-hiat	*liap

1 in: Mo ke ki 'goat', ke puŋ 'male goat', ke šar 'female goat' (LSI); loss of *-l unexplained, but note that the root appears only in comp.

2 in: Mo ka ten 'rise' (ka = 'go').

3 in: Ky ta ten 'housepost' (ta- possibly < PTB *ta 'put, place'). Cf. Mulung tan 'above' (Mulung is another Ky dialect, recorded by Brown).

4 in: Ch tig an- an ti 'throw [tig-] up', "lit."; cf. tig an-yan ti 'throw [tig-] down' (ti = CAUSATIVE, yan = 'descend'). Also: an tin po 'hang up' (po = 'set down').

5 This is speculative, but appears to represent a case of what might be called 'terminal metathesis' — 'lightning' in Nocte is kiep da, which I suggest is from liep dak 'to lick'. For the semantic link, cf. PTB *(s-)lya$^{\circ}$w 'lick (as flames); tongue' and *(s-)lyam 'tongue; flame'.

also: TO KEEP.

GOAT(1) PTB*kye$^{\circ}$l~*kyi[$^{\circ}$]l.

UP cf. Lushai pa thian 'God' (pa = 'father'; "the creator who lives in the sky" [Shakespear 1912: 157]). See extensive discussion under initial. Also cf. Chinese d'ɕiaŋ/dʑ'iaŋ, whose glosses include 'be on top, above' (STC 183, n.482).

MATCH PTB *hyak (Lu. hiat 'scratch', WB yak 'strike with a stroke toward one's self, scratch'), rev. to *hyat (pcPKB); in comp. with 'fire'.

LIGHTNING PTB *(s-)lyap 'glitter, flash; lightning'.

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The sets which I derive from an NN *-e- are set apart from those attributed to *-e°- and *-ia- by their distinctive reflexes in three languages in particular: Nocte, Wancho, and Konyak. As we have seen, NN *-e- and *-ia- merge in Nocte -ia-~-ie-, while the sets in question have Nocte -a-/-ʌ- (the latter from Weidert) /-e- (before dentals), just as if from *-a- (see Section 2.2.3(3) for discussion of these variations). Wancho has -e for *-e°ŋ and -i(-) for all other attested *-e°-/*-ia- rhymes, but -a- for *-e-, with two exceptions: -iak as a variant of -ak in two cases, and -ep in TO FAN — the only reconstructible instance of a Wancho -e-; I have no Wancho examples from an *-e°- or *-ia- before a labial. These differences in Nocte and Wancho are retrodictable. They reflect an affinity of *-e°- and *-ia- with high front vowels, in contrast to an affinity of *-e- with *-a-.

The divergence in Konyak is along another dimension; here the vowel is raised rather than lowered: *-e- > Ky -i-. This at first seems implausible in the face of *-e°-/*-ia- > Ky -e-, but is consonant with a general tendency to raising and fronting of medial vowels in Konyak (*-a-/*-u- > Ky -e-, except before velars), and reflects a merger in Ky -i- of the NN short vowels *-i- and *-e-. All but one of the sets attributed to NN *-e- has one or another of these distinctive reflexes in Nocte, Wancho, or Konyak, in association with -e- rhymes in Yogli and/or Chang:

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		WAIST	KNOW (2)	ALL(1)	ALIKE	RIGHT
						*-eŋ
Yo	-eŋ	keŋ šit 'belt'	--		--	--
Mo	-aŋ	--	--	a paŋ 'many'		--
No	-aŋ			phaŋ-	-raŋ	--
Wa	-aŋ			paŋ-	--	--
Ky	-iŋ	šiŋ;šiŋ hit 'belt'	šiŋ			
Ph	-oŋ ~ -əŋ	šəŋ		-phoŋ[1]		
Ch	-en	šen-	šen 'recognize'	pen-[2]	-yen[3]	yen-[4]
NN	*-eŋ	*C-geŋ	*C-khyeŋ	*C̬-pheŋ	*C̬-reŋ	*C̬-leŋ

1 in: Ph ham phoŋ 'we(incl. pl.)', am phoŋ 'you(pl.)', jom phoŋ 'they(pl.)'. See ALL(2), NN *toŋ, for a parallel set of constructions for plural pronouns in Yogli.

2 in: Ch pen to "every one" (~ pan do 'all'), pen dou "whole", pen to a (~ pan to wa) "everywhere", pom pen to "ever, always, often, frequently" (pom pan to "always"), pom ben to "frequently". For the -to element, see ONE(2).

3 in: Ch a yen "to be unequal (of soil, etc.)"; a- = "not-".

4 in: Ch yen ti "to rectify" (-ti = CAUSATIVE; "make right"). There is a possibility that these last two Chang forms reflect the same root, but the No r- form for ALIKE and the external comparisons pointing to an *l- for RIGHT indicate convergence.

WAIST cf. Di. jeŋ khoŋ "waist".

KNOW cf. PTB *(m-)kyen ([but] Jg. cyeŋ, with velar final), possibly also Lu. hre cianŋ 'understand'.

ALL cf. Di. ga baŋ 'much, many', TN ka poŋ "whole"; no comparisons for the front-vowel rhyme reconstruction, which is based on the Ch. -en.

ALIKE cf. Jg. ma ren 'like'.

RIGHT PTB *bleŋ ~ *pleŋ (Di. be leŋ) "straight", Zemi ke pe liŋ be "right".

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		TO JOIN(1) /FORK/BRANCH	FRUIT(2)	HARD(2)	TUBE *-ek
Yo	-ek	-phek[1] — —			
Mo		— — —		—	
No	-ak	— — /-phak			
Wa	-(i)ak	-pak[2] — —	-jak ~ -jiak	tsak ~ tiak	
Ky	-ik	—	-lik		tik-[5]
Ph	-ək	— —	-jək	—	šək-[5]
Ch	-(i)ek	/phek/-phiek[3]	-hek	sek-; siek[4]	-kek[5]
NN	*-ek	*phek	*sek	*jek	*gek

1 in: a ge phek 'to join'. As the other forms cited for this root, for 'fork' and 'branch', may be interpreted as having the opposite sense, the sense of 'join' in the Yogli form may be carried by ge-, which also occurs as a preposed element in the verbs 'meet', 'gather', and 'divide'.

2 in: ru pak 'belt' (ru = 'rope').

3 in: (po-)phek 'fork (of a tree or path)'/pu phyek 'branch' (pu = 'tree', with po- as an apparent variant in comp. [po hek 'fruit'; po kuŋ 'log' — cf. pu guŋ 'stalk']).

4 in: sek ok bə 'hard', sek bə 'expensive' (cf. SOFT (2) for the parallel relation between the senses 'soft' and 'cheap'), siek 'difficult'.

5 in: Ky tik woŋ, Ph šək voŋ, both 'trumpet' (Ky woŋ/ Ph voŋ = 'horn'), Ch lau cin kek 'quiver' (Ch lau cin = 'arrow').

also: HOOK, THIN(3).

TO JOIN etc. No comparisons for glosses shown, but for HOOK, Ph ñim phak (ñim < niyam 'iron', -ak [rather than -ək] unexplained), Ch phek laŋ, NN *phek, which may well be from the same root, cf. Mk. vek, id.

FRUIT PTB *sey, apparently with suffixed -k in these languages (cf. FRUIT(1), NN *sey [Yo/Mo/No]).

TUBE PTB *kek (Jg. ke2), rev. of STC's *(s-)ke(k) (pc. PKB); could also be *gek, < PST *s-gek or *s-kek: 'neck-shaped' in Jg., 'trumpet/flute' in Chinese).

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*-e-

		SOFT (1)	MUCH (1)	FOREIGNER			TO FAN
Yo	-en	-nen	--	--	Yo	/-ʌp	/tzʌp
Mo		--	--	--	Mo		--
No	-en	-ñen	cen-[1]	--	No	/-ʌp	/jʌp
Wa	-an		han ko 'best'	--	Wa	-ep	-zep
Ky	-in	ñin-		yin-	Ky		--
Ph	-en	ñen-		yen-	Ph		--
Ch	-en		šen ko 'full'	yem-[2]	Ch	-ep	-yep
NN	*-en	*C-nen	*C_V-cen	*C_V-yen	NN	*-ep	*C_V-yep

1 in: cen to "how much?" cen ko "everywhere" (cf. a ko "here", i ko "there").

Yo/No /-ʌp: forms from Weidert.

also: FAST.

2 in: yem pu "stranger", yem mat "traveller", but yen to hau "to travel" (-n > -m/__{p-,m-}) (mat = "man", hau = "to go", -to = "-to").

SOFT cf. WT mñem pa, Lu. ne'm, Puiron ma nem nu, Kh./Ko. ke me ne, pointing to a PTB *m-ne[']m. One may speculate as to whether a replacement of the *m- prefix by *s- in NN might not have triggered an assimilative shift in the final.

FOREIGNER cf. WT yan.

TO FAN cf. PTB ya'p (WT yab-mo ~ g-yab-mo [WT nuclear vowel as in "foreigner"]). The Northern Naga forms are obviously from the same root, but the comparison is embarrassing, as FAN, along with SHOOT, is given by Benedict (STC 73) as typifying the development of PTB *-a'p in contrast to that of PTB *-ap; in Northern Naga, however, the rhyme reflexes of the two roots are distinct, SHOOT (NN *2-ka'p) having Wa -ap : Ch -ib ~ -ip. I can only suggest that the NN vowel in FAN became raised and fronted under the influence of the initial.

The reflex patterns of the mid-front vowel rhymes and the front falling dipthong may be summarized as follows:

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Yo	-eŋ	-ik					
Mo	-en	-ak	-ar				
No		-iak		-ien		-iep	
Wa	-e	-i			-it		
Ky	-eaŋ ~ -eŋ	-ek	-e(i)	-en	-et		
Ph	-oŋ	-ək	-ei		-ei		
Ch	-eŋ	-ek			-et	-ep	
NN	*-e˚ŋ	*-e˚k	*-e˚r	*-e˚n	*-e˚t	*-e˚p	
Yo	-ieŋ	-ak					
Mo			(-e)	-en	-et	-ep	
No	-iaŋ	-iak ~ -iek	-ien		-iet	-iep	-iem
Wa	-ia			-in			
Ky	-eŋ			-en	-e		
Ph	-əŋ	-ək			-(i)ə		-om
Ch	-eŋ	-əɣ		-an	-at		
NN	*-iaŋ	*-iak	*-ial	*-ian	*-iat	*-iap	*-iam
Yo	-eŋ	-ek		-en		/-ʌp	
Mo	-aŋ						
No	-aŋ	-ak		-en		/-ʌp	
Wa	-aŋ	-iak ~ -ak		-an		-ep	
Ky	-iŋ	-ik		-in			-əm
Ph	-oŋ ~ -əŋ	-ək ~ -ak		-en			
Ch	-en	-iek ~ -ek		-en		-ep	-em
NN	*-eŋ	*-ek		*-en		*-ep	*-em

Although these results are fragmentary, the pattern of continuities and discontinuities displayed above shows that setting up three distinct sets of rhymes to cover the phonological space involved is justified; and that (only) when three sets of rhymes are so distinguished, a reasonable degree of pattern symmetry emerges. Nevertheless, the hypotheses encapsulated above, taken as a whole, must be regarded as more tentative than those advanced to account for the space occupied by high-front vowel rhymes.

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		BONE	YEAR	EAGLE /HAWK	LIGHT (-wt.)	DEAF	-MALE (1)	*-a°ŋ TO ANSWER
Yo	-aŋ	—		laŋ	caŋ	baŋ	-kaŋ[4]	—
Mo	-an	-ran	--	--	-can	--	-kan-[4]	--
No	-a	-ra	-pa	la	ca	-ba	-ka[4]	
Wa	-a	-ra	--	-la	cia[3]	-ba		--
Ky	-an	wan	-paŋ[1]	'raven' -lan	--	-pan-	-tan[4]	jan
Ph	-aŋ	vaŋ	(poŋ)[2]	laŋ-	šaŋ-	-aŋ-		jaŋ
Ch	-(u)(o)*	luo	puo	-lu	so-	o-		co-
NN	*-a°ŋ	*ra°ŋ	*pa°ŋ	*la°ŋ	*gya°ŋ	*ba°ŋ	*ga°ŋ	*chà°ŋ

1 in: Ky waŋ paŋ 'year' (waŋ = 'sky', and throughout Northern Naga is preposed to roots for all kinds of celestial and meteorological phenomena); the -ŋ in -paŋ is retained because of the literal "rhyme" with the -ŋ of waŋ-.

2 The irregular -o- here is probably due to the labial initial. Cf. ALL(1), NN *C$_V$-pheŋ, Ph -phoŋ (-əŋ expected).

3 The -i- is a result of the palatal initial. Cf. Wa cia 'leg, foot', < NN *gla < PTB *g-la.

4 in: Yo tei kaŋ, Mo vi kan wa 'old man', No te ka 'old', Ky nə tan 'man(male)'. The initial element in the Yo/Mo/No forms carries the sense of 'old'. Cf. Mo vi kru 'old woman' (Mo -kru < NN *gəw, -FEMALE(1), though Mo vi- is cognate with terms for GRANDMOTHER, cf.). Similarly, No te = 'grandfather' (see GRANDFATHER(1)/ELDER BROTHER, NN *C-ta°y > Yo -tai).

*Cf. NN *-a > Ch -o(u) ~ -au. There is a possibility that the variation here is conditioned, as follows: NN *-a°ŋ > Ch -uo > Ch -u/[SEG]__, > Ch -o/__[SEG]. Cf. luo 'bone', khu lu 'skull' (khu = 'head'). On the other hand, the -u reflex may simply be a literal "rhyme" with khu 'head' in 'skull' and with au 'bird' in au lu 'hawk'. Neither of these hypotheses, however, accounts for Ch su 'house lizard', < NN *C$_V$-sa°ŋ, LIZARD, < PTB *r-sa[°]ŋ, so that the -uo ~ -u variation at least may be unconditioned.

also: ELEPHANT(1), FINGER(2), LIZARD, SAND(1), THOU(2).

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BONE PTB *(m-)raŋ (STAL 173), revise to *(m-)ra°ŋ on the basis of the NN (pcPKB).

EAGLE /HAWK PTB *laŋ (STC), revise to *la°ŋ, partially on the basis of the NN (pcPKB).

LIGHT PTB *r-ya°ŋ ~ *g-ya°ŋ, pcPKB for the latter.

DEAF PTB *ba°ŋ ~ *pa°ŋ (pcPKB).

MAN (MALE) PTB *kaŋ "father, grandfather", vowel length noted as (previously) indeterminate at STC 190, n. 488.

ANSWER cf. Lu. chha°ŋ.

The Northern Naga reflexes of NN *-a°ŋ are particularly well-established, so that it is possible with this rhyme to recognize variations from the regular pattern as such (see notes 1 and 2 above) — an advantage we do not have in many cases, where the data are insufficient to state with confidence what is regular and what is divergent.

Note that *-a°ŋ > Mo -an, parallel to *-e°ŋ > Mo -en, and the loss of final in Nocte and Wancho, as for *-e°ŋ > Wa -e (no Nocte form from *-e°ŋ available), and *-u°ŋ/ *-o°ŋ > No -o, Wa (-uŋ ~)-ua.

This rhyme is one for which NN can make a solid contribution to the problem of establishing PTB vowel length, as the revised PTB forms cited above demonstrate. NN (/PTB) *-aŋ > -aŋ in all languages.

Similarly, NN(/PTB) *-ak > -ak in all languages, while the long-vowel variant, *-a°k, undergoes even greater reduction than *-a°ŋ, the final *-k being retained only in Chang. This is the most thoroughgoing case of loss of final consonant in all of Northern Naga:

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		(LIVE/) BREATHE	SUFFER (1)	BAD (1)	PLANTAIN	SHARP	CLEAN	*-a°k TO SELL (2)
Yo	-a	da-	da 'sick'	-ba	--	--	--	
Mo	-a	-ta- 'live'	--	-ba	-ŋa		--	
No	-a	--	cha 'ache'			-na	--	
Wa	-a	--			ŋa	-na	--	
Ky	-au	lau-			ŋau	nau-	jau-	yau
Ph	-au				--	--	dau-	yu[1]
Ch	-ak	hak-	-sak				sak-	yak
NN	*-a°k	*sa°k	*C$_V$-da°k	*ba°k	*ŋa°k	*na°R	*C$_V$-da:k	*C$_V$-ya°k

1 I suggest Ph -au > -u/y__, though there are no other examples.

also: -DIRT, OIL(2), SHAME(2).

BREATHE PTB *sak (STC), but NN agrees with Proto-Karen *sa (with vocalic rather than glottal final) in pointing to a long vowel, PTB *sa°k (pc PKB).

BAD cf. Jg. yu bak 'sin' -- the NN rhyme reconstuction is derived from this apparent correspondence; there is no indication anywhere of such a root in *-a.

PLANTAIN PTB *(s-)ŋak.

SHARP cf. Mk./Ao Chongli nok 'dao', also (in comp.) 'sword'. For the 'sharp'/'sword' association, see STC 53, n.179.

CLEAN cf. WT dag-pa 'clean', Ao Chongli ši dok 'to wash'.

TO SELL PTB *ryak 'to show'.

Here, unlike in the case of *-a°ŋ, and with the exception of BREATHE, no external confirmation of the long vowel is available; the external comparisons indicate simply *-ak -- that is, *-a[°]k -- so that if the attribution of this correspondence set to *-a°k is correct, NN breaks new ground in the identification of this PTB rhyme.

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*-a°r and *-a°l

		NEW	FIRE			FAR (1)	PERSON (2)
Yo	-al		wal	Yo		--	
Mo	-ar	--	var	Mo	-al	-jal	
No	-an		van	No			
Wa	-an	-jan	wan	Wa			
Ky	-a	-la-	a	Ky	-a		-ta[2]
Ph	-a	ja-	o[1]	Ph	-a		-ha[2]
Ch	-an	han	wan	Ch	-a	sa-	-sa[2]
NN	*-a°r	*sa°r	*ʔ-wa°r	NN	*-a°l	*ja°l	*ja°l

1 NN *-a[°l- > Ph -o(-)/(Ph)#__. Cf. NN *waŋ, CHIEF > Ph oŋ, NN *wak, PIG > Ph ok. Specification of the initial *w- common to all three instances is technically redundant, but may in fact be the operative conditioning factor; cf. also NN *pa°ŋ, YEAR > Ph pon (rather than the expected *paŋ).

2 in: Ky ka ta "person", Ph ñə ha "woman, wife" (ñə = "mother"), ba ha "man(male), husband" (ba ≈ pa "father"), Ch yak sa "woman, wife". (Note that this set, if valid, cannot be from *-a, which becomes -o(u) ~ -au in Chang.)

NEW PTB *sar.

FIRE PTB *bwâr ~ *pwâr. The PTB *-â- reconstruction is apparently a 'back-formation' based on the Chinese forms for "burn" and "fire", which, according to Benedict, point to a PST *-â- (STC 191, n.488). Benedict does not propose a length distinction for this vowel, as he does for all others, noting that where it is attested, in Chinese, it is "intrinsically a long vowel" (STC 190, n.488). Cf. NN *C$_V$-ta°t, TO HEAR, < PTB *tâ-s.

FAR PTB *ja°l.

PERSON cf. Lu. chal "man(male)".

There is convincing evidence that Konyak and Phom preserve an -a- in forms from NN *-a°n and *-a°t (see be-

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low), while shifting to -e- or -i- in forms from NN *-an/*-at/*-ən(/*-ət [no examples]). I attribute the sets for NEW and FIRE to *-a°- on this ground of pattern symmetry. As indicated above, there is some support for this reconstruction in Benedict's analysis of the PTB/PST rhyme in the root for FIRE. There is insufficient material to justify the most likely alternative, setting up *-ar̂ for NN itself.

The principal datum arguing against the reconstruction of the rhyme in NEW and FIRE as *-a°r is a shift that does not occur in the Chang forms in these sets. For in all of the NN *-a°- rhymes still to be considered, NN *-a°- > Ch -i-. This is an unaccountable but quite well-substantiated shift, exemplified by twelve cognate sets ranging over all four remaining finals. Apparently the development of *-a°r > Ch -an was subsequent to that of *-a°n > Ch -in, though one isolated, tantalizing form gives pause: Ch an tin po "to hang up" (an ≈ UP, cf.; po = "to set down"); cf. PTB *ta°r.

Other than the *-a°- > Ch -i- shift, *-a°- > -a- before all four remaining finals in all languages, with *-a°m > Ph -em a possible, and *-a°p > Ky -ep a definite, exception. (Konyak does not appear to have -ap, except in a tap 'hearth', where the vowel has probably lowered in assimilation to a- 'fire', the unaltered [and expected] rhyme being found in tap la 'ashes'; see HEARTH, NN *təp.)

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*-a°n.

		IRON	WOOD/FIRE-WOOD(1)	ARROW	DRY (1)	CRAB	TO WAIT
Yo	-an	yan	can 'wood'	--		--	--
Mo	-an	yan	--	-san	--	--	--
No	-an	jan	can 'firewood'	-chan		--	
Wa	-an	jan		san	ran	ɣan	
Ky	-an	yan		-han	-wan-	--	tan
Ph	-an	yan 'dao'	--	--	--	--	dan
Ch	-in	in 'dao'	-sin[1]	-cin	lim-[2]	hin	
NN	*-a°n	*ya°n	*gya°n	*C$_v$-dza°n	*ra°n	*gra°n	*ʔ-da°n

1 in: Ch pu sin 'pine tree' (pu = 'tree'; speculatively, pu sin ≈ 'firewood-tree' — cf. WB thàŋ 'firewood', thàŋ rû 'pine' [STC 69]); lau sin 'stock (of gun on [sic.; or?] cross-bow)' (lau = 'bow', hence lau sin ≈ 'bow-wood').

2 lim bə, -n > -m/b__, as in FOREIGNER, NN *C$_v$-yen > Ch yem pu.

IRON cf. PTB *sya°l (reconstruction based on Kiranti, a doublet of *syi°r). The two roots are too similar not to be related at some level, possibly as yet another doublet formation, PTB *sya°l ~ *(s)ya°n, but Benedict (pc), suggests a loan from some language having -n for PTB *-l.

ARROW cf. Lahu -ce < *-can (pcJAM). In comp. with BOW-.

DRY cf. Bodo-Garo *ran[2], "probably also Abor e-re°ŋ (< *-ra°n?)" (pcPKB).

CRAB PTB *d-gra°y (pcPKB), with the NN *-n from PTB *-n, 'collective' plural suffix, as in Jg. (cyə)khan 'crab' (STC 99, n.284).

WAIT cf. WB tan(') 'stop, remain for a while' (pcPKB).

Here the long vowel is supported by the external comparisons for IRON and CRAB, and neither supported nor contradicted by the others; actually, the *-n in ARROW may also be the 'collective' suffix, added to SON, *-dza.

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		TO HEAR	VOMIT	CLOTH (1)	TO SWIM	RAIN (2)/(3)	TO GO (4)	TO GNAW *-a°t
Yo	-ai	tai	phai	khai	-vai			—
Mo		—	—		—			—
No	-at	tat	phat	khat		/-pat		—
Wa	-at	-tat	—		—	/-vat		—
Ky	-ai	jai	phai	-kai[1]		wai/	tai	—
Ph	-ai	(tan)	—		—		dai	—
Ch	-it	tit			-it			hit
NN	*-a°t	*C$_V$-ta°t	*pha°t	*khra°t	*wa°t	*C-wa°t /*swa°t	*ʔ-da°t	*swa°t

1 in: piaŋ kai "cotton" (piaŋ < *pu°ŋ, FLOWER, cf.; hence, piaŋ kai ≃ "cloth-flower", as — more speculatively, Mo ri pu "cotton" ≃ "thread-plant" [Mo ri < *rəy, THREAD/(<LINE>)/BOUNDARY, Mo pu < *ʔ-pua, TO GROW/GROWTH(1)].

HEAR PTB *tâ-s. See above, under FIRE, NN *ʔ-wa°r, for a discussion of PTB *-â- as a likely source of an NN long vowel. The development of the NN rhyme from a suffixed open syllable in PTB (as probably also for ARROW, above) also points to the probability of a long vowel, as all PTB final vowels are phonemically long (STC 70).

VOMIT cf. PLB *C-pat (TSR 38; WB phat), Jg. mphat.

CLOTH cf. TN khat sa "skirt" < *krat sa, on the model of TN khet < *kret "scratch" (Matisoff 1972c: 277); also Ko. pfe "cloth", pfe kra "clothes", Chokri khwə, khwə kra, id.

SWIM PTB *s-wa "be in motion" (Jg. wa, Kuki *wa, both used as verbal affixes [STC 105, n.298]). The NN forms are in comp. with "water-"; cf. the same construction ("water-move[-in]") in Angami (Ko./Kh.)/Rengma dzə və and Ao Mongsen atsə-wa, while Ao Chongli demonstrates the special affinity of this verb for water by having simply a wa, all "to swim". The NN form, like all of the above, is without prefix, but has substituted suffixed *-t, which, like *s-, has a directive function in TB generally (STC 100-101, 105). Again, a suffixed open-syllable rhyme is likely to retain vowel length.

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RAIN (NN *C-wa°t [(2),> Ky] ~ *swa°t [(3), > No/Wa] both from an earlier **s-wa°t)

PTB *r-wa (STC) ~ *rwas (Matisoff 1972c: 281), suggesting a composite PTB *r-wa-s — yet another suffixed open-syllable form. See under initial for RAIN(3) for prefix substitution in NN.

GO cf. SW Naga: Li. tad, Nr. tat, Ze. tat.

GNAW PTB *wa-t "bite, chew"; although an *s- element is not attested, this root, as Benedict comments, is "probably connected with" *s-wa 'tooth' (STC 106), a connection made even more probable by the gloss for the Chang form. In NN the prefix has fused with the initial in both roots: *swa, TOOTH; *swa°t, TO GNAW.

Thus, four of the seven roots attributed to NN *-a°t (HEAR, SWIM, RAIN, GNAW) can be traced to a PTB *-a-s *-a-t, strongly suggesting that retention of vowel length in what was originally a suffixed open-syllable form is regular for NN. But PTB *-a-t > NN *-at as well.

Note the loss of final *-t in Yogli, Konyak, and Phom. This is most clearly seen for *-a°t, but also occurs for *-e°t (> Ky -et, but Ph -ei), *-iat (> Ky -e, Ph -(i)ə), *-uat (> Yo/Ky -oi, no examples for Phom), *-ut (> Yo -i [rather than *-it], Ky -ei [rather than *-et], Ph -i [rather than *-ət]), and *-at (> Ky -et, but -ei/{y,j}__, no examples for Phom). It does not seem possible to formulate a rule specifying conditions under which *-t is lost in these languages; we can only say that, in them, *-t is unstable, becoming elided after certain medial proto-vowels but not others. In contrast, the loss of *-r and *-l in Ky/Ph (except after *-ui-, where *-l > -n) is general, while the stability of *-n, *-p, and *-m appears to be unexceptionable.

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*-a°p and *-a°m.

		SHOOT	OPEN (1)			DRUM	MIRE	LIE DOWN
Yo		—	—	Yo		—	—	—
Mo	-ap	gap	—	Mo				—
No	-ap	-hap	hap 'free'	No	-am	tham	tham 'tank'	—
Wa	-ap	hap 'bow'	—	Wa	-am	sam	-tam	—
Ky	-ep	khep	ep	Ky	-am	šam	—	lam
Ph	-ap	—	ap	Ph	-em	—	—	lem
Ch.	-ip	kib	ip	Ch.	-im	—	thim	lim-[1]
NN	*-a°p	*2-ka°p	*ha°p	NN	*-a°m	*C-khla°m	*tha°m	*la°m

1 in: lim bu lak 'land-slip' (lak = "precipice, cliff").

SHOOT PTB *ga°p.

OPEN PTB * a:p.

DRUM cf. Di. kha ram ~ khram, Garo kram (last two forms from Shafer 1953: 246).

It is the Ky -am reflexes which lead me to attribute DRUM and LIE DOWN to *-a°m; Ky -am is very rare (*-am > Ky -em) and is reconstructible for only these two forms. As we have seen, Konyak has -a- < *-a°- for every final except *-p, where the solid external comparisons in conjunction with the Chang forms in -ip force the conclusion that in this one case Konyak has failed to preserve the low vowel. (Except before velars, all reconstructible Konyak forms with -a- are attributable to *-a°-.) Given the *-a°m reconstruction for LIE DOWN on the basis of Ky lam, the Chang form is presented merely as a possible cognate.

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	*-aŋ	HEAD(1): FOREHEAD	THOU (1)	DREAM	RAIN (1)	TO CHIEF	TO BEGIN	UNDER	OLD(OF THINGS)
Yo	-aŋ	khaŋ	mnaŋ[2]	maŋ		—	—	—	—
Mo	-aŋ	khaŋ	mnaŋ[2]	—	raŋ	—	—	—	
No	-aŋ	khaŋ	naŋ	maŋ		-vaŋ	-baŋ-		
Wa	-aŋ	khaŋ-	naŋ	—		vaŋ-	—	-phaŋ	-jaŋ
Ky	-aŋ	šaŋ	naŋ	maŋ		aŋ	waŋ	phaŋ-	-laŋ-
Ph	-aŋ	šaŋ-	nəŋ[3]	maŋ		oŋ[5]	paŋ	phaŋ-	jaŋ-
Ch	-aŋ	khəŋ-[1]	[4]	maŋ	laŋ			-paŋ	haŋ-
NN	*-aŋ	*khaŋ	*naŋ	*maŋ	*raŋ	*waŋ	*praŋ	*phaŋ	*saŋ

1 Ch -əŋ (rather than -aŋ) unaccountable.

2 Yo/Mo preposed m- seems to be a local development, limited to these two languages.

3 Ph -əŋ (rather than -aŋ) unaccountable.

4 Ch nuo 'thou' is attributed to a variant, THOU(2), NN *na˚ŋ, with long rather than short vowel, this variation going all of the way back to PST *naŋ ~ *na˚ŋ (STC 160, n.432).

5 NN *-a[˚]- > Ph o(-)/(Ph)#__. Cf. PIG, NN *wak > Ph ok; FIRE, NN *ʔ-wa˚r > Ph o.

also: ALIVE(3), CORPSE, HARD(3), HEART/MIND[b], SPINDLE, TREE(2), WINTER/COLD(3).

FOREHEAD cf. Di. mu khaŋ, Garo mu khaŋ ~ mik kaŋ 'face' (the last two from Shafer 1953: 233); WB has khoŋ 'head'.

THOU PTB *naŋ (~ *na˚ŋ, STC 160, n.432).

DREAM PTB *r-maŋ.

RAIN cf. Jg. ma raŋ 'rain'; also Lepcha roŋ < *raŋ 'splashing' (pcPKB).

CHIEF PTB *bwaŋ 'father's brother'. Cf. Nr. guaŋ, Ze. he guaŋ 'chief, king', prob. < *g-waŋ, suggesting reinterpretation of the *b- as a prefix and substitution of *g-. In NN CHIEF the *b- is simply dropped, but Yo a vaŋ ~ a baŋ 'uncle' probably reflects the clustered prototype (NN *pwaŋ), on the model of Yo a va ~ a ba 'father', < NN *pwa.

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BEGIN cf. PTB *praŋ 'dawn, morning' (Mk. praŋ 'dawn'), Mk. a phraŋ 'first, before' (cf. Ky a waŋ pa 'first'), Jg. phaŋ 'begin'.

UNDER PTB *paŋ (pcPKB).

OLD cf. Lu. hma sa°ŋ.

		BLACK	PIG	TO BURN (1)	RED	TO WEAVE	BAT	TO BUY (2)
								*-ak
Yo	-ak	-ñak	vak	-cak		--	--	
Mo	-ak	-ñak	vak	--		--	--	
No	-ak	-ñak	vak	thak	-cak	-tak	phak-	
Wa	-ak	-nak	vak			--	-pak	sak
Ky	-ak	ñak-	ak		t[illegible]ak[4]	tak	-pak	šak
Ph.	-ak	ñak-	ok[1]	jak	hak-	tak	--	šak
Ch	-ak	nak-	ok[2]	cik[3]	sak-	tak	pak	sak
								'expend'
NN	*-ak	*C-ɲak	*wak	*chak	*jak	*tak	*C̬-bak	*C-krak

1 NN *-a[°]- > Ph o(-)/(Ph)#__. Cf. CHIEF, NN *waŋ · Ph. oŋ; FIRE, NN *ʔ-wa°r > Ph. o.

2 NN *-u-/*-a- > Ch o- [rather than a-] /(NN)#*w__. Cf. BELLY, NN *wuk > Ch ok- (but NN. *C-wuŋ, UNCOOKED RICE, > Ch aŋ — hence the specification /(NN)#). It would be possible to write a composite rule covering both these Chang cases and the Phom shifts cited in n.1, but there is reason to believe that Phom is more closely related to Konyak (where the shifts do not occur) than to Chang, so it is advisable to treat them as separate, though parallel, developments, at least for the time being. The necessity of specifying that the Chang shifts take place only in forms from NN *w-, however (for the counter-case, cf. Ch ak pə 'sharp'), makes it virtually certain that this is the conditioning factor in Phom as well, as suggested in my note to the Phom rhyme for FIRE.

3 Cf. Ch yik 'hand' < NN *glək. Apparently NN *-ak/*-ək > Ch -ik/{c,y}__. TO BURN could also be reconstructed with *-ək, which is differentiated from *-ak only by Mo -ok, but Ch -ik < *-ək is no more plausible than the solution in terms of conditioning adopted here.

4 This rhyme is unique and uncanonical for Konyak,

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to the degree of leading one to suspect a misprint in the source (GEM). Konyak never has medial diphthongs, except for -eaŋ < *-e°ŋ and -iaŋ < *-u°ŋ/*-o°ŋ. The alternative possibility, that the form consists of two morphemes, i.e., tə-ak, is at least equally implausible, for Konyak does not have -ə as an open-syllable rhyme and does not employ classificatory verbal prefixes (GEM I24, 131).

I interpret this form as an unaccountable realization of /tak/, for two reasons. First, an initial t- is the expected reflex of the apparent proto-initial, NN *j-. Second, there is reason to believe that the word is the same as that found in Ky nau tak "baby" (nau = "child"). Cf. Yo a šaŋ "red", nau šaŋ "baby", Mo kai šan "red", no šan "baby"; also Lu. sen "red", nau se°n "baby", Mpri. aŋaŋba "red", aŋaŋnaba "baby".

also: TO BREAK(1), SHOULDER(1).

BLACK PTB *nak (STC), *(s-)nak (TSR 142).

PIG PTB *pwak.

BURN cf. Mpri. cak, and other comparisons under initial.

RED PTB *cak (STC) but possibly better *jak (pcPKB).

WEAVE PTB *tak ~ *trak (STC), rev. to *r-tak (pcPKB).

BAT PTB *ba°k (difference in vowel length unaccountable).

BUY cf. Ko. khrə (Ko. drops all final consonants).

With the scattered irregularities noted above, both *-aŋ and *-ak are preserved in identity correspondences throughout Northern Naga. Before all other finals, NN *-a- shifts to -e- in Konyak and Phom, contrasting with the general preservation of *-a°- in these languages.

The only real difficulty in this area is presented by a series of correspondence sets differing from those I attribute to *-a- only slightly: before velars, having Mo/Ch. -o- (rather than -a-); before dentals, having Ky -i- (rather than -e-); before labials, having Ky -ə- (rather than -e-). These are assigned to NN *-ə-.

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		TO SLIP	DIVIDE (2)		FENCE	WAR	*-ar/*-al/*-an	HARD (1)	TO DRUM
Yo	-al	ñal	-phal	-al	pal-	--	-an	-tsan	phan 'beat'
Mo	-ar	-ñar	--	-al	--	ral-		--	
No	-an	ñan[1]	phan-	-an	pan	ran	-an	-can	
Wa	-an	nan	--	-an		ran			
Ky		--		-e	pe	we-	-en		phem 'drum'
Ph		ñə-[2]			--			--	
Ch	-an		-pan[3]	-a	pa				
NN	*-ar	*ɲar	*phar	*-al	*pal	*ral	*-an	*jan	*phan

1 = 'slippery'.

2 in: ñə lək pə 'smooth' (see below for semantics); of no value for rhyme because of probable assimilation.

3 in: phat pan 'to inherit' (phat = 'inheritance'), jam pan 'sept' ([jam] = /cam/ 'house').

also: DRY(2), Yo a šan < NN *C-than; cf. PTB *tan.

TO SLIP cf. the forms cited by Weidert (1979: 120) for 'slippery', including Lu. na°l and Jg. mə nyen; also Mpri. nal ba 'smooth'. The Lushai form suggests a PTB long vowel, but Weidert's own transcription of the vowel in the Yo/No forms as -ʌ- points to a short vowel in NN. In the absence of a Ky or Ph form with either -a or -e, vowel length is strictly indeterminate for NN.

DIVIDE PTB *par (pcPKB); see also STC 35, n.113. Rhyme actually entirely indeterminate, reconstruction based on PTB.

FENCE cf. Lu. pal, Mpri sam bal.

WAR cf. PTB *(g-)ra°l (but PST *-ăl; STC 191, n.488). These forms must be considered in conjunction with those for ENEMY, which could be attributed to the same root were it not for a vowel shift in Konyak, which has we hok 'to fight', but wi pa 'enemy'. This variation is exactly paralleled by Ky pe(lak) 'fence' but pi ša 'garden'. Though conditioning is possible, I interpret these forms as going back to closely related but

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distinct roots in NN, in conformity with the apparent contrast between Ky -e(-) < NN *-a- and Ky -i(-) ~ -ə- < NN *-ə- (for this contrast, see under remaining finals): *ral, WAR, but *rəl, ENEMY; *pal, FENCE, but *pəl, GARDEN. In any case, the external comparisons indicating a short vowel for FENCE but a long vowel for WAR clash with the identity of the Konyak reflexes for the two roots.

		EIGHT	TO BEAT (3)	NEEDLE [a]	TO REAP	THICK	*-at TO BITE (2)
Yo	-at	-cat		—	—	—	
Mo	-at	-cat	dat	—	—	—	
No	-at(~ -et)	-sat		mat-		-tat 'fat'	
Wa	-at	-cat		mat-	—	tat	tsat
Ky	-et(-ei/{j,y}_)	tet	šet		wet	jei-	jei
Ph	-et	-šet[1]		-met	vet	—	—
Ch	-at	sat	sat- 'rough'		lat	-tat- 'large'	
NN	*-at	*C_V-gyat	*C-klat	*mat	*rat	*C_V-tat	*tsat

1 Phom 'eight' is šat, which if regular would make the rhyme correspondences for EIGHT unique in Northern Naga. But whereas Northern Naga numerals generally strictly retain their phonological shape when compounded in forms for higher numerals (even to the extent of retaining their prefixes in non-initial position), Phom 'eighteen' is an pə šet (an = 'ten': 'ten-and-eight'), and I take this as the original and regular shape of 'eight'.

also: BAMBOO(1), TO FALL(1)/(2), LEECH, TO SUFFER(2). (Except for TO FALL(2), Ky yei < NN *glat < PTB *gla-t (pcPKB for suffix), these sets do not include Konyak or Phom cognates and are thus of secondary interest for the determination of rhyme correspondences.)

EIGHT PTB *(b-)g-ryat (> *(b-)g-yat [pcPKB]).

BEAT cf. Jg. kayat.

NEEDLE PTB *r-ma-t 'nettle' (the indicated compounds are analyzable as 'sewing-nettle' [No/Wa] and

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"iron nettle'[Ph]).

REAP PTB *ra-t.

THICK PTB *r-tas.

BITE cf. PLB *ɸ-tsat (pcJAM).

The Ky -ei rhyme is reminiscent of Ky -ai < *-a˚t, but the possibility that it might represent a conditioned variant of the latter is precluded by the minimal contrast with Ky jai < *C-ta˚t, TO HEAR.

		DAY (2)	STAND (1)	SEIZE/ CATCH(2)	BEAR	RING	LEAF (1)	TO TASTE	JOIN (2)
								*-ap	
Yo	-ap	-nap[1]	cap	-lap 'get'	—	—	—	—	
Mo	-ap	-nap[1]	cap		ca[p]-[4]		-lap[2]	—	—
No	-ap	-nap[1]	cap		sa(p)-	khap	-lap[2]	tha-[3]	—
Wa	-ap			—	cap	kap- 'bracelet'	—	—	—
Ky	-ep	-nep[1]			šep	šep-	-lep[2]	jep	hep
Ph.	-ep			yep	—		—	jep	—
Ch.	-ap	-nap[1] 'rise'	-sab	lap	sap	-kap 'armlet'	—	cap	cap-
NN	*-ap	*nap	*gyap	*C-lap	*C-gyap	*khyap	*lap	*chap	*cap

1 in: Yo/No ni nap, Mo i nap 'tomorrow', Ky te nap 'today', Ch tou nap me nap 'nowadays' (tou = 'now').

2 in: Mo pha lap, No pla lap ~ khe lap, Ky khe lep, all 'tea'. "No form available" indications ("—") are for the gloss 'tea'. The identification of the second syllable in these forms as 'leaf' is based on the external comparisons.

3 in: No tha lï 'tongue', < *thap lï; lï by itself is cognate with other forms for TONGUE, NN *C-ley. Weidert gives this form as thʌ lï, this being the only case in which Weidert gives -ʌ for other recorders' -a (i.e., in an open syllable, as vs. -ʌ- for -a-), suggesting original closure and loss of final in non-word-final position. Cf. BEAR, sap ba (Robinson) ~ sa pa (Butler).

4 ca ba < *cab ba < *cap ba. Cf. No sa pa ~ sap ba.

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DAY cf. Ao Chongli ta nəp 'today', Mk. pe nap 'tomorrow'.

STAND PTB *g-ryap (> *g-yap [pcPKB]).

BEAR cf. Jg. tsap (< *gyap).

LEAF PTB *lap.

TASTE PTB possibly *jap (pcPKB).

JOIN PTB *cap.

		TAKE(2)	TIGHT	(GAME) ANIMAL	TO SEEK	HOT(2)/ TO BOIL(1)	JUNGLE *-am
Yo	-am	lam- 'bring'	-dam-[1]				
Mo	-am	lam-	--	ŋam[3]		/--	
No	-am		--	ŋam[3]	lam	-kham/kham	
Wa	-am				lam	kam	
Ky	-em				yem	šem-/šem	
Ph	-em		--		yem	-- /--	yem-[4]
Ch	-am	-lam-	-sam[2]	ŋam-[3]	lam		yam
NN	*-am	*(C-)lam	*Cv-dam	*ŋam	*C-lam	*kham	*Cv-ram

1 in: Yo a dam ka 'to tie'; ka alone is cognate with other forms for TO TIE(1), NN *C-ga, cf.

2 in: Ch yik sam 'to close one's fist; to be numb' (yik = 'hand').

3 in: Mo ŋam 'deer'; No ŋam 'beast; meat', ŋam hap 'hunting' (a hap = 'to shoot'); Ch ŋam cap 'snare' (cap = 'to snatch').

4 in: Ph yem ha 'animal'. Cf. Lu. ram 'country', ram sa 'animal'.

TIGHT cf. WT dam-po.

SEEK cf. Yacham-Tengsa lam, Yi. yim, Ao Mongsen yimya. Shafer (1953: 246) cites "Kuki" lam.

HOT PTB *(s-)kam (pcPKB).

JUNGLE cf. Lu. ram, Ze. ram 'land, country', Lu. ram hnuai, Ao Chongli a rem, Yi. rim 'forest, jungle', Mk. ram 'jungle'. Note *-am > Yi. -im in both JUNGLE and SEEK.

Of the six sets displayed above, only HOT(2)/TO BOIL

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and TO SEEK include Konyak forms and may thus be definitely attributed to *-am rather than *-əm. The reader may note that both of these Konyak forms have palatal initials, as do three of the six Konyak forms in the sets reconstructed with *-ap, and wonder whether conditioning may not be involved. Konyak, however (along with Phom), is a "palatalizing language", with an extremely high proportion of palatal initials; and minimal contrasts are available for both of these cases: Ky šep, BEAR (also šep-, RING), < *-ap contrasts with Ky šəp, TO WEEP, < *-əp; Ky šem(-), HOT/TO BOIL, < *-am contrasts with Ky -šəm, WINTER/COLD, *-əm. It is, in fact, contrasts such as these which demand the discrimination of an NN *-ə- from NN *-a-, a discrimination for which convincing external comparisons are lacking, as most TB languages, like most of the Northern Naga languages, do not preserve the distinction; and because, as a result of this widespread merging of the two sets of proto-rhymes, *-a- and *-ə-, the recognition that *-ə- must be reconstructed for PTB is of relatively recent date (reflected, in the STC, only in footnotes), so that very few PTB roots with *-ə- have been identified. If the identification of NN roots with *-ə- given below is correct -- that is, if the deviant correspondence sets presented below are properly attributed to *-ə- -- it should constitute a significant contribution to the discrimination of this vowel in PTB as well.

Before velars, the critical reflex is Moshang -o-:

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*-əŋ

		SKY (1)	WING	ALIVE (2)	DAO	TO GET (2)
Yo	-aŋ	hraŋ	—		yaŋ	
Mo	-oŋ	roŋ	-roŋ	-roŋ	yauŋ[2]	
No	-aŋ	raŋ	-raŋ		daŋ	
Wa	-aŋ	raŋ	raŋ	-zaŋ	caŋ	
Ky	-aŋ	waŋ	yaŋ		yaŋ	
Ph	-aŋ	vaŋ-	yaŋ	yaŋ-*		daŋ
Ch	-oŋ	loŋ-[1]				coŋ-[3]
NN	*-əŋ	*rəŋ	*C-rəŋ	*ryəŋ	*gləŋ	*ʔ-dəŋ

1 in: Ch loŋ mak 'thunder'. 'Thunder' is a compound whose first syllable is the word for SKY given above in all other Northern Naga languages except Yogli, where it is unavailable. The entire two-syllable word is cognate in Mo/No/Ph/Ch, < NN *rəŋ muk; cf. THUNDER, NN *muk. The Chang word for 'sky' itself is distinct, however; see SKY(2), NN *məw.

2 This is the only instance of a dipthong in a closed-syllable form in the Moshang corpus, and I interpret it as a realization of -oŋ: [yauŋ] = /yoŋ/.

3 in: Ch coŋ sak 'gift' (sak = 'expend'), coŋ sa 'reward' (sa < sa no 'show favor').

*Ph yaŋ- 'to be alive' could equally well be the reflex of ALIVE(4), NN *C-raŋ, cf.

SKY cf. Garo raŋ-ra 'sky', PTB *m-raŋ 'high'.

WING cf. Bodo-Garo *g-raŋ (pcPKB).

ALIVE cf. WT rjen pa 'raw'.

GET cf. Mk. deŋ 'receive'.

Because Moshang has the critical rhyme, -oŋ, after *r- in three of the four sets above (while the rhyme in the fourth is irregular), I would be tempted to interpret these forms in terms of conditioning were it not for the contrast provided by RAIN(1), Mo raŋ, Ch laŋ < NN *raŋ.

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Even more telling, however, is the repetition of the correspondence of Mo -o- to -a- elsewhere before the other velar final, (*)-k:

		HAND	TO BITE (1)	TO CLOSE
				*-ək
Yo	-ak	yak	--	šak
Mo	-ok	yok-	kok	--
No	-ak	dak	kak	sak
Wa	-ak	cak		-hak[2]
Ky	-ak	yak		
Ph	-ak	lak	šak 'tear'	
Ch		yik[1]		
NN	*-ək	*glək	*gək	*cək

1 Cf. Ch cik, TO BURN, < NN *chak. Apparently NN *-ak/*-ək > Ch -ik/{c,y}__. Although TO BURN could also be reconstructed with *-ək, to posit -ik as the regular Chang reflex of *-ək would be implausible in the face of *-əŋ > Ch -oŋ and *-ə- > Ch -a- before all other finals.

2 in: Wa ka hak 'door'; ka by itself is cognate with other forms for DOOR, NN *ga. Cf. No ka sak 'door', also Ky ta(kəp) (Ky kəp = 'to cover'), Ch ko kap (Ch kap = 'to shut') (cf. COVER/SHUT (1)/(2), NN *kup ~ *ku°p).

HAND PTB *g-lak, but PST *(g-)lək (STC 183, n.482), giving us our first external comparison for the NN *-ə- rhyme. It should be noted that although Benedict, in late notes to the STC, reconstructs a fair number of PST roots with *-ə- on the basis of the Chinese forms, this discrimination of *-ə- from *-a- is not generally brought back to bear on the representation of the PTB reconstructions because of the lack of TB (as opposed to Chinese) evidence for *-ə-. Nevertheless, Benedict does (in the notes: STC 57, n.188; 126, n.344) admit *-ə- as a PTB medial vowel, though in the STC only six PTB roots with *-ə- are identified. Under these circumstances, a PST

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reconstruction in *-ə- should constitute excellent supporting evidence for the revision of a PTB reconstruction from *-a- to *-ə- if such a revision is indicated by divergent developments in TB languages themselves -- as in the case of the Moshang -ok rhyme in HAND.

BITE cf. PTB *ku°k (WB 'bite with the teeth or an instrument; shear', Garo kik 'strip', Di. khu 'pare off (rind of fruit), strip' [STC 82]). Shafer (1953: 231) compares the Mo/No forms with Koch (Barish) kak 'to bite'. Cf. also Kh. me ki 'bite', ki ha 'tear', Lhota eŋ kak, Nr. kai, Khoirao nkei, TN ma kei, Ze. nki me ki, Li. ma ki, Maram ma ke, Yacham-Tengsa ma kə, St. mə ka, Rengma nka, all 'to bite'. These forms, drawn from both Southern and Central Naga, point to an *N-k_k 'to bite' (final *-k preserved in Lhota) with indeterminate medial vowel -- but more likely *-ə- than *-u°-.

CLOSE cf. WT lcags-ri 'wall'. I reconstruct CLOSE with *-ə- rather than *-a- because Weidert gives the Yogli and Nocte forms with -a-, rather than, as is usual for forms from *-a-, with -ʌ-.

Before dentals and labials, the diagnostic reflex for *-ə- shifts from Mo -o- to Ky -i(-) (before dentals) ~ -ə- (before labials), contrasting in both cases with -e- < *-a-. As with HAND, < PST *-ək, which gave us an external comparison for *-ə- before a velar final, I can present one external comparison for *-ə- to cover the correspondences to follow: for TO WEEP, NN *krəp, PTB *krap but PST *krəp (STC 183, n.482). Two of the roots which Benedict reconstructs with PTB *-ə- will also be found here, but without Konyak exponents. But the case for reconstructing NN *-ə- for the roots below rests primarily on the significance and regularity of the Konyak contrast among -a(-) (attributed to *-a°-), -e(-) (attributed to *-a-), and -i(-) ~ -ə- (attributed to *-ə-) in roots for which external comparison indicates a PTB *-a(°)-.

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*-ər and *-əl

		SUN.	SPEAK (2)	NIGHT (2)		ENEMY	GARDEN	THIRSTY	TO CHOOSE
Yo	-al	-šal	—	—	-al	ral	—	—	—
Mo	-ar	-šar	—	—		—	—	—	—
No	-an	san	van-[1]	-pan	-an	ran	pan	-lan	
Wa	-an	-han	van[2]	-van		—	—	—	—
Ky	-i	-hi	i	-phi-[3]	-i	wi-	pi-	li-	li
Ph	-e		e		-e	ve-	pe	-le	je
Ch	-an	can-	-wan-		-a	la	ba	-la	sa-[4]
NN	*-ər	*cər	*C$_V$-wər	*swər	*-əl	*rəl	*pəl	*ləl	*C$_V$-səl

1 in: No wan the "one", va[n]ñi "two", van ram "three" — presented as an interesting possibility. There is no analogue for such a construction.

2 Given (by Brown) as wan. This is the only w- in the Wancho corpus, and I assume [wan] = /van/.

3 in: Ky waŋ phi laŋ pu "lightning"; waŋ = "sky", as in No "night", raŋ pan. The Chang analogue of Ky laŋ pu, Ch laŋ pun = "lightning" by itself.

4 in: Ch sa no(u) "show favor, love, be kind", pity", coŋ sa "reward" (coŋ < GET(2), cf.).

also: TO OPEN(2), NN *yər (no Ky exemplar).

SUN PTB *car.

SPEAK cf. Khoirao wa "say", also Khamti wa, Ahom ba "speak" (GEM 222).

NIGHT cf. Bodo-Garo *war (Di. horh)(pcPKB; Shafer 1953).

ENEMY see under NN *ral, WAR (basic root identical except for Ky we- rather than wi-): PTB *(g-)ra˚l, but PST *g-râl.

GARDEN see NN *pal, FENCE (basic root identical except for Ky pe, just as for WAR//ENEMY).

THIRSTY cf. Lu. chha˚w lha˚l, id.

CHOOSE PTB *sal (pcPKB).

Note the ambiguity of the vowel in the PTB/PST for WAR, just as for OPEN(2), < PTB *ya˚rw *yâr "expand, be unrolled".

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*-ən and *-əp

		TO BRING	TO FLOW		TO WEEP	HEARTH	TO WRAP	TO REPEAT
Yo			--			--	--	--
Mo	-an	-van 'take'	--	-ap		tap	--	--
No	-an	van	jan[1]	-ap	sap	tap	-rap[5]	-dap-
Wa	-an	van	--	-ap	sap	--	--	--
Ky	-in	in	-yin[2]	-əp	šəp	təp-[4]		--
Ph	-en		yen	-ep	thep	tep	šep	--
Ch	-an	-an 'load'	yan[3]	-ap	hap	tap 'ashes'		
NN	*-ən	*wən	*C-yən	*-əp	*krəp	*təp	*srəp	*dəp

1 Given by Das Gupta as [jen], = /jan/ (see 2.2.3(3)).

2 in: Ky yeŋ yin 'river' (GEM 134 [yeŋ = 'water']).

3 'to descend'. Cf. WT 'bab 'descend, flow', Lhota co 'descend', coi 'flow'.

4 in: Ky təp la 'ashes' (Mo tap tha, No tap la, Ph tep la). Ky 'hearth' is a tap (a = 'fire'), with assimilation of the vowel in *təp to the a- of 'fire'.

5 'to twist (cloth)'

BRING PTB *wan (WB wan 'load', WT on 'bring' [pcPKB]), but cf. also Ao Chongli a ben, Lhota phen 'bring', Mk. en 'take'.

FLOW cf. Mpri. cen.

WEEP PTB *krap, but PST *krəp (STC 183, n.482).

HEARTH PTB *tap.

WRAP cf. Mk. rip 'bind'. The glosses 'wrap'/'twist'/'bind' represent aspects of a semantic field expressed by a large number of TB roots.

REPEAT PTB *təp ~ *dəp.

I have concentrated on the problem of distinguishing *-ə- from *-a-, but it should be noted that the correspondence sets above are distinguishable from those for *-e- only on the dubious proposition that Chang reliably con-

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trasts -e- (< *-e-) and -a- (< *-ə-) — dubious, because Chang does not respect this distinction in forms from *-i- (> Ch -e-~-a-). Nevertheless, solid external comparisons indicating an *-a-~*-ə- for most of the roots attributed to *-ə- before dentals and labials make their derivation from an NN *-e- unlikely; TO FLOW, with a comparison only in -e-, is the most probable exception.

		ROAD	MAT	BREAST	WINTER/ COLD(2)	KIND (SORT)	CLAY
							*-əm
Yo	-am	lam	—			—	—
Mo	-am	lam	dam	yam- [1]		—	—
No	-am	lam	ham			—	—
Wa	-am	lam	dam	tzam- [2]	-kam 'cold'	—	
Ky	-əm	ləm	əm	təm	-šəm 'winter'	-ləm-	khəm
Ph	-em	lem	—			lem	-šem
Ch	-am	lam	am-		kam 'cold'	—	
NN	*-əm	*ləm	*kləm	*C$_{v}$-jəm	*khyəm	*ləm	*ʔ-kəm

1 in: Mo yam ŋa 'plantain'; ŋa by itself is cognate with other forms for PLANTAIN, NN *ŋa'k. The speculative suggestion that yam- here may < BREAST is based on an association of both form and function (plantains are children's food).

2 in: Wa tzam ti 'milk' (ti = 'water'); 'milk' has the same construction in Konyak.

ROAD PTB *lam.

MAT PTB *(s-)klam^{B}, but PST *s-kləm, 'spread' > 'mat' (pcPKB). Reconstruction partly based on NN.

WINTER /COLD PTB *kyam ([but, N.B.:] Jg. gyen ~ khyen ~ cen 'snow, ice').

CLAY cf. Jg. khum pup, WT 'jim-pa (with initial palatalized by vowel?).

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The correspondence sets which I reconstruct with *-ə°- have little in common with those considered so far, with reflexes running to back rather than to front vowels, so that their presentation is best deferred. This is the appropriate point, then, to summarize the correspondences attributed to the central vowels *-a°-, *-a-, and *-ə-:

Yo	-aŋ	-ak	-al	-al				
Mo	-oŋ	-ok	-ar				-ap	-am
No	-aŋ	-ak	-an	-an	-an		-ap	-am
Wa	-aŋ	-ak	-an		-an		-ap	-am
Ky	-aŋ	-ak	-i	-i	-in		-əp	-əm
Ph	-aŋ	-ak	-e	-e	-en		-ep	-em
Ch	-oŋ	/-ik	-an	-a	-an		-ap	-am
NN	*-əŋ	*-ək	*-ər	*-əl	*-ən		*-əp	*-əm
Yo	-aŋ	-ak	-al	-al	-an	-at	-ap	-am
Mo	-aŋ	-ak	-ar	-al		-at	-ap	-am
No	-aŋ	-ak	-an	-an	-an	-at	-ap	-am
Wa	-aŋ	-ak	-an	-an		-at	-ap	-am
Ky	-aŋ	-ak		-e	-en	-et/-ei	-ep	-em
Ph	-aŋ/#oŋ	-ak/#ok				-et	-ep	-em
Ch	-aŋ	-ak/-ik	-an	-a		-at	-ap	-am
NN	*-aŋ	*-ak	*-ar	*-al	*-an	*-at	*-ap	*-am
Yo	-aŋ	-a	-al		-an	-ai		
Mo	-an	-a	-ar	-al	-an		-ap	
No	-a	-a	-an		-an	-at	-ap	-am
Wa	-a	-a	-an		-an	-at	-ap	-am
Ky	-an	-au	-a	-a	-an	-ai	-ep	-am
Ph	-aŋ	-au	-a/#o	-a	-an	-ai	-ap	-em
Ch	-(u)(o)	-ak	-an	-a	-in	-it	-ip	-im
NN	*-a°ŋ	*-a°k	*-a°r	*-a°l	*-a°n	*-a°t	*-a°p	*-a°m

I now move to a consideration of back-vowel rhymes, beginning with the most common, *-u-:

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		STONE	MALE(OF ANIMALS) (1)	WINTER /COLD (1)	BIG (1)	INSECT /WORM	HORN	*-uŋ UNCOOKED RICE
Yo	-uŋ	luŋ	-puŋ	-suŋ	-juŋ		--	--
Mo	-uŋ	luŋ	-puŋ	-šuŋ			-ruŋ	vuŋ
No	-oŋ	loŋ	-poŋ	-choŋ 'all' 'cold'	-doŋ	-doŋ [1]	roŋ	voŋ
Wa	-oŋ	loŋ	-poŋ		coŋ	coŋ [1]	roŋ	voŋ
Ky	-oŋ	yoŋ	-poŋ		yoŋ-	yoŋ [1]	-woŋ	woŋ
Ph	-oŋ	yoŋ	-boŋ	-hoŋ 'winter'	loŋ-	loŋ- [1]	voŋ	--
Ch	-aŋ	laŋ	-paŋ	-aŋ 'winter'	yaŋ-	yaŋ [1]	laŋ	aŋ
NN	*-uŋ	*C-luŋ	*ʔ-buŋ	*C-juŋ	*gluŋ	*gluŋ	*ruŋ	*C-wuŋ

1 in: No maŋ doŋ 'mosquito', Wa coŋ 'beetle, caterpillar', Ky yoŋ 'worm', yoŋ wan 'caterpillar', Ph loŋ thə 'worm', Ch yaŋ 'caterpillar, insect generally'.

also: BEFORE/FIRST, COME OUT/ARISE/ASCEND, GRAVE, HOUSEPOST, KNOCK, LEFT-HAND, -ROUND-(OF BODYPARTS)(2), STAND(2), THANK.

STONE — PTB *r-luŋ.

MALE(OF ANIMALS) — cf. C Naga: Yi. -buŋ, St. -boŋ ~ -poŋ, Ao Mongsen -boŋ, Ao Chongli -boŋ ~ -puŋ, Lhota -(o)poŋ, Ntenyi -sepuŋ, all found in comp. forms for "cock" and/or "bull", as in Northern Naga.

WINTER/COLD — PTB possibly *juŋ (Jg. -šuŋ, Mk. cuŋ), pcPKB. Cf. also Di. ga jaŋ thor (Di. -aŋ < *-uŋ: STC #382).

BIG — cf. Di. -yuŋ, Jalpaiguri/Atong (Koch) cuŋ- (Shafer 1953: 249); also Ahom/Khamti luŋ.

INSECT/WORM — PTB *(s-)(g-)luŋ (pcPKB). Cf. also St. ghu ləŋ 'beetle'.

HORN — PTB *ruŋ (STC, original reconstruction; Benedict suggested revising to *rwaŋ, but the Northern Naga forms offer clear support for the earlier solution).

This clear-cut set of vowel correspondences is replicated before *-k, but with a variant, -ak, in Moshang:

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		SIX	THUNDER	BELLY	BAG	SAMBAR	BACK (2)	*-uk FIGHT (1)
Yo	-uk	-ruk	—	vuk	—	—		—
Mo	-uk ~ -ak	-ruk	-muk	vak	-khak	—		—
Nc	-ok	-rok	-mok	vok	-khok[2]	cok 'deer'	tok- 'behind'	
Wa	-ok	-rok		vok		cok	tok	—
Ky	-ok	wok			-khok	tok	tok	hok
Ph	-ok	vok	-mok			—[3]	tok	hok- 'war'
Ch	-ak	lak	-mak	ok-[1]		sak	tak	jak
NN	*-uk	*ruk	*muk	*wuk	*C-khuk	*gyuk	*tuk	*khluk

1 in: Ch ok si 'bowels', ok poŋ 'bladder'. Cf. the 'cave/cavity' glosses for forms traced to PTB *buk ~ *puˀk 'belly', and the semantic link between 'bowels' and 'belly' demonstrated for TB by Matisoff (1978: 124-126, 215-216). The o- vowel is explained by conditioning: NN *-u-/*-a- > Ch o- [rather than a-ɪ/(NN)#*w__. Cf. PIG, NN *wak > Ch 'ok, and the note to this root under *-ak.

2 in: No chi khok 'small basket' (Das Gupta).

3 The expected form, šok, 'deer', is attested for the related Tamlu dialect.

also: ROOF(2).

SIX PTB *d-ruk.

THUNDER cf. Ao tsuŋ muk, Jg. mu2 (< *r-muˀk, STC 77, n.236).

BELLY PTB *wuk, a lenited doublet of the STC's PTB *buk ~ *puˀk, reconstructed by Matisoff (1978: 125) on the basis of Garo, TN/Maring, and Karen, for which the NN root provides solid confirmation.

BAG PTB *kuk 'bag, basket, receptacle'.

SAMBAR PTB *g-ryuk ~ *g-ryik (pcJAM); cf. also Gurung (Tibetan-Kanauri) gyuu 'sheep' (pcPKB).

BACK cf. PTB *l-tak 'above' ~ *toɛˀk (pcPKB, > NN *tɔˀk, TOP) ~ *tuk 'neck', and the note on this word-family under the initial for BACK.

FIGHT cf. WT 'khrug 'to quarrel', 'khrug-pa 'war'.

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		CARRY ON THE BACK(1)	SKIN (2)/ FLESH	TO GRIND		*-ur and *-ul TREE(1)	GOOD (1)	RIVER/ CURRENT
Yo	-ul	hul		--	-ul~-il	pul-~-pil[2]	-khul	-ril
Mo	-ar	--	-war[1]	--	-ul~-al	pul	-hal	
No	-an	han	-wan[1]	--	-an	pan 'wood'	-san	
Wa	-an	han		--	-an	pan		
Ky	-ei	khei		--	-i	pi		
Ph	-u	ku		ñu	-ə	pə		
Ch	-an	kan	-an[1]	ŋan	-u	pu		-lu
NN	*-ur	*2-kur	*wur	*C-ŋur	*-ul	*pul	*krul	*rul

1 in: Mo na war 'lip', No na wan 'lobe of the ear' (na = 'ear'), kho wan 'skin', Ch kho an (~kho un~kho wun) 'leather', all related in a complicated way to NN *C$_{v}$-khuar, SKIN(1), cf.

2 in: Yo a pil 'green', pil paun 'flower'.

CARRY cf. WT 'khur-ba.

SKIN(2) cf. Lu. vun, Mpri. un, Maring (w)un, 'skin', also (in comp.) 'leather'.

TREE PTB *bul~*pul.

RIVER/ CURRENT cf. Angami ke re (Kh.)~k-rə (Ko., Chokri, Mao), Mzieme reu kuŋ, Khoirao a run kai.

Before dental and labial finals, the vowel correspondences for NN *-u- are entirely different than before velars, except in Moshang, where the -u-~-a- variation which we saw with *-k is attested for *-l and may be posited for *-r (note *-u- > Mo -a-/*w__ before both *-k and *-r), and in Chang. Whereas *-u- > No/Wa/Ky/Ph -o-/__ {ŋ,k}, *-u- > No/Wa -a-, Ky -e- elsewhere (except for Ky -i/p__ in 'tree'), while the Phom reflexes vary but are consistent in being restricted to high vowels..

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*-un and *-ut

		CALF (of leg)	(< FLESH)		TO BLOW	SAND (2)	STICK (2)
Yo		--		-i	mi		--
Mo	-un	-vuin[1]			--		
No		--					
Wa		--			--		--
Ky	-en	--	-phen[2]	-ei	mei	phei	
Ph		--		-i		phi	
Ch	-an	-šan		-at	mat	pat-	-tat[3]
NN	*-un	*C$_V$-swun	(< *swun)	*-ut	*mut	*phut	*tut

1 Cf. Mo -muin (*-min expected) < *min, RIPE(2). These are apparently effects of the labial initials before -n: Mo {-un, -in} > -uin/{v-, m-}__.

2 in: Ky ta phen 'chin' (Ky ta alone is cognate with other forms for CHIN, NN *ga). That Ky phen is the expected reflex of NN *(C$_V$-)swun suggests that the sense of this root is general, ≈ 'flesh' or 'muscle': the forms for 'calf' are in comp. with 'leg-', and Ky ta phen 'chin' contrasts with Ky tha wan 'jaw' (wan = 'bone'). See further discussion under the initial for CALF.

3 in: Ch wan tat 'firebrand' (wan = 'fire').

CALF (< FLESH) cf. NN *(C-)wur, SKIN(2)/FLESH, a probable allofam.

TO BLOW PTB *(s-)mut.

SAND cf. WB phuk, Nr. mbut, Lu. vai vut, all 'dust' (Phom kə phi).

STICK PTB *tut: WB thut 'club', Rawang šiŋ thut 'stick' (šiŋ = 'wood'), təmi mə thut 'firebrand' (thə mi = 'fire'), all pcPKB.

For *-ut, as for *-a°t, we again have loss of final *-t in Yo/Ky/Ph, with the expected vowels in the first two languages (cf. Yo -i-/__{-p, -m}, next page) and Phom phi probably < *phə < *phət.

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*-up

		COVER/ SHUT(1)	TO SET (of the sun)	TO PIERCE	TO KISS
Yo	-ip	-hip	--	--	--
Mo		--	--	--	--
No	-ap	hap	-ñap[1]		
Wa		--		--	--
Ky	-ep	kep	-ñip[1]	tep	jep
Ph	-əp	kəp			jəp
Ch	-ap	kap	-nap[1]	sap	šep[2]
NN	*-up	*kup	*C-nup	*gyup	*Ç-chup

1 in: No sa[n] ñap (san = 'sun'), Ky waŋ hi ñip jiŋ (waŋ hi = 'sun', jiŋ = 'place'), Ch ca nap (ca = 'sunlight'), all 'west'. The Konyak vowel has been palatalized, either simply under the influence of the palatal initial or with the added inducement to assimilation provided by the -i- vowels in both adjoining syllables. (The external comparisons indicate either an *-i(°)- or a *-u(°)-, and the other three possibilities may be ruled out because for all of them Nocte preserves the high vowel.)

2 Probably *-up > Ch -ep/š__, but the raised vowel may also reflect differentiation between this word and the closely related 'suck', Ch šap < NN *Ç-cu°p. Cf. *-ip > Ch -ep ~ -ap.

COVER/SHUT PTB *kup (pcPKB).

SET PTB *nu°p ~ *ni[°]p; NN *-nup fills out the set of possibilities. Cited forms for the PTB reconstructions include WT nub-pa 'set (sun, moon)', nub 'west', and B-G *(h)nap < *(h)nup 'set (sun)'.

PIERCE cf. WB khyup 'sew', Gyarung tekyep 'needle'.

KISS cf. Jg. cup, Mpri. cup, Mk. iŋ jup', Maring mə cup 'kiss', and NN *Ç-cu°p, TO SUCK.

The Phom -ə- before labials (also Ph -ə < *-ul, cf. Ph -ə < *-ə(°)w) is diagnostic of NN *-u(°)-, occurring nowhere else.

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	*-um	THREE	MORTAR	TO SPLIT	-ROUND- (of body parts) (1)	TOUCH/ PUT(1)
Yo	-im	-dim	thim	—	-phim[2]	
Mo	-um	-tum	thum	—	-phum[2]	
No	-am	-ram	tham	—		lam 'put'
Wa	-am	-jam	—	—		
Ky	-em	lem	—	them		
Ph	-əm	jəm	—	—		ləm 'touch'
Ch.	-am	sam	šam	cam[1]	-pam-[2]	
NN	*-um	*C$_V$-sum	*tsum	*?-cum	*phum	*lum

1 Given by Hutton (1929a: 65) under the entry for 'cut', as: "of meat only, =to cut up very small", preceded by "nin- (cut up - of meat only)" (cf. pei ñin 'split').

2 in: Yo yak phim, Mo yok phum 'arm', Ch yik pam 'thumb', pam sam bə 'round'. Yo/Mo/Ch y-k = HAND, < NN *glək. "Both the 'arm' and the 'thumb' are 'rounded parts' [in Tibeto-Burman ethnoanatomy]" (Benedict, pc) — see the external comparisons below.

THREE PTB *g-sum.

MORTAR PTB *tsum[B] (pcPKB).

SPLIT No comparisons, and proto-rhyme indeterminate on the basis of just these two forms. I place it here because of a possible connection with MORTAR.

-ROUND- cf. Sema, Zemi -pum- 'round', Lu. pum 'rounded out; belly', Jg. phum 'fat, plump', lə phum 'upper arm' (Jg. lə- < *lak [STC 32] < PTB *g-lak [or *g-lək] > NN *glək > Yo/Mo/Ch y-k [see n.2 above: the Jg. construction is exactly parallel to that in Tangsa]).

The lowering and fronting which characterizes the treatment of *-u- in the Northern Naga languages is much less marked in their treatment of *-u°-, with the notable exception of the development of *-u°ŋ in Konyak:

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		NOSE	(BREAST/) FLOWER	WATER(2)	LADDER	SHIN	STORM *-u°ŋ
Yo	-auŋ	khauŋ	-pauŋ		--	--	
Mo		--	--	yeŋ[1]		--	
No	-o	kho	-po	jo	-tho	-kho[2]	
Wa	-uŋ~-ua	-kuŋ	-puŋ~pua	šua- 'river'	-tuŋ	-koŋ[2]	-duŋ[3]
	-oŋ~-oa						
Ky	-iaŋ~-eŋ	-teŋ	-peŋ	yiaŋ~yeŋ-		--	-niaŋ[3]
Ph	-uŋ	šuŋ-	--	yuŋ	--	--	
Ch	-uŋ	kuŋ	-puŋ	yuŋ- 'river'	cuŋ	-kuŋ	
NN	*-u°ŋ	*C̬-gu°ŋ	*pu°ŋ	*C-yu°ŋ	*C-thu°ŋ	*C̬-gu°ŋ	*N-du°ŋ

1 Because of the possibility of palatalization of the vowel in this form, I do not propose that -eŋ is the regular Moshang reflex of *-u°ŋ. No other Moshang forms from *-u°ŋ (or *-o°ŋ) are available.

2 in: No chuak kho, Wa sua[k]koŋ, both 'shoulder'. For the initial elements in these compounds, see SHOULDER(2), NN *dzuak; their exact sense, however, remains obscure.

3 in: Wa raŋ duŋ 'thunder; lightning', Ky waŋ niaŋ 'wind' (Wa raŋ/Ky waŋ = 'sky'). The Ky form is given by Marrison as -nyaŋ, generally to be interpreted as /ñaŋ/, but here the comparisons indicate /niaŋ/.

also: CONTAINER, TO DRINK(2), GRANARY(1), GUN, NAVEL(2), TO SPEAK(1).

NOSE PTB *na ku°ŋ (pcPKB).

FLOWER cf. Miri buŋ 'swell, swelling' and in comp. 'to be in bud' (pcPKB), also Nr. mun poŋ 'bud, flower'.

WATER cf. PTB *klu°ŋ 'valley, river (WT kluŋ 'river'), also Lepcha kyoŋ, id. (STC 40, n.129); also WB khyuiŋ 'valley', attributed by STC to *klu°ŋ, but khyoŋ 'river'; Ao Mongsen a yuŋ~yuŋ ba, Yi. youŋ, St. yoŋ khi, all 'river'. The Mo/Ph and (in comp.) No/Ky forms also mean 'river', 'water' being probably a derived sense.

LADDER cf. NN *thuŋ, HOUSEPOST, and PTB *duŋ~*tu°ŋ 'length, height'.

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SHIN PTB *r-gu°ŋ. The posited parallel usage (in comp., as for 'shin') in 'shoulder' is suggested by such glosses as 'back of a blade' (Jg.), 'blunt edge of a knife' (Di.).

STORM cf. WB mu-ntuiŋ 'storm' (mu- < muì 'sky', WB -uiŋ < PTB *-u°ŋ [STC 76]); also Mk. iŋ deŋ 'thunder'.

The correspondences for the remaining *-u°- rhymes are much more straightforward, though *-u°- is rare except before *-ŋ and *-m:

		FROG (1)	FROG (2)	(EDGE/) MOUTH(1)	*-u°k/*-u°r/*-u°l/*-u°n TO SING (2)	STICK (1)	INTELLECT
Yo		--	--	--		--	
Mo	-ə-	--	--	nər	-šir[1]		
No	-u-	luk		thun		-thun	-pun-[2]
Wa	-u-	luk		tun	šun	--	
Ky	-u(-)	luk		ju	šu 'play music'		
Ph	-u(-)	--	--	ju			
Ch	-u(-)		yuk	thuən 'edge;end'		cu	-bun
NN	*-u°-	*lu°k	*glu°k	*N-thu°r	*C-khyu°r	*C-thu°l	*pu°n

1 Vowel probably palatalized by initial.

2 in: No a pun tat 'to understand' (tat = 'to hear'), Ch maŋ bun 'heart, intellect' (maŋ = 'mind').

FROG(1)/(2) cf. Lepcha tă luk~tŭk kryuk (pcPKB).

(EDGE/) MOUTH PST *(m-)dyu°r (pcPKB). See under initial for specific comparisons and an extensive discussion of the semantics involved. I interpret the Chang rhyme, -uən (with vowel length still indicated), as = /-un/; but a better Chang exemplar may well be thu[n]ñu 'elephant', ≃ 'big-snout' (Ch. -ñu here ≃ 'big'; cf. WT žur, which is among the sources of PST *(m-)dyu°r, 'snout, muzzle, trunk').

STICK cf. Li. ta thun2.

INTELLECT cf. Ntenyi a le pən 'heart'.

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		TO CLIMB	TO SCRAPE	TO SIT		*-u°t and *-u°p SLEEP/ COVER (1)	COVER/ SHUT (2)	TO SUCK
Yo		--	--					
Mo	-ə	də	--				--	--
No	-ut		-hut [2]		-up	-jup	-hup [4]	-cup
Wa	-ut	--	hut- [2]		-up	jup	--	--
Ky	-ut	jut	kut [2]	šut	-əp		kəp	həp
Ph	-ət	tət- [1]	--		-əp		kəp	
Ch	-at		kat	sat	-ap	yep [3]	kap	šap
NN	*-u°t	*C$_V$-tu°t	*ku°t	*C-kru:t	*-u°p	*C$_V$-yu:p	*ku°p	*C$_V$-cu°p

1 in: tət ei 'to jump'; Ph ei by itself is cognate with Ch ai 'to jump', < NN *ba°y, cf. The connection of the first syllable in the compound with the forms for TO CLIMB is speculative, but may carry the sense of 'up-',

2 in: No roŋ hut 'to dye', Wa hut ko 'to cut', Ky kut 'to scratch'; cf. the range of glosses for the forms attributed to PTB *kut (below).

3 Probably *-__p > Ch -ep [rather than Ch -ap]/y__ (the syllable *yap does not occur in the Chang corpus).

4 in: No khat hup 'umbrella' (khat = 'cloth'). The forms in Ky/Ph/Ch are all given for 'cover'. Ph kəp/Ch kap are also given for 'shut', but Ky has kep 'shut'; I attribute these latter forms to the short-vowel variant, COVER/SHUT(1), NN *kup (see discussion in Chapter IV).

CLIMB cf. St. tu və 'climb, ascend' (St. və = 'go', hence tu- here must carry the sense of 'up-', as in Phom)(St. does not have final -t), kə tu 'ascend', Ao Chongli a tu 'ascend'; Jg. šiŋ tawt 'to jump'.

SCRAPE PTB *kut. Glosses of subsumed forms include: 'scrape, scratch, as body or earth, cut, carve, engrave on wood or stone'.

SIT cf. Lu. thut thle°ŋ 'chair' (Lu. t(h)- < PTB *kr- ['weep', 'dove', STC 38) ≃ 'sitting-place': the Ky/Ch constructions for 'chair/seat' are identical, compounds of TO SIT and PLACE, NN *C$_V$-khliŋ (Lu. t(h)l- < PTB *kl-, STC 39).

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SLEEP PTB *yup (pcPKB, rev. of STC *yip)(Jg. ʔyup).

COVER /SHUT (2) This is a long-vowel variant (*-u°p demanded by both No -up and Ky -əp) of NN *kup < PTB *kup, COVER/SHUT(1).

SUCK PTB *ʔcup ≋ *ʔjup (Matisoff 1978: 32), but with prefix substitution in NN as in Mikir (i-jup). In view of the variation documented by Matisoff in the word-family to which this root belongs -- he also lists forms traceable to *jut, *cuk, *ʔjwa ≋ *zwa, and *ʔjip -- the NN allofamy between *C-cu°p, SUCK, and *C-chup, KISS (with aspirated initial and short vowel) seems entirely plausible.

		HEAVEN	SALT	POOL (1)	RIPE (1)	SHADOW	WORSHIP (2)
							*-u°m
Yo	-um	-lum	--	--	--	--	--
Mo	-um	-lum	šum	--		--	--
No	-um	-lum	sum	-thum[1]	-cum	--	
Wa	-um		hum	-tum[1]	jum	--	--
Ky	-əm		həm	šim*	-yim*	-šim*	khəm
Ph	-əm		həm	šem-*		-thəm	khəm
Ch	-am		cam		sam-	-tam[2]	
NN	*-u°m	*lu°m	*cu°m	*thu°m	*ryu°m	*C-kru°m	*C-khru°m

* NN *-u°m > Ky -im/{š,y}__, > Ph -em/š__.

1 in: No jo thum 'dam' (jo = 'water'), Wa šuak tum 'bank' (šuak = 'box', probably more generally 'container', or < šua ko 'river', in which case the root refers to the containing rather than to the contained element).

2 in: Ch nak təɣ tam 'gloom (in day time)' (nak tə ba = 'dark').

also: BODY, COMPLETE(2), GRANARY(2).

HEAVEN cf. Lu. la°wm 'glad'.

SALT PTB *gryum > *ju[°]m (Jg. jum; pcPKB).

POOL cf. Lu. du°m 'pool'.

SHADOW PTB *(g-)rim ~ *(g-)rum (pcPKB; STC *rim ~ *rum).

WORSHIP cf. WT skurim 'sacrifice', TN kho rum 'worship'.

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I shall next treat the correspondences for *-o°-, because of the striking similarity of the Northern Naga developments of *-o°ŋ to those of *-u°ŋ. Because of this similarity, we can confidently reconstruct *-o°ŋ (rather than *-oŋ) for the sets to be presented immediately below, in spite of the problem that the external comparisons for these sets do not discriminate vowel length. As we shall see, there is also an unusual degree of continuity between the medial vowels in the Northern Naga reflexes of *-o°ŋ and those in the reflexes of *-o°- before other finals.

Partially counterbalancing these advantages, there is a greater amount of variability in the reflexes of *-o°ŋ (and of *-o°- generally) than usually appears to be the case. This variability can be most usefully summarized in a comparison with the reflexes of *-u°ŋ:

1. Nocte: *-u°ŋ > -o; *-o°ŋ > -o ~ -oaŋ ~ -oan. Shift of final, so rare elsewhere in Northern Naga, is unaccountably common among the Nocte reflexes of *-o°-, where we find not only the triple set from *-o°ŋ, but also *-o°k > No -o ~ -oak ~ -oat and *-o°m > -oam ~ -oan. Note that the shift is always to a dental, recalling the Nocte tendency to suffixation of -t after open-syllable front-vowel rhymes, and *-ua > No -un. Normally difference of final precludes presumption of cognation, but the cases given below are compelling. It should be noted that there is one probable case of retention/shift of final in Nocte from *-u°ŋ: NN. *C-yu°ŋ > No jo 'water', but also joan 'river'.

   It should perhaps be stated again here that the variation among Nocte -uo-, -ua-, and -oa- is not to

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be interpreted as phonemic; the older sources most often give -uo-, Das Gupta usually gives -oa- (and Weidert, -oʌ-), but none except Weidert (four forms only) is consistent, and there are sufficient equations ('build': huon (Butler) ~ hoan (DG) ~ hoʌn (W); 'short': toon (Robinson) ~ thoan (DG); 'run': chuan (R) ~ choan (DG) ~ choʌn (W)) to reject the possibility that the differences in transcription are significant.

With the exception of *-o°ŋ/*-o°k > No -o (var.) -oa- (with its variants) is the regular Nocte reflex of *-o°- before all finals.

2. Wancho: *-u°ŋ > -uŋ ~ -ua ~ -oŋ ~ -oa (examples for all); *-o°ŋ > -uŋ ~ -ua ~ -oa, so that I have no examples of Wa -oŋ < *-o°ŋ, but would certainly not hesitate to make such an attribution. In Wancho, as in Nocte, the contrast between *-u°ŋ and *-o°ŋ is effaced, to be replaced by variations having no apparent source in the protolanguage.

3. Konyak: *-u°ŋ > -iaŋ ~ -eŋ (with -iŋ in one form, for GUN, after š-); *-o°ŋ > -iaŋ ~ -eaŋ (the latter appearing only after m-, in WRONG), but also (though, for clarity, not indicated in the table below) -eŋ (two roots, after m- in WRONG [var.], and after ŋ- in PRIEST), -iŋ (ŋau kiaŋ 'law' ~ ŋau kiŋ 'to order') and, finally, a conditioned variant, -aŋ (/#__). The best interpretation of all of this variation, except for the last, is probably to posit merging of *-u°ŋ and *-o°ŋ in Konyak as in Nocte and Wancho, with -iaŋ taken as the regular or usual reflex of both proto-rhymes, but subject to an instability which can yield a realization as -iaŋ ~ -iŋ ~ -eaŋ ~ -eŋ from whichever source. For *-o°-, however (unlike for *-u°-), the shift to a front-vowel rhyme carries across all finals, so that Ky -e- becomes

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an important means of differentiating *-o°- from *-ua- (> Ky -o-).

So far, then, a comparison of the reflexes of *-u°ŋ and *-o°ŋ reveals no contrastive differences. These emerge only in Phom and Chang:

4. Phom: *-u°ŋ > -uŋ; *-o°ŋ > -oŋ. The single exception is Ph man- < *mo°ŋ, WRONG.

5. Chang: *-u°ŋ > -uŋ; *-o°ŋ > -oŋ, just as in Phom (no exceptions).

Thus, if a set includes a form from either Phom or Chang, this is sufficient to determine whether it should be reconstructed with *-u°ŋ or *-o°ŋ. With only one exception, the external comparisons support these reconstructions (the exception is PUT/KEEP(2), Ph hoŋ < NN *C-jo°ŋ, but Ao Chongli re juŋ 'keep', WT 'jug 'put' — perhaps a better comparison here would be WT skyoŋ 'keep'). For the only two sets for which a Phom or Chang form is not available, STORM, NN *N-du°ŋ, and BOAT, NN *kho°ŋ, the external comparisons are clear and decisive.

I have not treated Yogli and Moshang in the comparison above because no forms from *-o°ŋ are available for these languages.

Except for *-o°ŋ, Chang shows -o- ~ -a- variation for *-ô°-, recalling its -e- ~ -a- variation for *-i- (for *-o-, Chang has just -a-). Konyak has *-o°k > -ak/#__, paralleling *-o°ŋ > Ky -aŋ/#__, and also, in one form, -ak/p__.

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*-o°ŋ

	HILL	BOAT(1)	EMPTY	LAW	FLAME	WRONG(1)
Yo			--	--		
Mo		--		--		
No -o{(aŋ)/(an)}	-ho	khoan kho[3]	-ho[5]	--		-moaŋ ~ mo-[7]
Wa {-uŋ / -ua ~ -oa}	{-huŋ / -hoa}[1]	{khuŋ / kua-}[4]	--	--		
Ky -iaŋ/-eaŋ	-kiaŋ		kiaŋ	-kiaŋ	-yiaŋ "torch"	-meaŋ[7]
Ph -oŋ/-aŋ	šoŋ[2]		koŋ	-koŋ		maŋ-[7]
Ch -oŋ	šoŋ		koŋ-	soŋ[6]	-loŋ	
NN *-o°ŋ	*C-ko°ŋ	*kho°ŋ	*ko°ŋ	*kyo°ŋ	*C-lo°ŋ	*mo°ŋ

1 in: ha huŋ "crag" (Peal) ~ ha hoa "mountain" (Brown). The variation is not a function of the source, however; see the Wancho forms for BOAT(1).

2 also: ka šaŋ; the -a- here may have become assimilated to the -a of the first syllable, but nevertheless demonstrates the instability of the reflex, anticipating the -a- in WRONG and before all other finals.

3 Form from Das Gupta, ~ khuon kho (Robinson) ~ khuoŋ kho (Butler). Thus the variants of this reduplicated form display all three possible reflexes: /-o/, /-oan/, /-oaŋ/.

4 in: khuŋ "boat" (Brown), kua sa "canoe" (Peal); Peal does not distinguish aspirated initials.

5 in: a ho "absent".

6 "habit, custom, rule, sense".

7 in: No a moaŋ "wrong", mo tho "false, untrue" (a tho = "to say"); Ky ə meaŋ "wrong", meaŋ "sin", meŋ ši pu "cruel", moŋ meŋ pu "sorry" ~ moŋ men pu "sad" (moŋ = "mind"); Ph maŋ pə "wicked", maŋ "sin", moŋ maŋ pə "sorry, sad" (moŋ = "heart").

also: BLADDER, BOAT(2), PRIEST, PUT/KEEP(2), SHOUT, SIDE (of body).

HILL cf. Jg. koŋ "elevation, hill", WT sgaŋ "hill".

BOAT cf. WB khoŋ "to be hollow; trough used as a coffin, or as a canoe", Rawang khoŋ ši, Thado khoŋ, TN mari khoŋ, Yi. saŋ koŋ, "boat" (pcPKB).

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EMPTY PTB *ko[ʔ]ŋ (WB khoŋ: 'be hollow', ʔa-khoŋ: 'hollow, cavity', WT khoŋ-pa ~ khog 'the inside, inside parts'), pcPKB.

LAW cf. Ao Chongli o jaŋ (o = 'word', same construction as in Ky/Ph).

FLAME PTB *ploŋ 'burn'.

WRONG cf. Kh./Ko. ke the mo 'wrong', khre mo/khrie mo 'cruel', Lhota mmho 'bad, wrong'.

		TEN (1)	DO/MAKE (2)	ISSUE	HIGH (1)	BUTTER-FLY	ELEPHANT (2)	WHITE (3)
								*-o'k
Yo	-auk	rauk-[1]			—	—	—	
Mo	-ok	rok-[1]				—		
No	-o{(ak)/(at)}	roak-[1]	mo(at)[2]	-po(at)[3]				-po
Wa	-o(a)k		mok [2]		coak	-toak[4]	loak	
Ky	-ek/-ak			-pak[3]		-šek[4]	lek-[5]	
Ph	-ak			-pak[3]	šak- 'above'	—	—	
Ch	-ok ~ -ak			pak[3]	sok-			{-pok/-pak}[6]
NN	*-o'k	*ro'k	*mo'k	*po'k	*gya'k	*tho'k	*lo'k	*po'k

1 in: Yo rauk ši, Mo rok ši 'ten' (Yo/Mo a ši = 'one'), Yo rauk nei, Mo rok ni, No roak ñi 'twenty' (Yo a nei, Mo a ni, No va[n]ñi = 'two'), etc.

2 in: No mo (Brown) ~ mo-ot (Robinson) 'to work' ~ (a)moat (Das Gupta) 'to work, to do (work)'; Wa mok 'to do, to work'.

3 in: No van po 'ash' (van = 'fire'), No san poat, Ky/Ph hi pak 'time' (No san, Ky/Ph -hi = SUN, cf.), Ch pak 'to derive origin'.

4 in: Wa pi thoak (given by Brown as pithuak, by Peal as pitwak), Ky pu šek 'butterfly' (Wa pi/Ky pu = TO FLY, cf.).

5 in: Ky lek wan 'ivory' (wan = 'bone'); cf. Wa loak va 'ivory' (va = 'tooth').

6 in: Ch sam pok 'money' ~ sam pak 'rupee'. See the general association between other Northern Naga forms for WHITE and the senses 'bright, shining', also Jg. hpraw 'white', kum. hpraw 'money'.

also: BLIND, TO CUT WITH AN AXE, DRY(3), TO FIGHT(2), TO PLUCK, TO SPIT.

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TEN — No comparisons.

DO/MAKE — cf. PTB *mow. The NN root is undoubtedly related, so that this comparison offers good support for the *-o°- rhyme, but no forms with -k are cited for the PTB; it thus remains uncertain whether NN added *-k or whether it is the only group that retains it.

ISSUE — Benedict (pc) suggests that Ch pak 'to derive origin' may be the same word as Ch pak 'to hatch (of sitting in order to hatch)' (as vs. pap, 'of the actual moment of hatching out'); if this is so, it can be related to WB pok 'be pierced; sprout; be hatched' and Vayu bok 'be born', pok 'give birth to', < PTB *bok ~ *pok. Semantically, however, the No/Ky/Ph forms fit more comfortably with PTB *pro(k), whose glosses include: 'proceed, issue, emanate from; make go out, disperse'. In either case, the *-o[°]k rhyme is confirmed in the face of the irregular Ky -ak.

HIGH(1) — cf. Di. bo khro 'above' and NN HIGH(2), *gyaw.

ELEPHANT — cf. the forms in two other Konyak dialects: Mulung/Tablung lok ñu (Brown).

WHITE — PTB *bok.

The comparisons for ELEPHANT, though internal to Northern Naga, are particularly important because they support the derivation of Ky -ek from *-o[°]k, and more generally the derivation of Ky -e- from *-o[°]-. I take Ky -e- to reflect the long rather than the short vowel because of its continuity with the Konyak front-vowel rhymes from *-o°ŋ, and because of its association with Wancho -oa- (in BUTTERFLY and ELEPHANT) and with Nocte -oa- (in WALK, NN *kyo°m [below]).

An additional comparison, supporting *-o[°]k > Ky -ak/#__, is WT 'jog 'to cut with an axe', NN *C-jo°k > Ky/Ch ak.

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*-o°n and *-o°t

		TO BUILD	TEN (2)		TO FLEE	TO DESTROY
Yo	-on	hon			--	--
Mo		--		-ot	-thot[2]	--
No	-oan	hoan		-oat	-khoak[2]	
Wa	-an	--	ban	-at		hat 'cut'
Ky	-en	-en[1]	pen	-et	--	thet 'break'
Ph	-an	an[1]	an		--	
Ch	-on ~ -an	-on[1]	an	-at	sat	-cat[3]
NN	*-o°n	*ho°n	*bo°n	*-o°t	*kyo°t	*ʔ-co°t

1 in: Ky no-en 'raise, lift' -- so given, with hyphen indicating syllabification; no- ≃ 'take', < NN *nor, TO TAKE(UP)(4).

Ph an 'to lift'.

Ch bam on 'raise' -- 'completely', as vs. 'partially' (for which, see TO GRASP); bam- probably = pam in kam pam 'to complete, finish' (kam = 'do, make'). Thus it is on which carries the sense 'to raise'. The Chang word for 'to build (of house, etc.)', taŋ, is also associated with the idea of 'raising' in compounds glossed 'erect, upright'.

2 in: Mo ka thot: GEM has under 'go out' but the gloss in the LSI is 'go away' (ka = 'go').

No a ŋak khoak 'retreat' (a ŋak = 'return'), *a ŋak khoat, with assimilation of final.

3 in: Ch ñen cat 'slander' (ñen = 'name')
yik cat 'pillage' (yik = 'hand')

TEN No ST comparisons can be found, but cf. Khasi ši pón (Robinson 1849: 349)(ši- = 'one-', "a specialized form . . . used only with quantifiers" [GEM 2103). This is evidently a loan from Austroasiatic into NN.

FLEE Perhaps from an earlier *klo°t: cf. the forms attributed to PTB *g-lwat in the STC, including Jg. lot 'escape, be free, unrestrained' and WB khywat 'release, free'; also Mk. akyoi 'free'. For another possibility, cf. WT skyod 'move'.

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DESTROY PTB *cât 'break, cut' (WT gtšod-pa); the Chinese cognate also means 'destroy', especially in view of the Chang glosses the best gloss for the set at large. Note the PTB *-â-, as in KILL, NN *ʔ-sot < PTB *g-sât (WT gsod-pa) ~ *a-sât.

		SHELL	LIP		PROMISE (1)	*-o°p TO WALK	*-o°p and *-o°m TO GATHER
Yo		—	—	-om	-tom		-com
Mo		—					—
No	-oap	—	-khoap	{-oam, -oan}	toam	khoam	-khoan[2]
Wa	-ap	kap-	—	-am		-ham	—
Ky		—		-em		kem	-jim[3]
Ph		—	—	-am		kam	jam-[4]
Ch	-op~-ap	kop~kap-[1]	-kop	-am			kam-[5]
NN	*-o°p	*go°p	*kho°p	*-o°m	*to°m	*kyo°m	*C$_V$-kyo°m

1 in: 'snail', ñiŋ ke kap tuŋ; cf. Wa 'shell', kap tuŋ.

2 in: No a khoan 'assemble', a khoan se 'collect', (a) khoan si(y)et 'gather, earn'.

3 in: Ky woi jim 'gather' (woi = 'lead'), also jim šeʷ jim e 'together'. I assume palatalization of the vowel by the initial.

4 in: Ph jam i 'together' (cf. Konyak).

5 in: Ch kam še 'assemble (tr. and intr.); collect'.

also: TO ENCLOSE, TO THINK/WISH/HOPE.

SHELL cf. Jg. kop, Garo -kop 'case', Kanauri khob 'cover (n.)' (pcPKB).

LIP This may well be the same root as that in the forms for 'shell' (as it could also be reconstructed with *-g-), via 'skin' (lip ≃ 'mouth-skin'); cf. Ao -kəp/-kap 'skin', St. kep 'skin', šu kəp 'leather', pe kəp 'lip' (St. pe = 'mouth'). Ch kop 'shell' is "used of any hard covering of animals or plants".

GATHER cf. Mpri. khom-, Ntenyi ghom-, Lhota khio-, Sema khyə-. This is probably the same root as WALK, with the prefix ≃ 'together'. See under *C$_V$-ky.

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It may be useful at this point to summarize the correspondences for the three series of closed-syllable back-vowel rhymes presented so far, *-u-, *-u°-, and *-o°-:

Yo	-uŋ	-uk	-ul	-il -ul		-i	-ip	-im
Mo	-uŋ	-uk -ak	-ar	-ul -al	-un			-um
No	-oŋ	-ok	-an	-an			-ap	-am
Wa	-oŋ	-ok	-an	-an				-am
Ky	-oŋ	-ok	-ei	-i	-en	-ei	-ep	-em
Ph	-oŋ	-ok	-u	-ə		-i	-əp	-əm
Ch	-aŋ	-ak	-an	-u	-an	-at	-ap	-am
NN	*-uŋ	*-uk	*-ur	*-ul	*-un	*-ut	*-up	*-um

Yo	-auŋ							-um
Mo			-ər			-ə		-um
No	-o	-uk	-un	-un	-un	-ut	-up	-um
Wa	-uŋ ~ -ua -oŋ ~ -oa	-uk	-un			-ut	-up	-um
Ky	-iaŋ ~ -iŋ ~ -eŋ	-uk	-u			-ut	-əp	-əm
Ph	-uŋ		-u			-ət	-əp	-əm
Ch	-uŋ	-uk	-un	-u	-un	-at	-ap	-am
NN	*-u°ŋ	*-u°k	*-u°r	*-u°l	*-u°n	*-u°t	*-u°p	*-u°m

Yo		-auk			-on			-om
Mo						-ot		
No	-o{(aŋ)/(an)}	-o{(ak)/(at)}			-oan	-oat	-oap	-oam -oan
Wa	-uŋ ~ -ua ~ -oa	-o(a)k				-at	-ap	-am
Ky	-iaŋ ~ -iŋ -eaŋ ~ -eŋ	-ek -ak			-en	-et		-em
Ph	-oŋ ~ -aŋ	-ak			-an			-am
Ch	-oŋ	-ok -ak			-on -an	-at	-op -ap	-am
NN	*-o°ŋ	*-o°k			*-o°n	*-o°t	*-o°p	*-o°m

(Note: conditioned reflexes are not shown.)

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*-uaŋ

		WHITE (1)	TO BE (1)	CROOK/ CROOKED/ BENT(1)	HIGH(3)
Yo	-auŋ	-lauŋ	-dauŋ[1]	-hlauŋ[2]	--
Mo	-ə	-lə	tə	-kə[2]	
No	-o(a)ŋ		doŋ	-koaŋ	-coaŋ ~ -coŋ[3]
Wa	-aŋ				taŋ
Ky	-oŋ			-koŋ[2]	-toŋ[3]
Ph					
Ch	-oŋ				-soŋ[3]
NN	*-uaŋ	*luaŋ	*duaŋ	*guaŋ	*juaŋ

1 in: Yo da dauŋ 'to breathe'; da- by itself is cognate with other forms for 'breathe'; see (TO LIVE/) TO BREATHE, NN *sa°k.

2 in: Yo laŋ hlauŋ < *laŋ kauŋ, Mo loŋ kə 'knee', Ky yak koŋ 'elbow' (yak = 'arm').

3 in: No a coaŋ 'high', ha ho coaŋ 'peak', coaŋ 'up' (Das Gupta) ~ a cuoŋ 'high', ha coŋ 'hill' (Robinson). No ha = 'earth', so that Robinson's ha coŋ 'hill' is best glossed 'earth-high', but ha ho by itself means 'hill, mountain', so that Das Gupta's ha ho coaŋ 'peak' is best glossed 'hill-top'. Cf. Ky ka toŋ 'top' (but ka = 'earth', so the entire form is cognate with Robinson's 'hill').

Ch yo soŋ 'to hop' (yo = 'leg', hence ≃ 'leg-up').

WHITE PTB *lwaŋ (WB lwaŋ 'glossy, shining')(pcPKB).

TO BE cf. Di. doŋ, WT 'dug.

CROOK (ED) cf. WB khwaŋ 'bent, curved', and NN *guam, CROOK/CROOKED/BENT(2).

HIGH PTB possibly *jwaŋ (WB tswaŋ 'to be erected, elevated, perched on high', Lu. cuaŋ 'get or be on top of, Lepcha jaŋ ~ joŋ 'rising hill, eminence, mountain')(pcPKB).

*-ua-, like *-o°-, has No -oa- (cf. *-ia-/*-e°- > No -ie-) but Konyak -o- rather than -e-.

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		SHOULDER (2)	TO CUT WITH A KNIFE(1)	SLOPING	LOCUST	SMOOTH *-uak
Yo	-auk	—	yaut[2]	—	—	
Mo		—	—	—	—	—
No	-uak[1]	chuak-	ɗuak[3]	-tuak[4]	—	—
Wa	-(u)ak	suak-		—	kak	—
Ky	-ok			—	tok	cf. -lok[6] 'dance'
Ph	-ək		lək	—	šuk[5]	-lək-
Ch	-ok		—	tok-	kok-	-lok-
NN	*-uak	*dzuak	*gluak	*tuak	*guak	*luak

1 Written in this way (rather than as -oak) because both SHOULDER and "steep" (SLOPING) are so given by Das Gupta, who usually writes the back falling diphthong as -oa-, suggesting the possibility of a discrimination between -oak and -uak in Das Gupta's transcription. It is (only) for this reason that I reconstruct SHOULDER and SLOPING with *-uak rather than *-o°k; there are no external comparisons for either root.

2 < *yauk, change of final unexplained.

3 Given for "to cut" by Robinson, who does not distinguish its instrumentalities.

4 in: ka tuak "steep".

5 I assume *-uak > Ph -uk [rather than -ək]/š__.

6 Given only as a possibility, on the basis of the external comparisons (see below).

CUT WITH A KNIFE cf. Miri jok "cut (holding knife in fist with blade pointing forward)" ~ lok "chip, graze, cut, wound" < *glok < PTB *glwak (pcPKB).

LOCUST cf. PTB *kwâk (Lu. khok "peel off, pull off (skin, bark)", Chang kwok "to strip (as fibres)" [not in Hutton]), STC 74, n.229. This is presented as an apparent verbal doublet of *(r-)kwâk "bark, rind, skin", with the suggestion that the verb is prior ("to peel or skin off" > "something peeled or skinned off"). I am suggesting an additional derivation for NN: > (locust as) "peeler ~ skinner (of grain)". Cf. also

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Di. ghu, Mpri. kou-, Lu. khau, TN khao 'locust'.

SMOOTH cf. PTB *g-lwat 'escape, release, loosen, relax; loose, free, unrestrained' ~ PTB *lway 'easy'.

*-uar

		SKIN(1)	SHORT (2)	TO GRASP	TO WASH/ TO BATHE(2)
Yo		(-khauŋ)			—
Mo	-(r)u	-kru	—		—
No	-oan	-khoan	-thoan	-phoan 'hook'	-soan 'bathe'
Wa	-(u)an	kuon~kan			—
Ky	-o	šo	šo-	pho 'seize'	to 'wash(face)'
Ph	-u	šu	—		
Ch	-o(a)n	khoan~khon	-thon-[1]	phon 'raise'[2]	
NN	*-uar	*C$_{v}$-khuar	*thuar	*phuar	*2-suar

1 in: hak thon a 'panting' (cf. hak thoun 'to sigh' [cf. khon ~ khoan ~ -khoun 'leather' = 'skin']; hak = 'breath', hence hak thon ≈ 'short of breath'. Possibly also in: yik ci šo thon bu 'little finger' (yik ci šou = 'finger').

2 "partially", as vs. 'completely', for which see TO BUILD, NN *ho°n.

SKIN PTB *kwar (pcPKB), cf. Chinese giwar 'hides'.

SHORT PTB *dwan ~ *twan 'shrink', Chinese twân/tuân 'short', < PST *twa-n (pcPKB) — but all three languages cited have -n for *-r as well as for *-n (for the two TB languages, Burmese and Jinghpaw, see STC 15 and 15, n.54; for Chinese, STC 172, n.460). On the evidence of Konyak (šo pu), the prototype is *twa(-)r rather than *twa(-)n.

WASH/ BATHE PTB *šwar 'flow, pour'.

The expected form for Yogli 'skin' is *khaul; this in fact occurs in Yo khaul tik 'wall', which might well be analyzed as, e.g., 'house-skin'. But tik is not given.

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*-ual and *-uan

		WOLF	LANGUR		TO RUN	TO LIFT	GOAT(2)
Yo		--	--	-on	son		--
Mo		--	--	-u	yu	--	
No		--	--	-oan	choan	toan	
Wa	-an	šan	--	-oan			roan
Ky	-o	šo	-yo	-on		jon-	yon
Ph	-o	šo	--	-on			yom[2]
Ch	-(u)o	šo ~ šuo[1]	yuo	-uan			luan
NN	*-ual	*C-khyual	*C-yual	*-uan	*C$_V$-juan	*C$_V$-tuan	*C-ruan

1 'wild dog'.

also: YEAST.

2 Cf. Ky -yin/Ph yem < *C-rin, ALIVE(4), suggesting a dissimilative shift, *-n > Ph -m/*C-r...__ (Phom. has y...n forms < *-y-).

WOLF cf. Jg. -khyon 'fox, wolf, wild dog'. On the basis of the Jg. and NN, Benedict (pc) reconstructs PTB *kywal.

LANGUR cf. Zemi he zua 'monkey' (PTB *y > Zemi z- [see under initial]). Zemi does not have final -l.

RUN cf. PTB *jon 'ride' (could also be *jwan).

LIFT cf. Tibetan-Kanauri *don ~ *ton '(cause to) come or go out, pull' (could also be *dwan ~ *twan).

GOAT cf. Di. bu run, < general Bodo-Garo *bu run, cited by Shafer, with the Northern Naga forms above or their relatives, for Baric *r- (1953: 245). The Barish forms cited include Tripura pun ~ puan, the latter showing the rhyme.

*-uat

One set, FLY (n.): Yo šoi, Wa huat, Ky hoi (also hoi jim 'mosquito'), Ch cot tam 'sandfly' (Ch tam = 'earth, soil, dirt'), < NN *cuat. (Loss of *-t in Yo/Ky as for *-a°t, *-ut).

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*-uam

		CLOUD /MIST	TO PUSH	CROOK/CROOKED /BENT(2)	CHEEK (1)
Yo	-am	-pham 'wet'	—		
Mo	-am	pham	—		
No	-oam	phoam	thoam		
Wa	-um~-om	-phum	thom	kum~kom	bom-[1]
Ky	-om	-phom			
Ph	-um	phum	—		
Ch	-o(a)m			kom-	oam-[1]
NN	*-uam	*phuam	*thuam	*guam	*buam

1 in: Wa bom zroŋ, Ch owom laŋ 'cheek' (for the second element in both forms, see NN *C-ruŋ, -ROUND-(OF BODYPARTS)(2) — the two forms are cognate in their entirety). An NN *b-, however (required by Wa b-, and supported by the external comparison) requires Ch Ø-, not w-: I believe that Hutton's transcription, owom-, is to be analyzed as either /o om/ (with the first /o/ representing a distinct morpheme, but one whose sense is unknown) or (as I think more likely and therefore write in the table above) /oam/. Cf. the variations in Hutton's transcriptions uwan~oan 'load'~oon 'burden'.

CLOUD/MIST PTB *(s-)bwam 'plump; swollen'. Cf. Di. ra bam -di 'dew' (also one of the Wancho glosses; ra- is probably related to NN *rəŋ 'sky', the initial element in the Wa/Ky compounds for CLOUD/MIST cf. Garo raŋ-ra 'sky';; -di = 'water'). The semantic slippage would appear to run SWOLLEN (Jg./Lu.) > CLOUD (No/Ky/Ph) > MIST(Mo/Wa/Ky) > DEW (Di./Wa) > WET(Yo). Cf. also under CHEEK, below.

PUSH cf. WB twan.

CROOK(ED) cf. NN *guaŋ, CROOK/CROOKED/BENT(1), also PTB *ku[°]m 'concave, convex, arched, vaulted'.

CHEEK Like, CLOUD/MIST, probably to be referred to PTB *(s-)bwam 'plump; swollen'. Possibly PTB *bwam > NN *buam, PTB *s-bwam > NN *phuam. Cf. also Mk. iŋ om (Mk. iŋ- is a prefix) 'cheek'. The (at first sight) improbable connection between 'wet' and

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'cheek' at the two poles of a chain of semantic transforms is replicated in a similarly complex (and ultimately related) chain posited by Benedict and Matisoff (STC 20; 20, n.72); in which Jg./Lu./Lepcha (-)bop, with glosses ranging from 'leg' through 'calf' to 'large (as belly)', < PTB *bop, is compared with Singpho/Nungish (-)bɔp "'foam, froth' (= swelling of water)", also 'bubble', and to the Lahu word for 'calf', < PLB *pum or *pup. The problem left open here of variation among (*)-o-, -ɔ-, and *-u-, and between *-p and (possibly) *-m, is resolved by Matisoff (1978: 127), who refers Jg. bop 'calf' -- and presumably, with it, all of the forms with which it is linked in the STC -- to PTB *s-bwam (~ *s-bwap?), with the composite gloss 'swelling, convex, rounded (like a full belly)' -- or, we can add on the testimony of Northern Naga, like a cheek, or a cloud.

Because of the variability among medial dipthongs, and between these and their reduced realizations as simple vowels, in the reflexes of NN *-ua-, it may be useful to immediately summarize the correspondences presented above for this proto-rhyme:

Yo	Wa. We.	-auŋ	-aut	(-auŋ)		-on	-oi	-am
Mo		-ə		-(r)u		-u		-am
No	Ro.	-uoŋ ~ -oŋ -uaŋ	-uak	-uon		-uon -uan		-uam
	DG	-oaŋ ~ -aŋ	-uak	-oan		-oan		-oam
Wa	Br.			-uon		-oan	-uat	-um ~ -om
	P.	-aŋ	-wak -ak	-an	-an	-oan	-ɔat -ɔt	-um ~ -om
Ky		-oŋ	-ok	-o	-o	-on	-oi	-om
Ph			-ɔk -uk	-u	-o	-om		-um
Ch		-oŋ	-ok	-oan -on	-uo -o	-uan	-ot	-oam -om
NN		*-uaŋ	*-uak	*-uar	*-ual	*-uan	*-uat	*-uam

Of all of the variation tabulated above, perhaps the most

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troubling is the Yo/Mo -am < *-uam (in CLOUD), particularly the Moshang, in view of its apparent open-syllable reflexes for *-ua- before other finals. But there is no question that the Moshang form is a member of the set, and every reason to believe that, in this case at least, the rhyme reconstruction is correct, so that these forms finally serve to demonstrate the extent of variability that must be accepted for this rhyme.

After variations in the transcriptions of different recorders are taken into account, the next most striking apparent anomaly concerns the forms for GOAT, NN *C-ruan, where Brown, who has *-uar > Wa -uon and *-uat > Wa -uat, gives -oan for Wa 'goat', while Hutton, who regularly has *-ua- > Ch -o(a)-, gives -uan for 'goat' (confirmed in compounds). This is the sort of variation which leads me to suggest that there may in fact be more than one "back falling dipthong" in NN; but the data are insufficient -- in this particular instance, contradictory, as the 'regular' pattern in the two languages is simply reversed -- to allow us to reconstruct more than one. Thus, I reduce, e.g., Wa [-uo-] (kuon 'skin' [Brown]), [-ua-] (huat, 'fly' [Brown]), [-wa-] (swa[k]koŋ 'shoulder' [Peal]), [-oa-] (roan 'goat' [both]), and [-ɔa-] (hɔat [~ hɔt] 'lizard', cf. hɔt 'fly' [Peal]) to /-ua-/ as the best way of incorporating these data in the comparative project -- i.e., of both "saving" the data for further scrutiny and "explaining" them, however tentatively.

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I have represented more of the variation in the data in the table above than in the preceding tables for each rhyme taken separately (and have not been exhaustive even here: one could add, for example, *-uar > No -oon [Robinson, 'short'], *-uan > No -oʌn [Weidert, 'run'], but this would carry complication beyond reasonable limit; all of this detail is presented in Chapter IV). Some of the variation in the phonetic realization of medial dipthongs may be due to the influence of the initial on the onset of the dipthong and the influence of the final on its termination, but again the data are insufficient to allow us to attempt to write rules for this. When I come to summarize the correspondences for back-vowel rhymes, I will again adopt a composite notation to more succinctly represent the variation displayed above, thus:

Yo	-auŋ	-auk			-on	-oi	-am
Mo	-ə		-u		-u		-am
No	-(o)aŋ[1]	-oak[2]	-oan		-oan		-oam
Wa	-aŋ	-(o)ak	-(o)an	-an	-oan	-oat	-om ~ -um
Ky	-oŋ	-ok	-o	-o	-on	-oi	-om
Ph		-ək	-u	-o	-on		-um
Ch	-oŋ	-ok	-o(a)n	-(u)o	-uan	-ot	-o(a)m
NN	*-uaŋ	*-uak	*-uar	*-ual	*-uan	*-uat	*-uam

1 So written (rather than as -o(a)ŋ) because in Robinson's representation of the dipthong in HIGH, -cuoŋ (DG's -coaŋ) in reduced form in 'hill', ha coŋ, it is the terminal portion of the dipthong which is preserved; this agrees with (and accounts for), DG's transcription of TO BE as daŋ (rather than, as in Brown, doŋ).

2 Here I revert to my preferred interpretation, that No [-ua-] and [-oa-] are phonemically equivalent, in DG's transcription before -k as elsewhere.

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		SELL (1)	ALL (2)	TO COME	HEART /MIND [a]		TO FORGET	EARTH [b]	TO RETURN
							*-oŋ and *-ok		
Yo	-aŋ	-šaŋ	taŋ-	vaŋ	—		—		—
Mo	-oŋ	šoŋ	-toŋ		—	-ok	-lok		—
No	-aŋ	saŋ	-taŋ	vaŋ	maŋ-	-ak	-lak	-tak-[1]	-ŋak
Wa	-aŋ	haŋ			—		—		—
Ky	-oŋ			oŋ 'enter'	moŋ	-ok		-tok	ok 'arrive'
Ph	-oŋ			oŋ "go"	moŋ	-ok		-tok	ñok-
Ch	-aŋ				maŋ	-ak		-tak[2]	
NN	*-oŋ	*coŋ	*toŋ	*woŋ	*moŋ	*-ok	*lok	*tok	*ʔ-ŋok

1 in: ka tak raŋ "God", ≃ "earth-sky"; same construction in Ky (ka waŋ)/Ph (ka vaŋ), but without the -tok element which forms an optional part of the word for "earth" in Ky (ka[tok]), and is invariant for Phom ('earth': katok). No raŋ/Ky waŋ/Ph vaŋ = SKY. In Nocte the regular word for "earth" is ha, like Ky/Ph ka, < NN *ka (NN *k- > No h-), confirmed in compounds, and except in "God", without the [b] element. But whatever the explanation of the k- in the first syllable of No "God", the second syllable, ~~tak~~, is clearly cognate with the Ky/Ph/Ch forms.

2 in: gau tak "country, world" ~ kau dak "world" (gau ~ kau = "earth, land, ground", NN *ka, EARTH[a]).

also for *-oŋ: TO GROW/GROWING, TO GUARD.

SELL cf. WT 'tshoŋ-ba.

ALL PTB *s-toŋ "thousand".

COME PTB *hwaŋ, probably better *waŋ (pcPKB); cf. particularly WT 'oŋ-ba "come", Lepcha von "enter into" (pcPKB), both with back vowel. Also cf. Angami (Kh./Ko./Chokri) vo- "come".

FORGET cf. WT rlog "to lose".

RETURN cf. PTB *(ʔ)nok "behind, after, afterwards" (TSR 155), which Matisoff (pc) suggests may be the source of the NN root. For the "return"/"arrive" link in NN, cf. Ky/Ph ŋoi "arrive" : Ch ŋai "return", < NN *ŋoi, certainly an allofam of *ʔ-ŋok.

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		HOLE /CAVE	TO TAKE (UP)(4)		TO KILL	*-or/*-on/*-ot/*-om	MORNING	OTTER
Yo		--		-aut	-jaut		--	--
Mo		--		-at	tat		--	--
No	-an	-kan						--
Wa	-on	-kon	non 'lift'			-om	šom- 'dawn'	-rom
Ky	-o		no- 'lift'	-oi	toi	-um	šum	--
Ph	-o		no	-ə	jə	-om	thom	--
Ch	-an	kan-		-at	-tad[1]	-am		lam
NN	*-or	*gor	*nor	*-ot	*2-sot	*-om	*C$_{\check{V}}$-krom	*C-rom

1 in: khu tad 'behead' (khu = 'head'); cf. Garo sot 'kill', sko ra sot 'behead' (sko = 'head', ra = 'cut, reap', ra sot = 'clip, crop, sever').

HOLE/CAVE PTB *kor.

TAKE(UP) cf. Ao Mongsen a nə, Ao Chongli a nir-a ru (showing the final *-r), both 'bring' (cf. Phom no ei tei 'bring' ≃ 'take-and-send' [lit.]). Ao Chongli also has a front vowel for *-â-~*-o- in 'kill', -set, and in 'otter', -rem.

KILL PTB *g-sât~*a-sât. The reconstruction of this set, with -aut in Yogli, with *-ot receives some support from Yo ya vaun 'foot', < NN *pwon (see below).

MORNING cf. Lu. chohma 'morning'.

OTTER PTB *sram.

also: PALM/SOLE(2), Yo ya vaun 'foot' (ya = 'leg'), NN *pwon, PTB *pwa (but with -n in Jg. lə phan). Cf. Mo. 'foot', ya pha, 'hand', yok pha, -pha < NN *pha, PALM/SOLE(1), also < PTB *pwa. (The possibility that the Yogli form is a loan from Jinghpaw would seem to be precluded by the fact that the Jinghpaw form does not retain the *-w- which is required to account for the Yogli initial.)

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Thus, the mid-back-vowel rhymes *-o˚-, *-ua-, and *-o- compare as follows:

Yo		-auk		-on			-om
Mo					-ot		
No	-o{(aŋ) (an)}	-o{(ak) (at)}		-oan	-oat	-oap	-oam -oan
Wa	-uŋ ~ -ua ~ -oa	-o(a)k			-at	-ap	-am
Ky	-iaŋ ~ -iŋ -eaŋ ~ -eŋ	-ek -ak		-en	-et		-em
Ph	-oŋ ~ -aŋ	-ak		-an			-am
Ch	-oŋ	-ok -ak		-on -an	-at	-op -ap	-am
NN	*-o˚ŋ	*-o˚k		*-o˚n	*-o˚t	*-o˚p	*-o˚m

Yo	-auŋ	-auk		-on	-oi		-am
Mo	-ə		-u	-u			-am
No	-(o)aŋ	-oak	-oan	-oan			-oam
Wa	-aŋ	-oak -ak	-oan -an	-an -oan	-oat		-om ~ -um
Ky	-oŋ	-ok	-o	-o -on	-oi		-om
Ph		-ək	-u	-o -on			-um
Ch	-oŋ	-ok	-oan -on	-uo -uan -o	-ot		-oam -om
NN	*-uaŋ	*-uak	*-uar	*-ual *-uan	*-uat		*-uam

Yo	-aŋ			-aun	-aut	
Mo	-oŋ	-ok			-at	
No	-aŋ	-ak	-an			
Wa	-aŋ		-on			-om
Ky	-oŋ	-ok	-o		-oi	-um
Ph	-oŋ	-ok	-o		-ə	-om
Ch	-aŋ	-ak	-an		-at	-am
NN	*-oŋ	*-ok	*-or	*-on	*-ot	*-om

As in the previous summaries, variant reflexes attributed to conditioning (mostly palatalization) are omitted.

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There is one more series of correspondence sets involving back-vowel rhymes in Northern Naga, which I tentatively reconstruct with NN *-ə̀-. These sets are most similar to those for NN *-o-, but with critical differences — especially, except before *-ŋ, Wancho -u-, as if from *-ù-.

*-ə̀ŋ

		BRANCH	TO BE(3) /BEING	SELF	TO FALL (3)
Yo		—			—
Mo		—		—	—
No	-aŋ	-kaŋ	-ñaŋ[2]	—	
Wa	-aŋ	-kaŋ		—	
Ky	-ui ~ -ci	-kui	-ñoi	yoi	toi
Ph	-ou	kou	-ñu[3]	lou-	
Ch	-uŋ ~ -oŋ	-guŋ[1]		yoŋ-[4]	toŋ
NN	*-ə̀ŋ	*kə̀ŋ	*C-nə̀ŋ	*glə̀ŋ	*tə̀ŋ

1 in: pu guŋ 'stalk' ~ po kuŋ 'log' (pu = 'tree', also the first syllable in the No/Wa/Ky forms, also [in comp.] ~ po- [(po)phek 'fork (of a tree or path', po hek 'fruit']); you kuŋ 'straw' (you < you šou 'paddy').

2 in: mi ñaŋ 'man (generic)' (mi by itself is cognate with other forms for MAN(GENERIC), NN *C-məy.

3 It is plausible that NN *-ə̀n > Ph -u [rather than -ou]/ñ__.

4 in: yoŋ lam bu 'braggart' (cf. Ch lam = 'festival'); possibly also (mat pam) ci yoŋ 'alone'. The Chang form for 'self' is mat pam ('lit. = man [mat] alone'; Hutton 1929a: 18), -ci- < cie 'one'. Also, cam pun yuŋ 'alone'.

BRANCH PTB *kùŋ 'branch, stalk, trunk of tree'. This solid comparison for an equally strong cognate set is one of the best arguments for the existence of an NN *-ə̀ŋ, for the reflexes are clearly distinct from those of NN *-ùŋ.

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BE(ING) cf. St. nuŋ 'to be', Lu. nuŋ 'to be alive', Nr. mei nun 'people'.

FALL cf. TN ta tuŋ.

*-ə˚k

		TO BOIL (2)	FIG	HOLLOW	TOP
Yo			--	--	--
Mo		--	--	--	--
No	-ak	-thak	--	--	--
Wa	-uk		puk-	--	--
Ky	-ok	hok	phok-	-kok[2]	-tok-[3]
Ph	-ok	--		-kok[2]	tok-[3]
Ch	-uk ~ -ok	-jok-[1]	phok	kok; -kuk[2]	-tok-[3]
NN	*-ə˚k	*khlə˚k	*phə˚k	*khrə˚k	*tə˚k

1 in: thuŋ bə jok bo cəm 'kitchen' (thuŋ = 'to cook', cəm = 'house', ≈ 'cooking-boiling-house'; such 'redundant' constructions are common in Changl.

2 in: Ky ka kok 'valley' (ka = 'earth'); Ph yuŋ kok 'well' (yuŋ = 'water'); Ch kok 'to be hollow', kau kok 'natural pit' ~ gau kok 'valley' (kau ~ gau = 'earth'), kok lok kan 'ditch', pha(kuk) 'trench'.

3 in: Ky a tok me (me = 'on, at, in'), Ph tok phi 'above', in Ky at least ≈ 'on top', Ch šoŋ tok pu 'peak' (šoŋ = 'mountain, hill').

TO BOIL PTB *glak ~ *klak (Mk. arklak ~ arklok).

FIG cf. Lhota tsə pek hi (-hi < e.thi 'fruit'), Ze. mbeu chi (ma chi ~ he chi 'fruit'), Lu. thei pui (thei rah = 'fruit'). The Wancho and Konyak forms are also in comp. with 'fruit'.

HOLLOW cf. PTB *grok 'ravine' (WB khyauk, Jg. khərɔ) and Mao o khro bvə 'ditch, hole'.

TOP cf. the extensive comparisons in -ak cited for PTB *l-tak 'above' (STC 123, n.338), including WT ltag-ma 'upper part of place', but also WT thog 'what is uppermost', Lepcha tok 'the head; the top of anything, top ornament, etc.; the chief, the great' (pcPKB). Cf. also NN *tuk, BACK//ROOF, and the discussion of this NN(/PTB) word-family under *t-.

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The assignment of the sets for HOLLOW and TOP to *-ə°k rather than *-o(°)k in the face of their consistent -ok reflexes seems counterintuitive, but I have pointed out the external evidence pointing to *-a(°)k for TOP and TO BOIL and the variant Chang -uk reflex for HOLLOW; these data at least suggest that the reconstructions for these roots may not be as straightforward as they at first appear. More important, however, if my analyses of the development of NN *-o(°)- are correct, the Ky/Ph/Ch -ok correspondence in HOLLOW and TOP cannot be referred to *-o(°)k. For NN *-o°- consistently becomes a <u>front</u> vowel in Konyak; and NN *-o- consistently becomes -a- in Chang. *-uak is actually a likelier possibility, but here we would have to posit triple variance for Phom, which already has *-uak > -ək/-uk. On the other hand, the Ky/Ph/Ch -o- correspondence before (*)-k matches the dominant Ky/Ph/Ch -o- correspondence from *-ə°ŋ, with its comparisons in *-u(*)ŋ.

In short, to handle these sets under some other rhyme, we would have to posit still more variation in the reflexes of that other rhyme. In the absence of additional data which would help to settle the matter one way or another, it seems better on principle to handle them separately. This has the additional advantage of identifying roots which are candidates for the elusive PTB *-ə°- reconstruction.

The remaining *-ə°- sets have Ch -a- rather than -o-:

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*-ə˚r and *-ə˚l

		DITCH	HAIL	DO/ MAKE(5)		FACE	WET
Yo		--	--		-al	thal 'cheek'	
Mo		--	--		-al	thal	--
No	-an	-kan[1]	--		-an	than	-san
Wa	-un	-kun[1]	jun		-un	tun	šun 'damp'
Ky	-oi		--	toi 'work'			--
Ph	-ou	šou[1]	--	dou 'work'			--
Ch	-an	-kan[1]	sən	jan 'must'			
NN	*-ə˚r	*gə˚r	*ryə˚r	*ʔ-də˚r	*-ə˚l	*thə˚l	*C̬-krə˚l

1 My reconstructions of *-ə˚r/*-ə˚l/*-ə˚n are in large degree dependent upon whether this root, DITCH, is really distinct from HOLE/CAVE, NN *gor (< PTB *kor, whose glosses include 'valley'). The two sets of reflexes are definitively distinguished (if at all) only in Wancho, which has ha kon "cave" but šua kun "ditch" (ha = "earth", šua = "river"), both forms from Peal (Brown has neither). The possibility that the vowel in -kun has been influenced by that in šua- is perhaps lessened by šua ko "(large) river". If kon and kun are merely (free) variants of the same word, we must admit Wa -u- ~ -o- < NN *-o- and a good part of the case for an NN *-ə˚- before dentals collapses.

The two forms are distinct in Peal's transcription, however, and Ph šou 'valley' is best compared with Wa -kun "ditch" on phonological as well as semantic grounds (NN *-or > Ph -o, while the -ou in Ph 'valley' matches Ph -ou < *-ə˚ŋ, and is more likely to reflect a long-vowel prototype).

The Chang and Nocte forms assigned to the two roots are phonologically identical. I separate them as follows: from *gor, HOLE, No loŋ kan 'cave' (loŋ = 'stone'), kho kan 'nostril' (kho = 'nose'), na kan 'ear-hole' (na = 'ear'); Ch kan yet 'den', kuŋ kan 'nostril' (kuŋ = 'nose'), ko kan 'doorway, gate' (ko = DOOR, NN *ga, cf.).

From *gə˚r, DITCH: No ha kan thut 'digging' (ha = 'earth', thut = 'to dig' [non-finite form]), given by Das Gupta under the heading of agriculture; Ch kok lok kan 'ditch' (kok = 'hollow'), pi yuŋ kan 'channel' (yuŋ < yuŋ maŋ 'river').

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Thus I suggest a semantic distinction between *gor 'hole, opening' and *gə˚r 'ditch, channel, valley', with the latter root differing from the former both in specificity and in expressing the idea of EXTENSION (perhaps too neatly reflected in the length of the vowel).

DITCH Both Lushai and Tangkhul appear to draw a distinction parallel to that drawn above; unfortunately, the terms are reversed! Cf. Lu. kor 'small valley, ravine', TN khor chop 'ditch'; Lu. khur 'hole, cavity', TN a khur 'hole'. Benedict (STC 74) explicitly distinguishes the two Lushai forms, assigning the first to *kor and the second (because of an apparent doublet, Lu. khuar) to a PTB *kwar. So there is support here for two roots, but not for the same two as suggested by NN. To underline the difficulties, let me note that yet another NN root is implied by Ch khənn ~ khən yet 'hole' — but cf. kan yet 'den' and the Ch -ə- (= /a/), as in HAIL.

HAIL cf. Kuki-Naga *ryal (Ao rer ~ rər; STC 54).

DO/MAKE cf. Lu. tu˚r 'must'. For the semantic association between (Ky/Ph) 'work' and (Ch/Lu.) 'must' in Chang itself, cf. Ch kam si lei 'work' ~ kəm si lei 'necessary'.

FACE cf. Di. thaiŋ, Jg. -than, Lu. cal, all 'forehead'.

WET possibly related to Lepcha ól < *s-król < PST *(s-)krwa˚l 'to wash' (pcPKB).

The Ky -oi : Ph -ou correspondence in 'work' replicates Ky -oi/Ph -ou < NN *-ə˚ŋ, and the Lushai comparison for this root, DO/MAKE(5), again shows the long high vowel, as for BRANCH. Otherwise, the sets attributed to *-ə˚r and *-ə˚l above (and those atributed to *-ə˚n, next page) are set apart only by Wancho -un (but note Ph -ou for DITCH), with external comparisons suggesting *-a- or *-o-, as for *-ə˚k. (It should be noted that while the five Wa -u- forms cited so far are all from Peal, the two referred to *-ə˚n are from Brown; unfortunately, no cross-check is available for any of these.)

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*-ə̀n and *-ə̀m

		TO CROSS OVER	TO BURN(2)		EVENING
Yo	-an	yan			—
Mo		—			—
No	-an	dan		-am	-ham "sunset"
Wa	-un	cun "far"	šun		
Ky	-on	—	ton "ignite"	-um	šum- "late"
Ph.		—		-om	om
Ch.	-an	tan	han- "torch, lamp"	-am	-sam
NN	*-ə̀n	*C$_V$-glə̀n	*grə̀n	*-ə̀m	*C$_V$-syə̀m

CROSS OVER — cf. WT rgyaṇs 'far'. The WT and Wancho forms, glossed 'far', and the Yo/No forms, glossed "cross (over)' are, I suggest, drawn from the broader semantic field represented by Chang tan "cross (go beyond)", tan ko "across", tan an.ki 'beyond" (-an possibly < NN *yər, OPEN(2), cf.).

BURN — cf. WT sgron 'light (ignite)', sgron-ma "lamp", skron-ma "torch", TN. ron. 'ignite'.

EVENING — PTB *syim 'black, blue, dark, darkness'. The Dimasa forms are doublets, with both -im and -um. The Nocte and Chang forms are in comp. with "sun-": ∝ "sun-dark"; cf. also Nocte a ham "blue".

With EVENING, we again have high-vowel comparisons, which in this case determine the reconstruction, as the Northern Naga reflexes here are the same as those for *-om. It is possible, however, that the vowel in Ky šum-, "late", has been raised under the influence of the initial, so that the "regular" Konyak reflex of *-ə̀m might still be -om. But if so, this would also be the case for Ky šum, MORNING, our sole exemplar of Ky -um < *-om. So the external comparisons are still decisive.

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Thus, the reflex pattern for NN *-ə°- is as follows:

Yo				-al	-an	
Mo				-al		
No	-aŋ	-ak	-an	-an	-an	-am
Wa	-aŋ	-uk	-un	-un	-un	
Ky	-ui ~ -oi	-ok	-oi		-on	-um
Ph	-ou	-ok	-ou			-om
Ch	-uŋ ~ -oŋ	-uk ~ -ok	-an		-an	-am
NN	*-ə°ŋ	*-ə°k	*-ə°r	*-ə°l	*-ə°n	*-ə°m

This concludes my systematic presentation of the phonology of Northern Naga. Complete information on the data supporting individual reconstructed roots, for all reconstructed roots, is presented in Chapter IV.

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NORTHERN NAGA:

A TIBETO-BURMAN MESOLANGUAGE

by

WALTER T. FRENCH

VOLUME TWO

A dissertation submitted to the Graduate Faculty in Anthropology in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York.

1983

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IV. DICTIONARY OF PROTO-NORTHERN NAGA ROOTS

4.1 Introduction

In this chapter I present all of the roots which I have reconstructed for Proto-Northern Naga (NN), with the data on which these reconstructions are based. The reconstructed roots are presented alphabetically by English gloss, these glosses being those set in capitals in Chapter III. This arrangement seems preferable to one by NN root-initial because the first half of Chapter III is organized in the latter fashion. Thus, if the user wishes to compare NN roots having the same or similar NN root-initials, he should turn to the pertinent section in the first half of Chapter III; similarly, if he wishes to compare NN roots having the same or similar NN rhymes, he should turn to the pertinent section in the second half of Chapter III. If, however (as is more likely to be the case), he wishes to locate an NN root corresponding to a particular English gloss, he should refer to Section 4.2 below. (Finally, a limited number of roots representing items in the core vocabulary are arranged by semantic category in Chapter V.)

The English glosses selected to identify Northern Naga cognate sets and the reconstructed forms underlying

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these cognate sets -- those set in capitals -- should be regarded as heuristic labels rather than as semantically precise English equivalents. This qualification is particularly important for verbs. Because of the labelling function of these glosses in the phonological tables and discussions of Chapter III, my objective in choosing them was to be as concise as possible while still representing something of the semantic range of certain roots whose range (in the semantic space of English) seems especially broad. This arbitrary reduction of the semantic range of many NN roots to one or two English glosses for clarity of presentation is partially corrected in the following Section by extensive cross-referencing (as well as by the inclusion, under each entry, of all data-language forms containing the reflex of the root in question which suggest possible extensions of its meaning beyond that encapsulated in its main gloss or glosses). I have included in the alphabetical listing, in lower case, virtually all English glosses for data-language forms referred to an NN root which are not themselves main glosses for these roots, indicating which NN roots have given rise to forms having these glosses. Where a main gloss for an NN root -- i.e., one of those set in capitals -- has also been given for a form referred to some other root, this reference is indicated in a separate, lower-case entry following the main entry. By following the lines of semantic interconnectedness indicated by these cross-

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references, the reader may trace the contours of the semantic fields and networks of Northern Naga from many points of entry.

My purpose in Chapter III was to establish correspondence sets for initials and rhymes among the seven data languages and between these and the protolanguage. Only such data were presented as were necessary (and, in the ideal case, sufficient) to establish these correspondences. Thus, some reconstructed roots were treated only with reference to their initial, others only with reference to their rhyme, and some not at all. For those roots which were treated, I generally gave only one form containing the derivative of the root in question from each data language in which the root was exemplified. This chapter is concerned with the roots themselves, rather than with their segments, so that each entry contains all of the relevant data for that root. I am not here concerned with justifying assertions of cognacy, however, so that the reader who is skeptical of such an assertion must refer to the pertinent section of Chapter III for evidence of cognacy of initials or rhymes, as the case may be. Although a certain amount of redundancy is both necessary and desirable, for a full evaluation of the evidence for a reconstruction, it will in many cases be necessary to consult the material in both chapters. Where the material presented in Chapter III is particularly relevant or extensive, I have called attention to

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this below.

In the entries below, I have also indicated the sources of all forms not cited by Marrison, as well as of many which he includes, where this information might be pertinent. Because of the large number of Nocte forms taken from Das Gupta (1971), I abbreviate this reference, thus: (DG).

There are a few grammatical elements which recur with such frequency in one or more of the data languages that it will be desirable to give a brief description of them here:

1. The "meteorological classifier": in all languages except Chang, the word for 'sky', Yo (h)raŋ, Mo roŋ, No/Wa raŋ, Ky waŋ, Ph vaŋ (all from NN *rəŋ, SKY(1)) appears as the initial element in a large number of forms referring to celestial or meteorological phenomena. In at least some cases (e.g., Ky waŋ ləm 'sweat' [ləm < NN HOT(1)]) -- perhaps in all -- it appears to be semantically otiose. See SKY(1).

2. Yogli ge-: a verbal prefix which, as noted in Sections 2.2.1(1) and 2.2.3(1), furnishes the only instances in Yogli of both its initial and its rhyme. It occurs in four verbs: 'to gather', 'to meet', 'to join', and 'to divide' (see NN GATHER, MEET(WITH)/FIND(1), JOIN(1)/FORK/BRANCH, and DIVIDE (1), below) and may thus have the sense 'together; among', or, as I suggest for the semantically parallel Chang -yu~-yo, 'with one another'. Except before numerals, this is the only consonantal prefix in Yogli.

3. Chang -yu~-yo: a verbal suffix semantically parallel to Yogli ge-, but much more common and not pho-

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nologically irregular. It is exemplified in Ch yu a 'among' and derivable from NN *C_V-yaw, AMONG, and appears in terminal position in many verbs describing interaction (see AMONG for list), for which an appropriate English gloss may always be constructed by glossing -yu ~ -yo "with one another".

4. Agent noun suffixes: listed by Marrison (GEM 113) as Yo/Mo -wa, No/Wa/Ky -pa, Ph -pə, Ch -bou. These are obviously derived from FATHER, NN *pwa^A > Yo ə va, Mo/No va, Wa/Ky a pa, Ph pa, Ch a po(u). They are actually common only in Yo/Mo/Ky/Ph/Ch, while in Phom -pa (= pa "father") is more frequent than -pə, and in Chang there is a wide range of variation in the rhyme. In Nocte (at least in Das Gupta's transcription) the agent noun suffix is actually -te.

5. Adjectival suffixes: in Tibeto-Burman generally, adjectives and verbs comprise a single morphological category (STC 92). In Yo/Mo/No/Wa, adjectives and verbs are not decisively morphologically differentiated: although adjectives are generally preceded by the vocalic prefix a- (in Nocte sometimes i-), many verbs also take this prefix. In Ky/Ph/Ch, however, adjectives are generally distinguished from verbs by a suffix with initial labial stop: in Konyak, usually -pu; in Phom, usually -pə; in Chang, usually -bu (in Hutton's transcription) ~ -bə (in Marrison's).

6. Konyak ə-: except with kinship terms, Konyak (along with Phom and Chang) employs few prefixes. The occurrence of an apparently prefixial ə- in the words for 'horn', "tail", 'nest', "seed", "ripe", and 'kind (sort)', with their common semantic feature + LIVING, is, however, suggestive of the identity of this element in these words.

7. Chang -ti: "a form used to turn intransitive verbs

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into transitive and to express generally causation, or even mere permission" (Hutton 1929a: 21). The causative suffixes identified by Marrison (GEM 129) for Konyak (-netəm) and Phom (-hə) are not in evidence in the basic vocabulary of these languages; that is, like many other grammatical elements which differentiate forms of the verb, they do not enter into forms which are the principal exponents of basic vocabulary items (as does Chang -ti).

9. Chang a-: = 'not'. Again, the negative is important, for the basic vocabulary items with which we are concerned, only in Chang.

10. Phom -ei-, Chang -si-, and "redundant" constructions: Phom -ei- is listed by Marrison (GEM 128) in a table of forms of the "conjunctive participle suffix" in the various Naga languages; Chang -si- = 'and'. These two elements are used in similar fashion, though much more commonly in Chang, in what I have called "redundant" constructions, linking two nouns or two verbs of roughly similar meaning, the entire construction then being translated by a single English gloss.

Finally, a note on the level to which the reconstructions given below actually pertain. Every reconstructed form is no more than a hypothesis, or rather a linked pair of hypotheses (as to initial, as to rhyme); but some of the reconstructed forms presented below are hypothetical in a further sense, i.e., independently of the strength of the evidence supporting the phonological shape assigned to them. A root attested in only one language, or in two territorially contiguous languages, cannot, strictly speaking, be legitimately referred to Proto

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-Northern Naga except in a provisional sense. I list few such roots, and those which I do include enjoy strong external support. Indeed, this strong external support is my reason for including them. But there is always the possibility, in the case of such roots, that they have been borrowed from some non-Northern Naga TB language, whether by the language in which they are attested or by a predecessor which nevertheless postdated the differentiation of NN itself. Many of these roots are important in that they testify to the presence of a PTB root, perhaps sparsely distributed elsewhere, in yet another group of TB languages (i.e., Northern Naga). But their derivation from a reconstructed form in NN itself must nevertheless be regarded as provisional.

The same problem appears on another level in the case of roots which are attested in three or four languages, but languages belonging to only one or the other of the two subgroups into which Northern Naga -- to anticipate our conclusions in Chapter V -- appears to be divided. Here, again, there is the possibility of borrowing by the mesolanguage underlying the subgroup in which the root is attested; but in this case there is the further possibility of innovation at the level of the mesolanguage for those roots for which external support is lacking. Because we are dealing with limited vocabularies, there is a good possibility that cognate forms do exist in languages of the other subgroup, but are simply

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not represented in our data. For some roots, apparent cognates elsewhere in TB rule out innovation; for a subset of these, the presence of remote cognates and the absence of such in likely donor languages makes borrowing improbable. Still, the attribution of roots attested only in a single subgroup to NN must be qualified.

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4.2 General Dictionary.

a-

above. See HEAD(1), HIGH(1), TOP, UP.

absent. See EMPTY.

ache. See SUFFER(1)/(2).

acid. See SOUR.

afraid. See FEAR, SHAME(2).

AFTER. NN *pha˜y: Wa pai tu (Peal), Ky phei me, Ph phei ka, 'after'; Ch pai 'back (adv.), backwards, behind', pai a 'after, behind' (-a = 'in, at, on'), pai bu 'last (adj.), second (of two)'. Cf. PTB *bway 'left-hand'.

ALIKE. NN *C̬-reŋ: No ro raŋ 'alike' (Butler), Ch a yen 'to be unequal (of soil, etc.)' (a- = 'not'). Cf. Jg. ma ren 'Like'.

ALIVE(1). NN *criŋ: No hiŋ 'to live' (Brown), Ph u šiŋ 'seed' (Ph u- is probably from an NN *bu 'seed', related to WT 'bru, id.). See discussion under initial.

ALIVE(2). NN *ryəŋ: Mo a ta roŋ 'to live' (ta = 'to be', and is cognate with forms for (TO LIVE/) TO BREATHE); Wa a zaŋ 'to live', e zaŋ 'green' (listed after 'new' and 'ripe' rather than with other color terms, where hiŋ [see GRASS] is given as the Wancho term for 'green'; both Wancho forms from Brown); possibly Ph yaŋ ñu 'to live', but this form could also be from ALIVE(3) (Ph ñu = 'to be'). Cf. WT rjen pa 'raw'.

ALIVE(3). NN *C-raŋ: Wa a raŋ 'alive; raw' (Peal); Ch laŋ 'to live, living'; possibly Ph yaŋ ñu 'to live', but this form could also be from ALIVE(2) (Ph ñu = 'to be'). Cf. PTB *s-raŋ ~ *s-riŋ (STC, original

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formulation).

ALIVE(4). NN *C-rin: Ky a yin, Ph yem(bəm) 'life', yem ñu 'to live' (Ph ñu = 'to be'; cf. Ph yaŋ ñu, also 'to live', from ALIVE(2) or (3)). Cf. PTB *s-raŋ ~ *s-riŋ (STC, original formulation). All four of the NN roots for ALIVE are allofams at the NN level, along with NN *C_V-criŋ, (RAW/GREEN/)GRASS; see discussion under *cr-.

ALL(1). NN *C_V-pheŋ: Mo a paŋ 'many', No phaŋ taŋ 'all' (for -taŋ, see ALL(2)), Wa paŋ ve 'all' (Peal) ~ paŋ vai 'all' (Brown), 'ever' (Peal), Ph ham phoŋ 'we (incl. pl.)', am phoŋ 'you (pl.)', jom phoŋ 'they (pl.)', Ch pan do 'all', pen to 'every one', pen dou 'whole', pen to a ~ pan to wa 'everywhere', pom pen to 'ever, always, often, frequently', pom pan to 'always' (for Ch -to, see ONE(2)). Cf. Di. ga baŋ 'much, many', TN ka poŋ 'whole'.

ALL(2). NN *toŋ: Yo taŋ rauŋ 'all', naŋ tàŋ 'we (incl. pl.)', nim taŋ 'you (pl.)', ciŋ taŋ 'they (pl.)' (as vs. dual in all three cases); Mo wa toŋ, No phaŋ taŋ 'all' (for No phaŋ-, see ALL(1)), possibly also taŋ 'family' (DG). Cf. PTB *s-toŋ 'thousand'.

all. See also COMPLETE(2).

AMONG. NN *C_V-yaw: No jo ka 'accompany' (DG; ka = 'go'); Ky yu me 'among' (me = 'in, on, at'); Ch yu a 'among' (-a = 'in, on, at, LOCATIVE CASE SUFFIX'), ye yu 'to mix (of liquids)' (ye = 'pour'), ke yu ~ səh yu 'to mix (of solids)'. Ch -yu ~ -yo appears in terminal position in many other verbs describing interaction: 'converse', 'meet', 'exchange', 'play', 'wrestle', 'copulate', 'make war', 'quarrel', 'bet'. Cf. PTB *ryaw 'mix, intermix, mingle'.

ANGRY. NN *$khra^B$: No riŋ kha (Butler) ~ rin kha (Robinson, DG), Wa sa, Ch kau aŋ bu. Cf. WT khro ba, TN

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kakharar, all 'angry'.

(GAME)ANIMAL. NN *ŋam: Mo ŋam 'deer', No ŋam 'beast, meat', ŋam hap 'hunting' (a hap = 'to shoot')(all DG), Ch ŋam cap 'snare' (cap = 'to snatch') -- though this is uncertain, as Ch ŋam (also?) = 'neck'. Cf. also Yo ŋa myeŋ (< ŋam myeŋ?) 'cat', but as I have indicated, the other glosses point to a game animal.

TO ANSWER. NN *cha°ŋ: Ky jan, Ph jaŋ, Ch co ŋe ti (ŋe < ŋai 'return', -ti = CAUSATIVE). Cf. Lu. chha°ŋ.

ANT(1). NN *C̬-grik C-dza^{A}: Wa tik sa, 'ant', Ky tik ha 'white ant', Ch tak šo 'small black ant'. Cf. PTB *g-rwak 'ant' (see under initial for discussion of this comparison), *tsa ~ *za 'child'. The second element in the Northern Naga forms, ANT[b], is from the NN root for SON.

ANT(2). NN *C̬-kyum: Ky jem li 'black ant'. Cf. Jg. ka gyim 'ant'.

ant. See also BUG(2).

ARISE. See COME OUT/ARISE/ASCEND.

arm. See HAND, SHOULDER(1).

AROUND. See TO REVOLVE/ROUND/AROUND; also TO ENCLOSE, TURN(2)/RETURN(2).

ARRIVE(1). NN *crəw: Yo t̬hʌu (Weidert), No hu (Weidert), 'arrive', Ph šə 'enter', Ch səɣ 'reach, arrive at (tr.)', ləɣ səɣ 'arrive (intr.)'. Cf. Lhota thrï-yi 'enter'.

ARRIVE(2). NN *ŋoy: Wa tem tu ŋoi pu 'where come from?' (Peal; tem . . . pu is apparently an interrogative construction, = 'what ~ where ~ why?' [cf. tem ziŋ pu 'what making?', tem mok pu 'why?']); Ky/Ph ŋoi 'arrive', Ch ŋai 'return'.

arrive. See also RETURN(1), NN *ɪ̄-ŋok, an allofam of

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*ŋoy and the source of the Phom form for 'arrive', Ph ok.

ARROW. NN *la^{B} dza°n (the *la^{B} element is the NN word for BOW; for the second element, see under *C$_{v}$-dza°n): Mo la san, No la c(h)an (Brown), lat c(h)an (Robinson), lat chan (DG) < *la chan, with the -t- recorded by Robinson and Das Gupta interpreted as epenthetic, in assimilation to the initial of the second syllable (the Nocte word for 'bow' is from a different root); Wa san, Ky la han, Ch lau cin (Hutton). Probably to be etymologized as 'bow-children' (NN *C-dza^{A}, 'SON, + *-n 'collective suffix' [STC 99, n.284]). Cf. Lahu khá-ce 'arrow', < *khâ2 (= 'crossbow') can (pcJAM).

arse. See BASE.

ASCEND(1). See COME OUT/ARISE/ASCEND.

ASCEND(2). NN *gəw: No ku, 'ascend', Wa suo ku 'East' (cf. Wa suo toŋ 'West' and other Northern Naga forms for 'East', analyzable as 'sun-rise(-place)', with '-rise' from NN *kluŋ, COME OUT/ARISE/ASCEND(1); alternatively, Wa suo- may ≈ 'stream', for which Peal gives sua ka: the 'East/West' forms are from Brown, and may, on this hypothesis, ≈ 'stream(s)-arise/fall' [cf. NN *tə°ŋ, TO FALL(3); the geographical reference would be correct]); Ch tei kək 'spring' (tei = 'water'). Cf. PTB *ku 'take up, lift', Di. ga khu, Nr. ku, Rengma kə, St. kə tu, Ko. kuo, all 'ascend'.

ash, ashes. See HEARTH, also ISSUE.

ASK FOR. NN *ryəw: Yo rau 'wish, want', No cu 'beg' (Robinson), 'demand' (DG), Ky yu 'ask for' (cf. moŋ lu 'wish' [moŋ = 'mind']), Ph yiə 'ask for', šaʔ yiə 'pray' (šaʔ = 'word, speech'), Ch maŋ səy 'wish, want, desire' (maŋ = 'mind' [cf. Ky]). PTB *r-yu(w).

assemble. See GATHER.

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attack. See FIGHT(2).

AWAKE. NN *C$_{V}$-so°w: Wa jo, Ky ši u lou (ši = 'to sleep'). PTB *m-sow.

AXE. NN *C$_{V}$-wa^{A}: No va ka, Wa va, Ky a, Ph a, Ch wo. PTB *r-pwa^{A}.

b-

baby. See CHILD.

BACK(1). NN *khe°ŋ: Yo kheŋ paŋ 'back', Mo kheŋ ko 'yoke' (cf. khen 'women's back basket', on this hypothesis a derived form), Wa khe da 'waist'. For evidence of the semantic linkage between 'back' and 'waist', cf. Kh. ce, Chokri uce, Ao Chongli teperem, all both 'back' and 'waist', Lahu cɔ̀?-pɛ̄-ni 'small of back, waist' (the last from Matisoff 1978: 222).

BACK(2). NN *tuk: No tok di 'behind' (DG), Wa tok 'back' (Brown; Peal has tɔki), ci tok 'instep' (Peal; ci- = 'foot' [< cia] in compounds), Ky/Ph tok 'back', Ch tak 'back'. Cf. ROOF(2), which probably contains the same root in comp. (≃ 'house-back'), and PTB *l-tak 'above' ~ *to[°]k (pcPKB, > NN *tɔ°k, TOP) ~ *tuk 'neck', and the note on this word-family under the initial for BACK, NN *t-.

BAD(1). NN *ba°k: Yo/Mo a ba 'bad'. Cf. Jg. yu bak 'sin'.

BAD(2). NN *C-dzi(y): No a chi 'bad', a chi ña 'to hate', chi siet 'damage', etc.; Ch šet 'spoilt', -šet 'idiomatic intensive adjectival suffix (lit. = 'spoilt')', as in (e.g.) a mai šet 'very bad' (a mai = 'bad') — one could not say mai bu šet 'very good' (Hutton 1929a: 15-16). Cf. Lu. chhia, Ze. ke sia be, Mz. ke sia, Khoirao ka si ba, Maram si, 'bad'; No phaŋ chi 'ugly', Lu. hmel chhia, Maram si, id.; also Ko. zie suo 'ugly', Kh. ze so 'wicked'. The Chang

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morpheme also appears in šet ti "to get trouble' (ti = CAUSATIVE) and šet khau "to curse".

BAG. NN *C-khuk: Mo ya khak 'bag', No chi khok "small basket" (DG), Ky ni khok 'bag'. PTB *kuk 'bag, basket, receptacle'.

BAMBOO(1). NN *ŋyat: Wa ñad, Ch ŋat.

BAMBOO(2). NN *$\underset{v}{C}$-wa^{B}: Yo vʌ2 (Weidert), Mo wa (Shafer 1953: 242), No va (Robinson) ~ va2 (Weidert) ~ wa(h) (DG), Ch wau (Weidert). PTB *g-pwa.

BAMBOO(3). NN *re$^{\cdot}$ŋ: Ky weaŋ. Cf. Li. ta riaŋ, Nr. nreŋ.

bark (vb.). See TO SHOUT, WORD(2).

bark (n.). See SKIN(1).

(TO)BARTER. NN *lyey: No a lit min "to barter" (DG), Ky hat lei ~ phei lei jag 'market', Ch nam yak ci 'barter (n.)' (nam = "money, price', yak = "bead' or "to sell', nam yak = "commerce"). Cf. PTB *(r-)ley (WT rdze-ba < *r-lye < *r-le "barter" [STC 64, n.205]). See discussion following table for initial *ly-.

BASE. NN *tsi$^{\cdot}$ŋ: Wa hu tsiŋ (Brown) ~ pan tiŋ (Peal; pan = "tree"), both "root', Ch šiŋ 'base (lit. arse), bottom", šiŋ kat 'fundament'. Cf. TN a zin 'under'.

basket. See BAG, TO GATHER.

BAT. NN *$\underset{v}{C}$-bak: No phak a raŋ (a raŋ = "wing"), Wa pak pi (pi = "to fly') ~ ɔ pak (ɔ = "bird'), Ky ou pak (ou < au 'bird'), Ch pak. Cf. PTB *ba$^{\cdot}$k.

BATHE. See WASH/BATHE (1) and (2).

TO BE(1). NN *duaŋ: Yo da daun 'to breathe' (da is cognate with other forms for (TO LIVE/)TO BREATHE), Mo ta, No doŋ (Brown) ~ daŋ (DG), "to be'. Cf. Di. doŋ, WT 'dug 'to be'.

TO BE(2). NN *ley: Yo lei, Wa le. Cf. Mpri./Ze./TN lei,

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Maring lai, Ao (a)li, all 'to be'.

TO BE(3)/BEING. NN *C-nə̆ŋ: No mi ñaŋ 'man (generic)' (mi by itself is cognate with other forms for MAN (GENERIC), Ky ñoi 'to live', Ph ñu 'to be', yaŋ ñu ~ yem ñu 'to live'. Cf. St. nuŋ 'to be', Lu. nuŋ 'to live', Nr. mei nuŋ 'people'.

BEAD. NN *C̬-lik: Mo lik sa 'bead', No lik 'bead' ~ lit < *lik 'necklace' (DG), Wa lik 'bead', Ky yik 'bead', yik yak pu 'necklace', yək ñu 'pearl', Ph yək ñə 'pearl', Ch yak 'bead'. Cf. Ao Mongsen lik 'bead', Mpri. lik, Mk. lek 'bead, necklace'.

beak. See CLAW, (EDGE/)MOUTH(1).

BEAN. NN *phiaŋ: Wa pia sa (sa = 'to eat'), Ky pheŋ. Cf. Jg. (šə)preŋ (pcPKB), possibly from a PTB *preŋ, > pre-NN *p(h)yeŋ.

BEAR. NN *C-gyap: Mo ca ba < *cab ba < *cap ba, No sap ba (Robinson, DG) > *sap pa > sa pa (Butler) — i.e., the attested variation in Nocte indicates the etiology of the apparent open-syllable form in Moshang; Wa cap, Ky šep, Ch sap. Cf. Jg. tsap (< *gyap).

TO BEAR A CHILD. NN *ʔ-bəw: Ky pu, Ph bəʔ. Cf. PTB *bu ~ *pu (WT 'bu-ba 'open (of flowers)', Jg. pu 'bloom, bud', WB phù 'bud, swell').

TO BEAT(1). NN *phe˝t: Wa pit (Peal), Ph phei; Ch o yo phet yu 'discord' (o yo ~ o yu = 'to quarrel', -yo -yu ≈ 'among'; see QUARREL(2), NN *daw > Ch o, and AMONG, NN *C̬-yaw > Ch -yu ~ -yo). Cf. Meluri phe, TN ka phe, Yacham-Tengsa ta phet, all 'to beat'.

TO BEAT(2). NN *di˝p: Ky tip 'to hit', Ph ap 'to beat', Ch ip 'to pat'. PTB *dup ~ *dip, *tup ~ *tip; for the Chang sense, cf. particularly Mk. dip-dip 'beat (heart, pulse)'.

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TO BEAT(3). NN *C-klat: Mo dat 'to beat', Ky šet 'to hit, to beat', Ch sat sat tam 'rough' (tam = 'idiomatic intensive adjectival suffix'), lo sat 'hammer of a gun' (cf. lo phai 'trigger of gun or crossbow', lo probably < lau 'bow'). Cf. Jg. kayat 'to beat'.

to beat. See also TO DRUM.

BED. NN *liaŋ: No liaŋ 'bed' (Robinson), 'machan (sleeping place)' (DG), Wa lia 'bench' (Peal), Ky leŋ, Ph ləŋ 'bed', ləŋ joi 'table' (joi, on comparative evidence, ≃ SMALL), Ch leŋ 'to lie down'. Cf. Nr. laŋ 'bed', Ao Chonglī laŋ baŋ, Lhota pi laŋ 'table'.

bed. See also (=) TO SLEEP(1) + PLACE.

BEE. NN *C-na^{B}(guay) (for the *guay element, see under *C$_{V}$-guay, BUG(1)/BEE[b]): No ŋ̃a 'bee', ñ̃a so 'wax', ñ̃a khu ti 'honey' (khu < *guay, ti < *təy, NN WATER (1)); Wa na nai 'bee', na sa 'mosquito' (sa probably < sa 'young'), na ti 'honey' (ti = 'water'); Ky ñ̃a tai 'bee' (tai < *guay), ñ̃a tai ji lo 'honey' (ji < *təy, WATER); Ph ñ̃a2 'bee', ñ̃a2 ji u 'honey' (ji < *təy, WATER); Ch nau 'bee', nau yaŋ 'hornet' (yaŋ = 'big'), nau lap 'wax', nau tei 'honey' (tei = 'water'). Thus the NN word for 'honey' can be reconstructed *C-na^{B}(guay)təy, ≃ 'bee-water'; cf. NN *təy, WATER(1). NN *-guay, BUG(1)/BEE[b], which appears in the Nocte form for 'honey' and in the Konyak forms for both 'bee' and 'honey', is related to PTB *kwa^{ʔ}y 'bee'. For NN *C-na^{B}, cf. Ao Mongsen a nah 'bee', me nah 'bug', nah rap 'wax' (cf. Ch nau lap 'wax'), nah ti 'hornet', Ao Chonglī na ti 'hornet', Yacham-Tengsa na na 'fly'. Both roots are compounded in the Mongsen word for 'honey', a nah-na khu tsə (a tsə = 'water')(cf. No ñ̃a khu ti), and apparently also in Nr. ŋkhoï, Ze. ŋkuipüi, Ntenyï añ̃ikhu, Yi mukhu, Li. makhui, Kh. ma kwï, Ko. me pfï, all 'bee', also generally (in comp.) in 'honey'. The variation in the

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realization of the nasal initial in these forms and the loss of syllabic quality in Nruangmai and Zemi indicate that the first root has been reinterpreted as a prefix in Southern Naga: *N-kwa[ˀ]y; at least this seems more likely than that an original prefix was reinterpreted as a root in NN and Ao. (Thus Matisoff's [1980] proto-Angami *m-kwaˀy [Kh. ma kwi, Ko. me pfi] can now be referred to a proto-Naga *(s-)na^{B}kwa[ˀ]y. -- if the Naga languages, after all, do constitute a genetic unit; this analysis provides one bit of evidence that they may, because, as Matisoff remarks, the *N- prefix [or, as I suggest, the *na root] is not yet attested elsewhere.)

BEFORE/FIRST. NN *tsuŋ: No a thoŋ hun 'to remember; to plan (think)' (DG) (hun, here ≈ 'think', is a general verb of emotion/cognition; the suggested etymology for both of the given senses is ≈ "before-think"); Ph šoŋ ši 'before', šoŋ pə pa 'first'; Ch šaŋ bə 'first'. Cf. Jg. šoŋ 'before, first', Ao Mongsen mo-thuŋ ko 'before'.

before/first. See also HEAD(I), BEGIN.

BEGIN. NN *praŋ: No a baŋ moat 'begin (-do)' (DG; moat = 'to do'); Ky waŋ 'begin', a waŋ pa 'first', Ph paŋ 'begin'. Cf. PTB *praŋ 'dawn, morning' (Mk. praŋ 'dawn'), Mk. a phraŋ 'before, first', Jg. phaŋ 'begin', Lu. taŋ < *praŋ 'begin' (for Lu. t(h)- < PTB *pr-, see STC 40 [#129]).

behind. See BACK(2).

-BEING. NN *C-crəˀw. See under initial for all forms and full discussion.

believe. See THINK(I), WORSHIP(I).

BELLY. NN *wuk: Yo vuk, Mo vak, No vok, Wa vok (Brown), all 'belly' -- Peal has vɔk 'belly' but vok 'abdomen' and vok no le 'hunger (stomach nothing is)', so his

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-ək must be regarded as a variant rendering of -ok, as also in BACK(2), *tuk; Ch ok si 'bowels', ok poŋ 'bladder'. PTB *wuk (Matisoff 1978: 125; see also for the semantic link between 'bowels' and 'belly').

belt. See (=) WAIST + TO TEAR.

bench. See BED.

BENT. See CROOK/CROOKED/BENT(1)/(2).

BETEL NUT[b]. NN *C-wa°y: No ka ve, Wa ko vai, Ky koi wei. Only the latter elements are counted as cognate; i.e., *BETEL NUT[a] is unreconstructible, apparently borrowed from Khasi kwai (GEM 211) into the individual Northern Naga languages, and by itself carrying the sense 'betel nut'. For *C-wa°y, cf. PTB *wa-t 'bite, chew' (> Di. wai).

beyond. See CROSS OVER.

BIG(1). NN *gluŋ: Yo a juŋ, No a doŋ 'big, great', kha doŋ 'broad', Wa coŋ 'big, great', Ky (ə) yoŋ pu 'big, broad, wide, great', Ph loŋ pə 'big, great', loŋ poŋ pə 'broad', loŋ ši pə 'wide', Ch yaŋ bu 'big, thick, large, great', yaŋ ti 'to enlarge' (ti = CAUSATIVE). Cf. Di. -yuŋ, Jalpaiguri/Atong (Koch dialects) cuŋ-, 'great' (Shafer 1953: 249); also Ahom/Khamti luŋ 'great': the restricted distribution of the word suggests a loan into Barish and NN from Ahom.

BIG(2). NN *ɲə°w: Wa nut 'fat', Ky ñu pu 'broad', mei ñu 'elephant' (mei = 'animal'), which Marrison (134) glosses "beast-big"; Ch thu ñu 'elephant' (thu[n] ≃ 'snout', < NN *N-thu°r, (EDGE/)MOUTH(1)), saŋ ñu 'town' (var., also saŋ yaŋ [< BIG(1)]; saŋ = 'village' -- also in Konyak, jiŋ 'village', jiŋ ñu 'town'). Also probably Wa mai nu 'rhinoceros' (again, 'beast-big"; Wancho uses a different root for 'elephant'). Cf. Li. nnu2 bu 'thick'.

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BIND. See TO TWIST/TO BIND, also TO TIE(1).

BIRD(1). NN *C-waw: Yo wu, Mo vu, No vo.

BIRD(2). NN *ua: Wa o (Brown) ~ ɔ (Peal), Ky au ha, Ph ou thə, Ch au.

BIRD(3). NN *wa: No va kha 'crow', va khu 'owl', Ky a tui 'feather', Ph a ša 'crow', a je kha 'sparrow', a ti 'egg'. The three forms are closely related, and are all to be compared with PTB *(b)wa. See under *ø- for full discussion.

birth, to give. See TO BEAR A CHILD.

TO BITE(1). NN *gək: Mo kok, No kak, 'to bite'; Ph šak 'to tear'. Cf. PTB *ku'k 'bite, shear, strip, pare'; Koch (Barish) kak 'bite'; and S/C Naga *N-k_k 'bite' (see under rhyme for specific forms).

TO BITE(2). NN *tsat: Wa tsat (Brown), Ky jei. Cf. PLB *ø-tsat (pcJAM).

to bite. See also TO SPIT.

BITTER. NN *C-kha^{B}: Yo kha (Weidert), No a kha (Robinson) ~ kha2 (Weidert), Wa kha (Brown) ~ ka (Peal), Ky kha bu (cf. kha 'to hate'), Ph kha (GEM 70), Ch khau ək pu ~ khau yek pu 'bitter', šet khau 'to curse'. PTB *ka^{B}.

BLACK. NN *C-ɲak: Yo/Mo a ñak 'black', No a ñak 'black', raŋ ŋak (Robinson) ~ raŋ ñak (Brown, DG) 'dark', Wa (nu)nak 'black', (raŋ)nak 'dark', raŋ nak 'night', Ky ñak bu 'black', waŋ ñak 'night', Ph ñak pə 'black', vaŋ ñak 'dark, night', Ch nak ə bu 'black', nak tə bu 'dark', naŋ nak 'night' (No/Wa raŋ-, Ky waŋ-, Ph vaŋ- in 'night' = 'sky'). Cf. PTB *nak (STC), *(s-)nak (TSR 142).[1]

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[1]For Ky 'dark', GEM gives waŋ hyak. If this is correct, it would call for an NN *2-ɲak, DARK, distinct from *C-ɲak, BLACK, but it is probably an error for waŋ nyak.

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BLADDER. NN *po˚ŋ: Ch ok poŋ 'bladder; bubble (lit. 'bladder')' (ok < NN *wuk, BELLY). PTB *bo˚ŋ ~ *po˚ŋ 'swell, swollen' ('blister, bubble' in WB)(pcPKB).

BLAZE. NN *liak: Ch wan leʏ (wan = 'fire'). PTB *(-)lyak 'lick; tongue' (~ *(s-)lya˚w 'lick (as flames); tongue' ~ *(s-)lyam 'tongue; flame').

BLIND. NN *do˚k: No mit duok (Butler) ~ mit doak (DG), Wa (mik)dok (No mit/Wa mik = 'eye').

BLOOD(1). NN *C-hə˚y: Yo a hai (Walker) ~ ʌ hʌi (Weidert), Mo ta gri, No he 'blood'; Ch hai 'marrow' (cf. haih 'brains'). PTB *(s-)h(y)wə[˚]y (cf. particularly Jg. sai 'blood'). See discussion under initial.

BLOOD(2). NN *syi: Wa a ji (Brown; Peal has a dzi), Ky/Ph i, Ch si, all 'blood'. PTB *(s-)h(y)wə[˚]y (cf. particularly Jg, lə sə wi 'marrow' and Lu. thi < *si < *s-yi [STC 51, n.169]). See discussion under initial for BLOOD(1); the two NN forms could be the result of divergent reductions of the single complex PTB prototype cited above, or, as Matisoff has suggested (1978: 184), two similar but distinct forms for 'blood/marrow' may already have been present in PST. In either case, the coexistence in Chang of si 'blood' and hai 'marrow' conclusively points to two separate roots at the NN level. (Unfortunately, we do not have the term for 'marrow' in any other Northern Naga language).

TO BLOW. NN *mut: Yo mi, Ky mei, Ch mat. PTB *(s-)mut.

blue. See EVENING and WHITE(4).

BOAT(1). NN *kho˚ŋ: No khuon kho (Robinson, Brown) ~ khuoŋ kho (Butler) ~ khoan kho (DG), Wa khuŋ (Brown), 'boat', kua sa 'canoe' (Peal). Cf. WB khoŋ 'to be hollow; trough used as a coffin, or as a canoe',

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Rawang khoŋ ǎi, Thado khoŋ, TN mari khoŋ, Yi. saŋ koŋ, all 'boat' (pcPKB).

BOAT(2). NN *lo˚ŋ: Ch loŋ. PTB *(m-)loŋ.

BODY. NN *2-bu˚m: Ky pəm, Ph bəm, Ch mat pam bu 'self' (mat = 'person'), yik e pam at 'to embrace' (yik = 'arm[s]', at = 'to enter'). Cf. Nr. pum, Li. ca pum, St. jə bəm 'body'.

TO BOIL(1). See HOT(2)/TO BOIL(1).

TO BOIL(2). NN *khlə˚k: No phat thak (DG; phat < a phak 'food'), Ky hok 'to boil'; Ch thuŋ bu jok bo cəm 'kitchen' (thuŋ = 'to cook', cəm = 'house' [var.]), ≃ 'cooking-boiling-house' -- such 'redundant' constructions are common in Chang. Possibly also Ch cok 'to scorch'. PTB *glak ~ *klak.

TO BOIL(3). NN *tsow: Wa to (Peal), Ky jau. PTB *tsyow.

BONE. NN *ra˚ŋ. Mo a raŋ, No a ra, Wa ho ra, Ky wan, Ph vaŋ, Ch luo 'bone', khu lu 'skull' (khu = 'head'). PTB *(m-)raŋ (STAL 173), revise to *(m-)ra˚ŋ on the basis of the NN (pcPKB).

BOOK. See LEAF(2)/BOOK.

borrow. See TAKE(3).

bottom. See BASE.

BOUNDARY. See THREAD/(<LINE>)/BOUNDARY.

BOW. NN *la^{B}: Mo la 'bow', la san 'arrow'; No la c(h)an (Brown) ~ lat c(h)an (Robinson) ~ lat chan (DG) < *la chan 'arrow', with the -t- recorded by Robinson and Das Gupta interpreted as epenthetic (the Nocte word for 'bow' is from a different root); Ky lah 'bow', la han 'arrow'; Ch lau 'bow', lau cin 'arrow' (Hutton). For the latter elements in the forms for 'arrow', which are also cognate, see ARROW. Cf. PTB *bla^{B} 'arrow', with apparent semantic shift in NN,

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ARROW being generally represented by compounds derived from NN *la^{B}dza°n.

bow. See also TO SHOOT.

bowels. See BELLY.

boy. See (YOUNGER BROTHER/)CHILD, SON.

bracelet. See RING.

brains. See BLOOD(1).

BRANCH. NN *kə°ŋ: No baŋ kaŋ, Wa pan kaŋ, Ky pi kui, Ph kou 'branch', Ch pu guŋ 'stalk' ~ po kuŋ 'log', you kuŋ 'straw' (No baŋ, Wa pan, Ky pi, Ch pu ~ po- = 'tree', Ch you < you šou 'paddy'). Cf. PTB *ku°ŋ 'branch, stalk, trunk of tree'.

BRANCH. See also TO JOIN(1)/FORK/BRANCH.

TO BREAK(1). NN *ʔ-pak: No ŋuak syet < *ŋ-wak siet (see under initial for explanation) 'to break'; Wa a pak 'break' (Brown), pak 'broken' (Peal), Ky phak 'break'. PTB *(ʔ)pak (TSR 65).

TO BREAK(2). NN *pay: Ky pai 'break', Ch pei ñin 'split' (ñin probably from nin, itself 'to break'). PTB *bay ~ *pay (revision of STC's *be ~ *pe), pcPKB.

to break. See also TO DESTROY.

BREAST. NN *C$_{v}$-jəm: Wa tsam ti (Brown) ~ tzam ti (Peal) 'milk' (ti = 'water'; 'breast' not available); Ky təm 'breast', tem yiaŋ 'milk' (yiaŋ = 'water'). Possibly also in Mo yam ŋa 'plantain': ŋa by itself is cognate with other forms for PLANTAIN; the speculation that yam- here may be from BREAST is based on an association of both form and function (plantains are children's food).

BREAST. See also (BREAST/)FLOWER.

(TO LIVE/)TO BREATHE. NN *sa°k: Yo da dauŋ 'breathe' (dauŋ is cognate with forms for TO BE(1)); Mo

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a ta roŋ "to live' (for roŋ, see ALIVE(2)), probably also ta 'to be' (var.); Ky lau he 'to breathe', Ch hak 'life, breath', hak hin 'to breathe'. Cf. PTB *sak (STC); but NN agrees with Karen in pointing to the long vowel: PTB *sa°k (pcPKB).

BRIDGE. NN *C-kray: Mo hi 'bridge', possibly also hi khu 'ladder' (khu = 'head' and its cognates elsewhere in Northern Naga = 'top, above'); No si, Wa/Ky šai 'bridge'. Cf. Di. yao kha rai (yao = 'hand'), Jg. ma khrai, TN šai 'bridge'. See also STC 38, n.123 for Loloish cognates (Matisoff).

TO BRING. NN *wən: Mo lam van 'take' (for lam-, see TAKE(2), NN *(C-)lam, which also includes Yo lam kai 'bring' [kai < ka 'go']; thus the Yogli form glossed 'bring' is analyzable as 'take-go' and the Moshang form glossed 'take' is analyzable as 'take-bring'. Cf. also TAKE(1), NN *C-la, which yields forms glossed both 'give' and 'get/take/receive'. Apparently it is a general feature of these languages that the distinction between 'give' and 'bring' (also 'come'), on the one hand, and 'take' (also 'go') on the other may be neutralized.); No van (Brown), van ro (Robinson), wan (DG) 'bring'; Wa van, Ky in 'bring'; Ch o an (~ o on ~ u wan) 'load, burden'; possibly also Ch ha wan suŋ ba 'fetch' (ha < ha to ~ ha ni 'here', suŋ ba < soŋ ba 'bring'), with retention of *w- intervocalically, as in the third form cited for 'load'. PTB *wan (WB wan 'load', WT on 'bring'), pcPKB; cf. also Ao Chongli a ben, Lhota phen 'bring', Mk. en 'take'.

to bring. See also TAKE(2) and (4), SEND, GO(3).

BROAD. NN *kha°wː No a kha (DG), kha doŋ (Robinson) (doŋ = 'big'), Wa khau (Brown) kau (Peal).

broad. See also BIG(1) and (2).

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broom. See HOE.

BROTHER, ELDER. See GRANDFATHER(1)/ELDER BROTHER.

BROTHER, YOUNGER. See (YOUNGER BROTHER/)CHILD.

BUFFALO(1). NN *C-lua'y: Yo loi (Weidert), No le, Wa lui (Peal) (~ lue [Brown]), 'buffalo'; Ph yoi pa 'fool, mad': cf. NN *ŋa^{A}, DUMB (~ 'fool' ~ 'mad'), NN *C-ŋa^{B}, MITHAN ('buffalo' in Moshang) -- the *-B accent, matching that in PTB, is based on Ch ŋau (GEM), but Hutton has Ch ŋou, suggesting a variant in *-A. PTB *s-lwa'y.

BUFFALO(2). NN *te'k: Ky tek, Ch tek ~ tiek.

buffalo. See also MITHAN.

BUG(1)/BEE[b]. NN *C-guay: No ñ̃a khu ti 'honey' (ñ̃a = 'bee', ti = 'water'); Wa ve koi 'bug'; Ky ñ̃a tai 'bee', ñ̃a tai ji lo 'honey' (ñ̃a < BEE[a], ji < WATER(1); see BEE[a] for discussion of the Nocte and Konyak reflexes of this root); Ch ñiŋ ke kap tuŋ 'snail; slug' (kap tuŋ = 'shell' in Wancho). Cf. PTB *kwa'y 'bee'. The full NN form for BEE reconstructs as *C-na^{B}(guay), with the *na element alone carrying the sense of 'bee' in No/Wa/Ph/Ch, the *-guay element having the more general sense of 'bug' or 'wug' (a life-form class referring to a "small creature other than those included in 'fish', 'bird', and 'snake' [Brown and Witkowski 1982: 99]).

BUG(2). NN *C-krip: No sip cak 'ant' (Butler), Ch au sap 'gad-fly' (au = 'bird'). Cf. PTB *krep (STC 74)(*-e- based on Jg., Kiranti), but with a high vowel indicated by PLB *ʔkrip and Rawang rip < *khrip 'flying ant' (STC 74, n.230), and by Karen *gri(p) ~ *kri(p) 'ant' (STC 146, n.400).

TO BUILD. NN *ho'n: Yo hon (Weidert), No huon (Butler) ~ hoan (DG) ~ hoan (Weidert), 'to build'; Ky no-en 'to

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raise, to lift' — so given, with hyphen indicating syllabification — for no-, see TAKE(UP)(4); Ph an 'to lift'; Ch bam on 'to raise' ('completely', as vs. 'partially', for which see TO GRASP)(bam- probably = pam in kam pam 'complete, finish [kam = 'do, make']; thus it is on which carries the sense 'to raise']

TO BURN(1). NN *chak: Yo a cak, No thak, Ph jak 'burn', Ch cik 'to light (of lamp, fire, etc.), to burn'. Cf. Mpri. cak 'to burn', cak han 'to light (ignite)' and other comparisons under initial.

TO BURN(2). NN *grə̆ˀn: Wa šun 'to burn' (Brown), Ky ton 'to light (ignite)', Ch han tin 'torch, lamp' (for -tin, cf. Jg. wan tiŋ 'lamp' [Jg. wan = 'fire']). Cf. WT sgron 'light (ignite)', sgron ma 'lamp', skron ma 'torch', TN ron 'ignite'.

TO BURY. NN *lip: Mo lip 'to bury', Ch ti ka kai lep 'to cover', kai lab 'to confine' (ti ka < ti ga 'on', thus 'cover' ≃ 'on-confine'). Cf. Lepcha lap, Rawang lip (pcPKB), Jg. lup 'to bury', possibly from a PTB *lip ~ *lup; probably these forms are also related to those subsumed under PTB *lip 'dive, sink, drown' (often in comp. with 'water').

bush. See TO GROW/GROWTH(1)/(2).

BUTTERFLY. NN *thoˀk: Wa pi thuak (Brown) ~ pi twak (Peal), Ky pu šek (Wa pi/Ky pu = 'to fly').

TO BUY(1). NN *rey: Yo a rei (Walker) ~ ri (Weidert); Mo ri, No ri. PTB *b-rey.

TO BUY(2). NN *C-krak: Wa sak (Brown), Ky šak, Ph šak 'to buy', šak pə 'price', Ch sak 'to expend', coŋ sak 'gift' (coŋ ≃ 'get, receive', see GET(2)). Cf. Ko. khrə, Kh. krə, Chokri khri, Kezhama kri 'to buy'.

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C-

CALF (of leg). NN *C-swun: Mo ya vuin, Ch you šan (GEM; Hutton has you šun). Mo ya-/Ch you- = 'leg', < NN *gla^{A}, LEG, probably to be identified with the preposed element, so that CALF would reconstruct as NN *gla^{A}swun. Cf. Lu. vun, Mpri. un, Maring (w)un, all 'skin'; I cite these forms as probable cognates of NN *wur, SKIN(2)/FLESH (incl. Mo na war 'lip', No na wan "ear-lobe" [No na = "ear", Mo na- < nar 'mouth'] but, as Lushai at least generally retains *-r, a doublet is indicated: *wur ~ *wun 'skin, flesh', with the latter form underlying the Lushai/Manipuri/Maring forms for 'skin' and, with PTB *s- 'body part prefix' (STC 106) -- PTB *s-wun, NN *swun, FLESH (Ky ta phen 'chin'; cf. Ky tha wan "jaw" [Ky wan = 'bone']; probably also Ch huan 'crop (of bird)'. CALF is then 'leg-flesh', with the Chang š- conditioned by the preposed syllable. See FLESH, SKIN(2)/FLESH, and the discussions under the pertinent initials and rhymes.

TO CALL. NN *ŋyek: Ky ñek, Ph ñak 'to call'; Ch ŋek 'to shout'. Cf. the closely related NN *ŋiak, WORD(2).

to call. See also WORD(1), TO SPEAK(3).

CANE(1). NN *rey: Mo/No ri, Wa re, Ky wei, Ch li. PTB *rey.

CANE(2). NN *kriat: Mo het, Ky še pu. Cf. Ko. te khra, Kh. the kra, Li. ca khad, Ze. he rat.

TO CARRY ON THE BACK(1). NN *ʔ-kur: Yo hul (Weidert), No han (Weidert), 'carry', han 'load' (DG 1980); Wa han "carry; load" (DG 1980); Ky khei "carry (on back)"; Ph ku 'carry (in hand)'; Ch kan 'carry', uŋ kan ik 'coolie' (cf. ik nam 'daily wage' [nam = 'money']). Cf. WT 'khur-ba 'carry', khur 'load' (pc

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PKB; GEM also gives WT khur 'carry (on back)'); Jg. gun 'carry on back', ʂə gun 'to load', ma gun 'a load, as carried on back' (pcPKB).

TO CARRY ON THE BACK(2). NN *ba^{B}: Yo bo2, No ba2 (both from Weidert). PTB *ba. (NN *-B accent inferred from glottal finals).

to carry. See also TO GO(3).

CAT. NN *miaŋ: No miaŋ, Wa mia (Peal; Brown has me sa), Yo ŋamyeŋ < *ŋa mieŋ or *ŋam mieŋ. Cf. Mk. meŋ.

TO CATCH. See SEIZE(1)/CATCH.

caterpillar. See INSECT/WORM.

cattle. See -BEING.

CAVE. See HOLE/CAVE.

chaff. See (=) PADDY + SAND(1).

CHANGE/EXCHANGE. NN *lyay: Ch cei 'alter', ce yu 'change, exchange' (yu < yua 'among'; see AMONG). Cf. PTB *lay.

charcoal. See -DIRT.

CHEEK(1). NN *buam: Wa bom zroŋ, Ch owom laŋ < *o om laŋ or *oam laŋ 'cheek'. Wa -zroŋ and Ch -laŋ are both from NN *C-ruŋ, -ROUND-(OF BODYPARTS)(2), so that the two forms are cognate throughout. Probably from PTB *(s-)bwam 'plump, swollen'; see discussion under rhyme. Also cf. Mk. iŋ om 'cheek'.

CHEEK(2). NN *N-biaŋ: Ky meŋ ya 'cheek'. Cf. Lu. biaŋ, Li. ca byaŋ, Ze. mi bia pi, Mz. n'bia, 'cheek'.

cheek. See also PACK.

to chew. See SOFT(2).

CHIEF. NN *waŋ: No lo waŋ (DG, as lo waŋ), Wa vaŋ hum, vaŋ sa, 'chief', vaŋ ham 'king', Ky aŋ 'chief, king', Ph. oŋ 'chief', oŋ pa 'king'. Cf. PTB *bwaŋ 'father's

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brother', Nr. guaŋ, Ze. he guaŋ 'chief, king', possibly < *g-waŋ.

(YOUNGER BROTHER/)CHILD. NN *na'w: Yo nau ku yaŋ 'child; young', nau šaŋ 'baby', a nau 'yBr'; Mo no yan 'child', no šan 'baby', i no 'yBr'; No na ta 'child, boy', na 'baby' (Weidert), i na 'yBr'; Wa nau sa 'babe, boy', nau cia 'girl', ku nau 'yBr, ySi'; Ky nau 'child', nau tak 'baby', nau ši 'young; young man', nau ya 'girl, young woman, bride', nau li pa 'yBr', nau li ñu 'ySi'; Ph naə 'child, baby', je nau 'yBr'; Ch na šo si 'child, baby, boy', a na 'yBr, ySi'. PTB *na'w 'younger sibling'. Note that this is the basic root for both 'child' and 'younger brother' in all seven languages -- and, except in Tangsa, for 'younger sister' as well.[1]

CHIN. NN *ga^{B}: Yo ka2 (Weidert), No ka (Robinson), ka2 (Weidert), ka ra (DG) 'chin', ka 'jaw' (DG); Wa ka ra 'chin', ka 'jaw' (both Peal); Ky ta phen 'chin' (cf. tha wan 'jaw'); Ch kau šaŋ 'chin, jaw, brim'. No -ra/Wa -ra/Ky -wan = 'bone'. PTB *(m-)ka^{B} ~ *(s-)ka^{B}.

TO CHOOSE. NN *C$_{v}$-sal: Ky li, Ph je 'to choose'; Ch sa no(u) 'show favor, love, be kind, pity', coŋ sa 'reward' (coŋ < GET(2), also in coŋ sak 'gift', sak = 'expend'; hence 'gift' ≃ 'get-expend', 'reward' ≃ 'get-choose'). Cf. PTB *sal 'choose, select, elect, set apart' (pcPKB; see under initial for specific forms).

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[1] 'ySi' unavailable for Nocte. GEM gives i ña 'elSi', i ŋa 'ySi', but Robinson has only i ŋa 'sister', and Brown, i ŋa 'elSi'. Probably Marrison, finding i ña 'elSi' in some other source (uncited), concluded that Robinson's term must refer to the younger sister; but as I have shown, No ŋ--and ñ- are not contrastive. For Phom, GEM gives je nzə 'ySi', almost certainly a misprint for the expected je naə, as Phom has neither z- nor any initial clusters.

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CLAW. NN *kyin; actually, as the root appears in comp. with the forms for 'hand', NN *glək, in all cases, we can reconstruct NN *glək kyin: Mo yok thin; No dak khin 'nail' (DG, given after 'finger' under 'body parts'); Wa cak in < *cak hin 'claw, nail' (Peal; cf. 'finger', cak i < *cak hi [Peal] but cakkhi [Brown] -- recall that Peal rarely records aspiration); Ky yak-kən (so given, with hyphen indicating syllabification); Ch yik san, yo san (yo = 'foot'). PTB *(s-)yin, "with the *k- in NN and Magari [arkin] (prefixed there by *r-) from the -k of *[g-]lak 'arm /hand'" (pcPKB, 1/21/82).

CLAY. NN *2-kəm: Ky khəm, Ph a šem. Cf. Jg. khum pup, WT 'jim-pa (with initial palatalized by vowel?).

CLEAN. NN *C-da'k: Ky jau pu, Ph dau pə, 'clean'; Ch sak 'to wash the hands, mouth, clothes, etc.' (different verbs given for 'bathe' and 'wash the face'), sak a le 'to clean', sak te 'to be clean', sak tə bu 'clean'. Cf. WT dag-pa 'clean', Ao Chongli Ši dok 'to wash'.

to clean. See WASH/BATHE(1).

CLEAR. NN *C-gya[B]: No a sa 'clear' (DG), Ch sau po bu 'clear (metaphorical as well as literal); clean (of ceremonial cleanliness only)' ~ sau pho bu 'pure' ~ sau pu tam 'distinct' ~ sau bo bu 'bare' ~ sau pu tham 'blank'. Cf. WT skya-bo 'light (bright)'.

TO CLIMB. NN *C-tu't: Mo də, Ky jut 'to climb'; possibly also Ph tət ei 'to jump' (see under rhyme). Cf. Ao Chongli a tu 'ascend', St. kə tu 'ascend', tu və 'climb, ascend'.

to climb. See also ASCEND(1)/(2).

TO CLOSE. NN *cək: Yo šak (Weidert), No sak (Weidert), a sak (DG) 'close', sak (Robinson) 'shut', kə sak

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(DG), 'door'; Wa ka hak 'door' (No/Wa ka < NN *ga^{A}, DOOR). Cf. WT lcags-ri 'wall'.

CLOTH(1). NN *khra^{A}t: Yo khai, No khat 'cloth' (Mo khai 'cloth', with its uncharacteristic dipthong, is interpreted as a loan from Yogli); Ky piaŋ kai 'cotton' (for piaŋ-, see FLOWER; I suggest that Ky 'cotton' can be analyzed as 'cloth-flower'. Cf. Mo ri pu 'cotton', analyzable as 'thread-bush' [ri < NN *rəy, THREAD; pu < NN *ʔ-pua, TO GROW(2)/GROWTH, including forms for 'plant, bush']. Cf. TN khat sa 'skirt' < *krat sa, on the model of khet < *kret 'scratch' (Matisoff 1972c: 277).

CLOTH(2). NN *C$_{V}$-nəy: Wa ni (Peal) ~ ñi (Brown); Ky ñi 'cloth', ñi ha 'loincloth', ñi hi mo 'clothes'; Ph ñiʔ; Ch nei 'cloth, clothes'. PTB *b-ni(y) 'skirt'. See discussion of possible alternative reconstructions under initial.

CLOUD/MIST. NN *phuam. Yo a pham 'wet'; Mo pham 'mist'; No phuam (Robinson, Brown) ~ phoam (DG) 'cloud'; Wa raŋ phum 'mist, dew' (Peal; Brown has raŋ phum 'sky', but raŋ alone [Peal, and on comparative evidence] is 'sky': see SKY(1)); Ky waŋ phom 'cloud, mist' (waŋ = 'sky'); Ph phum 'cloud'. Cf. PTB *(s-)bwam 'plump, swollen' and discussion under rhyme.

COLD. See WINTER/COLD(1)/(2)/(3)/(4).

to collect. See TO GATHER.

COMB. NN *C-gyuay: Mo cu, Ky ɬai pu, Ch ku sei (ku < ku lo 'head hair' [lo = 'long']). Cf. the forms cited for PTB *kwi(y) 'comb', which could be the reflexes of a more complex prototype, as suggested here.

TO COME. NN *woŋ: Yo vʌŋ 'come' (Weidert); No vʌŋ 'come' (Weidert) ~ waŋ 'go' (DG); Ky oŋ 'enter'; Ph

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on 'go'. Cf. PTB *hwaŋ (STC), probably better *waŋ (pcPKB), particularly WT 'oŋ-ba 'come', Lepcha vón 'enter into', with back vowel required by the Konyak form (cf. NN *waŋ > Ky aŋ, CHIEF).

TO COME/TO RISE. NN *lo: Mo ka lo 'come' (ka = 'go'); Ky lo 'rise'; Ch lo 'come', lo ~ lu 'rise (from sitting as vs. recumbent posture)', luo 'stand up, 'stand'. Cf. Lu. lo kal 'come' (kal = 'go'), Mpri. lau, id.; Rengma so lo 'stand' (so < te so 'up').

TO COME/TO STAND/TO LIFT. NN *pa'y: Yo pai 'lift', Wa pai pau ~ pai ha 'lift', Ky pei 'come', phoŋ pei 'pass by', Ph pei 'come; stand', Ch pai 'walk'. Cf. Angami: Ko./Kh. pe-, Mao phe- 'raise, lift'; Di. phai 'come'.

TO COME OUT/ARISE/ASCEND. NN *kluŋ: Yo xuŋ 'come out' (Weidert); No hoŋ 'come out' (Weidert), 'arise' (DG), san hoŋ 'East' (Robinson; san = 'sun'), he hoŋ 'bleeding' (DG; he = 'blood'), na hoŋ 'birth' (DG; na < na ta 'child'); Ky oŋ 'ascend, climb', waŋ hi oŋ jiŋ 'East' (waŋ hi = 'sun', jiŋ = 'place'); Ph oŋ 'ascend, climb', hi oŋ phi 'East' (hi < waŋ hi 'sun'); Ch. aŋ 'go up, climb', məɣ e aŋ 'ascend' (məɣ = 'sky', məɣ a ~ məɣ e ni = 'above'), si aŋ 'bleed' (si = 'blood'), au tei aŋ 'arise, of a blister' (au tei = 'egg, blister'), pok pu aŋ 'arise, of a boil' (pok pu = 'boil'), caŋ < *ca aŋ 'East' (ca = 'sunlight'; cf. ca nap 'West' [nap < NN *C-nup, SET(OF THE SUN)]), ca ñu aŋ ji ni 'at sunrise' (ca ñu = 'sun', -ji ni = '-time'). PTB *kluŋ (pcPKB, based on NN and on WB khyoŋ ~ khroŋ < *klun 'ascendingly, as smoke').

to come. See also TO GO(3).

COMPLETE(1). NN *ta: No ta 'to complete (finish)' (DG), possibly also a ta 'to succeed'; Ph to pə 'end, last'. Cf. WT mtha 'end', tha ma 'last'.

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COMPLETE(2). NN *ku°m: Ky -kəm '-complete', ə kəm 'end'; Ph -kəm šiŋ '-complete', kəm pai 'all; whole'; Ch kam pam 'to complete, to finish'. Cf. Ze. -kam, Yi. tha kham, Meluri -khem '-complete, to finish', Mz. ke kam be, Nr. ŋkhəm mei 'last', Sema kəm tsə 'whole'.

to confine. See TO BURY.

CONTAINER. NN *thu°ŋ: No tho 'chunga; quiver'; Wa tun < *tuŋ 'chunga' (Peal); Ch thuŋ 'cup', tei thuŋ 'bamboo basin' (tei = 'water'). Cf. PTB *tu°ŋ (Lu. chhu°ŋ) 'inside'.

CORPSE. NN *maŋ: Yo mʌŋ (Weidert), No mʌŋ (Weidert) 'corpse' ~ maŋ (DG) 'dead man', Ky maŋ joŋ 'grave', Ph maŋ coŋ 'grave', Ch maŋ 'body, corpse, carcass'. Cf. Mpri. maŋ, Di. maŋ kho laŋ, both 'grave'.

TO COUNT. NN *2-wə: No ve, Ky ke, Ph e, Ch wie (also probably No ve 'read', Ph e 'see', Ch ue (= /we/) 'read'; cf. Rengma swə 'read', swhi 'see').

cousin. See CROSS-COUSIN.

COVER/SHUT(1). NN *kup: Yo a hip 'cover', No (ka)hap 'cover' (Butler, DG), Ky kep, Ph kəp, Ch kap 'shut'. PTB *kup (pcPKB).

COVER/SHUT(2). NN *ku°p: No khat hup 'umbrella' (khat = 'cloth'), Ky kəp 'cover' but ta kəp 'door', Ph kəp 'cover', Ch kap 'to fasten', kap cin 'cover, lid', ko kap 'door'. Ky ta- and Ch ko- in 'door' are both from NN *ga^{A}, DOOR (Ky also just ta, No ka sak, Wa ka hak, No -sak/Wa -hak < NN *cək, TO CLOSE). The two sets are distinguished in Nocte (t-]hap/-hup] and in Konyak (kep/kəp] but fall together in Phom and Chang, so that the assignment of particular forms to one or the other prototype in these two languages is really arbitrary; I have aligned them according to the possible semantic distinction in

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Konyak, but as this opposes 'shut' on the one side to 'cover' and 'door' on the other, and does not apply in Nocte, it might be preferable to write just COVER/SHUT, *kup ~ *ku·p.

to cover. See also TO BURY.

CRAB. NN *gra·n: Wa san, Ch hin. PTB *d-gra·y (pcPKB), with the -n from PTB *-n, 'collective' plural suffix, as in Jg. (cyə)khan 'crab' (STC 99, n.284).

CREEPER/ROPE. NN *rəw: No ru 'creeper' (DG); Wa ru ka 'creeper', ru 'rope'; Ky wu 'creeper, rope; poison' (see below for semantics); Ph və 'rope'; Ch ləɣ 'creeper, rope, cord, string', šuŋ ləɣ 'navel-string' (šuŋ = 'navel'), si ləɣ 'vein' (si = 'blood'), nam ləɣ 'wire' (nam = 'iron'), probably also lək ti šen ti 'to tighten (by knotting)', lək ti šem bu 'tight' (šen = 'to tie, to knot', -ti = CAUSATIVE), possibly also wai ləɣ 'red or madder die' (extracted from a creeper?). PTB *rəw^{B} 'creeper, vine', but often "specialized in sense of 'creeper the roots and leaves of which are used to poison or stupefy fish', with further extension to 'fish poison' and to 'poison" generally" (pcPKB, 3/2/81).

CROOK/CROOKED/BENT(1). NN *guaŋ: Yo laŋ hlauŋ < *lan kauŋ, Mo lon kə, 'knee'; No a kuaŋ 'crooked' (Robinson); Ky yak koŋ 'elbow' (yak = 'arm'). Cf. WB khwaŋ 'bent, curved', West Tibetan khoŋs 'crooked, bent, curved'.

CROOK/CROOKED/BENT(2). NN *guam: Wa kum 'crook; bent' (Peal) ~ kom 'crooked' (Brown); Ch kom pu 'crooked', dakan kom ti 'to bend' (-ti = CAUSATIVE). Cf. PTB *kuf·m 'concave, convex, arched, vaulted'.

TO CROSS OVER. NN *C-glə·n: Yo tžan (Weidert), No dan (Weidert) 'cross over', dan (DG) 'cross'; Wa cun 'far' (Brown); Ch tan 'cross (go beyond); pass',

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tan ko 'across', tan an ki 'beyond'. Cf. WT rgyaŋs 'far'.

CROSS-COUSIN. NN *niŋ: Ky niŋ-ba (von Fürer-Haimendorf 1969: 108) 'term of address used between same-sex age-mates of intermarrying morung groups, and by cross-cousins of the same age'; Ch ñaŋ i 'MBS, FZS', ñaŋ sau 'MBD, FZD' (-sau < NN *C-gla^{B}, -FEMALE(3)), ñaŋ e 'form of address between persons of clans which can intermarry', ko ñaŋ bo 'brother-in-law'. PTB *niŋ (Jg. niŋ) 'cross-cousin'. See under initial for discussion. An apparent doublet, NN *nuŋ, is indicated by Yo a nuŋ 'WB, ZH'.

CROW. NN *kha^{A}: Mo wu kha, No va kha, Wa ɔ kha (Brown) ~ ~ ɔ ka (Peal), Ky au ša, Ph a ša, 'crow'; Ch ko 'to crow', an ku mat pa 'crow'. (The first syllable in all of the terms for 'crow' is from one or another of the NN variants of BIRD.) PTB *ka.

cup. See CONTAINER, DISH.

CURRENT. See RIVER/CURRENT.

CURRY. NN *dzo°y: Ky hoi 'curry', yan hoi 'mustard'; Ph hau yaŋ 'mustard'. Cf. WT ske tshe 'mustard'.

TO CUT WITH A KNIFE(1). NN *gluak: Yo yaut < *yauk 'cut with a knife'; No duak 'cut' (Robinson, who does not distinguish instrumentalities); Ph lak 'cut with a knife'. Cf. Miri jok 'cut (holding knife in fist with blade pointing forward)' ~ Iok 'chip, graze, cut, wound' < *glok < PTB *glwak (pcPKB).

TO CUT WITH A KNIFE(2). NN *me°t: Ky met 'cut with a knife', Ph mei 'cut with a knife, cut with an axe'. Cf. NN *C$_{V}$-mi°t, KNIFE.

TO CUT WITH AN AXE. NN *C-jo°k: Ky ak 'to cut with an axe; to fell'; Ch ak 'to cut (of large trees), ak an ko ti 'to fell (of trees)'. Cf. WT °jog 'to cut

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with an axe'.

to cut. See also TO SCRAPE, TO STAB, TO SPLIT, TO DIVIDE(1), TO DESTROY.

d-

TO DANCE. NN *rya°y: Wa a zai, Ch sai 'to dance', sa pe sai 'topsy-turvy' (sa pe = 'to turn round') sa ve sai 'confusion'. Cf. PTB *rya-t 'to laugh', but also (in WT) 'sport, play'.

DAO. NN *gla-ŋ: Yo yaŋ, Mo yauŋ (= /yoŋ/), No daŋ, Wa caŋ 'dao', caŋ koi 'knife', Ky yaŋ 'dao, knife'. Also No daŋ(lo), Wa caŋ lo 'sword' (No/Wa -lo = 'long').

dao. See also IRON (for the Ph/Ch forms for 'dao').

dark. See BLACK, and the forms listed under EVENING, which (on the evidence of external comparison) probably ≃ 'sun-dark'.

daughter. See (=) PERSON(1) + -FEMALE(2) + SON.

DAY(1). NN *C-ni: Mo raŋ ni 'day', ta ni 'today'; No raŋ ŋi 'day' (Robinson); Wa a ñi 'day, today', ma ñi 'yesterday', ŋa ñi 'tomorrow' (Brown) ~ a ni 'today', nai ni 'tomorrow' (Peal); Ky ñi 'day', te ñi 'today', me ñi 'yesterday', ŋai ñi 'tomorrow'; Ph ñi2 'day', šin ñi2 'today', ŋin ñi2 'tomorrow'; Ch ñet 'day (used with words implying number . . . and with numerals); tomorrow'. PTB *(s-)nəy (pcPKB), but NN *-i is required to account for the palatalized initial in Chang (cf. CLOTH, NN *C_V-nəy > Ch nei).

DAY(2). NN *nap: Yo ni nap, Mo i nap, No ni nap 'tomorrow'; Ky te nep 'today' (var., cf. te ni 'today', ni < DAY(1)); Ch tou nap me nap 'nowadays' (tou = 'now'). Cf. Ao Chongli ta nəp 'today', Mk. pe nap 'tomorrow'.

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DEAF. NN *ba°ŋ: Yo baŋ (Weidert), No/Wa na ba, Ky na pan pa, Ph thoŋ aŋ pa, Ch o bu, 'deaf', o 'to be deaf' (No/Wa/Ky na-, Ph thoŋ- = 'ear'). PTB *ba°ŋ ~ *pa°ŋ (pcPKB).

DEBT. NN *C-kro°y: Ch so bu 'bail, security'. PTB *kroy.

to deceive. See FALSE(2), LEFT-HAND.

DEEP. NN *saw: Wa zu, Ky lu pu, Ph jiə pə, jə loi pə, Ch hau laŋ bu, hauŋ bu. Cf. Di. thu ba, Lu. thu°k (Di./Lu. th- < PTB *s-). For Ph -loi-, see MUCH(2).

deep. See also LONG.

deer. See (GAME)ANIMAL, SAMBAR.

TO DESCEND. NN *yəw: Wa ju du, Ky yu, Ph yiə. PTB *yu(w).

to descend. See also TO FLOW.

to desire. See TO ASK FOR.

TO DESTROY. NN *2-co°t: Wa hat(ko) 'to cut'; Ky thet 'to break'; Ch ñen cat 'slander' (ñen = 'name'), yik cat 'pillage' (yik = 'hand'). PTB *cât 'break, cut' (WT gtsod-pa); the apparent Chinese cognate also means 'destroy' (STC 191), especially in view of the Chang glosses the best single gloss for the set at large. Note the PTB *-â-, as in KILL, NN *2-sot < PTB *g-sât (WT gsod-pa) ~ *a-sât.

dew. See CLOUD/MIST.

TO DIE. NN *səy: Mo ti (Shafer, with note: "under 'corpse'"), No ri (Robinson, Brown), a rit (DG, with suffixed -t: apparently the non-finite form of the verb), (cf.) ri (finite) ~ rit (non-finite)(Weidert); Wa zi,(Peal) ~ ji (also ri)(Brown); Ky li; Ch hai 'to die', hai bu 'dead', hai ti 'to kill' (-ti = CAUSATIVE). Cf. also Phom di 'to die' (*ji expected). PTB *səy.

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difficult. See HARD(1)/(2)/(3).

TO DIG. NN *thu: Yo thu (Weidert); No thu 'to dig', ha kan thut 'digging' (DG; ha = 'earth', kan < NN *gə˚r, DITCH), possibly also man thun 'stick'(DG); Wa tu pa 'mole' (-pa = AGENT NOUN SUFFIX, GEM 113); possibly also ruk tu 'to bury' (also ha tɔ le 'to dig' [Peal; not given by Brown], but with the vowel lowered by context; see under rhyme for discussion); Ky šo 'to dig', šian šo 'stick'; Ph šou, Ch thu. PTB *du ~ *tu.

-DIRT. NN *C̬-kya˚k (stipulation of preposed element required only for Chang, for which it may = wan- 'fire-'; but cf. CLAW): Mo tap tha 'ashes' (tap = 'hearth'; No khin kha riak 'soot'; Ch wan kək 'charcoal' (wan = 'fire'). Cf. WT rkyag(-pa) skyag(-pa) 'dirt, excrement' (STC 146, n.339).

DISH. NN *C-khle˚ŋ: Ky šeŋ 'dish', weŋ šeŋ 'plate', yiaŋ šaŋ 'cup' (yiaŋ = 'water'); Ph šoŋ 'dish, plate', yuŋ šoŋ 'cup' (yuŋ = 'water'). Cf. Lu. thle˚ŋ 'dish', thleŋ 'plate' (Lu. thl- < PTB *kl-, STC 41), WT glegs 'plate'.

DITCH. NN *gə˚r: No ha kan thut 'digging' (DG; ha = 'earth', thut = 'to dig' [non-finite form (Weidert)]; given under 'agriculture'); Wa šua kun 'ditch' (šua = 'river'); Ph šou 'valley'; Ch kok lok kan 'ditch' (kok = 'hollow'), pi yuŋ kan 'channel' (yuŋ < < yuŋ maŋ 'river'). Cf. NN *gor, HOLE/CAVE, and the extensive discussion of these two (?) roots under the rhyme for DITCH, where I also discuss external comparisons.

TO DIVIDE(1). NN *tha^{A}: Yo a ge tha 'to divide' (ge- = 'together, among'; No a tha 'to cut with a dao' (DG 1971), 'to cut to pieces' (DG 1980), kho tha 'to behead' (DG; kho = 'head'); Ch thou 'piece; quar-

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ter', lam tho 'halfway' (lam = 'way, road'). Cf. Mk. thak 'divide', Sema tha ve 'cut with an axe'.

TO DIVIDE(2). NN *phar: Yo a phal 'divide', No phan ko 'distribute (divide-give)' (DG); Ch phat pan 'inherit' (phat = 'inheritance'), jam pan 'sept' ([jam] = /cam/ 'house'). PTB *par (pcPKB); see also STC 35, n.113. Rhyme actually entirely indeterminate, reconstruction based on PTB.

TO DO. NN *C-dzim: Yo šim, Ky həm.

TO DO/TO MAKE(1). NN *C-yiak: Yo yak 'work'; Ch yaʔ 'make', nam yaʔ mat 'blacksmith' (nam = 'iron', mat = 'man'). Cf. Ao Chongli i ñak 'do', though the set may reflect the reinterpretation of the *d- initial in DO/MAKE(4) as a prefix.

TO DO/TO MAKE(2). NN *moˀk: No mo (Brown), mo-ot (Robinson) 'to work', (a)moat (DG) 'to work, to do (work)'; Wa mok 'to do, to work'. Cf. PTB *mow.

TO DO/TO MAKE(3). NN *rəˀy: No re 'do'; Ky wi 'make, build'; Ch kam si lei 'work' (~ kam si li 'labour' ~ kəm si lei 'necessary' ~ kam si le 'busy'; kam = 'do (of work generally), make, work'; si = 'end' -- a 'redundant' construction). Cf. Yi. ɲi mo 'work', WT rigs pa 'necessary'.

TO DO/TO MAKE(4). NN *ʔ-diak: No tiek (given by DG as te yak, but cf. the following) 'to make', jam tiak (DG) 'smith' (jan = 'iron'); Ph dək 'to do'; Ch kam an caʔ 'to endeavor' (~ kam an cəg 'to try'; kam = 'do, make, work' -- cf. kam si lei, under DO/MAKE (3)). PTB *dyak (WT 'deg(s)-pa)(pcPKB).

TO DO/TO MAKE(5). NN *ʔ-daˀr: Ky toi, Ph dou 'work'; Ch jan 'must' (GEM) -- cf. Ch kam si lei 'work' ~ kəm si lei 'necessary' under DO/MAKE(3). Cf. Lu. tuˀr 'must'.

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DOG. NN *kuəy (kre°ŋ): Yo hi khen, Mo gui hen, No hu, Wa hi, Ky kui, Ph si, Ch kei. PTB *kwəy.

DOOR. NN *ga^{A}: No ka sak 'door' (sak = 'shut'), pon ka 'window' (DG), also ka hap 'to cover' (hap < COVER/SHUT(I), cf. the Konyak form below); Wa ka hak (hak < CLOSE, like No -sak); Ky ta(kəp) (kəp = 'cover', < COVER/SHUT(I)); Ph ša(ten); Ch ko kap 'door' (kap = 'shut'), ko kan 'doorway, gate' (kan < HOLE), kou khen 'window'. PTB *m-ka, possibly ~ *ga (STC 166, n.445).

DOVE. NN *N-kru: Wa ɔ šu (Peal), Ky au šo, Ph a dhu pa, Ch tu ku tuk. Cf. PTB *m-krəw, and discussion under both initial and rhyme. Wa ɔ/Ky au = 'bird', but Ph a- here is a rare retained prefix, the reflex of NN *N-.

DREAM. NN *maŋ: Yo/No maŋ (Weidert, whose -ʌŋ = Walker's -aŋ), Ky/Ph/Ch maŋ. PTB *r-maŋ.

TO DRINK(1). NN *N-li°ŋ: Yo/Mo niŋ, Wa liŋ, Ky/Ph yiŋ.

TO DRINK(2). NN *N-lu°ŋ: Ch yuŋ. PTB *(m-)liːŋ ~ *lu°ŋ (pcPKB). For prefix, cf. AoM yuŋ but Yacham ñuŋ.

DRUM. NN *C-khla°m: No tham 'drum; wooden trumpet' (DG); Wa sam (Peal), Ky šam 'drum'. Cf. Di. kha ram ~ khram, Garo kram (last two forms from Shafer 1953: 246).

TO DRUM. NN *phan: Yo phan 'to beat', Ky phen 'drum'.

DRY(1). NN *ra°n: Wa ran, Ky u wan pu, Ch lim bu. Cf. Bodo-Garo *ran^{2}.

DRY(2). NN *C-than: Yo a šan. PTB *tan (WT/WB than-).

DRY(3). NN *C-khro°k: No cuok lam (Robinson), coak (DG). Cf. WB khrok, Jg. khro.

DUMB. NN *ŋa^{A}: Ky ŋa pa 'dumb, fool, mad', Ph ŋa pa 'dumb, fool', Ch ŋo bu 'dumb, fool, blockhead, idiot, daft, crazy, crazed'. PTB *(m-)a (Lu. a) 'to be

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dumb", but also Mpri. a ŋao ba, Lu. a° 'mad", Lu. mi-a° 'fool'.

DUNG. NN *C-klɔy: Yo xʌi2 'stool" (Weidert); Mo di 'dung"; No hi2 (Weidert), hi (DG) 'stool", van hi "coal' (van = 'fire"); Ky ši 'dung", ši a ke 'rust'; Ch sat "dung, manure". PTB *(s-)klɔy.

to dye. See TO SCRAPE.

e-

EAGLE/HAWK. NN *la°ŋ: Yo laŋ "eagle" (Weidert); No la "eagle, hawk"; Wa ɔ la "raven" (Peal); Ky au lam "hawk"; Ph laŋ ta "eagle"; Ch au lu "hawk, au lu phe šau bu 'vulture' (Wa ɔ/Ky au/Ch au = "bird", Ch phe šau bu = "meat-eating"). PTB *laŋ (STC), rev. to *la°ŋ, partially on the basis of the NN (pcPKB).

EAR. NN *na^{A}: Yo/Mo/No/Wa/Ky na 'ear', also No na van "earlobe", Wa na vem 'cheek'; Ph na min "cheek"; Ch nou "ear. PTB *r-na^{A} ~ *g-na^{A}.

early. See LIGHT/TO SHINE, MORNING.

EARTH(1). NN *ka^{B}(tok): Yo ha (Walker) [ha2 (Weidert, in "boundary")] 'earth, land, world, village'; Mo ga 'earth"; No ha "earth, village", and for [b], ka tak raŋ "God" (raŋ = "sky"); Wa ha "earth", ha raŋ 'God' (raŋ = 'sky'); Ky ka "earth, field", ka tok "earth, land", ka tok ñu "world" (ñu pu = "broad"), ka waŋ 'God" (waŋ = 'sky'); Ph ka "field", ka tok 'earth", ka tok ña 'land, world', ka vaŋ 'God" (vaŋ = "sky"); Ch kau ~ gau "earth, ground, land", gau tak ~ kau dak "world, country". PTB *r-ka^{B}.

EARTH(2). NN *pit: No pit 'field", pit moat 'cultivation, agriculture' (moat = 'do (work)')(DG); Ph pet i vɔk pɔ "earthquake". Cf. Lepcha făt < *pit

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or *put (pcPKB).

East. See (=) SUN + COME OUT/ARISE/ASCEND(1); also ASCEND(2).

EASY. NN *C-ŋuay: Ky ñai pu (given as nyiaipu; I take GEM's Ky nyi-/__V(V) to represent simply ñ-, usually given as ny-; this also occurs in "mithan", nyia = /ña/, and in "tail", ə nyiei = /ə ñei/. The different notation could, however, indicate a "rise-falling" tone, indicated by Das Gupta for Nocte ŋa "mithan"); Ph i ñai ɨ ñai pə. Cf. PTB *ŋoy 'gentle, quiet, moderate" (WB ŋwé, Lu. ŋuaĭ) and NN *ŋa'y, SOFT(2); see discussion under initial.

easy. See also LIGHT(wt.).

TO EAT(1). NN *dza^{B}; Yo sa (Walker), saʔ (Weidert), Mo sa, No cha (Weidert: chaʔ), Wa sa 'eat' (in Wancho also 'cooked rice'); Ky ha "eat", ha hak "food"; Ph hak < *haʔ 'eat', haʔ yiŋ "food" (yiŋ = "drink"; "eat-drink"); Ch šau "eat", šau bu "corn, dhan (threshed and stored)", šau la bu "food", šau la yuŋ la bu "food and drink (yuŋ = "drink"), meal". PTB *dza^{B}.

TO EAT(2). NN *thɐy: Yo sei "eat", Ky hei "food". Cf. Lu. ei "taste, eat", Mz. tei "eat".

EDGE. See (EDGE/)MOUTH(1).

EGG. NN *$\underset{v}{C}$-tɐy, with *$\underset{v}{C}$- = *(C-)wa(w), BIRD, and *-tɐy = -*tɐy, WATER(1), thus in full *(C-)wa(w)tɐy: Mo wu dɨ, No (a)ti, Wa ɔ ti (Peal), Ph a ti, Ch au tei. PTB *(b)wa ti(y), "bird-water". The only contrast between the Northern Naga forms for 'egg' and those for WATER(1) is in Phom, where the initial in -ji- 'honey', < WATER(1) is interpreted as a conditioned reflex (/__i#) of unprefixed *t-; see extensive discussion under *t-.

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EIGHT. NN *C-gyat: Yo tə cat, Mo ta cat, No i sat (Robinson, Brown; DG gives sat ~ set ~ i seth: DG's -e- before dentals is a sub-phonemic variant of /a/; see 2.2.3(3) above); Wa a cat, Ky tet, Ph šət 'eight' but an pə šet 'eighteen'; Ch sat. PTB *(b-)g-ryat (> *(b-)g-yat [pcPKB], also the source of Jg. mə tsat).

elbow. See CROOK/CROOKED/BENT(1), KNEE.

ELDER BROTHER. See GRANDFATHER(1)/ELDER BROTHER.

ELDER SISTER. NN *ʔ-ŋa^{A}: Yo a ña, No i ŋa 'sister' (Robinson, who does not distinguish relative age for this kintype), 'elder sister' (Brown) ~ i ña (GEM, original source unknown), Wa a na, Ky a ya yoŋu *a ya yoŋ ñu (yoŋ = 'big', ñu < 'mother', ≈ 'female'; cf. jei yoŋ pa 'elBr', pa < 'father', ≈ 'male'); Ph je ña (je, < je jei 'elBr', is the initial element in all four Phom sibling terms); Ch a nc(u) 'elder sister'. PTB *(m-)na^{A}.

ELEPHANT(1). NN *C-gla'ŋ: Mo jan. Cf. WT glaŋ.

ELEPHANT(2). NN *lo'k: Wa luak (Brown) ~ loak (Peal) 'elephant', loak va (Peal) 'ivory' (va = 'tooth'); Ky lek wan 'ivory' (wan = 'bone'). Cf. the forms in two other Konyak dialects: Mulung/Tablung lok ñu 'elephant' (Brown).

elephant. See also (EDGE/)MOUTH(1) + BIG(2).

EMPTY. NN *ko'ŋ: No a ho 'absent' (DG); Ky kiaŋ 'empty', pəm kiaŋ 'naked'; Ph koŋ 'empty', bəm koŋ 'naked' (Ky pəm/Ph bəm = 'body'); Ch koŋ 'to empty; to suffer loss', koŋ bu 'empty', koŋ 'alone', mak koŋ 'naked' < *mat 'man' + koŋ 'alone' (Hutton's etymology), gau koŋ 'bare land' (lit.). PTB *ko[']ŋ (WB khoŋ: 'be hollow', WT khoŋ-pa ~ khog 'the inside, inside parts'), pcPKB.

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TO ENCLOSE. NN *C-kyo°m: No tum khoam 'to surround' (a tum = 'round'); Ch kai cam 'enclose, encircle', kai jam(pu) 'around' (kai = 'revolve, wind'). Cf. WB gyam, Jg. ma kham 'trap'. Very possibly, like NN *C_V-kyo°m, TO GATHER, a prefixed version of NN *kyo°m, TO WALK. See discussion under initials.

end. See COMPLETE(1)/(2).

ENEMY. NN *ral: Yo ral (Weidert), No ran (Weidert), Ky wi pa, Ph ve pa, Ch la ~ la po ~ la bo '(public) adversary, enemy'. Cf. NN *ral, WAR, which differs only in Konyak (we- rather than wi-), and the discussion under the rhyme for WAR, *-al. Externally, cf. PTB *(g-)ra°l (but PST *g-râl), 'war'.

enemy. See also TO FIGHT(1).

to enter. See ARRIVE(1), COME, GO(4).

erect. See TO STAND(2), STRAIGHT.

to escape. See TO FLEE, TO GO(3).

EVENING. *C_V-sya°m: No san ham 'sunset' (san = 'sun'), a ham 'blue' (Butler, Brown) -- the latter form, if cognate, definitely points to DARK as the proper gloss for the set, with EVENING = *car sya°m, SUN + DARK (hence *C- rather than *C_V-); Ky Sum bu yan 'late'; Ph om 'evening'; Ch ja sam ~ ca sam 'evening' (ca = 'sunlight', < ca ñu 'sun'). PTB *syim 'black, blue, dark, darkness' (the Dimasa forms are doublets, with both -im and -um).

TO EXCHANGE. See TO CHANGE/EXCHANGE; also GIVE(1) and TAKE(1)/GIVE, both of which include forms glossed both 'give' and 'receive/take'.

expensive. See HARD(2); cf. 'cheap' < SOFT(2).

TO EXTINGUISH. NN *miut: No mut siet, Wa a mut, Ky mei, Ph met, Ch net. PTB *mit ([but] Di. -mu 'destroy').

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EYE(1). NN *mik: No mit (Robinson, Brown), "mit (mik)" (DG) 'eye' -- by which I presume Das Gupta means what would be inferred in any case, mit < *mik --, mit duok (Butler) ~ mit doak (DG) 'blind'; Wa mit < *mik (Brown) 'eye', mik dok (Peal) 'blind'; Ky mək tei pa 'blind'; Ph mək phiŋ pə 'blind'; Ch ñek 'eye', ñek tu bu 'blind'.

EYE(2). NN *me'k: Yo mik, Mo mak, Wa mi (Peal), Ky mek, Ph mək 'eye'. The two variants proposed here converge in Phom, but contrast in Wancho and Konyak. It is not this contrast, however, but the difficulty of accounting for the rhymes for 'eye' as the reflexes of a single prototype which leads me to propose proto-variation at the NN level. This is in accord with Benedict's original (STC) solution for PTB, which sets up PTB *mik ~ *myak, though Benedict now reconstructs a single prototype, PTB *myək, which would also be possible for NN. See full discussion under the initial, *m- (2).

f-

FACE. NN *thə'l: Yo thal 'cheek', Mo thal 'face', No than 'face, cheek', Wa tun 'face, countenance' (Peal). Cf. Di. thaiŋ, Jg. (kə)than, Lu. cal, all 'forehead'.

TO FALL(1). NN *klat: Wa dat, Ch at.

TO FALL(2). NN *glat: Ky yei. PTB *gla(-t) *kla(-t) (pcPKB for attribution of optional suffixation to PTB level).

TO FALL(3). NN *tə'ŋ: Ky toi, Ch toŋ (GEM; given by Hutton as 'to tumble'). Cf. TN ta tuŋ.

FALSE(1). NN *gle'p: No diep daŋ 'to pretend' (daŋ = 'to be'), diep cha 'to cheat' (both DG); Ch yep e (probably < *yep pe) 'to lie (speak falsely); wrong (false)', yep pe ca we 'liar'.

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FALSE(2). NN *le°y: Ky ŋao lei 'to lie' (ŋao = 'word'), ta lei pu 'false'; Ph ñoŋ phi lei mə, Ch to lei, 'to deceive'. Cf. Mk. pa che rei 'false; to deceive'.

TO FAN. NN *C$_{v}$-yep: Yo tžʌp (Weidert), No tžʌp (Weidert), Wa raŋ zep (Peal; raŋ = 'sky'), possibly also zet pu 'bellows' (with dissimilation of final), Ch wan yep (wan = 'fire'). Cf. PTB *ya°p; see discussion under rhyme.

FAR(1). NN *ja°l: Mo a jal, Ch sa bu. PTB *ja°l.

FAR(2). NN *C$_{v}$-tay: Wa a tai 'far', tai hu 'many' (both Peal); Ky jai pu, Ph tai pə, 'far'. PTB *tay 'great, large'.

far. See also LONG, TO CROSS OVER.

FAST. NN *mem: Ky məm še pu 'fast'; Ch sap sap mem bu 'prompt; agile'.

FAT. NN *sa°w: Ch ha bu 'fat (adjective and noun), grease'. PTB *sa°w.

fat(n.). See also OIL(2).

fat(adj.). See also BIG(2), THICK.

FATHER. NN *pwa^{A}: Yo a ba (Dutta), a va (Walker), Mo va, No (i)va, Wa a pa, Ky a pa, Ph pa, Ch a po(u). PTB *pwa.

TO FEAR. NN *C-khrə°y: Yo a khiar (Walker): -r is not a canonical final in Yogli; *-r > Yo -l. This form is probably from a reduplicated prototype (as in Jinghpaw: khrit gari2 'fear and tremble'), perhaps *C-khrə°y-rə°y > *a khai-rai > *a khai-a-rai. Mo a hi, No ce (Robinson) 'to fear', a cei (DG) 'afraid'; Ph khea 'to tremble'; Ch hat 'to fear'. PTB *kri(y), but cf. also (particularly in re. the Phom and Yogli forms) Khasi khiu2 'tremble'.

feather. See HAIR(1)/(2).

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-FEMALE(1). *gəw: Yo vi kau 'old woman', wu ko 'hen' (wu = 'bird', cf. wu puŋ 'cock', -puŋ < -MALE(OF ANIMALS)(1)); Mo vi kru 'old woman', gui hen kru 'bitch' (gui hen = 'dog', cf. gui hen la 'male dog', -la < -MALE(OF ANIMALS)(2) [LSI]); No vi ku 'old woman' (Yo/Mo/No vi- < GRANDMOTHER; but to add -FEMALE to form 'old woman' is not necessarily entirely redundant: cf. Mo vi kan wa 'old man', kan < MAN(MALE)). Cf. Sema au ku 'hen' (au du 'cock'), Lhota han kha (ham poŋ), Nr. nruai kui (nruai dui), id.; and compare Li./Ze./Mz. N-rui pui 'hen', -pui < PTB *pwi(y) 'female, feminine affix', an identical construction utilizing a different root for -FEMALE — one which may be the source of the vi- elements in the forms for 'old woman' cited above (see GRANDMOTHER).

-FEMALE(2). NN *C-ci°k: Yo e šik 'wife' (cf. ya cik 'woman', ya cik sa 'girl'), Mo ya šik 'woman', ya šik ša 'girl, daughter', No de hiek 'woman', de hiek c(h)a 'girl, daughter' (Robinson, Brown) ~ de hiak 'female', de hiak cha 'daughter' (DG) — cf. da la 'male', da la cha 'son', —, hik 'left-hand'. Yo/Mo ya-, No de- ~ da- < NN *gla, PERSON(1), very probably the same root as in SOUL, NN *C-gla^{A}; thus 'woman' in these languages ≈ 'female person'. Cf. Bodo-Garo *-cik *-jik 'female suffix' (Garo jik 'wife', me?-cik 'wife, woman, female'), pcPKB.

-FEMALE(3). NN *C-gla^{B}: Wa nau cia 'girl', Ky nau ya 'young woman, girl', Ph ne la 'young woman', ne la ñe 'girl' (Wa/Ky nau- < CHILD; cf. Wa nau sa 'boy', Ky nau ši 'young man'. Ph ne- is probably a reduced variant of Ph naa 'child', from the same source, via Ph ne the(pə) 'young; young man'; in any case, the latter form demonstrates that the ne- element is not gender-specific); Ch ñaŋ sau 'MoBrDa, FaSiDa' (cf. ñaŋ ii 'MoBrSo, FaSiSo', ñaŋ < *niŋ, CROSS-COUSIN,

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hence ñaŋ sau ≈ 'female cross-cousin', -sawañu < *-sau a ñu 'termination for female animal that has not given birth' (Hutton 1929a: 12), analyzable as '-female (sau) not-(a-) mother (ñu)', sau 'clan (of women)' -- cf. paŋ 'clan (of men)', < NN *ʔ-buŋ, -MALE(OF ANIMALS)(1). PTB *(g-)la: in Kuki-Naga, 'feminine affix, used especially of young females' (pcPKB). Cf. particularly TN ŋa la nao 'young woman, girl', parallel to the Wa/Ky/Ph constructions except that the order of the two elements is reversed.

FENCE. NN *pal: Yo pal rik, Ho-pan 'fence', pan ka sak 'gate' (ka sak = 'door'), Ky pe(lak), Ch pa 'fence', pa lak ko kan 'back door' (ko kan = 'doorway, gate'). Cf. Lu. pal, Mpri. sam bal.

field. See EARTH(1)/(2).

FIG. NN *phaʔk: Wa puk jak (Peal), Ky phok lik (Wa jak/Ky lik = 'fruit') 'fig', Ch phok 'large fig'. Cf. Lhota tsə pek hi (-hi < e thi 'fruit'), Ze. mbeu chi (ma chi ≈ ne chi 'fruit'), Lu. thei pui (thei rah = 'fruit'), all 'fig'.

TO FIGHT(1). NN *khluk; Ky hok 'to fight', we hok 'war' (for we-, see WAR), hok pa 'enemy' (var.); Ph hok pə 'war'; Ch jak 'to fight (make war)'. Cf. WT 'khrug 'to quarrel', 'khrug-pa 'war'.

TO FIGHT(2). NN *loʔk: No a loat 'attack, assault', loat min 'war', ran loat min 'to fight' (ran = 'war; enemy'); Ch lak pu 'warrior'. Cf. TN kharar-ŋa rok 'to quarrel' (ka kharar 'angry'), WT rglo 'to fight' (both possibly from a *g-loʔk).

TO FIND. NN *joʔw: No i cu (Robinson, Butler) ≈ co (DG), 'find, get'; Ky tou 'find'. Cf. NN *ʔ-coʔw, TO GET (1) > Ky thou 'get'. The distinction is paralleled in Sema: i tu lu 'find'/ i thu lu 'get'; cf. also

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Li. dou 'find, get, receive', Nr. la tou 'get, receive'.

TO FIND. In addition to GET(1), see also GET(2) and MEET WITH/FIND.

FINGER(1). NN *cuəy: Yo yak ši "thumb" ('finger' not available), Mo yok ši 'finger, thumb', No dak su 'finger', Wa cakkhi (Brown) ~ caki (Peal) 'finger' — I interpret both of these transcriptions as realizations of *cak hi: in Brown's the stop is doubled; in Peal's the final stop of cak 'hand' has been reinterpreted as the initial of the second syllable with, as is regular in Peal's transcriptions, the aspiration elided (i.e., Brown's cak khi = Peal's ca(k) ki). The possibility that the stop is not a juncture effect is rejected on comparative grounds: the *c- reconstruction for the initial in FINGER is solidly supported, not only by the Northern Naga correspondences, but by Bodo-Garo, where its initials match those for THORN, SUN, and SALT (Shafer 1953: 253-255), and NN *c- > Wa h-. Shafer came to the same conclusion, for he gives just -hi for Wancho 'finger'. Thus Wa ci ki "toe' (ci = 'foot" in compounds, < cia) must be interpreted as a formation postdating the *cak hi > *cak khi > *cak ki development. Ch. yik ci šou "finger'. The first syllable in all forms is the basic Northern Naga root for HAND, < NN *glək, so that a composite reconstruction, NN *glək-cuəy, is possible. Cf. Di. yao si, Garo dzak si, but Bodo a su, as in Nocte; possibly related to PTB *(r-)cruəy "to count", with PTB *-r- > *-w- > NN *-u-.

FINGER(2). NN *sa°ŋ: Ky yak lan, Ph lak jaŋ (Ky yak/Ph lak < *glək, HAND, as for FINGER(1). Cf. Jg. Lata-latsaŋ (lata = 'hand", possibly reduplicated in lat-).

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to finish. See COMPLETE(2).

FIRE. NN *2-wa$^{?}$r: Yo wal, Mo var, No van, Wa van, Ky a ~ ka, Ph o, Ch wan. PTB *bwâr ~ *pwâr.

FIREWOOD. See WOOD/FIREWOOD(1)/(2).

FIRST. See BEFORE/FIRST, also TO BEGIN and HEAD(1).

FISH. NN *ŋya^{B}: Yo ŋa (Walker), ŋa2 (Weidert), Mo ŋa, No ŋa (Weidert: ŋa2), Wa ñ̃a (Brown and Peal), Ky ñ̃a, Ph ñ̃a2, Ch ŋau. PTB ŋya^{B}.

FIVE. NN *C$_{V}$-ŋa^{B}: Yo ba ŋa, Mo ba ŋa, No ba ŋa, Wa a ga, Ky ŋa, Ph ŋa, Ch ŋau. PTB *l-ŋa^{B} ~ *b-ŋa^{B}.

FLAME. NN *C-lo$^{?}$ŋ: Ky a yiaŋ 'torch' (a = 'fire'), Ch (wan)loŋ 'flame' (wan = 'fire'). Cf. PTB *ploŋ 'burn'.

flea. See LOUSE(1).

TO FLEE. NN *kyo$^{?}$t: Mo ka thot 'to go away' (LSI [GEM lists under 'go out']; ka = 'go'); No a ŋak khoak "to retreat" (DG; a ŋak = "return"); Ch sat 'to run away, to flee, to escape' (also listed by GEM under 'go out'), pi juŋ sat 'fly away' (pi = 'fly'). Cf. TN yoŋ(zat) 'fly', Yi. ə khiə 'go out'. Perhaps from an earlier *klo$^{?}$t: cf. the forms attributed to PTB *g-lwat in the STC, including Jg. lot "escape; be free, unrestrained' and WB khywat "release, free"; also Mk. a kyoi 'free'. For another possibility, cf. WT skyod 'move'.

FLESH. NN *swun: Ky ta phen 'chin' (cf. tha wan "jaw", wan = 'bone", aspirated initial unaccountable but surely from *ta; ta itself is cognate with other forms for CHIN (/'jaw'), NN *ga^{B}). Two forms for CALF (of leg) -- Mo ya vuin, Ch you šan -- are analyzable as "leg-flesh", NN *gla^{A}swun, with the Chang š- reflecting the preposed syllable (i.e., -šan *C$_{V}$-swun). *swun itself is probably also the source of Ch huan 'crop (of bird)'. MUSCLE might seem a

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more appropriate gloss for these forms, but FLESH better bridges the gap between them and the apparent external comparisons: Lu. vun, Mpri. un, Maring (w)un, all 'skin', < *wun, with NN preposing (PTB) *s- 'body part prefix' (STC 106) to form *swun. The two sets of glosses are linked in the NN allofam *wur, SKIN(2)/FLESH (Mo na war 'lip', No na wan "ear-lobe", No na = 'ear', Mo na < nər 'mouth').

FLESH. In addition to SKIN(2)/FLESH, see also MEAT/FLESH.

TO FLOW. NN *C-yən: No jen (DG, = /jan/; see 2.2.3(3) above); Ky yeŋ yin 'river' (GEM 134, yeŋ- = 'water'); Ch yan 'to descend' (for the semantic association, cf. WT 'bab 'descend, flow', Lhota co 'descend', coi 'flow'). Cf. Mpri. cen 'to flow'.

(BREAST/)FLOWER. NN *pu˚ŋ. Yo paun 'breast', pil paun 'flower' (pil < a pil 'green', which I interpret as < *pul, TREE; i.e., 'flower' ≈ 'tree-breast'); No ñu po 'milk' (Robinson; GEM mistakenly gives for 'millet'. ñu < NN *ɲə˚w, MOTHER; thus I think ñu po really or originally = 'breast'); ni po 'breast' (DG; ni- is a reduced form of ñu, which DG gives as [niu] [taŋ-niu 'wife'; cf. ni-pa 'mother-in-law']); c(h)oŋ po 'flower' (Robinson), a po 'flower' (DG); Wa pan puŋ 'flower' (Brown; pan = 'tree', hence 'flower' here again ≈ 'tree-breast', as in Yogli), (mai)pua 'flower' (Peal); Ky ə peŋ ~ ju peŋ 'flower' (ju = 'mouth'; see Chang); Ch sam puŋ 'point, rim, mouth' (sam < NN *kyam, (EDGE/)MOUTH(2) < PTB *r-ka[˚]m 'edge, rim, mouth'. I suggest that the -puŋ element in sam puŋ is derived from a word originally meaning 'breast', that the sam- element originally carried the basic sense 'mouth', and that the compound sam puŋ, ≈ 'mouth-breast' originally meant 'lip(s)' [now further specified as sam puŋ kop].

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Ch sam puŋ would then be identical in construction to Ky ju pen 'lip' (ju = 'mouth') < *ju peŋ [originally ≈ 'mouth-breast' = 'lip' but now, via the association between 'breast' and 'flower' 'flower'. Thus the interpretations of the Konyak and Chang forms are interdependent.) Also Ky piaŋ kai 'cotton' (kai < NN *khra°t, CLOTH(1), ≈ 'cloth-flower').

This is semantically complex, and nowhere should my "≈" symbol qualifying etymological glosses supplied for compounds as rough approximations be taken more seriously. Let me review the three uses of NN *pu°ŋ -- (1) 'breast'; (2) (in comp. with 'mouth') 'lip(s)' (an association of form which almost seems to mock the possibility of association by function); (3) (in comp. with 'tree') 'flower' (via "swelling" [see below] an association of form, but perhaps of equal importance, an association of function, in that breasts are to infants as flowers are to bees); in this regard, cf. (4) NN *pu°ŋ, GRANARY(1): Wa puŋ 'barn', Ch puŋ 'granary', undoubtedly from the same source as the above; and finally (5) Wa coŋ pua 'chrysalis' (coŋ = 'caterpillar').

Cf. Di. a bo 'breast', bo- (in comp.) 'bud'; Miri buŋ 'swell, swelling', and in comp. 'to be in bud' (pcPKB); Nr mun poŋ 'bud, flower'; Lepcha boŋ 'mouth'.

TO FLY. NN *C$_V$-piaw: Yo a pau (Walker) ~ pʌu (Weidert), Mo ba, No pu (Weidert), Wa pi (DG 1980), pak pi 'bat' (pak alone is cognate with other forms for BAT), pi thuak (Brown) ~ pi twak (Peal) 'butterfly', Ky pu, pu šek 'butterfly' (for the second element in the Wa/Ky forms for 'butterfly', see BUTTERFLY), Ch pi. PTB *pyaw. See discussion of the unusual rhyme correspondences under *-iaw.

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FLY. NN *cuat: Yo ŝoi 'fly' (Weidert), Wa huat 'fly' (Brown; Peal has hɔt, cf. hɔat~hɔt 'lizard' [Peal]); Ky hoi 'fly', hoi jim 'mosquito'; Ch cot tam 'sandfly' (tam = 'earth, soil, dirt'). Cf. Kuki-Naga *m-thow (Lu. thou, but with -t in S. Khami mə thaut [STC 121, n.332]).

food. See TO EAT(1)/(2).

fool~mad. See DUMB, also BUFFALO(1).

foot. See LEG.

FOREHEAD. See HEAD(2): FOREHEAD.

FOREIGNER. NN *C̬-yen (could also be *C-yen): Ky yin pa, Ph yen kei 'foreigner'; Ch yem pu 'stranger', yem mat 'traveller' (mat = 'man'), but yen to hau 'to travel' (hau = 'go', -to = 'to'). Cf. WT yan, Lhota yam poe, Ntenyi ke janyi, 'foreigner'.

forest~jungle. See TO GROW/GROWTH(1)/(2), JUNGLE.

TO FORGET. NN *lok: Mo a lok, No i lok. Cf. Ao Mongsen a lak 'forget', WT rlog 'lose'.

FORK. See TO JOIN(1)/FORK/BRANCH.

FOUR. NN *bə lay: Yo bə lai, Mo ba li, No be li, Wa a li, Ky pe li, Ph a li, Ch lei. PTB *b-lay. See under initial for discussion.

to free. See TO OPEN(1).

FROG(1). NN *luˀk: No/Wa/Ky luk. Cf. Lepcha ta luk;

FROG(2). NN *gluˀk or *C̬-luˀk: Ch yuk 'frog', yuk ñek 'toad'. Cf. Lepcha ta kryuk~tuk kryuk 'toad' (for all of the Lepcha forms and the suggestion that the apparent *luˀk~*k-ruˀk doublets underlying them are also reflected in the Northern Naga forms, pcPKB).

FRUIT(1). NN *sey: Yo pul di 'fruit' (Weidert; pul- < pul cuŋ 'tree'); Mo cun di 'bullet', < *cun ti: Hutton etymologizes the Chang word for 'bullet' (from

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a different root) as 'gun-fruit', and Matisoff (1972c: 279, n.36) glosses PTB *siy (= Benedict's *sey) as 'fruit/small round object' -- the entire form, cun di, may in fact also be the Moshang word for 'fruit' if from *cuŋ ti (with assimilation of both medial consonants; *cuŋ could be cognate to Yo pul cuŋ 'tree', No coŋ po 'flower', con riak ri 'mango'); No a ri 'fruit'. PTB *sey.

FRUIT(2). NN *sek: Wa hu jiak (Brown) ~ pan jak (Peal) 'fruit'; Ky (pi)lik 'fruit', lik 'to bear fruit'; Ph bet jək 'fruit', jək 'to bear fruit'; Ch po hek 'fruit', hek ta 'to bear fruit' (Wa pan-/Ky pi-/Ch po- = 'tree'). Cf. PTB *sey, apparently with suffixed *-k in these languages only.

full. See MUCH(1).

fur. See HAIR(1).

g-

GARDEN. NN *pəl: No pan (DG), Ky pi ša, Ph pe, Ch ba. Ph pe 'garden' may be the source of bet- in 'fruit'. Note that the Nocte and Konyak forms for 'garden' (No pan, Ky pi-) are identical to their reflexes of NN *pul, TREE(1) (> No pan 'wood', Ky pi 'tree, wood'), though the two sets contrast in Phom and Chang (Ph pə, Ch pu 'tree'). The forms for FENCE, NN *pal, are again identical to those for GARDEN except in Konyak (Ky pe(lak) 'fence'). Clearly NN *pul 'tree' ~ *pəl 'garden' ~ *pal 'fence' form a closely related word-family, if indeed the two latter forms are not just conditioned variants of a single prototype. Dimasa has ba ri for both 'garden' and 'fence'. A fine distinction, unique to Konyak, identical to that between *pəl > Ky pi-, 'garden', *pal > Ky pe(-) 'fence', separates *rəl > Ky wi pa

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'enemy' from *ral > Ky we hok 'war' (see ENEMY and WAR).

TO GATHER. NN *C$_V$-kyo°m: Yo ge com 'to gather' (ge- ≃ 'among, together'); No a khoan 'assemble', a khoan se 'collect', (a)khoan si(y)et 'earn, gather' (-siet is a general verb of action) (all DG) — cf. also kuon ši 'basket' (Robinson); Ky woi jim 'gather' (woi = 'to lead'), jim še ~ jim e 'together'; Ph jam i 'together'; Ch kam še 'assemble (tr. and intr.), collect' — cf. also kam 'basket'. Cf. Mpri. khom jan, Ntenyi ghom ohu, Lhota khio thro, Sema khya pa loŋ, Jg. ma gon (final -n as in Nocte), all 'gather'. This is very probably a prefixed variant of NN *kyo°m, WALK (Jg. khon), having originally the sense 'come together', with the prefix carrying the 'together' component, as in Yogli ge- (and possibly now also in No -se, Ky -(š)e, Ph -i, Ch -še), with the transitive sense (≃ 'bring together') derived.

TO GET(1). NN *ʔ-co°w: No i cu (Robinson, Butler) ~ co (DG) 'find, get'; Ky thou 'get'. Cf. NN *jo°w, TO FIND > Ky tou 'find'. The distinction is paralleled in Sema: ï thu lu 'get'/ i tu lu 'find'; cf. also Li. dou 'find, get, receive', Nr. la tou 'get, receive'.

TO GET(2). NN *ʔ-dəŋ: Ph daŋ 'find, get, receive'; Ch coŋ sak 'gift' (sak = 'expend'), coŋ sa 'reward' (sa < sa nou 'show favor'). Cf. Mk. deŋ 'receive'.

to get. See also, in addition to TO FIND, TO MEET WITH /TO FIND, TO TAKE(1)/TO GIVE, TO SEIZE(2)/TO CATCH.

gibbon. See MONKEY.

GINGER. NN *ji°ŋ: Yo tsiŋ keŋ (Weidert); No ciŋ (Butler, DG; Weidert gives cin, properly adding "final?"); Ky tiŋ; Ch si. Cf. Di. ha jiŋ. Weidert (1979: 118) compares the Northern Naga forms to Lu. so2 thi°ŋ

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and so reconstructs *-i'ŋ.

girl. See (=) PERSON(1) + -FEMALE(2) + SON, CHILD + -FEMALE(3), WOMAN.

TO GIVE(1). NN *gow: Yo ku (Walker), ku2 (Weidert); Mo ku; No ko (Robinson, DG), ko2 (Weidert), 'to give'; Ky tau 'to receive' (see TO TAKE(1)/TO GIVE for further examples of the neutralization of the 'give/take' contrast in these languages); Ph šuo 'give'; Ch ku 'give', ku ti 'send' (-ti = CAUSATIVE). Cf. Mz. ŋau lu~n'ŋwa lu 'receive', TN khui 'take, receive' (TN -ui < PTB *-ow, Matisoff 1972c: 280, n.40).

TO GIVE(2). NN *pha: Wa pha 'give' (Brown); Ky pha 'give, pay'. Cf. Lu. ba~bat 'owe' (STC 101), Jg. pat 'pay'.

TO GIVE. See also TO TAKE(1)/TO GIVE.

TO GNAW. NN *swa't: Ch hit 'to gnaw'. Cf. PTB *wa-t 'bite, chew'. Although an *s- element is not attested, this root, as Benedict comments, is "probably connected with" *s-wa 'tooth" (STC 106). In NN the prefix has fused with the initial in both roots: *swa, TOOTH; *swa't, TO GNAW.

TO GO(1). NN *ga^{A}: Yo ka, Mo ka, No ka 'to go'; Ch ko 'go!, begone!'. PTB *ga^{A} (Chepang ga^{A} 'stride'), pc PKB.

TO GO(2). NN *sua: Ky lau 'to walk'; Ch hau "to go" (compounds include 'advance, precede, follow, travel'). PTB *s-wa.

TO GO(3). NN *pua; Wa pau 'to go, to carry' (compounds include "come, bring, take, pull, lift, escape'); Ch la pu ti 'to send (towards speaker)' (-ti = CAUSATIVE). Possibly from a PTB *b-wa (*s-wa with prefix substitution).

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TO GO(4). NN *ʔ-daˀtː Ky tai 'to go, to go out'; Ph dai 'to go, to enter', lə dai 'to go out', dai šiŋ 'to pass by'. Cf. SW Naga: Li. tad 'to go', tad pad 'to go out'; Nr. tət 'to go', tət pət 'to go out', tət ruan pət ~ tət kən 'to pass by'; Ze. tat 'to go', tat cu 'to go out', tat pat 'to pass by'.

to go. See also TO COME.

to go up. See TO ASCEND(1).

GOAT(1). NN *gialː Mo ke ki 'goat', ke puŋ 'male goat', ke šar 'female goat' (LSI for last two forms); No kien. Cf. PTB *kyeˀl ~ *kyiɛˀl.

GOAT(2). NN *C-ruanː Wa roan, Ky yon, Ph yom, Ch luan. Cf. Di. bu run, Tripura pun ~ puan < general Bodo-Garo *bu runː (Shafer 1953: 245).

God. See (=) EARTH(1) + SKY (cf. von Fürer-Haimendorf 1969: 99, who gives this etymology for the Konyak form; GEM [136] gives 'God' = 'earth-lord' in Konyak: kawaŋ 'God' = ka 'earth' + [w]aŋ [< NN *waŋ] 'chief, king'; but this does not work for Nocte and Wancho, which have vaŋ 'chief' but raŋ 'sky' and [in comp.] 'God').

GOOD(1). NN *krulː Yo a khul, Mo a hal, No a san 'good', phan san 'beautiful'.

GOOD(2). NN *maˀyː Wa mai, Ky mei pu, Ph mei pə, Ch mai bu. Cf. PTB *may.

GRANARY(1). NN *puˀŋː Wa puŋ 'barn', coŋ pua 'chrysalis' (coŋ = 'caterpillar'); Ch puŋ 'granary'. Cf. NN *puˀŋ, (BREAST/)FLOWER, almost certainly the same root.

GRANARY(2). NN *puˀmː No pum cha 'granary' (DG; cha = 'paddy'). Cf. NN *guaŋ ~ *guam, CROOK/CROOKED/BENT(1)/(2) for another example of *-ŋ ~ *-m alternation.

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GRANDCHILD. NN *C-dzəw: Yo a šao (Dutta), No chu (DG), Ky hu, Ch si. Cf. PTB *šu(w)(STC) or possibly žəw (pcPKB).

GRANDFATHER(1)/ELDER BROTHER. NN *C-ta°y: Yo a tai 'GF', No te(i) 'GF' (DG); Wa a tai 'elBr', Ky jei yoŋ pa (yoŋ = 'big'), Ph je jei, Ch jai 'el Br', cai se na 'brethren'. Possibly related to PTB *ta[°]y 'great, large'. Cf. the parallel semantic field reflected in the similar form *C-tho°y, SMALL(/PARENT'S[y]Z/Br < PTB *doy ~ *toy '(parent's) younger sibling', but always in comp. with father/mother terms and elsewhere also 'short', 'small'.

GRANDFATHER(2). NN *pəw: Wa a pu 'ancestor' (Peal; 'GF' not available); Ky a pu, Ch pi 'GF', pi si po(u) 'forefathers, ancestors' (po(u) = 'father'; -si- = 'and'). PTB *pəw.

The Yo/Mo/No terms for 'elder brother' also show a labial initial + back-vowel-rhyme construction which may be related to GRANDFATHER(2) at some level, but not in NN: Yo a phu, Mo i pho, No i pho, < NN *phow or *phaw.

GRANDMOTHER. NN *pwi: Yo a bi 'GM' (Dutta), vi kau 'old woman'; Mo vi kru 'old woman'; No vi 'GM', vi ku 'old woman' (for Yo -kau/Mo -kru/No -ku in the forms for 'old woman', see -FEMALE(1); a Nocte form given for 'old', te ka, is constructed in exactly the same manner: te 'GF' + -ka < NN *ga°ŋ, -MALE(1). Its gloss should probably be 'old man; old'. The generalization of terms for 'GF, old man/ GM, old woman' to 'old (person)' generally, suggested by the addition of -MALE and -FEMALE suffixes to what appear to have originally been gender-specific roots, is also shown in the Moshang form vi kan wa 'old man', = vi 'grandmother' + -kan, <-MALE(1) + -wa 'father' (var.)); Ky a pi 'GM', pi yoŋ 'old woman' (yoŋ =

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'big'); Ch pi 'GM' ('GF' in Chang is also pi, but this is a case of convergence: Ch pi 'GF' < NN *pəw; cf. Ch pi- 'snake' < NN *ʔ-bəw, and other instances of NN *-əw > Ch -i after specifiable initials under *-əw). Cf. PTB *pəy 'GM', but also *pwi(y) 'female, feminine affix'.

TO GRASP. NN *phuar: No jan phoan 'hook' (jan = 'iron'), Ky pho 'to seize', Ch phon 'to raise' ('partially', as vs. 'completely', for which see TO BUILD). Tangsa pon 'hook', given by GEM for Moshang (for which we should expect *phu) is from Dutta, dialect unspecified, and is thus inadmissible as a Moshang form (see 2.1(2) above).

GRASS. NN *C$_V$-criŋ: Yo thiŋ taŋ 'grass'; Mo a thiŋ 'raw'; No hiŋ 'grass', a hiŋ 'green; raw'; Wa hiŋ 'grass, green'; Ky haŋ 'grass', ə haŋ pu 'green', ə hiŋ 'raw'; Ph thiŋ 'grass', thiŋ pə 'raw'; Ch saŋ 'grass', saŋ tiŋ bu 'green, raw' ~ saŋ teŋ bu 'fresh'. Cf. PTB *šriŋ 'live, alive, green, raw', NN *criŋ, ALIVE(1), and discussion under initial.

grasshopper. See LOCUST.

GRAVE. NN *C$_V$-kluŋ: Ky maŋ joŋ, Ph maŋ coŋ (Ky/Ph maŋ- < CORPSE), Ch he taŋ cu (he < hai 'to die', -cu possibly < thu 'to dig'), all 'grave'. Cf. Di. maŋ kho laŋ, Kh. mo khru/Ko. me khru (mo/umo 'body', kr- < *kl- in 'to fall'), 'grave'.

grease. See FAT.

green. See GRASS, ALIVE(2), TREE(1).

TO GRIND. NN *C-ŋur: Ph ñu, Ch ŋan.

TO GROW/GROWING. NN *C$_V$-gloŋ: Yo nau ku yaŋ 'child; young', yaŋ 'to become' (nau < CHILD); Ph loŋ 'to grow'; Ch na šo taŋ a 'in infancy' (na šo si = 'child, baby, boy', -a = '-in'). Cf. Mk. klaŋ 'to grow'; possibly

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also Jg. groŋ < *gloŋ 'start afresh; begin a new growth' (pcPKB) — cf. Jg. kuŋloŋ 'young' (cf. the Yogli form, nau ku yaŋ 'young'), and Lu. t̥haŋ 'grow' (cf. Lu. t̥e˚k < *gle˚k 'meteorite, thunderbolt' [STC 413].

TO GROW/GROWTH(1). NN *ʔ-pua: Yo a pa 'to grow'; Mo ri pu 'cotton' (ri < THREAD, NN *rəy [> Ky wi 'thread; cotton (var.)'], hence 'thread plant'); No vun 'jungle', vun cha 'bush' (DG); Wa pau 'forest, jungle, weed', pau ka 'bush'; Ky phau 'to grow; forest, jungle', pe phau 'bush'; Ch pu 'plant'. Cf. WB pwa:, Jg. ka ba wa 'to grow'.

TO GROW/GROWTH(2). NN *lyi˚ŋ: Mo liŋ 'forest, jungle', No liŋ 'forest' (Robinson), Wa liŋ 'forest' (DG 1980), Ch ciŋ 'to grow', a ciŋ a lam bu pu 'bush'. Cf. PTB *b-liŋ 'forest', also WT žiŋ 'field, ground, soil, arable land', Lepcha lyaŋ 'field', both from *lyiŋ (STC 80, n. 246); see discussion under initial.

TO GUARD. NN *kyoŋ: Ch maŋ saŋ 'beware, take precaution'; ñek saŋ 'be vigilant'; tit saŋ ko 'attentively' (maŋ = 'mind'; ñek = 'eye'; tit = 'hear'). PTB *kyâŋ ~ *kyoŋ 'guard; tend cattle'.

GUN. NN *thu˚ŋ: No van tho, Wa jan tua (Peal; jan = 'iron'), Ky yan šiŋ (yan = 'iron'), Ch nam thuŋ (nam = 'iron'). Probably the same root as NN *thu˚ŋ, TO SPEAK(1), so that the Wa/Ky/Ch forms would be analyzable as ≃ 'speaking-iron', or, as the original sense of NN IRON (> Ph/Ch 'dao') may have been 'dao', as 'speaking-dao'. Nocte 'iron' is jan, however; the Nocte form is unanalyzable.

h-

HAIL. NN *rya˚r: Wa jun, Ch sən. Cf. Kuki-Naga *ryal (Ao rer ~ rər; STC 54).

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HAIR(1). NN *muil: Yo khu mil 'head hair' (khu = 'head'); Mo ku mul 'head hair' (GEM; but Benedict [STC 15] and Matisoff [1978: 116] cite Mo kə mul 'body hair'. It is likely that Marrison interpreted Mo ku ~ kə as a variant of Mo khu 'head', as in the Yogli form above, but Moshang reliably distinguishes between k- and kh-. Another interpretation is available, and is adopted here, i.e., that Mo ku- (vowel verified at GEM 80) is from NN HAIR(2) [see below], mul 'feather'; Wa hu mun 'feathers' (Brown), mun 'fur' (Peal), mun pu 'beard' (Peal); Ky min 'head hair, body hair'; Ph min pə 'soft' (≃ 'furry'? Cf. the gloss for the Chang form in this set, and the same association in Nocte nap pa 'body hair', vo nap 'feather', a noap 'soft' [DG]); Ch min kei 'woolly' (kei = 'dog'):

> a noun primarily denoting the long-haired variety of Chang dog, but applied to other furry animals also, as an adjective (Hutton 1929a: 100).

PTB *mwil (rev. of the STC's *(-)mil ~ *(-)mul), pcPKB.

HAIR(2). NN *guə̆y: Mo ku mul 'head hair' (mul < HAIR(1), see above for discussion. The apparent Moshang distinction between khu 'head' and ku 'hair' is paralleled in Chang); Wa ɔ koi 'feather' (ɔ = 'bird'); Ky a tui 'feather' (a- < BIRD(3)), wan tui 'skull' (wan = 'bone') ≃ 'hair-bone'; Ch ku lo 'human head hair' (lo = 'long'), ku sei 'comb' (for sei, see COME), ku jin 'razor'. Possibly derived from a compound of PTB *-gow 'head' (see NN *khow, HEAD(1)) and PTB *mwil 'hair': *gow(m)wi(l).

hair. See also HEAD(1).

HAND. NN *gləkᴬ: Yo yak 'hand', yak phim 'arm'; Mo yok pha 'hand' (for -pha, see PALM/SOLE(1)), yok phum 'arm' (for Yo -phim/Mo -phum in 'arm', see -ROUND- (of body parts)(1), na yok 'leaf'; No dak 'hand, arm', baŋ dak 'leaves' (DG; baŋ = 'tree'); Wa cak

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'hand', hu cak (Brown) ~ pan cak (Peal) 'leaf' (pan = 'tree'); Ky yak 'hand, arm', pi yak 'leaf' (pi = 'tree'); Ph lak 'hand, arm, leaf"; Ch yik 'hand, arm'. Most of these forms are exemplified in many (other) compounds; see (e.g.) FINGER(1)/(2) and CLAW. That HAND, rather than 'arm', is the basic sense of the root is suggested by the use in Yogli of a compound form for 'arm', the general extension of the root to 'leaf' (rather than 'branch'), and small differentiating shifts in the forms given by Peal for Wa 'arm' (tzak, cuk; but cak lo 'elbow, wrist' -- 'arm' not available in Brown). PTB *g-lak, but PST *g-lək (STC 183, n.482).

HARD(1). NN *jan: Yo a tsan 'hard', No can 'difficult', a can 'hard', possibly also lo can 'strong', a can 'loud' (cf. a can 'strong' [Robinson]). Cf. Jg. ja 'hard'.

HARD(2). NN *jek: Wa tsak u (prob. < *tsak ku)(Brown) tiak (Peal) 'hard'; Ch sek ok bu 'hard', sek ok kaŋ ko bu 'vigorous' (kaŋ ko bu [also] = 'hard'), sek bu 'expensive' (cf. SOFT(2) for the parallel association between 'soft' and 'cheap'), siek 'difficult'. Cf. Jg. yak 'difficult'; Ao Chonglī ta sak 'hard, difficult', si sak 'expensive', Ao Mongsen te cak 'difficult, expensive'. Matisoff (1972c: 281) cites TN sək, Lu. sàk < *tsak 'difficult', but a Lushai s- corresponds to an NN *c- in THORN; the Wancho forms could be from an NN *tsak, but not the Chang. Cf. also Ahom jak 'difficult' (GEM 222).

HARD(3). NN *raŋ: Ky waŋ pu; cf. also wan pu 'difficult'. Cf. Ao *m-raŋ (Chonglī me raŋ, Mongsen ta ma raŋ, Yachem-Tengsa ma laŋ la, all 'hard'). The *m- prefix in Ao suggests a relationship with WT mkhraŋ 'hard'.

HAWK. See EAGLE/HAWK.

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HEAD(1): TOP OF THE HEAD. NN *khow: Yo khu 'head', maŋ khu 'before, first'; Mo khu 'head'; No kho 'head', a kho naŋ 'above' (naŋ = 'to'), raŋ kho 'on top of", ha ho kho 'peak' (ha ho = 'hill'); Wa kho (Brown) ~ ko ~ kɔ (Peal) 'hair', ko hom 'cap' (Peal); Ky šo šau 'hat' (šo = 'skin') ≈ 'head-skin'; Ph šu 'head hair', šu le 'pillow' (cf. other forms for 'pillow' under HEAD(2); cf. also šə 'top'); Ch khu 'head, top', khu lu 'skull' (lu < *luo 'bone'). Cf. PTB *m-gaw ~ *s-gaw (STC), *m-gow ~ *s-gow (Matisoff 1972c: 276). Both of these sources, however, cite Di. sə gau, whereas the Dimasa form cognate with NN *khow is kho ro 'head, top' (Shafer 1953: 233), also in kho ro thu 'hat'.

HEAD(2): FOREHEAD. NN *khaŋ: Yo khʌŋ (Weidert), Mo khaŋ, No khʌŋ (Weidert) ~ khaŋ (DG), all 'forehead'; Wa khaŋ ra 'head' (Brown; ra = 'bone') ~ kaŋ tai 'cushion' (Peal); Ky šaŋ 'head', šaŋ ci 'pillow'; Ph šaŋ jiŋ 'head'; Ch khəŋ ca 'forehead'. Cf. TN ki khaŋ 'forehead', Di. mu khaŋ, Garo mu khaŋ ~ mik kaŋ 'face' (the last two from Shafer 1953: 233). WB has khoŋ 'head'.

TO HEAR. NN *C̬-ta't: Yo tai 'hear'; No tat 'hear, obey', a pun tat 'understand' (pun < INTELLECT); Wa a tat 'hear'; Ky jai 'hear, obey'; Ch tit 'hear, obey'. Phom has tan ~ dan (*tai expected). PTB *tâ-s.

HEART/MIND. NN *moŋ(daŋ) -- for the latter element (meaning unknown), found only in Konyak and Phom, see *C̬-daŋ: No maŋ 'to 'heart'; Ky moŋ 'mind', moŋ jaŋ 'heart', ə moŋ me 'within'; Ph moŋ 'heart', then doi-moŋ daŋ 'mind', moŋ phi lei 'within'; Ch maŋ 'mind, will; inside, within', maŋ bun 'heart, intellect'. Cf. Nr. bu maŋ 'soul', TN maŋ la 'soul, spirit', Di. maŋ ber 'spirit'; also Singpho man la 'soul' and Khasi ka man siim, id. (Robinson: 348).

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HEARTH. NN *tɘp: Mo tap 'hearth', tap tha 'ashes' (-tha < -DIRT); No tap 'hearth', tap la 'ashes'; Ky a tap 'hearth', tɘp la 'ashes'; Ph tep 'hearth', tep la 'ashes'; Ch tap 'ashes'. PTB *tap. For 'ashes' in No/Ky/Ph, PTB *tap pla (*tap 'hearth' + *pla 'ashes') > NN *tap la. As Chang drops the second syllable, leaving simply tap 'ashes', Wancho drops the first: la bu 'ashes'.

HEAVEN. NN *luʔm: Yo/Mo u lum (Dutta: 86), No ba lum (DG). Cf. Lu. loʔm 'glad' (?).

HEAVY. NN *lyɘy: Mo a li; No a li (Butler, DG); Wa li; Ky yi pu; Ch at cei tam (tam = 'adjectival suffix', like -bu). PTB *(s-)lɘy.

TO HIDE. NN *su: Ky lo, Ph ju, Ch hu 'hide', hu baŋ šo lau 'whisper' (lau = 'speak, say').

HIGH(1). NN *gyoʔk: Wa cuok (Brown) 'high'; Ph šak pa 'above'; Ch sok bu 'high, lofty'. Cf. Di. bo khro 'above' and the apparently related open-syllable variant, NN *gyaw, HIGH(2).

HIGH(2). NN *gyaw: Ky tau pu 'high', šɘ tau pu 'tall'; Ph šou pɘ 'high'. Cf. Jg. tsau < *gyaw or *gyow.

HIGH(3). NN *juaŋ: No a cuoŋ 'high', ha coŋ 'hill' (Robinson; ha = 'earth'); a coaŋ 'high', coaŋ 'up', ha ho coaŋ 'peak' (DG; ha ho = 'hill, mountain'; for -ho, see HILL); Wa taŋ 'high' (Peal); Ky ka toŋ 'top' (ka = 'earth', so the full form is cognate with No ha coŋ 'hill'); Ch yo soŋ 'to hop' (yo = 'leg') 'leg-up'. PTB possibly *jwaŋ (WB tswaŋ 'to be erected, elevated, perched on high', Lu. cuaŋ 'get or be on top of', Lepcha jaŋ ~ joŋ 'rising hill, eminence, mountain'), pcPKB. Also probably Di. ha ju 'hill'.

high. See also TO STAND(2).

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HILL. NN *C-koˀŋ: No ha ho 'mountain' (Butler, Brown), 'hill' (DG); Wa ha hoa 'mountain' (Brown) ~ ha huŋ 'crag' (Peal); Ky ka kiaŋ 'hill'; Ph šoŋ 'hill', ka šaŋ 'mountain, hill'; Ch šoŋ 'mountain, hill', kau šoŋ 'embankment'. No/Wa ha-, Ky/Ph ka-, Ch kau- = EARTH. Cf. Jg. koŋ 'elevation, hill', WT sgaŋ 'hill', AoM tə koŋ 'mountain' ~ tə khoŋ 'hill'.

hip. See (=) -LEG- + -ROUND- (of body parts)(2).

hit. See TO BEAT(2)/(3).

HOE. NN *kua: Mo gu ŋu; No jan hun khut 'hoeing' (DG; jan = 'iron', jan hun probably = 'hoe', cf. jan van 'hoe' [Butler]; for khut, see TO SCRAPE); Wa hɔ 'hoe', hɔ ja 'broom' (Peal); Ch kau 'hoe'. Cf. Mk. ku, Di. kho di, Sema a ku pu 'hoe', Di. kho di dao bra, Sema a ku wa, Chokri khwə, 'rake', Chokri pha khwə, 'broom', delineating a semantic field HOE/RAKE/BROOM, with the *-ua rhyme perhaps reflected in the underlined forms.

HOLE/CAVE. NN *gor: No loŋ kan 'cave' (loŋ = 'stone'), kho kan 'nostril' (kho = 'nose'), na kan 'ear-hole' (na = 'ear')(all DG); Wa ha kon 'cave' (ha = 'earth'); kan yet 'den', kuŋ kan 'nostril' (kuŋ = 'nose'), ko kan 'doorway, gate' (ko kap 'door', kap = 'to shut'). PTB *kor.

HOLLOW. NN *khrəˀk: Ky ka kok 'valley' (ka = 'earth'); Ph yuŋ kok 'well' (yuŋ = 'water'); Ch kok 'to be hollow', kau kok 'natural pit' ~ gau kok 'valley' (kau ~ gau = 'earth'), kok lok kan 'ditch' (kan < DITCH), pha(kuk) 'trench'. Possibly also Wa suo kha 'river' (Brown). Cf. PTB *grok 'ravine' (WB khyauk, Jg. khəro) and Mac o khro bvə 'ditch, hole'.

honey. See (=) BEE + WATER(1).

HOOK. NN *phek: Ph ñim phak (ñim < niyam 'iron'), Ch phek laŋ. Cf. Mk. vek.

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hook. See also TO GRASP.

HOPE. See THINK/WISH/HOPE and WORSHIP(I).

HORN. NN *ruŋ: Mo a ruŋ, No roŋ, Wa roŋ (Brown), Ky a woŋ, Ph voŋ, Ch laŋ 'horn', sak laŋ 'antler' (sak = 'sambar'). Possibly also Ky tik woŋ, Ph šək voŋ, 'trumpet' (Ky tik/Ph šək < TUBE). PTB *ruŋ (STC, original reconstruction).

HORSE. NN *ko'y: Mo gi mraŋ (-mraŋ is a probable loan from Singpho gu mraŋ, ultimately from PTB *m-raŋ 'horse'), Ky koi, Ph kau ye, Ch ko ri. Originally a loan from Indic (Assamese)(pcPKB; cf. GEM 223) but apparently sufficiently early for the Northern Naga correspondences to apply to both initial and rhyme.

HOT(1)/SWEAT. NN *lim: Yo hraŋ lim (Walker; hraŋ = "sky"), lim (Weidert) 'hot, warm'; Ky ñi nəŋ ləm 'noon' (ñi nəŋ = 'day'), waŋ ləm 'sweat' (waŋ = 'sky', the full form thus being cognate with Yogli hraŋ lim 'hot'); Ph lem o 'sweat'; Ch lem li 'sweat', lam bu 'hot'. PTB *lum, but Di. lum ~ lim 'to be hot', gulum di ~ gilim di 'sweat' points to a front-vowel doublet.

HOT(2)/TO BOIL. NN *kham: No kham 'to boil' (DG), a kham 'hot', jo kham 'vapor' (DG; jo = 'water'); Wa kam 'hot' (Peal); Ky šem 'to boil', šem pu 'hot'. PTB *(s-)kam (pcPKB).

HOUSE. NN *kium: Yo him, Mo yim, No hum, Wa ham, Ph šem, Ch cam. The Konyak form, nok, is from a different root. The Moshang and Chang initials are both irregular for *k- (Mo y- rather than g-, Chang c- rather than k-), this irregularity being attributed to palatalization in the process of reduction of the unusual rhyme; see discussion under rhyme. PTB *(s-)kyum (rev. of STC's *kyim ~ *kyum), pcPKB.

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HOUSEPOST. NN *thuŋ: Mo thuŋ 'housepost'; No thoŋ 'post' (DG); Ch thau ñu < *thaŋ ñu 'pillar'. Cf. PTB *duŋ ~ *tu°ŋ 'length, height'; WB tuiŋ, Di. thoŋ, Ao Chongli toŋ nə, Ao Mongsen a toŋ, toŋ la, St. toŋ, Rengma ke tuŋ, Ntenyi a zun tuŋ, all 'housepost'.

HUNDRED. NN *C-khya: Yo šə kha (-kha < ONE(2)); Mo rok šə ši (rok < TEN(1), -ši < ONE(1): Mo 'ten' is rok ši ≃ '10 x 1', 'twenty' is rok ni ≃ '10 x 2', etc.; if this principle were followed for 'hundred', -šə- would have to be 'ten', but as it is apparently cognate with Yo ša/No ca, rok- must be semantically otiose in this form); No ca. PTB *r-gya.

HUSK. NN *C-we°k: Ky wek, Ch ek. Probably to be referred to PTB *pwa°y 'husks, chaff' via a compound like Mk. phe ke, id., accounting for the final -k. Cf. FRUIT(2), PTB *sey but NN *sek.

i-

I. NN *ŋa^{A}: Yo/Mo/No ŋa; Ch ŋo. PTB *ŋa^{A}.

INSECT/WORM. NN *gluŋ: No maŋ doŋ 'mosquito'; Wa coŋ 'beetle; caterpillar'; Ky yoŋ 'worm', yoŋ wan 'caterpillar'; Ph loŋ tha 'worm'; Ch yaŋ 'caterpillar; insect generally'. PTB *(s-)(g-)luŋ (pcPKB).

INTELLECT. NN *pu°n: No a pun tat 'to understand' (tat = 'to hear') -- cf. pin 'liver'; Ch maŋ bun 'heart, intellect' (maŋ = 'mind'). Cf. Ntenyi a le pən 'heart'.

IRON. NN *ya°n: Yo yan 'iron'; Mo yan 'iron', yan hi 'knife'; No jan 'iron', jan phoan 'hook'; Wa jan 'iron', jam tua 'gun'; Ky yan 'iron', yan kei 'hook', yan šiŋ 'gun'; Ph yan 'dao, sword', yan lu 'sword' (lu < LONG); Ch in 'dao', in lou 'sword' (lou < LONG), in šou 'knife' (šou = 'son'), in so bu

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'tool'. Cf. PTB *sya˜l. The two roots are too similar not to be related at some level, possibly as PTB *sya˚l ~ *(s)ya˚n, but Benedict (pc) suggests a loan into NN from some language having -n for PTB *-l. Cf. also Ao Mongsen a yin, Ao Chongli in, Lhota yon cak 'iron'.

ISSUE. NN *po˚k: No san poat 'time' (san = 'sun'), van po 'ash' (van = 'fire')(both DG); Ky/Ph hi pak 'time' (hi < SUN); Ch pak 'to derive origin'. Benedict (pc) suggests that Ch pak 'to derive origin' may be the same word as Ch pak 'to hatch' (but "of sitting in order to hatch", as vs. pap, 'of the actual moment of hatching out'). If this is so, it can be related to WB pok 'be pierced; sprout; be hatched' and Vayu bok 'be born', pok 'give birth to', < PTB *bok ~ *pok (pcPKB). Semantically, however, the No/Ky/Ph forms fit more comfortably with PTB *pro(k), whose glosses include: 'proceed, issue, emanate from; make go out, disperse'.

j-

TO JOIN(1)/FORK/BRANCH. NN *phek: Yo a ge phek 'to join' (ge ≈ 'together'), No a phak 'branch', Wa ru pak 'belt' (ru < ru ka 'creeper'), Ch (po)phek 'fork (of a tree or path)', pu phyek 'branch' (pu ~ po- = 'tree'). Cf. HOOK, also NN *phek and probably the same root.

TO JOIN(2). NN *cap: Ky hep, Ch cap at. PTB *cap.

JUDGMENT. NN *phin: Ky ŋao phin, Ph ša2 phen pə. Ky ŋao /Ph ša2 = 'speech'.

TO JUMP. NN *ba˚y: Ph tət ei (syllabification matching Jg. šiŋ tot 'to jump'; for Ph tət [≈ 'up'?], see TO CLIMB); Ch ai. Cf. Lu. bai 'to hop'.

JUNGLE. NN *C$_{v}$-ram: Ph yem ha 'animal' (cf. Lu. ram 'country', ram sa 'animal'); Ch yam 'jungle, country (un-

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inhabited area); wild", yamat < *yam mat 'hunter' (mat = 'man'). Cf. Lu. ram, Zemi ram 'land, country, Lu. ram hnuai, Ao Chongli a rem, Yi. rim 'forest, jungle', Li. ca ram, Nr. rəm kian 'land', Nr. rəm kək, Mk. ram, 'jungle".

jungle ~ forest. See also TO GROW/GROWTH(1)/(2).

k-

TO KEEP. NN *C-riam or *C-riam: No riem 'to keep', wak rien 'pigsty', vu rien "poultry yard" (latter two from DG); Ph yom 'to keep'. Cf. Jg. rem, Ze. rei, Mk. rai, id. A semantic field embracing "put' and 'keep' exists in Northern Naga (see PUT/KEEP(1)/(2)) and, if Yo hram 'to put' is cognate with the forms above, this root would make a PUT/KEEP(3).

TO KEEP. See also PUT/KEEP(1)/(2).

TO KILL. NN *2-sot: Yo a jaut, Mo tat, Ky toi, Ph jə, Ch khu tad 'to behead' (khu = 'head'; cf. Garo sot 'kill', sko ra sot 'behead' [sko = 'head', ra = 'cut, reap', ra sot = 'clip, crop, sever']). PTB *(g-sât ~)*a-sât (for the latter, pcPKB; PTB *a- > NN *2-, as in WT, Jg.). See discussion under initial.

KIND(SORT). NN *ləm: Ky ə ləm ja, Ph lem.

KNEE. NN *gəw: No da ku 'knee', dak ku 'elbow'; Wa ci kui 'knee' (*ku expected; the -i is apparently a literal "rhyme" with [in assimilation to] the -i of the first syllable, ci- < *cia 'leg'); Ky ya tu 'knee'; Ph la šə2 'knee'; Ch yo kək 'knee', yik kək 'elbow'. The first syllable in the forms for 'knee' is the word for 'leg', and that in the forms for 'elbow' is 'arm'. Cf. Di. -su gu, Garo -sku, both in comp. with 'leg', also Garo -gu 'bend', WT dgu-ba 'bend(ing), bowing, stooping' (pcPKB).

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knee. See also CROOK/CROOKED/BENT(1).

KNIFE. NN *C$_{V}$-mi˚t: No mit cha, Wa bit sa (possibly also ran bit 'lightning' [ran = 'sky']), Ky ñit. Cf. NN *me˚t, TO CUT WITH A KNIFE(2). No TB comparisons; very probably a loan into NN from Ahom: cf. Ahom/Khamti mit 'knife' (GEM 221).

knife. See also DAO.

TO KNOCK. NN *C$_{V}$-khruŋ: No koŋ, Ky koŋ, Ph khoŋ 'to knock', possibly also khəp pə khoŋ pə 'rough', Ch kaŋ 'to knock', possibly also kaŋ(lau) 'aloud' (lau = 'say, speak'). Cf. Mao ko khru 'to knock', Dï. khu raŋ 'noise', (but) TN ka kuŋ 'knock', khoŋ 'noise'.

TO KNOW(1). NN *C-yə˚y: No i jet 'to know' (Robinson, DG), a jet te 'distinguished' (DG; -te ≃ '-man'), from *je + *-t (cf. [e.g.] ri ~ a rït 'to die'). As discussed in 2.2.3(3) above, while No /e/ and /a/ are distinct as open-syllable rhymes, [e], occurring only before dentals, is a variant of /a/ in closed syllables. Here, a suffixed open-syllable form has been treated as if it were a closed-syllable form, so that we also have: i jat 'to know' (Brown; apparently this is the form which GEM lists under 'to understand'), and a jat a jien 'wise' (DG). Ph yəʔ go pə 'wise', yəʔ ñuʔ pə 'teacher' (go = 'to grow', ñəʔ < MOTHER). PTB *syey. Cf. NN *C-syə˚y, TO LEARN.

TO KNOW(2). NN *C-khyeŋ: Ky šiŋ 'to know', šiŋ lak ciŋ 'to understand'; Ch šen 'to recognize'. Cf. PTB *(m-)kyen ([but] Jg. cyeŋ, with velar final, which the NN suggests is original, with WT -n, like Ch -n, derived, a product of assimilation to the vowel).

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l-

LADDER. NN *C-thu°ŋ: No hi tho , Wa ci tuŋ (ci- = 'foot-' [cia] in compounds), Ch cuŋ, 'ladder'. Cf. NN *thuŋ, HOUSEPOST, and PTB *duŋ ~ *tu°ŋ 'length, height'.

lake. See POOL(1)/(2).

lamp. See (=) FIRE + POT, also TO BURN(2).

land. See EARTH(1).

LANGUR. NN *C-yual: Ky mei yo (mei = 'animal'), Ch yuo. Cf. Zemi he zua < *s-yua(1) 'monkey' (see under initial).

last. See COMPLETE(1)/(2).

late. See EVENING.

TO LAUGH. NN *C̬-ni: Yo ni (Weidert), Mo ni, No ŋi (Robinson, Brown; DG has ŋit [cf. "to die', ri (Robinson, Brown) ~ a rit (DG)], which matches Weidert's "ñid = /ŋit/", given for the non-finite form, but for the finite form Weidert has ŋe (?]); Wa ñi (Brown), Ky ñi, Ph ñi, Ch ñi, 'to laugh'. PTB *m-nwi(y) (Jg./Di. -ni, both showing elision of the *-w-).

LAW. NN *kyoŋ: Ky ŋao kiaŋ 'law', ŋao kiŋ 'to order'; Ph šaʔ koŋ 'law' (Ky ŋao/Ph šaʔ = 'word, speech'); Ch soŋ 'habit, custom, rule, sense'. Cf. Ao Chongli o jaŋ (o = 'word, speech', same construction as in Konyak and Phom); Ao Chongli j- < *k(h)y- (see under initial).

TO LEAD. NN *rua°y: Ky woi 'lead', woi lak 'follow', woi jim 'gather'; Ch lei an ~ lei laŋ 'lead'. Cf. Lu. hruái (pcPKB).

LEAF(1). NN *lap: Mo pha lap, No pla lap ~ khe lap (both DG), Ky khe lep, all 'tea'. PTB *lap 'leaf'.

LEAF(2)/BOOK. NN *lay: Ky lai 'book', lai lan 'letter', possibly also hui lai 'vegetable' (hui < VEGETABLE,

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-lai ≃ 'leafy'?); Ph lai 'book'; Ch lie 'leaf, book', ŋəɣ lie 'book' (ŋəɣ = 'word') ≃ 'word-leaf', hoŋ lie 'paper' (hoŋ < haoŋ 'foreigner') ≃ 'foreigners' leaf'. Cf. Di. ba lai 'leaf', Jg./Mpri./TN lai-, Lu. leh- 'book', Lu./TN also in 'letter'.

TO LEARN. NN *C-syə°y: No he(i) 'to learn', he(i) tho 'to teach' (a tho = 'to say'); Ky ši 'to learn'. Cf. NN *C-yə°y, TO KNOW(1), PTB *syey 'to know'. In NN the prefix is apparently associated with the semantic shift from 'know' to 'learn'.

leather. See SKIN.

LEECH. NN *C$_{v}$-wat: Mo ta wat, No wa vot ~ sa wot (DG; *-vat expected); Wa vat; Ch wat. Cf. PTB *r-pat. Benedict had originally suggested a doublet, *r-wat; the NN evidence supports the latter, or perhaps a more complex form such as *r-pwat.

LEFT-HAND. NN *C-nuŋ: Wa non ci (cf. ta ci 'right', -ci possibly < cia 'leg, foot'); Ph lak ñoŋ (cf. lak ta 'right', lak- = 'hand'), 'left', ñoŋ phi lei mə 'to deceive' (lei < FALSE(2). PTB *s-nuŋ 'back, after'.

left-hand. See also -FEMALE(2).

LEG. NN *gla^{A}: Yo ya 'leg', ya vaun 'foot' (for -vaun, see PALM/SOLE(2)); Mo ya 'leg', ya pha 'foot' (for -pha, see PALM/SOLE(1)); No da 'leg, foot'; Wa ca 'foot' (Brown, 'leg' not given) ~ cia 'leg, foot' (Peal; > ci- in compounds); Ky ya, Ph la 'leg, foot'; Ch you 'leg' (but yo- in 'knee' and 'shin') ~ yo 'foot'. Many compounds; generally preposed to terms for body parts of leg and foot. PTB *g-la.

-LEG- (comp. form). NN *ge°ŋ: Wa ke roŋ 'hip', Ky yoŋ keŋ 'thigh', Wa -roŋ/Ky yoŋ- < -ROUND-(OF BODY PARTS)(2). Cf. PTB *keŋ (Lu. ke) 'leg, foot' (STC 70, n.218).

TO LICK. NN *C-glay: Ky yai, Ph lai, Ch se. PTB *g-lay.

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to lie. See FALSE(2), WRONG(1).

TO LIE DOWN. NN *la'm: Ky lam, Ph lem 'to lie down'; possibly Ch lim bu lak 'land-slip' (lak = 'precipice, cliff').

to lie down. See also BED, TO SLEEP(2).

life. See ALIVE(4), (TO LIVE/)TO BREATHE.

TO LIFT. NN *C̬-tuan: No tuon 'raise' (Robinson), 'lift up' (Brown) ~ toan 'raise' (DG); Ky jon yaŋ 'lift, raise' (yaŋ possibly < yoŋ 'stand, rise'). Cf. Tibetan-Kanauri *don ~ *ton '(cause to) come or go out, pull' (could also be *dwan ~ *twan).

TO LIFT. See also COME/STAND/LIFT; also BUILD, GO(3), TAKE(UP)(4).

LIGHT/TO SHINE. NN *ŋay: Wa raŋai < *raŋ ŋai 'light' (Brown), 'early' (Peal); Ky ŋai 'to shine', waŋ ŋai 'light'; Ph vaŋai < *vaŋ ŋai 'light'; Ch ŋeyaŋ < *ŋei aŋ 'dawn, morning, early'. Wa raŋ/Ky waŋ/Ph vaŋ = 'sky'; Ch aŋ < COME OUT/ARISE/ASCEND. Cf. Mpri. ŋan 'shine', ma ŋal 'light', noŋ ŋan ba 'dawn' (noŋ ma = 'day'); Proto-Tai *hŋaay 'light, shining, [but also] moonlight' (pcPKB).

LIGHT(-weight). NN *gyaŋ: Yo caŋ (Weidert), Mo a can, No -ca (Weidert), Wa cia, Ph šaŋ kha lok pə, Ch so ŋok pu 'light', so bu 'easy', yau so bu 'swift' ~ yo sou bu 'active (lit. light legged)' (yo = 'leg'; both the -au in yau- in 'swift' and the -ou in -sou in 'active' are the product of alternative dissimilative shifts away from *yo so). PTB *r-ya'ŋ ~ *g-ya'ŋ (for the latter, pcPKB).

to light (ignite). See TO BURN(1)/(2).

LIGHTNING. NN *liap: Mo roŋ lep (roŋ = 'sky'). Speculatively, also Nocte kiep da 'lightning' < *liep dak 'to lick', by what might appropriately be called

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terminal metathesis. For the semantic association (in two other members of the same word-family), cf. PTB *(s-)lya'w 'lick (as flames); tongue' and PTB *(s-)lyam 'tongue; flame'. The root also occurs in the Konyak dialects reported by Brown: Mulung wan lup, Tablung wan lip 'lightning'. PTB *(s-)lyap 'glitter, flash; lightning'.

Lightning. See also STORM.

LINE. NN *rəy:

> THREAD: Yo rai 'thread'; Mo ri pu 'cotton' (pu 'plant, bush' < TO GROW/GROWTH(1); cf. Ch pu 'plant'; cf. also Ky wi, both 'thread' and 'cotton'); No khʌt ri 'thread' (Weidert; khʌt = 'cloth') ≃ 'cloth-line'; Ky wi 'thread; cotton'; Ch lei 'thread'.

> BOUNDARY: Yo ha2 rai (Weidert; ha2 = 'earth') ≃ 'earth-line'; No -ri (Weidert); Ch lei laŋ (-laŋ here possibly = 'stone', hence ≃ 'stone-line'), all 'boundary'.

Thus the Northern Naga forms for 'thread' and 'boundary' are identical; this identity extends to tone in the four Northern Naga languages compared by Weidert: Yogli, Nocte, a distinct dialect of Konyak (which has ɣi 'thread', lʌŋ ɣi 'boundary') and Chang (for which Weidert gives lʌi 'thread', lʌi lʌŋ 'boundary' [adding lʌŋ < *laŋ 'stone'; tone markings omitted]). Weidert nevertheless proposes different reconstructions for the two sets, *-ri- for 'boundar', *-rui- for 'thread', based on apparent differentiation in Kuki-Naga. But the Kuki-Naga forms cited for *-rui- are glossed 'rope, string' and are to be associated with the STC's PTB *(s-)rwi(y) 'cane', rather than with 'thread'. These include Lu. hrui 'rope' (cited by Weidert for 'thread'), but also 'cane' (cited by Benedict for 'cane'): the full gloss (pcPKB) is 'a creeper; cane, rope, cord, string,

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fibre; anything used for tying". The situation is complicated by the identification of yet a third root in this word-family, NN *raw, CREEPER/ROPE, < PTB *raw^{B} 'vine, creeper, fish poison, poison'. But forms such as Ko. ke ro 'rope'/Kh. ke ro 'creeper, rope' and Lhota o zu 'rope', o zu-eyowo 'creeper', attributed by Weidert to *-rui-, while they may go back to PTB *-rwi(y) or to PTB *raw, are surely to be distinguished from the set for 'thread'. On the other hand, Ze. he ria 'rope' ~ ke laŋ ria 'thread', which Weidert also attributes to *-rui-, is rather to be derived from *-ri(y)-, particularly in the face of Ze. buŋ rui 'creeper'. The problems here are formidable, the more so as there is still another root involved, NN *rey, CANE, < PTB *rey; but Konyak distinguishes among them all:

PTB	NN	Konyak
*raw 'creeper' (pcPKB)	*raw, CREEPER /ROPE	wu 'creeper, rope'
*(s-)rwi(y) 'cane' (STC)	*rui(y), SUGAR CANE	wui 'sugar cane'
*ray 'line' (STC)	*ray, LINE	wi 'thread'
*rey 'cane' (STC)	*rey, CANE(1)	wei 'cane'

That is, I derive the Northern Naga sets for both THREAD and BOUNDARY ('boundary' always in comp., in Yogli with 'earth', in Chang apparently with 'stone') from PTB *ray, whose glosses include 'draw, draw a line, mark, rule, line, fix (as a boundary), dividing line between two paddy fields, boundary'. The Konyak form for 'sugar cane' indicates that PTB *(s-)rwi(y) passed into NN without losing its medial *-w- (> NN *-u-) and thus cannot be the source of the Northern Naga forms for 'thread'; cf. also PTB *(s-)rway > 'slope, slant' > Jg. rawi; PTB *kway 'dog' > Jg. gwi; PTB *twi(y) 'sweet' > Jg. dawi ~ dwi; but Jg. ri

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'thread'.

LIP. NN *kho°p: No thun khuap (DG; thun = 'mouth'); Ch sam puŋ kop (sam puŋ = 'mouth'), 'lip', possibly also ñek kop 'eyelid' (ñek = 'eye'). Cf. St. pe kəp 'lip' (pe = 'mouth'), šu kəp 'leather', kep 'skin', Ao -kəp /-kap 'skin'; also NN *ko°p, SHELL.

lip. See also SKIN(2)/FLESH, (BREAST/)FLOWER.

to live, living. See ALIVE(1)/(2)/(3)/(4), (TO LIVE/)TO BREATHE.

LIVER. NN *C̬-sin: Yo a din, Ch san maŋ. PTB *m-sin.

LIZARD. NN *C̬-sa°ŋ: Ch su 'house lizard'. PTB *r-sa°ŋ.

lizard. See also FLY.

load. See TO BRING, TO CARRY ON THE BACK(1)/(2).

LOCUST. NN *guak: Wa kak 'locust', Ky tok 'locust, grasshopper', Ph šuk 'locust, grasshopper', Ch kok siŋ 'locust, grasshopper', yaŋ si kok 'insect' (yaŋ = 'caterpillar, insect generally', < INSECT/WORM; si = 'and') ≈ 'caterpillars-and-grasshoppers'. This kind of construction is common in Chang; cf. mesiau 'animal', "lit. 'animals and birds'" (Hutton 1929a: 46), < *mei['game']-si-au['bird']. Cf. Di. ghu 'locust', PTB *kwâk (Lu. khok 'peel off, pull off (skin, bark)', Chang kwok 'to strip (as fibres)' [not in Hutton]), STC 74, n.229. This is presented as an apparent verbal doublet of PTB *(r-)kwâk 'bark, rind, skin', with the suggestion that the verb is prior ("'to peel or skin off' > 'something peeled or skinned off'"). I am suggesting an additional derivation for NN: > (locust as) 'peeler skinner (of grain)'.

LONG. NN *low: Yo a lu 'long, tall'; No a lo 'long, tall, deep', daŋ lo 'sword" (daŋ = 'dao'); Wa lo (Brown)~ lo (Peal) 'long', caŋ lo 'sword' (Brown);

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Ky lau pu 'long'; Ph lu aŋ pə 'long, far', yan lu 'sword' (yan = 'dao'); Ch lo bu 'long, tall', in lou 'sword' (in = 'dao'). PTB *low.

TO LOOK FOR. NN *srəy: Yo dai (Walker) 'look for'; Mo thi 'seek'; Ch hai tu 'look for'. Cf. Mk. ri, Mpri. thi, 'look for, seek'.

loose. See TO OPEN(1), SOFT(2).

TO LOSE. NN *ma^{B}: Wa ma li, Ky ma, Ph ma ~ ma tək, Ch mau 'to lose'. PTB *ma^{B}.

loud. See HARD(1)./ aloud. See TO KNOCK.

LOUSE(1). NN *sre°k: Ky ku šek 'flea' (ku- < kui 'dog'); Ch hek 'louse' (var.), hek tei (-tei prob. < au tei 'egg' [au = 'bird']) 'nit' (= 'louse egg'). Cf. Mk. rek.

LOUSE(2). NN *sri[°]k (for rhyme, see under *srik): Mo thik, Ky šik 'louse' (note the contrast with -šek 'flea', < LOUSE(1)).

LOUSE(3). NN *srəy: No rit < *ri 'louse' (DG; cf. DIE, ri [Robinson], a rit [DG]); Ch hat 'louse' (var.). See discussion under initial.

The STC has PTB *šrik 'louse', but Benedict (pc) now reconstructs PTB *šryək, presumably, as with 'eye' (STC *mik ~ *myak, now (pc) *myək), thereby resolving some of the difficulties which the rhymes in TB forms for 'louse' presented for the earlier reconstruction. At the NN level, however, doublets still appear to be preferable for 'eye': NN *mik ~ *me°k (see full discussion under initial and rhyme for *mik). For 'louse', I favor an identical solution, NN *srik ~ *sre°k, though for different reasons. It would in fact be entirely possible to reconstruct NN *miək, EYE, but it would be ad hoc, as this would be the only root attributable to an NN *-iə-; LOUSE could not also be re-

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constructed with *-iək, however, because of the contrast between Moshang mak 'eye' and thik 'louse'. In regard to 'louse' itself, the contrasts between Chang hek and hat, and between Konyak šik and ku šek 'flea' appear to be irreconcilable, the first because of the difference in finals -- I know of no instance in which *-k > Ch -t -- and the second because of the difference in medial vowels. Ky šik, Ky šek, and Ch hat must be referred to three distinct prototypes. It is possible, however, that Ky -šek in 'flea' is not from a root for 'louse' at all -- that its resemblance to šik is fortuitous. (But cf. WT šig 'louse', khyi šig 'flea' [khyi = 'dog'].) My resolution of the problems in reconstructing the rhymes for 'eye' forces me to admit Ch -ek as an alternative (to -ak) reflex of NN *-ik, and this opens the possibility that Ch hek is from *srik, LOUSE(2) (which would then have to be reconstructed with short vowel). This set could also accommodate No rit < *rik on the model of lit 'necklace' (DG) < lik 'bead' and mit 'eye' (all sources) < *mik; cf. DG: "mit (mik)" 'eye". We would then have a set for LOUSE, NN *srik, with entries in four of the seven data languages: No thik, No rit < *rik, Ky šik, Ch hek; and two unassimilable isolates, Ky ku šek and Ch hat.

to love. See TO CHOOSE.

LOW(1). NN *nium: No a num 'low, down'; Ky nəm 'to sink'; Ph nem nem 'to whisper'; Ch ñem at laŋ 'to sink', ñam ñam 'to mutter'. Cf. PTB *ńam 'low' (Nung ə nem 'to be low', šə nem 'make low, lower').

LOW(2). NN *kre: Wa a se (Brown), Ky še pa. Cf. Ko. pe khre 'whisper' (cf. the forms for LOW(1)).

LUNGS. NN *lo'w: Ky lou, Ch saŋ lo-lo šo. Cf. WT glo ba, which Matisoff derives from a PTB *k-l-wap

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(1978: 116). The NN form can be derived from *l-wap via *lo wap (vowel quality transferred to vowel of prefix from following semi-vowel) > *lo°w ap (second syllable-initial semi-vowel reinterpreted as first syllable-final offglide, prefix reinterpreted as root) > *lo°w (second syllable, now redundant, dropped).

m-

mad ~ fool. See DUMB, also BUFFALO(1).

maize. See UNCOOKED RICE.

MAKE. See DO/MAKE(1)/(3)/(4).

-MALE(1). NN *ga°ŋ: Yo tei kaŋ, Mo vi kan wa 'old man', No te ka 'old', Ky na tan 'man(male)'. The Nocte form, given simply as 'old' (along with a to, id.) by Robinson, is misplaced by GEM under 'old (of things)' while the variant, a to, is misplaced under 'old (of persons)'. The two should be reversed: Brown lists (only) a to 'old', in juxtaposition with 'new'; while Das Gupta lists (only) te ka 'old', followed by 'old woman'. As this last placement suggests, te ka should really be glossed 'old; old man'. Yo tei- is almost certainly a (dissimilated) variant of Yo a tai 'grandfather', and No te- = 'grandfather', both from NN GRANDFATHER(1)/ELDER BROTHER. Thus these elements (Yo tei-, No te-) already carry the sense 'male' in addition to 'old'. In the Moshang form, however, vi- is from GRANDMOTHER (Yo a bi, No vi), so that the -kan element is required to specify gender: cf. Mo vi kau 'old woman' (Yo vi kau, No vi ku), the second element in these forms being from -FEMALE(1). Apparently gender becomes partially neutralized in the GF/GM terms in these languages, so that gender suffixes become required -- redundantly, in Mo -wa, 'father'

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(var.). The redundancy thus credited to Yo tei kaŋ/ No te ka, ≃ 'grandfather-male', and Mo vi kan wa, 'grandmother-male-male', might make the identification of the morpheme in question as = -MALE doubtful were it not for the Konyak form and the external comparisons: cf. PTB *kaˀlŋ 'father, grandfather' (vowel length noted as indeterminate at STC 190, n. 488). Note again also the direct contrast between Moshang vi kan- 'old man' (-kan < -MALE(1)) and vi kru 'old woman' (-kru < -FEMALE(1)), and the parallel use of these two gender suffixes to discriminate among old persons (in the case of the latter, also among animals).

-MALE(2). NN *la^{B}: No de la 'husband' (Robinson) ~ da la 'male', da la cha 'son' (DG); Ch lau 'husband'. This form also has a direct parallel in -FEMALE(2). Cf. No de hiek 'woman', de hiek c(h)a 'girl, daughter' (Robinson, Brown) ~ de hiak 'woman, female', de hiak cha 'daughter' (DG). No de ~ da < NN *gla, PERSON(I) (not marked for gender), -hiek ~ -hiak < -FEMALE(2). Cf. Jg. la 'man(male)', la ǰa 'boy', la ka ǰa 'son'.

This root should be distinguished from NN *gla^{B}, -FEMALE(3) < PTB *g-la, in Kuki-Naga 'feminine affix, used especially of young females' (pc PKB) -- perhaps, as the accents are the same, it was originally the prefix which was employed to distinguish '-young female' from '-young (male)', the gender distinction then assuming salience.

Moreover, NN also has a segmentally identical form, NN *la^{A}, -MALE(CF ANIMALS)(2) (see below). It is this latter root which is to be identified with the STC's PTB *-la 'masculine suffix, used with words for animals'.

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-MALE(OF ANIMALS)(1). NN *2-buŋ: Yo wu puŋ 'cock' (cf. wu 'bird', wu ko 'hen', -ko < -FEMALE(1)); Mo man su puŋ 'bull' (man su = 'cow'), ke puŋ 'he-goat' (cf. ke ki 'goat', ke šar 'she-goat'; terms for 'he-/she-goat' from LSI); No man poŋ 'bull' (man = 'cow'), vu poŋ 'cock' (cf. vu ñoŋ 'hen'; last three terms from DG: cf. also man ñoŋ 'cow'); Wa ɔ poŋ 'cock' (cf. ɔ 'bird', ɔ nu 'hen', -nu < MOTHER), ɔ pak poŋ 'drake' (cf. ɔ pak nu 'duck'); Ky ma hu poŋ 'bull' (ma hu = 'cow'); Ph ou boŋ 'cock' (cf. ou thə 'bird', ou ñə 'hen', -ñə < MOTHER); Ch ma su paŋ 'bull' (ma su = 'cow'), au paŋ 'cock' (cf. au 'bird', au ñu 'hen', -ñu < MOTHER); -paŋ 'male, of a pair of animals' (the coresponding female terminations are -pi [see GRANDMOTHER] and, for a 'female that has not given birth', -sau a ñu, -sau < FEMALE(3), a- = 'not', ñu < MOTHER); paŋ 'clan (of men)' (cf. sau 'clan (of women)' < -FEMALE(3)). Cf. C Naga: Yi. -buŋ, St. -boŋ ~ -poŋ, Ao Mongsen -boŋ, Ao Chongli -boŋ ~ -puŋ, Lhota -(ɔ)poŋ, Ntenyi -sepuŋ, all found in comp. forms for 'cock' and/or 'bull', as in Northern Naga; for wider possibilities, see under initial.

-MALE(OF ANIMALS)(2). NN *la^{A}: Mo gui hen la 'male dog' (cf. gui hen 'dog', gui hen kru 'bitch', -kru < -FEMALE(1)); No vak la 'male pig' (DG; vak = 'pig'); Wa vak la 'boar' (Peal; vak = 'pig'); Ch kei lo '(male) dog' (cf. kei 'dog', kei ñu 'bitch', -ñu < MOTHER), ok lo šou 'domestic boar' (ok = 'pig', -šou = 'young'). PTB *-la^{A} (pcPKB for accent), 'masculine suffix, used with words for animals' (STC 96).

Note that this is distinct from NN *la^{B}, -MALE [i.e., of persons](2), > Ch lau 'husband'. Except for Chang paŋ 'clan (of men)', these languages appear to keep male gender suffixes for animals and for persons apart, but the female suffixes are used for both.

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MAN(GENERIC). NN *C-məy: Yo mai (Walker)~ mʌi (Weidert); Mo mi; No mi ñan (Weidert has mi2 ñan); Wa mi; Ch mat. PTB *r-mi(y).

many. See ALL(1), FAR(2).

MARKET. NN *pha°y: Ky phei lei jəŋ (lei < TO BARTER), Ph phei yu šiŋ (yu = 'sell', šiŋ = 'place'), Ch pai. (identified by Hutton as "an Ao Naga word", but not -- at least in GEM -- for 'market').

marrow. See BLOOD(1).

MAT. NN *kləm: Mo ɗam, No ham, Wa ɗam, Ky əm, Ch am ñu. Cf. PTB *(s-)klam^{B}, 'spread' > 'mat' (pcPKB).

MATCH. NN *C$_{V}$-hiat: No van hiet (DG; van = 'fire'); Ch wan sat (wan = 'fire'). PTB *hyak (STC; Lu hiat 'scratch', WB yak 'strike with a stroke toward oneself, scratch'), perhaps better set up with *-t (PTB *hyat), pcPKB. Add TN hat 'scratch'. The NN reconstruction for MATCH should then actually be *2-wa°r hiat. But see under initial for another possibility.

MEAT/FLESH(1). NN *me°y: Wa mai i 'animal (lit. flesh)', meat, flesh', mai 'deer (lit. flesh)', mai hu 'cow', mai ki 'antelope', mai ñu 'rhinoceros', mai ku 'cucumber', mai nak 'ape, monkey' (all Peal)~ me nak 'monkey' (Brown); Ky mei 'animal, meat, flesh', mei ši 'barking deer', ši mei 'monkey', mei yo 'langur; squirrel', mei ñak 'donkey', mei ñu 'elephant', mei šo 'hide' (šo = 'skin'), mei nem 'rotten' (= 'flesh-stink' [GEM 134]); Ch mei 'game (of four-footed game only); sago palm', mei ši 'barking deer', mei šou 'wild boar', ku šou ku mei 'monkey (generic)', mei su '<u>Macacus rhesus</u>', ku mei '<u>Macacus assamensis</u>', kau mei 'pangolin', šu mei 'bean'. Cf. Di. mei 'deer', Mk. me saŋ 'langur', Ze. he mei 'meat, flesh'. Possibly also Bodo-Garo *m[a,e]y 'rice (paddy)' (see

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STC 149, 192-3 for the *-e- variant): note the "vegetable" glosses in Wancho ('cucumber') and Chang ('sago palm', 'bean'); if these are cognate, they could be from an NN *may as well as *me'y, but Nocte ham-me-cha 'kani paddy' (DG; cha = 'paddy') could only be from the latter.

MEAT/FLESH(2). NN *phay: Ph phai 'meat, flesh'; Ch phie 'flesh' ~ pheh 'meat', ok phe 'pork' (ok = 'pig'), phe li 'wound', phe lo 'hip'.

meat. See also (GAME)ANIMAL.

MEET(WITH)/FIND(1)/(2): NN *krum ~ *krup: Yo ge khim 'to meet'; Ch hap 'perceive, see, meet(with), find, get, acquire, give birth (of humans)'. Cf. WB krum 'meet', Jg. khrum 'meet, find' ~ khrup 'find'.

milk. See (=) BREAST + WATER, also (BREAST/)FLOWER.

MIND. See HEART/MIND.

MIRE. NN *tha'm: No tham 'tank' (DG); Wa ha tam 'mud, mire' (ha = 'earth'); Ch thim 'quagmire', thim o 'mud, mire', also (irregularly) tim 'lake, marsh, quagmire', tim si 'lake'. Cf. NN *thu'm, POOL(1).

MIST. See CLOUD/MIST.

MITHAN. NN *C-ŋa^{B}: Mo ŋa 'buffalo'; No ŋa(h) 'mithan' (DG); Ky ña 'mithan'; Ch ŋau 'mithan' (GEM; Hutton has ŋou, but a *-B accent is indicated both by the Nocte variant in -ah and by the external comparisons). PTB *ŋwa^{B} (Jg. ŋa) 'cattle', NN *C- = *s- 'animal prefix'.

to mix. See AMONG.

MONKEY. NN *wo'y: Mo vi sil, No ve 'monkey', Ch o 'huluk'. Cf. PTB *(b)woy.

MOON(1). NN *gla poy (for the second syllable, see NN *poy, WHITE(2)): Yo ya poi, Mo ya pi, No da 'moon',

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da pe 'month'. PTB *(s-)(g-)la (rev. of STC's *s-gla), pcPKB.

MOON(2). See STAR[a1]/MOON(2).

MORNING. NN *C$_{V}$-krom: Wa Šom Šak 'dawn'; Ky Šum 'morning', Šum boŋ 'dawn'; Ph thom 'morning', thom i 'early'. Cf. Lu. chohma 'morning'.

morning ~ dawn. See also LIGHT/TO SHINE.

MORTAR. NN *tsum: Yo thim, Mo thum, No cha2 thʌm (cha2 = 'paddy') 'mortar' (Weidert), tham 'wooden rice pounder' (DG), Ch Šʌm 'mortar' (Weidert). PTB *tsum^{B} (rev. of STC's *crum), pcPKB.

MOSQUITO. NN *khraŋ: Ch kaŋ suŋ yo lo 'mosquito, gnat' (cf. kan suŋ me sik 'earwig'; yo = 'leg', lo = 'long'). Cf. PTB *kraŋ 'mosquito'.

mosquito. See also BEE, FLY, INSECT/WORM.

MOTHER. NN *nə'w: Yo ñau 'woman', a ñau 'mother'; Mo ñu 'mother'; No taŋ ŋu (Robinson) ~ taŋ ñu (DG), jan ŋu (Butler), all 'wife' (taŋ < hum taŋ 'family' [hum = 'house']) (DG), ŋu po 'milk' (Robinson; po ≃ 'breast', see (BREAST/)FLOWER); Wa a nu 'mother'; Ky a ñu 'mother', a ñu 'aunt', šeko ñu 'wife' (šeko = 'woman'); Ph ñə 'mother', ñə ha 'woman, wife'; Ch a ñu 'mother, mother's sister', -ñu '-female', used both for persons (taŋ ñu 'sweetheart', cam pa ñu 'wife'; cf. taŋ pou 'sweetheart', cam pa po 'husband' [var.], -po(u) < FATHER) and for animals (kei ñu 'bitch', ok ñu 'sow', au ñu 'hen' -- also in 'hen', as here in comp. with 'bird', in Wa/Ky/Ph). Cf. PTB *(s-)nə'w^{B} 'breast, milk' (rev. of STC's *nəw), pcPKB. For the survival of this apparently original sense in Northern Naga, cf. Nocte ŋu po, glossed 'milk' but etymologically clearly 'breast'; for the extension of meaning to 'mother, wife' else-

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where in TB, cf. Jg. nu 'mother', Lu. nu tak 'mother', nu pui 'wife', Puiron a nu 'mother', and many C and S Naga forms for 'wife', including Maring a nu, Rengma a nu, Khoirao nu. The palatal initial may be reflected in Lhota e ɲə and/or Yi. neu be 'wife'. Cf. also Yi. niu 'milk'.

MOTION VERB. See TO COME/TO STAND/TO LIFT.

mountain. See HILL.

(EDGE/)MOUTH(1). NN *N-thu°r: Mo nər, No thun 'mouth', vo thun 'beak' (vo = 'bird')(both DG), Wa tun, Ky ju 'mouth', ju pen 'lip', Ph ju 'mouth', Ch thuən 'edge, end', thu[n] ñu 'elephant' (-ñu ≃ 'big', see BIG(2)) ≃ 'big-snout' (cf. the glosses for the WT form cited below). Cf. PST *(m-)dyu°r (pcPKB), 'lip(s)' (in Chinese also 'borders of a river'; in WT [žur] 'snout, muzzle, trunk'). Cf. the same EDGE < LIP(S) > MOUTH association under (EDGE/)MOUTH (2), and see under initial for further discussion of (EDGE/)MOUTH(1).

(EDGE/)MOUTH(2). NN *kyam: Ch sam puŋ 'point, rim, mouth', sam puŋ kop 'lip' (-puŋ < NN *pu°ŋ, (BREAST/) FLOWER). I suggest that Ch sam puŋ, etymologically 'mouth-breast(s)', originally meant 'lip(s)'; see discussion under (BREAST/)FLOWER. For sam < NN *kyam, cf. PTB *r-ka[°]m 'edge, rim, mouth' (here again we also find the 'bank of a river' gloss).

MUCH(1). NN *ç̬-cen: No cen to 'how much?' (Brown, DG), cen ko 'everywhere' (cf. a ko 'here'/i ko 'there') (DG); Wa han ko 'best'; Ch šen ko 'full'.

MUCH(2). NN *lua°y: Wa loi 'much'; Ph jə loi pə 'deep' (var.; also just jiə [= /jə/] pə); Ch la lu ji 'how much?' (Hutton 1929a: 18; la- is an interrogative particle [la to 'where?', la toŋ 'when?'], combined with -ji in la lok ji 'how long?').

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mud. See MIRE.

must. See DO/MAKE(5).

mustard. See CURRY.

n-

nail. See CLAW.

naked. See EMPTY.

NAME. NN *min: No min (Robinson, Brown), Wa man (possibly ~ min, given by GEM but from neither Brown nor Peal, who does not list 'name' but has bi la man pu 'what name?'), Ky min, Ph men, Ch ñen. Also in Ky min yoŋ, Ph men loŋ, Ch ñen saŋ 'to praise' (see TO THANK), Ch ñen cat 'slander' (see TO DESTROY). Cf. PST/PTB *min (STC 165, n.442), a doublet of PTB *r-miŋ, the source of Moshang miŋ, and possibly of an identical Nocte variant, given by GEM but not in any of the standard sources.

NARROW. NN *khri˚p: Wa sip, Ky kip pu, Ph šip pə, Ch kip pu. Cf. Ko. kerepfə, Ze. keribe, Li. karibu, 'thin'.

NAVEL(1). NN *ta˚y: No po te (po < NN (BREAST/)FLOWER [No a po 'flower']); possibly Ph ji am 'middle'. PTB *s-ta[˚]y 'navel, abdomen'.

NAVEL(2). NN *dzu˚ŋ: Wa suŋ, Ch šuŋ. Cf. WT gžuŋ 'the middle, midst' (STC 17, n.63).

NECK. NN *kliŋ: Yo khiŋ 'neck'; Wa din ku < *diŋ ku 'neck, throat', cak diŋ 'wrist', ci diŋ 'ankle' (cak = 'arm', ci- = 'leg-'); Ky əŋ 'neck' (probably -- though irregularly -- ~ uŋ phaŋ 'neck' ~ eŋ 'throat', through a lability of vowel quality in the rare initial position); Ph əŋ 'neck, throat'. PTB *(g-)liŋ 'tube' > 'neck' (pcPKB; the STC has just *liŋ 'neck').

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necklace. See BEAD, RING.

NEEDLE[a]. NN *mat: No mat ku, Wa mat koi 'needle' (for No -ku/Wa -koi, see NEEDLE[b], ≃ '-sewing', with comparisons for 'to sew'); Wa jan mat 'awl', Ph ñamet < *ñam met 'needle' (Wa jan/Ph ñam [given as niyam, but cf. Chang ŋam] = 'iron'). PTB *r-ma-t 'nettle'; thus the two sets of compounds are analyzable as 'sewing nettle' (> No/Wa 'needle') and 'iron nettle' (> Wa 'awl', Ph 'needle').

NEEDLE[b]. NN *C_V-khruə$^{\circ}$y: No mat ku, Wa mat koi, Ch nik ku, "needle". No/Wa mat < NEEDLE[a], PTB 'nettle'; Ch nik is probably related to Ch ñik 'to scratch'. Cf. Kuki-Naga *khrwi(y), Jg. cyəwi ~ cywi, "to sew' (STC 41).

NEST. NN *siup: No a rup, Wa ɔ zap (ɔ = 'bird'), Ky ə lep, Ph jep 'nest', Ch hap 'nest, cave, lair, cocoon', au hap 'bird nest' (au = 'bird'), nau hap 'honeycomb' (nau = 'bee'). Cf. Di. bu thup 'nest' (cf. Lu. bu 'nest', Di. th- < *s-), Jg. tsip. The root is widespread in S and C Naga: Li. -sib, Ze./Mz. cip, Lhota -šab, Yi. sap, St. -səp, Ao -sep, TN -thip. It may ultimately be derived from PTB *s- 'animal prefix' + PTB *yup (rev. of STC's *yip) 'to sleep'.

NEW. NN *sa$^{\circ}$r: Wa ho zan (Brown) ~ ha zan (Peal) -- GEM gives ho jan (= /ho zan/); Ky a la pu, Ph ja pə, Ch ham bə (GEM), han (Weidert). Cf. PTB *sar.

NIGHT(1). NN *C_V-ya^{A}: Mo ma ya 'yesterday'; No raŋ ja "evening" (Butler, DG), ta ja (Brown, Butler) ~ thu ja (DG) 'today', ma ja (Brown, DG) "yesterday', the ja raŋ ja 'tonight', me ja raŋ ja 'last night' (DG); Ky tə ya 'tonight'; Ph ya 'night', še ya 'tonight', me ya 'yesterday'; Ch mi yo "last night', ni yo 'tomorrow night'. The critical forms for determining the sense of the morpheme in question are Ph ya 'night'

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and No raŋ ja 'evening' (raŋ = 'sky', but functions in all these languages as a general 'meteorological prefix' or classifier which does not necessarily or usually add any semantic content to the form); cf. also Ch mi yo/ni yo 'last/tomorrow night'// mi[y]et/ni yet 'yesterday/tomorrow'. PTB *(s-)ya^{A} 'night, evening' (pcPKB; the STC has just *ya).

NIGHT(2). NN *swər: No raŋ pan (raŋ = 'sky'[as above]), Wa a van 'night'; Ky waŋ phi laŋ pu 'lightning' (waŋ = 'sky', as in Nocte; the Chang analogue of -laŋ pu, laŋ pun, is glossed 'lightning' in isolation). Cf. Bodo-Garo *war (Di. horh), Mru war (pcPKB).

night. See also BLACK.

NINE. NN *C$_{V}$-gə'w: Yo tə kau (Walker) ~ tʌ kʌu? (Weidert), Mo ta kru, No i khu, Wa a ku, Ky tu, Ph šə, Ch guh. PTB *d-kəw ~ *d-gəw.

NOSE. NN *C$_{V}$-gu'ŋ (specifically, *na gu'ŋ): Yo khauŋ, No kho, Wa na kuŋ, Ky na teŋ, Ph šuŋ cu, Ch kuŋ 'nose', in Chang also 'beak'; also in No kho kan, Ch kuŋ kan 'nostril'. PTB *na ku'ŋ (pcPKB) 'nostril' > 'nose', *ku'ŋ originally meaning 'hole'. Note the restoration of composite forms for 'nostril' in Nocte and Chang ('nostril' not available elsewhere) through the addition of -kan, < NN *gor, HOLE. Thus PTB *na 'nose' + *ku'ŋ 'hole' > PTB *na ku'ŋ 'nostril' > NN *na gu'ŋ 'nose' > Northern Naga *(na)gu'ŋ 'nose' > No kho/Ch kuŋ 'nose' + No/Ch kan 'hole' > No kho kan/Ch kuŋ kan 'nostril'. See (EDGE/)MOUTH(2) and (BREAST/)FLOWER for a similar development in the Chang words for 'mouth' and 'lip(s)': hypothetically, Ch sam *'mouth' + puŋ *'breast' > sam puŋ *'lip(s)' > 'mouth' + kop '-lid', possibly ≃ 'shell' > sam puŋ kop 'lip'. See under *g- for discussion of the NN initial in NOSE.

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nostril. See (=) NOSE + HOLE/CAVE.

nowadays. See DAY(2).

NUMERAL PREFIX in 'four'. NN *bə-: Yo bə lai, Mo ba li, No be li, Ky pe li, Ph a li, all 'four'. PTB *b-. See discussion under *l-, the root-initial in 'four'. This is the only prefix whose specific shape I reconstruct for NN, because it is the only one whose correspondences conform to the correspondences for a root-initial, suggesting that it was reinterpreted as the first syllable of a compound; some such hypothesis is required to account for the retention of root-initial *l- in the Chang form for 'four', as NN *$\underset{v}{C}$-l- regularly yields Chang y-. The same prefix in FIVE, PTB *b-na^{B} > NN *$\underset{v}{C}$-na^{B}, was dropped, as are all other numeral prefixes except that for FOUR, in Konyak and Phom. Although I write NN *bə lay, FOUR, to distinguish the special status of the prefix here from that in, e.g., NN *$\underset{v}{C}$-na^{B} = *b-na^{B}, FIVE, the reconstruction applies only to the initial and not to the vowel, whose correspondences are unlike those of any root rhyme.

o-

to obey. See TO HEAR.

OIL(1). NN *$\underset{v}{C}$-tsi: No tan thi, Ch dut ci. Cf. PTB *tsil 'fat (n.)' or *(r-)tsəy 'juice'. The first syllable could be from an NN *tul if the Chang -t is interpreted as epenthetic; cf. Ao Mongsen tu tsə, St. tu ji.

OIL(2). NN *rya$^{\wedge}$k: Ky yao 'fat'; Ch məy sak 'very dark blue; black dye' (məy = 'sky'). Cf. PTB *ryak (Lu. -hriak), 'fat (in a liquid state), oil, grease; [in WB] juice of flowers'.

OLD(OF PERSONS). NN *rəw: Wa a ru pa 'aged' (Peal), Ky

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wu pa, Ph və pə 'old (of persons)'. Possibly related to PTB *(s-)raw 'dry, dead, old'.

old (man). See GRANDFATHER(1)/ELDER BROTHER.

old woman. See GRANDMOTHER.

OLD(OF THINGS). NN *saŋ: Wa ha zaŋ (Peal; GEM gives the phonemically equivalent ha jaŋ) 'old'; Ky a laŋ pu, Ph jaŋ pə, 'old (of things)'; Ch haŋ bu 'old'.

ONE(1). NN *C_V-tse: Yo/Mo a ši, No van the, Ch cie. Cf. Di. se, Mk. i si (Di./Mk. s- < PTB *ts-: see STC 27(62), 64(276); for the rhymes in these forms, see discussion under *-e).

ONE(2). NN *C_V-kla^A: Yo ša kha '100' (Yo ša alone is cognate with other forms for HUNDRED; this kind of construction is common in Northern Naga: we would expect *ša nei '200', *ša dim '300', etc.); Wa ta, Ky ja 'one'; Ch pen to 'every, every one' ~ pen dou 'whole' ~ pan do 'all', etc. (pen ~ pan ≃ 'all'; see ALL(1)), perhaps also in sau to cie '21', sau to ñi '22', etc.: sau is cognate with other forms for TWENTY, cie = 'one', ñi = 'two'; but sau cie = 'twenty', sau ñi = 'forty' (≃ '20 x 1', '20 x 2', etc.). Cf. Jg. ma khra 'all; whole' For Jg. k(h)r- < *kl-, see STC 39.

TO OPEN(1). NN *ha°p: No hap 'to free' (DG); Ky ep, Ph ap 'to open'; Ch ip 'to open, to uncover', ip pə 'loose'. PTB *a°p (pcPKB).

TO OPEN(2). NN *yər: No jan 'to open; to unbind'; Ch ip an 'open' (ip = 'to open', < OPEN(1)), pu an 'bud' (pu = 'plant', < GROW/GROWTH(1)), mat an 'generation' (mat = 'man', < MAN(GENERIC), tam an 'to recollect' (tam = 'to think', < THINK/...); for these last two forms, cf. the glosses for the external comparisons: PTB *ya°r ~ *yâr, 'to expand, to be unrolled, to spread sail'.

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to order. See LAW.

origin (to derive origin). See ISSUE.

OTTER. NN *(C-)rom: Wa ra rom, Ch lam. Cf. PTB *sram. The prefix is suggested by the preposed element in the Wancho form (ra < *sa, by assimilation to root-initial) as well as by the PTB, but cannot be definitely asserted in the absence of a Konyak or Phom form.

over. See BACK(2), ROOF(2).

OWL. NN *khu: No va khu (va < BIRD(3)). PTB *gu ~ *ku. (Could also be NN *C̬-gu.)

p-

PADDY. NN *C̬-ja^{A}: No cha 'paddy' (DG); Wa tza 'grain; corn; rice as grain' (Peal); Ky ta ya 'to reap' (var.; ya = 'to take'), ta phan 'chaff' (-phan < SAND(1)); Ph haʔ phaŋ 'chaff' (-phaŋ < SAND(1)), haʔ vet šiŋ 'sickle' (vet = 'to reap'); Ch you šou 'paddy' ~ yo šo 'dhan in field', yo(šo)lat ji ni 'at harvest time' (lat = 'to reap', ji ni ≃ 'time'), you kuŋ 'straw'. Cf. Jg. ya 'millet'; Newari ja, Lahu cà, Akha djá 'paddy' (pcJAM). The glottal final in Phom, which usually implies a *-B accent, is probably the result of an incorrect assimilation of the word for 'paddy' (Ph *ha) to the word for 'to eat; food' (Ph haʔ, in haʔ yiŋ 'food' [lit. 'eat-drink']), perhaps with a compensatory shift of *haʔ to hak (in) 'to eat', the -k here being otherwise unaccountable. TO EAT(1), NN *dza^{B}, though also giving Nocte cha, is clearly distinguished from PADDY in Wancho (sa 'to eat; cooked rice'), Konyak (ha), and Chang (šau 'to eat', šau bu 'dhan threshed and stored'); compare the glosses above. (The -šo(u) in the Chang forms for PADDY is from he šou 'young'.)

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pain, painful. See TO SUFFER(2).

PALM/SOLE(1). NN *pha: Mo yok pha 'hand', ya pha 'foot'; No dak pha 'palm', da pha 'underside of foot' (both DG); Ky yak pha, Ph lak pha 'palm'. The first syllables are the words for 'hand' and 'foot' (except in Moshang, where the entire form is given for these glosses). Cf. PTB *pwa (STC) or *pa (pcPKB).

PALM/SOLE(2). NN *pwon: Yo ya vaun 'foot' (ya = 'leg'; its cognates also = 'foot' in all Northern Naga languages except Tangsa). Cf. Jg. lə phan 'palm, sole', Khoirao wan 'hand'. Cf. again PTB *pwa, perhaps in view of these forms better *pwa(-n); this would set up a common source for the two NN roots in PTB, but there is no way to do so in NN. (The possibility that the Yogli form is a loan from Jinghpaw would seem to be precluded by the fact that the Jinghpaw form does not retain the *-w- which is required to account for the Yogli initial.)

to pay. See TO GIVE(2).

pearl. See BEAD.

PERSON(1). NN *gla: Yo ya cik 'woman', Mo ya šik 'woman', No de hiek ~ de hiak 'woman', de la 'husband' ~ da la 'male'. Yo -cik/Mo -sik/No -hiek < -FEMALE (2), No -la < -MALE(2). Thus the form in question appears to be neutral with respect to gender and I infer its meaning to be ≈ 'person'. This is probably the same root as that in SOUL, NN *C-gla^{A} (cf.).

PERSON(2). NN *ja'l: Ky ka ta 'person', ka ta lan 'people'; Ph ñə ha 'woman, wife' (ñə = 'mother'), ba ha 'man(male), husband' (ba < pa 'father'); Ch yak sa 'woman, wife'. Cf. Lu. chal 'man(male)'. Note that this set, if the Chang form is included, cannot be from *-a, which becomes Ch -o(u) ~ -au.

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TO PIERCE. NN *gyup: Ky tep 'pierce', Ch sap 'prick, pierce'. Cf. WB khyup 'sew', Gyarung te kyep 'needle'.

to pierce. See also TO STAB.

PIG. NN *wak: Yo/Mo/No/Wa vak, Ky ak, Ph/Ch ok. PTB *pwak.

pine. See WOOD/FIREWOOD(1).

PLACE. NN *C$_{v}$-khliŋ: No toŋ thin < *toŋ thiŋ 'seat' (toŋ = 'to sit'), jup thin < *jup thiŋ 'bedstead' (jup = 'to sleep'), ≃ 'sitting-place, sleeping-place" (both from DG; for *-iŋ > -in in Das Gupta's transcription, see also "grass", hiŋ (Robinson) ~ hin (DG)); Ky jiŋ 'place', waŋ hi oŋ/ñip jiŋ 'East/West' (= 'sunrise/set-place'), šut ciŋ 'chair' (šut = 'to sit'); Ph šiŋ 'place; Ch yep šaŋ 'bed' (yep = 'to sleep'), ki šaŋ 'abode' (ki = 'abide, dwell'), cam šaŋ 'house-site' (cam = 'house'), and, with š- > c-/-t__, sat čaŋ 'seat' (sat = 'to sit'), tei kat čaŋ 'ford'. Cf. PTB *gliŋ 'ground, land, country, region'.

to plant. See TO SOW(1)/(2).

plant (n.). See TO GROW/GROWTH(1).

PLANTAIN. NN *ŋa'k: Mo yam ŋa, Wa ŋa, Ky ŋao. Cf. PTB *(s-)ŋak.

TO PLAY. NN *C$_{v}$-tsa'y: Ch ləɣ yo cai yu 'to play' (ləɣ yoh = 'game', yo ~ yu ≃ "together; with one another', < AMONG; another 'redundant' construction). PTB *(r-)tsya'y.

TO PLUCK. NN *pho'k: No a phoak "to pluck', Ch pak 'to pluck (flowers, etc.)". Cf. Lahu phɔ̂ʔ (pcJAM).

PLURAL suffixes for personal pronouns. See ALL(1)/(2).

POOL(1). NN *thu'm: No jo thum 'dam' (DG; jo = 'water'); Wa šuak tum 'bank' (There are two possible inter-

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pretations of this form, and by extension of whether the morpheme in question refers to the containing or to the contained aspect of a 'pool': (1) Wa Šuak = 'box', probably more generally 'container'; Šuak tum 'bank' could then ≃ 'pool-container', with tum ≃ 'pool' (the contained), in which case Nocte jo thum 'dam' would be more appropriately glossed 'reservoir'; (2) Wa Šuak could be from Šua ko 'river' (cf. Šua nu 'small river', Šua 'river' < NN WATER(2)/'river'); Šuak tum 'bank' would then ≃ 'river-container', with tum ≃ 'container' -- 'dam' then being an appropriate gloss for Nocte jo thum); Ky Šəm 'lake' ~ Šim 'pool'; Ph Šem yuŋ 'lake, pool' (yuŋ = 'water', also 'river'). Cf. Lu. du'm 'pool'.

POOL(2). NN *syi: Wa nua nu ji 'lake'; Ch si (taŋ bu) 'pool', tim si 'lake'. I include this set because the shape of the morpheme in question, in Wancho and Chang on the one hand, in a number of other Naga languages on the other, is identical to that for 'blood' -- i.e., NN *syi, BLOOD(2). Cf. Ao Mongsen a yi 'pool; blood'; Ze. he zai 'pool, lake; blood'; Mz. rə zai 'pool, lake', zai 'blood'; Nr. jei2 'pool', jei lad ~ jei lət 'lake', jei 'blood'; Kh. rə za 'lake', te za 'blood'; Ko. rə zie 'lake', the zie 'blood'; Chokri rə za 'lake', thə za 'blood'; Mao o zhi 'pool, lake; blood'. As this identity is hardly likely to be other than purely one of phonology, it may be of signal value in helping to reconstruct the complicated development of the initial(s) in 'blood'.

POT. NN *ʔ-dik: Mo tik, No tik (DG) 'pot'; Ky tək 'pot', a tək 'lamp'; Ph dək 'pot', o dək 'lamp' (Ky a/Ph o = 'fire'); Ch cak 'pot, dish'. Cf. WT dig, Garo dik, Di. -dik, all words for various kinds of jars, pots, and kettles (pcPKB); also Jg. (n)dï2

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'pot; dish'. Benedict has suggested that this is a loan from Indic, but cf. the Mon form cited in Section 1.2.2. above: khdek 'lamp', suggesting instead an Austroasiatic source, with Mon kh- : NN *ʔ-.

post. See HOUSEPOST.

TO POUR OUT. NN *gi°n: Yo hraŋ gin 'rain' (hraŋ = 'sky'); No a kien 'to pour' (DG); Ch kin 'to vomit'.

to praise. See TO THANK.

to pray. See ASK FOR, THINK/WISH/HOPE.

PRIEST. NN *ŋo°ŋ: Ky ŋeŋ pa, Ph ŋoŋ pa. Ky/Ph -pa = 'agent noun suffix' (GEM 113).

TO PROMISE(1). NN *to°m: Yo kʌ tom (Weidert), No toʌm (Weidert), toam hoan (DG).

TO PROMISE(2). NN *C̬-thi°ŋ: Ky jiŋ 'to swear; oath'; Ch thi 'to promise', thi yu 'to swear' (yu ≃ 'together; with one another' < AMONG).

TO PULL. NN *C-kriat: No siet 'pull, drag (attract)', Ph šia 'pull', Ch caŋ sat ti 'push' (caŋ by itself = 'pull', -ti = -CAUSATIVE).

TO PUSH. NN *thuam: No thuam (Robinson), a thoam phe (DG), Wa thom (Brown). Cf. WB twan.

TO PUT. NN *ta: Mo ta, Ph to. PTB *ta. NN *-a > Ph -o /t__ also in COMPLETE(1).

TO PUT/TO KEEP(1). NN *the°n: No thien 'put down' (Brown), 'put, keep' (DG); Ky hen 'put'. Cf. Lu. en kol, Ze. tei 'keep' (see under *th-(2) for the pertinence of these comparisons for the initial); also Di. deŋ 'put, keep'.

TO PUT/TO KEEP(2). NN *C-jo°ŋ: Wa ni tzuŋ 'bag' (Peal; ni = 'cloth'); Ky aŋ 'put, keep'; Ph hoŋ 'put'. Cf. Ao Chongli re juŋ 'keep', WT 'jug 'put'.

TO PUT. See also TO KEEP and TO TOUCH/TO PUT(1)/(2).

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q-

TO QUARREL(1). NN *C-kye: No man khe 'quarrelsome' (DG); Wa a he, Ky Še 'to quarrel'. Cf. Sema ki-i 'to quarrel', WT gyed "to fight'.

TO QUARREL(2). NN *daw: Ch o yu 'to quarrel', o cak 'to be annoyed', o yo phet yu 'discord' (yo ~ yu ≃ 'together; with one another' < AMONG; phet < TO BEAT(1)). PTB *daw 'defy, resent an insinuation, interfere in a quarrel, be at enmity with'.

quiver. See TUBE.

r-

RAIN(1). NN *raŋ: This word is a problem because of the convergence of its reflexes, except in Moshang and in Chang, with those of NN *rəŋ, SKY(1), but also a general meteorological prefix or classifier. Thus, although the expected reflexes for *raŋ, RAIN, are found as the heads of compounds in the forms for 'rain' in Yo/No/Wa/Ph, these are perhaps better, or at least more conservatively, interpreted as derived from *rəŋ, SKY. There is further warrant for this interpretation for Yogli if the second syllable in Yo hraŋ gin 'rain' ≃ TO POUR (OUT), as I suggest; and for Nocte and Wancho raŋ pat/raŋ vat in that these are closely related to Ky wai, which is uncompounded, all three being derived from a PTB form meaning 'rain' (see RAIN(2)/(3)). Only the Phom form, vaŋ kei, is unanalyzable, so that its first syllable may as well be from RAIN(1) as from SKY.

The two forms I attribute to NN *raŋ, RAIN(1), are: Mo raŋ 'rain' (contrast Mo roŋ 'sky') and Ch laŋ 'rain' (contrast Loŋ- < SKY(1)), also in su laŋ "the rains, hot season, summer' and yei laŋ 'gale,

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storm' (yei = 'wind'). Cf. Jg. ma raŋ 'rain'; also Lepcha roŋ < *raŋ 'splashing' (pcPKB). Nevertheless, Jg. ma raŋ 'rain' looks suspiciously like PTB *m-raŋ 'high', the comparison for NN SKY(1), and Moshang does not consistently distinguish between its two similar forms as one would expect. It has roŋ 'sky' in comp. in (e.g.) 'sun', 'cloud', and 'thunder' but raŋ 'above', raŋ ni 'day'. Except on a hypothesis of free variation between -aŋ and -oŋ in Moshang (and Chang), which I resist, these forms are unaccountable at present. The roots for RAIN(1) and SKY(1) may eventually have to be merged, but it is certainly preferable to maintain the distinction at present. See also under SKY(1).

RAIN(2). NN *C-wa°t: Ky wai 'rain', wai-oŋ pu 'flood'.

RAIN(3). NN *swa°t: No raŋ pat, Wa raŋ vat (raŋ = 'sky'). These NN forms are clearly doublets, NN *s-wa°t ~ *swa°t, with the former, prefixed form original and the latter, clustered form derived, as the external comparisons indicate: PTB *r-wa (STC) ~ *rwas (Matisoff 1972c: 281), suggesting a composite PTB *r-wa-s, with prefix substitution in NN.

rain. See also TO POUR OUT.

to raise. See TO GRASP, TO TAKE(UP)(4), TO LIFT, TO BUILD.

rake. See TO SWEEP.

RAT. NN *C$_{v}$-yəw: Yo tžʌu2 pi 'rat' (Weidert); No ju pu 'rat' (Robinson, DG), 'mouse' (Brown, Butler) ~ tžu2 pu 'rat' (Weidert); Wa ju ~ zu 'rat' (Peal; Brown has yu 'mouse'); Ky yu 'rat, mouse', yu ha 'mouse'; Ch yi buk 'rat, mouse'. PTB *b-yəw.

raven. See EAGLE/HAWK.

raw. See GRASS, ALIVE(3).

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TO REAP. NN *rat: Ky wet 'to reap'; Ph vet 'to cut, to reap', ha2 vet šiŋ 'sickle' (ha2 < PADDY); Ch Lat 'to reap', yo(šo)lat jini 'at harvest time' (yo šo = 'paddy', ji ni ≅ 'time'), possibly also pu lat cin 'saw' (pu = 'wood', cin ≅ 'device, instrument'). PTB *ra-t 'cut' (also 'reap' in Dimasa); cf. also Mk. rot 'to reap'.

to receive. See GET(2), TAKE(1)/GIVE, GIVE(1).

to recognize. See KNOW(2).

RED. NN *jak: No a cak, Ky tɔak = /tak/, Ph hak ei pɔ; Ch sak laŋ bu 'red, brown', sak lam bu 'crimson', te si ñek sat lam bu 'blush (lit. face red)', mat sak 'red man', min sak 'large red ant' (min = 'ant'). See under *-ak for discussion of unusual Konyak rhyme. PTB *cak (STC) but possibly better *jak (pc PKB).

TO REPEAT. NN *dɔp: No a dap a dap jap 'to repeat' (DG; a jap = 'to speak'), dap the 'once', dap ñi 'twice' (also DG). PTB *dɔp ~ *tɔp 'fold, repeat'.

TO RETURN(1). NN *2-ŋok: No a ŋak 'to return', ŋak tho 'to answer' (DG; tho = 'to speak'); Ky ok 'to 'arrive'; Ph ñok ei lei 'to return' (a "redundant" construction: ei = "conjunctive participle suffix" [GEM 128], lei < TURN(2)/RETURN(2)). Cf. PTB *(2)nok 'behind, after, afterwards" (TSR 155), which Matisoff suggests may be the source of the NN root. This root has an allofam, NN *ŋoi, ARRIVE(2), > Ch ŋai 'return', also demonstrating the 'return/arrive' association in NN.

TO RETURN. See also TURN(2)/RETURN(2), ARRIVE(2).

TO REVOLVE/ROUND/AROUND. NN *goy: No hum ke 'courtyard' (DG; for the semantics, cf. the round of meanings encompassed by PTB *hwaŋ, e.g., Jg. waŋ 'surround, encircle, circle, enclosure, compound';

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Lu. huaŋ 'enclosure, yard'); Ky toi mei pu 'round'; Ph ši nei 'round'; Ch kai 'to revolve, to wind', kai cam 'to enclose, to encircle' ~ kai jam(pu) 'around'. Cf. PTB *koy 'bend round, curve'.

UNCOOKED RICE. NN *C-wuŋ: Mo vuŋ 'uncooked rice', po wuŋ 'maize'; No voŋ 'uncooked rice', po voŋ 'maize'; Wa voŋ 'uncooked rice' (Brown), 'husked rice' (as vs. 'rice as grain', 'boiled rice', for which see PADDY and TO EAT(1)/'food', respectively)(Peal); Ky woŋ 'uncooked rice', woŋ li 'maize'; Ch aŋ 'rice'.

COOKED RICE. NN *nik: Ky nik 'cooked rice', nik yiaŋ 'rice-beer' (yiaŋ = 'water'); Ch ñak 'cooked rice', ñak i tei 'rohi' (tei = 'water').

RICE-BEER. NN *yəw: Wa zu, Ph yia 'rice-beer'; Ch i 'liquor', lam bu i 'spirit (drink)'. PTB *yu(w).

rice. See also PADDY.

RIGHT. NN *C̬-leŋ. Ch yen ti 'to rectify' (-ti = CAUSATIVE) ≃ 'make right'. Cf. PTB *bleŋ ~ *pleŋ (Di. be leŋ) 'straight', Ze. ke pe liŋ be 'right'.

right. See also TRUE.

RIGHT-HAND. NN *C̬-da. No (dak)cha, Wa ta ci, Ky yak ja, Ph lak ta. No dak/Ky yak/Ph lak = 'hand'; Wa -ci possibly < cia 'leg, foot'; cf. noŋ ci 'left'. Cf. PTB *g-ra ~ *g-ya, and especially Di. yau-ga da (yau = 'hand').

RING. NN *khyap: No khap 'ring' (Butler), dak khap 'finger ring' (dak = 'hand'), din khap 'coinlined necklace' (din < *diŋ, 'neck' in Wancho)(DG); Wa kap san 'bracelet' (Peal); Ky šep tet 'ring'; Ch kaŋ kap ~ mai kap 'armlet', ci kap 'bracelet'. Cf. Jg. lak cop (lak ≃ 'hand', -cop < *kyop). (Could also be NN *khyup.)

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RIPE(1). NN *ryu˚m: No a cum, Wa jum, Ky ə yim, Ch sam bu 'ripe', sam cei bu 'yellow'.

RIPE(2). NN *min: Mo a muin, Ph men pə. PTB *s-min.

TO RISE. See TO COME/TO RISE, TO STAND(1)/(2), UP.

RIVER/CURRENT. NN *rul: Yo kham ril 'river' (kham = 'water'), Ch tei lu 'current' (tei = 'water'). Cf. Khoirao a run kai, Mzieme reu kuŋ, Angami ke re (Kh.) ~ k-rə (Ko., Chokri, Mao) 'river'.

river. See also WATER(2), TO FLOW.

ROAD. NN *ləm: Yo lam, Mo lam, No lam, Wa lam (Brown; Peal has lum), Ky ləm, Ph lem, Ch lam 'road'. Cf. PTB *lam.

ROOF(1). NN *ciup: Yo šip, Mo šip, No sup (DG). Cf. Lepcha cap, < *cip or *cup (pcPKB), presumably then possibly also < *cyup.

ROOF(2). NN *tuk: Wa ham tok, Ky nok tok, Ph a dok, Ch cam dak. Wa ham/Ky nok/Ch cam = 'house'; secondary voicing in Phom. This is probably the same root as NN *tuk, BACK(2); i.e., 'roof' ≈ 'house-back', on the analogy of a quadrupedal animal's back. The key datum for establishing this association is Chang tak " 'over (of horizontal position only' . . . Thus tak (lit. = "back') could not be used of trees, for instance, with which ku (=head) is used" (Hutton 1929a: 83); -tak is also given for 'on" (43). This root is a member of a word-family including forms which Benedict has referred to PTB *l-tak "above" and PTB *to[illegible]k "top' (pc), and which I have referred to NN *tə˚k, TOP, and NN *tuak, SLOPING. It could be reconstructed as NN *tok if it were not for Nocte tok di 'behind" (< BACK; NN *-ok > No -ak, NN *-uk > No -ok).

ROOT. NN *ri˚ŋ: No a riŋ, Ch li. Matisoff (pc) suggests

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the possibility of a relationship with Lahu ɔ̀-gə, with a PTB *N-k(-)ri°ŋ as a possible common antecedent (PTB *-i°- > Lahu -ə).

root. See also BASE.

ROPE. See CREEPER/ROPE.

-ROUND-(of body parts)(1). NN *phum: Yo yak phim, Mo yok phum "arm"; Ch yik pam 'thumb', pam sam bu 'round'. The Yogli and Moshang forms ≈ 'arm-round' (Yo yak = 'hand', Mo yok pha, but Mo -pha refers to the palm, < NN PALM/SOLE(1); Yo yak/Mo yok, however, are from NN *glək, ARM, whose reflexes mean both 'hand' and 'arm' in the other Northern Naga languages. Thus the Chang form for 'thumb' ≈ 'hand-round'. "Both the 'arm' and the 'thumb' are 'rounded parts' [in Tibeto-Burman ethnoanatomy]" (Benedict, pc). Cf. Sema, Zemi -pum- 'round', Lu. pum 'rounded out; belly', Jg. phum "fat, plump, lə phum "upper arm' (Jg. lə- < *lak [STC 32] < PTB *g-lak [or *g-lək] > NN *glək, ARM/'hand'; thus the Jinghpaw compound for 'upper arm' is cognate with the Tangsa compounds for 'arm' throughout).

-ROUND-(of body parts)(2). NN *C-ruŋ: Wa ke roŋ 'hip', Ky yoŋ keŋ 'thigh' (Wa ke/Ky keŋ < NN -LEG-), ≈ 'leg-round'; Wa bom zroŋ, Ch owom laŋ 'cheek' (Wa bom/Ch (ow)om < NN CHEEK(1); Ch kək laŋ 'chest', ñek laŋ "eyeball' (ñek = 'eye'), tam laŋ 'testicle' (cf. yo tam 'heel' [yo = 'foot']). Note the uncanonical clustered initial, zr-, in Wa bom zroŋ 'cheek', possibly a reflection of the NN *s- prefix.

ROUND. See TO REVOLVE/ROUND/AROUND.

TO RUB. NN *nua°y: No net < *ne (DG; suffixation of -t after open front-vowel rhymes is common in Nocte; cf. khet < *khe 'to plant' < NN *C̬-ga°y, TO SOW(1); Ky noi, Ph noi. Cf. Lu. nuai ~ nwat (probably suffix-

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ed -t, as in Nocte), Nr. nuai2; all 'to rub'.

TO RUN. NN *C̬-juan: Yo son (Weidert), Mo yu, No c(h)uan (Robinson, Brown) ~ a choan (DG) ~ choʌn (Weidert). Cf. PTB *jon 'ride' (could also be *jwan).

to run away. See TO FLEE.

s-

sad. See WRONG(1).

SALT. NN *cuˀm: Mo šum, No sum, Wa hum, Ky həm, Ph həm, Ch cam. PTB *gryum (STC), but in one development > *juɪˀlm (e.g., Jg. jum) -- *juˀm on the basis of NN (pcPKB).

SAMBAR. NN *gyuk: No cok 'deer' (DG); Wa cok 'samber deer' (Peal); Ky tok 'sambhur'; Ph: no form given, but the expected form, šok 'deer', is attested for the related Tamlu dialect (Shafer 1953: 257); Ch sak 'sambhar', sak laŋ 'antler' (laŋ = 'horn'). PTB *g-ryuk ~ *g-ryik (pcJAM), also Kuki-Naga *d-yuk (STC), and cf. Gurung (Tibetan-Kanauri) gyuu 'sheep' (pc PKB).

SAND(1). NN *phaˀŋ: Mo phan 'sand'; Ky ta phan, Ph ha2 phaŋ 'chaff' (Ky ta/Ph ha2 < PADDY).

SAND(2). NN *phut: Ky phei 'sand'; Ph phi 'sand', kə phi 'dust', Ch pat saŋ 'sand'. Cf. WB phuk, Nr. mbut, Lu. vai vut, all 'dust'.

SAND(3). NN *2-saˀy: No se, Wa. sak < *sai. Possibly also Yogli kum cai (*-jai expected). Cf. WB sai, Jg. hsai brue, Singpho kum sai, Sema a sai; all 'sand'.

to say. See TO SPEAK(2).

TO SCRAPE. NN *kuˀt: No roŋ hut 'to dye' (roŋ soŋ = 'dyeing'), probably also jan hun khut 'hoeing' (jan = 'iron', hun < HOE, with retention of k- in khut

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[*hut expected] in some manner a function of its position in the compound); Wa hut ko 'to cut'; Ky kut 'to scratch'; Ch kat 'to scrape'. Cf. PTB *kut; glosses of subsumed forms include: 'scrape, scratch, as body or earth; cut, carve, engrave on wood or stone'.

to scratch. See TO SCRAPE.

seat. See (=) TO SIT + PLACE.

TO SEE. NN *khyoy: Yo khoi, Mo khi, No khe 'to see'; Ky Ši pa 'witness'. Cf. Jg. coi < *kyoi 'know, understand'.

SEED. NN *li: No khet a li (khet = 'to plant'), Ky a li, Ph Šei li (Šei = 'to sow'), Ch li la. PTB *li(y) (pcPKB).

seed. See also ALIVE(1), TO SOW(1).

TO SEEK. NN *C-lam: No lam 'seek' (Robinson, Brown), a lam sok 'search' (DG), possibly also i lam (Robinson, Brown) ~ a lam (DG) 'to want'; Wa lam, Ky yem, Ph yem 'seek'; Ch lam 'search'. Cf. Yacham-Tengsa lam, Yi. yim, Ao Mongsen yimya 'seek'; Shafer (1953: 246) cites "Kuki" lam 'seek'.

to seek. See also TO LOOK FOR.

TO SEIZE/TO CATCH(1). NN *luay: Yo loi 'to seize' (Walker), 'to catch' (non-finite form)(Weidert); Mo lu 'to seize, to catch'; No lu 'to catch' (Robinson) ~ lo 'to catch' (DG, Weidert [finite form]); Ch le 'to take; to surround', phe le 'to importune' (phe = 'to ask'; Hutton explicitly identifies the -le in 'importune' as le 'surround'). Also (for glosses) the following Nocte forms in which Das Gupta cites the non-finite form of the verb (loʌt [Weidert]): a loat 'to hold (catch)'; da si loat 'to entreat' (cf. Chang 'importune'); ŋa loat 'fishing' (ŋa =

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'fish'). Cf. Jg. lu 'to get', and see under rhyme for an extensive list of comparisons with other Naga languages for forms glossed 'to get' and/or 'to take', particularly Kohima lie "take', ŋu lie 'get', te lie 'catch', this last form supporting the inclusion of Chang le 'to take' (otherwise unrelatable to any other Northern Naga forms) in the set for SEIZE/CATCH. See also under rhyme for an explanation of why, in this one case, I cite what is given as a non-finite form of a verb (in Yogli) as the form which is critical for reconstruction.

TO SEIZE/TO CATCH(2). NN *C-lap: Yo a lap 'to get'; Ph yep 'to seize, to catch'; Ch lap 'to capture' (given by GEM for 'to catch').

to seize. See also TO GRASP.

SELF. NN *glə'ŋ: Ky yoi, Ph lou phə 'self'; Ch yoŋ lam bu 'braggart' (cf. Ch lam 'festival'), possibly also (mat pam) ci yoŋ 'alone' (ci- < cie 'one').

TO SELL(1). NN *coŋ: Yo a šaŋ, Mo šoŋ, No saŋ, Wa haŋ. Cf. WT 'tshoŋ-ba.

TO SELL(2). NN *ç-ya'k: Ky yao, Ph yu, Ch yak. Cf. PTB *ryak 'to show; layout'. The NN root is also attested in Ao: Mongsen yuk, Chongli a yok.

TO SEND. NN *te'r: Mo tar 'send'; Ky tei 'take'; Ph tei 'send', no ei tei 'bring' (no = 'take', -ei- = 'conjunctive participle suffix'). Cf. Lu. ti'r 'send', Ze. tei waŋ 'bring' (waŋ = 'come').

to send. See also TO GIVE(1).

SEROW. NN *C-ya^{B}: Ky mei ya (mei = 'animal'), Ch yau 'serow' (cf. yaɣ 'serow, antelope, goat'). PTB *ya^{B} 'wild goat, antelope, serow' (pcPKB).

TO SET (of the sun). NN *C-nup: No san ñap (Robinson,

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given as san yap; san = 'sun'); Ky waŋ hi ñip jiŋ (waŋ hi = 'sun', jiŋ = 'place'); Ch ca nap (ca = 'sunlight' [ca ñu 'sun']); all "west'. Cf. PTB *nu°p ~ *ni[°]p; NN *(-)nup fills out the set of possibilities for the high-vowel rhymes. Cited forms for the PTB reconstructions include WT nub-pa "set (sun, moon)", nub "west", and "B-G *(h)nap < (h)nup 'set(sun), ...' . . . The initial cluster in B-G is probably from *sn-" (STC 84, n.250).

to set down. See TO TOUCH/TO PUT(DOWN)(2).

SEVEN. NN *C̬-nit: No i ŋit, Wa a nat, Ky ñit, Ph ñet, Ch ñet. PTB *s-nis. See under initial for discussion of the substitution of a voiced prefix in NN.

SHADOW. NN *C̬-kru°m: Ky waŋ šim, Ph vaŋ thəm 'shadow'; Ch nak təŋ tam 'gloom (in day time)' (nak tə bə = "dark'). Cf. PTB *rim ~ *rum 'dark, dusk, twilight', but with a *g- prefix indicated by Garo grim 'cave' (≈ 'the dark place'), bol-grim 'forest' (bol = 'tree')(pcPKB); cf. also the apparent allofam represented by WT 'grib-pa 'decrease; grown dim', grib "shade, shadow', WB ărip 'shadow, shade' (STC 113, n.318).

SHAME(1). NN *rə°y: No re se 'shame' (Butler), a re se 'shy' (DG; Brown gives an identical form for 'light' [juxtaposed with 'heavy']), re se thaŋ 'to insult' (DG); Ph veə 'shame'. Cf. WB hi ri 'shame'.

SHAME(2). NN *ra°k: Wa ra 'afraid' (Peal), Ky wao pu "shame". Cf. PTB šrak 'shame, disgrace; ashamed, shy'.

SHARP. NN *na°k: No a na, Wa a na, Ky nao pu. Cf. Mk./Ao nok 'dao", also (in comp.) "sickle, sword"; for the "sharp/sword" association, see STC 53, n.179.

SHELL. NN *go°p: Wa kap tuŋ "shell'; Ch kop 'shell (used of any hard covering of animals or plants)',

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ñiŋ ke kap tuŋ 'snail' (ke < BUG(1); kap tuŋ is identical to the Wancho form for 'shell'), kop lin bu "thin (of persons)' (lin < THIN(2)). Cf. Jg. kop 'crust, rind, shell', Garo -kop 'case', Kanauri khob 'cover (n.)' (pcPKB).

SHIN. NN *ç-gu°ŋ: No cuakho (Butler) ~ chuak kho (DG) 'shoulder', Wa swa koŋ < *suak koŋ (Peal) 'shoulder' (for No chuak/Wa suak, see SHOULDER(2); I have no comparisons for this element, however, so that its exact sense remains obscure); Ch yo kuŋ 'shin' (yo = 'leg'). PTB *r-gu°ŋ 'edge, side; shin'. The posited parallel usage in the compounds for 'shoulder' is suggested by such glosses as 'back of a blade' (Jg.), "blunt edge of a knife" (Di.).

TO SHINE. See LIGHT/TO SHINE.

TO SHOOT. NN *2-ka°p: Mo gap 'to shoot'; No a hap 'to shoot' (DG), doak hap 'bow" (Robinson); Wa hap 'bow'; Ky khep 'to shoot', mei khep 'to hunt' (mei = 'animal'); Ch kib "to shoot". Cf. PTB *ga°p.

SHORT(1). NN *ta°w: Yo a to (Walker), Wa tut, Ch tu bu. Cf. PTB *taw^{A} (pcPKB).

SHORT(2). NN *thuar: No a toon (Robinson), but a thoan (DG, whose transcriptions must be given preference when aspiration is in question), Ky šo pu, 'short'; Ch hak thon a 'panting' (~ hak thoun 'to sigh'; hak = 'breath') ≃ 'short of breath', possibly also in yik ci šo thon bu 'little finger' (yik ci šou = 'finger'). Cf. PTB *dwan ~ *twan 'shrink', Chinese twân/tuân 'short', PST *twa-n (pcPKB) -- but all three languages cited have -n for *-r as well as for *-n.

SHOULDER(1). NN *phak: No phak tham 'upper arm' (DG); Ky phak taŋ, Ph phak coŋ 'shoulder'; Ch pak paŋ "armpit" (-paŋ = 'under') ≃ 'under-shoulder', pos-

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sibly also pak "length of a man's outstretched arms"; Ch "shoulder" itself is phak co, but this is irregular, as *ph- > Ch p-/__ a . Despite appearances, the second syllables in the Ky/Ph/Ch forms for 'shoulder' are not reconstructible, so that the exact sense of the first syllable would be in doubt if it were not for the external comparisons: PTB *pak (STAL)/PST pâk 'shoulder'. A possible connection with NN *phek, TO JOIN(1)/FORK/BRANCH//HOOK, should, however, be noted.

SHOULDER(2). NN *dzuak: No c(h)uakho (Butler) ~ chuak kho (DG), Wa swa koŋ < *suak koŋ (Peal), 'shoulder' (No -kho/Wa -koŋ < SHIN).

TO SHOUT. NN *C̬-woˀŋ: Ky aŋ win "to shout"; Ch woŋ 'to bark'.

to shout. See also TO CALL.

TO SHUT. See TO COVER/TO SHUT(1)/(2), TO CLOSE.

sick. See TO SUFFER(1)/(2).

SIDE (of body). NN *C̬-khloˀŋ: Ky həm jiaŋ, Ph ham šoŋ. Cf. Mpri. nak thaŋ (Mpri. th- < PTB *kl- in "dung").

SILVER. NN *ŋuil: No ŋun, Wa ŋun (Brown; Peal has ŋuŋ), Ky ŋin, "silver", me ŋin "price"; Ph ŋin 'silver'. Cf. also Muthun Wancho ŋwun (Brown). Cf. PTB *(d-)nul.

sin. See WRONG(1).

TO SING(1). NN *caˀy: Yo šai (Weidert) 'to sing'; No se se (Robinson), a sei (DG) "to sing", se (DG) 'music, song'; Ky hei lem 'voice'.

TO SING(2). NN *C-khyuˀr: Mo a šir < *a šər, Wa šun (Brown), "to sing"; Ky šu 'to play music'.

to sink. See LOW(1).

SISTER, ELDER. See ELDER SISTER.

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SISTER, YOUNGER. See (=) (YOUNGER BROTHER/)CHILD.

TO SIT. NN *C-kru˚t: Ky šut 'sit', šut ciŋ 'chair'; Ch sat 'sit', sat caŋ 'seat' (Ky ciŋ/Ch caŋ < PLACE). Note also No. su kut 'chair' (*sut expected), as if the prefix had been retained and "protected" the velar initial from fricitivization. Cf. Lu. thut thle˚ŋ 'chair' (Lu. t(h)- < PTB *kr- ['weep', 'dove'], STC 38).

SIX. NN *d-ruk: Yo tə ruk, Mo ta ruk, No i rok, Wa a rok, Ky wok, Ph vok, Ch lak. PTB *d-ruk. The initials in the Northern Naga forms for 'six' are those for (unprefixed) *r-, while *C_V-r- > Ky/Ph/Ch y-; thus in Chapter III I give NN SIX simply as *ruk, suggesting that the Yo/Mo/No/Wa prefixes are secondary, modelled on those for 'nine', 'eight', and 'seven', but noting the possibility that Ky/Ph/Ch do not discriminate between *r- and *d-r- -- i.e., that *C_V- ≠ *d-/__r-. But to reconstruct NN SIX without a prefix is to ignore the implications of the circumstance that all of the other NN numerals from TWO through NINE reconstruct with prefixes.

On both comparative and internal grounds, the prefix in NN *C_V-gə˚w, NINE, is *d-: it is *d- in PTB, and Tangsa has Yo tə-/Mo ta-. NN *C_V-gyat, EIGHT, is from a PTB form with *b-, but again we have Yo tə-/Mo ta-, and, as for 'nine', No i-/Wa a-. For SEVEN, PTB has *s-nis, but the Northern Naga initials require a voiced prefix for *C_V-nit; the Tangsa forms for 'seven' have a different source, but No i-/Wa a- suggest that the NN prefix is the same as that for EIGHT and NINE. The same array of prefixes -- Yo tə-/Mo ta-/No i-/Wa a- -- appears again in the forms for "six"; again, as for 'nine', with external support for a *d- prefix.

In short, the case for reconstructing a *d- pre-

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fix for NN SIX is equally as strong as that for reconstructing a *C_V- = *d- prefix for NN NINE; but in this case the prefix must be specified as *d-, in contrast to *C_V- (probably = *g- in two of the five roots assigned to NN *C_V-r-, WING and WASH/BATHE(I)). As I pointed out in my discussion of NN *(-)r- in Chapter III, there is no reason why different prefixes should not have different effects on initials, including, in the limiting case, no effect at all.

PTB *d-- (as distinguished from Kuki-Naga *d--) is rare. Apart from SIX, I reconstruct only two NN roots which have PTB *d- prefixed prototypes: NINE and CRAB. The Northern Naga reflexes for NINE differ from those for NN (unprefixed) *g- only in Nocte, where we find kh- rather than k-; this is again the case for EIGHT, Nocte s- < *C_V-gy- as vs. c- < *gy-. As for CRAB, it reconstructs without a prefix in NN -- like SIX -- but no Nocte form is available. The important point is that in NINE and EIGHT the Ky/Ph/Ch initials are unaffected by the apparent *d- prefix, as in SIX. If Nocte is the only one of the seven data languages which is sensitive to a difference between *g- and *d-g-, and between *gy- and *d-gy-, it is not unreasonable to suppose that the difference between *r- and *d-r- might not leave a trace (particularly in view of the fact that r- is a "dominant" phone in Nocte, which alone of the seven languages has not only *sr- > r- but also *(C_V-)s- > r-). Nevertheless, such a trace does exist, in a form which might be ignored if it were not for its bearing on this problem. The Wancho form for 'six" cited above is from Peal; Brown has not a rok but a zok 'six', a likely derivative of a *d-r- via *dr- > *dz-. Thus, there is some internal support for the external considerations pointing to an NN *d-r-, distinct from *C_V-r-, and

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for the reconstruction of SIX as NN *d-ruk.

SKIN(1). NN *C$_{v}$-khuar: Mo a kru 'skin'; No a khuon 'skin' (Robinson, Brown), 'bark' (Butler) ~ khoan 'bark' but kho-wan 'skin' (DG); Wa kuon (Brown) ~ kan (Peal) 'skin', pan kan 'bark' (Peal; pan = 'tree'); Ky šo 'skin', mei šo 'skin, leather' (mei = 'animal'), pi šo 'bark' (pi = 'tree'); Ph šu 'skin', phai šu 'leather' (phai = 'meat, flesh'); Ch khon 'skin, bark, leather', but with the following variant forms for 'leather': khoan, phe khoun (phe = 'meat'), kho wun; cf. 'wrinkle': khon cok ~ khoan cok (cf. cok 'to scorch'). Cf. PTB *kwər (Di. -gur 'skin', Rawang -kur 'bark', TN/Maring -kor 'bark'), also Chinese giwər 'hides' (pcPKB). On the basis of Nocte kho-wan (DG, so given) 'skin' and Chang kho wun 'leather' (var.), I had originally considered a composite etymology for this root, with the second syllable also reflected in SKIN(2)/FLESH, NN *wur (below). The external comparisons advanced by Benedict suggest that the opposite is the case; i.e., that Nocte kho-wan, at least, is the product of metanalysis on the analogy of na-wan 'lobe of the ear' (and probably other, similar, forms with wan < NN *wur, SKIN(2)).

The Yogli form for 'skin' is a khauŋ (*(-)khaul expected -- as in khaul tik 'wall' [≈ e.g., 'house-skin'?]; but no gloss is available for Yo tik); if from *khaur, I can offer no explanation for the change in final.

SKIN(2)/FLESH. MM *wur: Mo na war 'lip' (na- possibly from nər 'mouth' [*nər war > *nəwar > *na war]); No na wan 'lobe of the ear' (na = 'ear'); cf. kho-wan 'skin' (both from DG); Ch kho an ~ kho un ~ kho wun 'leather' (see above). Cf. Lu. vun 'skin', sa vun 'leather', Mpri. un 'skin', sa-un 'leather', Maring

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un ~ wun 'skin', Lhota men fu 'lip' (men ≃ 'mouth', although the Lhota word for 'mouth' itself is different; cf. Yi. mən, TN kha mor, Maring mur 'mouth' < PTB *mu'r), so fu 'leather' (o so = 'meat, flesh'). A correspondence between 'lip' and 'leather' in both Lhota and NN is too striking to be dismissed, so I attribute Chang -(w)un ~ -[w]an in 'leather' to an NN *(C-)wur in spite of the confusion with khoan 'leather', also in 'wrinkle', where its referent is surely 'skin' per se.

SKY(1). NN *rəŋ: Yo hraŋ, Mo roŋ, No raŋ, Wa raŋ, Ky waŋ, Ph vaŋ šo. Found in comp. in forms for (e.g.) 'sun', 'day', 'early', 'morning', 'light', 'dark', 'night', 'hot', 'cold', 'winter', 'year', 'rain', 'cloud', 'mist', 'wind', 'storm', 'lightning', 'thunder', and 'God'. The set for 'thunder' is of particular interest because it is complete except for Yogli and furnishes the only example of the apparent Chang reflex (for Chang 'sky', see below, SKY(2)): Mo roŋ muk, No raŋ mok, Wa raŋ duŋ, Ky waŋ khoŋ, Ph vaŋ mok, Ch loŋ mak, all 'thunder', with the Mo/No/Ph/Ch forms cognate throughout, < NN *rəŋ muk, THUNDER. Because of the ubiquity of the reflexes of *rəŋ throughout Northern Naga (except in Chang) in composition with forms whose cognates are attested elsewhere in TB without it, it should probably be glossed 'sky; meteorological classifier'.

Cf. Garo raŋ-ra 'sky', also (in comp.) 'cloud'. In contrast to this apparently isolated example of a 'meteorological' usage outside Northern Naga, PTB *m-raŋ 'high, long' is represented in widely separated languages, Kanauri on the one hand, Burmese and Nungish on the other (STC 43), but the existence of Moshang raŋ 'above' (contrast roŋ 'sky') is sufficient to cast doubt on the probability of an imme-

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diate derivation of NN *raŋ, SKY, from the PTB root. (For the possibility that PTB *m-raŋ 'high, long' > NN *(C$_V$-)raŋ > Mo raŋ 'above', note also Ky inyaŋ 'long', possibly < *in yaŋ [yaŋ < *C$_V$-raŋ], but in- cannot be identified and the syllabification is uncertain; it could also be < *i ñaŋ.) There is another possibility for a form apparently restricted in its given sense to Garo and NN: a derivation from an Austroasiatic root represented by Khasi ba je raŋ 'high' ~ na je roŋ 'above' ~ ba je roŋ 'long', but the glosses here send us back to PTB *m-raŋ. For further problems, see RAIN(1), NN *raŋ.

I have no explanation for the hr- initial given for Yogli. Marrison does not include it in his table of Tangsa phonemes (GEMa: 370) but gives Yogli 'sky' in phonemic transcription as rhaŋ (GEM: 77,79), so that apparently it is to be taken not as a cluster but as a voiceless r- (GEM: 11); it is best interpreted as a local development.

SKY(2). NN *məw: Ch məɣ. PTB *(r-)məw.

SLAVE. NN *kla^B: Yo kha wa (Walker; -wa = 'agent noun suffix' [GEM 113], also in (e.g.) 'thief', 'priest', 'man(male)'), Mo da:, No ha 'servant' (DG), Ky a pa 'slave, servant' (-pa = 'agent noun suffix', as in Yogli); Ch (mat)au (mat = 'man') 'slave'.

TO SLEEP(1). NN *C$_V$-yu$^?$p: No jup (Robinson, Butler, Brown) ~ a jup (DG) 'to sleep', jup thin 'bed-stead' (DG); Wa jup (DG 1980; earlier sources have jip [Brown] ~ zip [Peall]); Ch yep 'to sleep', yep šaŋ 'bed'. PTB *yup (Jg. ?yup), rev. of STC's *yip (pc PKB). As my citation of Das Gupta's recent Wancho form rather than the earlier jip = zip indicates, however, there is a problem with the NN rhyme as well, which could be solved by positing doublets, NN

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*(C̬-)yu˚p (> No/Wa jup) ~ *C̬-yip (> Wa jip/Ch yep). Another possibility is NN *C̬-yiup.

TO SLEEP(2). NN *C-khli: Ky ši 'to sleep, to lie down'; Ph ši 'to sleep', lem ši 'to lie down"; Ch ñek at ši "to sleep' (var.; ñek = 'eye(s)', at = 'drop, fall'). Cf. Mk. kli "to lie down'.

TO SLIP. NN *ŋar: Yo ñal (Walker) 'to slip' ~ ñʌl (Weidert) 'slippery'; Mo a ñar 'to slip'; No ñʌn (Weidert) 'slippery'; Wa nan (Peal) 'to slip'; Ph ñə lək pə 'smooth'. Cf. the forms cited by Weidert (1979: 120) for 'slippery', including Lu. na˚l and Jg. mə nyen; also Mpri. nal ba 'smooth'. The Lushai form points to a PTB long vowel, but Weidert's own transcription of the vowel in the Yo/No forms as -ʌ- points to a short vowel in NN. In the absence of a Konyak or Phom form with either -a or -e, vowel length is strictly indeterminate for NN.

SLOPING. NN *tuak: No ka tuak "steep' (DG); Ch tok šaŋ-an 'sloping" (an < UP), tau tok pu 'aslant', possibly also ŋei tok pu 'hunchbacked, stooping'.

SMALL(/PARENT'S [YOUNGER]SISTER/BROTHER). NN *C-tho˚y: Yo a šoi 'father's brother's wife' (Dutta); Mo i si 'aunt'; Ky joi pu 'small', a ñu joi 'aunt', a pa joi 'uncle' (given without any specification of relative age, which should be mandatory in the glossing of any Tibeto-Burman kinship term, as the distinction is almost always coded. But see von Fürer-Haimendorf (1969: 107), writing of the Wakching dialect of Konyak:

> the father's elder brother is addressed u-bha-yoŋ (great father) and the father's younger brother u-bha-dzui (small father).

In GEM's dialect also, (ə)yoŋ pu = "great, big', NN BIG(1). Clearly, Wakching dzui = Wanching joi, both 'small', and the Konyak terms given under the

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'aunt' and 'uncle' headings by Marrison are those for the parents' younger siblings. I infer that this is also the case for the Tangsa terms); Ph laŋ joi 'table' (laŋ = 'bed') = 'small bed' (for the comparability of Naga beds and tables, see under initial); Ch ham bi co bu 'small' (ham bə also = 'small', another case of Chang "semantic reduplication"), co bu 'remainder', co ŋa 'mere', sat co 'small fig', etc. Cf. PTB *doy ~ *toy, glossed 'younger (youngest) sibling', but almost always found in forms for parent's younger siblings, in comp. with 'father/mother' terms, just as in Konyak; also 'short, small'. See under initial for details. Cf. the converse association between NN *C-ta'y, GRANDFATHER/ELDER BROTHER, and PTB *taɬ'ly 'great, large'.

small. See also THIN(2) and SON, the latter providing yet another example of the conflation of a "general purpose" adjective with a kin term.

TO SMELL. NN *sri'ŋ: Yo diŋ, Mo a thiŋ, Ch lam hi 'to smell' (lam = 'smell'). Cf. Jg. siŋ 'smell, scent, odor, as of fresh, raw, or unprepared food' (pcPKB). At one or another level, both the NN and the Jinghpaw forms must be related to NN *C̬-criŋ, GRASS(/GREEN/RAW) and PTB *sriŋ 'live, alive, green, raw'.

SMOKE. NN *khəw: Yo khʌu2 (Weidert); Mo var kru; No van khu (Weidert has -khu2); Wa van khut (Brown) ~ van kut (Peal); Ky a ši; Ch wan kəkh (Weidert has -Kwk), all 'smoke'. The first syllable in the compound forms is the word for 'fire' (Ky a). Cf. PTB *kəw.

SMOOTH. NN *luak: Ph ñə lək pə (ñə- < TO SLIP/'slippery') 'smooth'; Ch lok lok bu 'smooth, slimy, slippery'. Possibly also Ky lok 'to dance'. Cf. PTB *g-lwat 'escape, release. loosen, relax; loose, free, unrestrained' PTB *lway 'easy'.

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SNAKE. NN *ʔ-bəw: Yo po (Walker), Mo pu, No pu, Wa pu, Ky pu, Ph bə(ʔ), Ch pi ñu. Cf. PTB *bəw.

SOFT(1). NN *C-nen: Yo a nen, No a ñen, Ky ñin pu, Ph ñen pə. Cf. WT mñem pa, Lu. ne˚m, Puiron ma nem nu, Kh./Ko. ke me ne, pointing to a PTB *m-neɬ˚m. One may speculate as to whether a replacement of the *m- prefix by *s- in NN might not have triggered an assimilative shift in the final.

SOFT(2). NN *na˚y: Wa nai 'soft', nai li 'loose'; Ky ñei pu 'cheap'; Ch i ñai bu 'soft', ñai 'to chew'. Cf. PTB *na˚y 'knead, twist'. For the 'soft(ened)' = 'cheap' association, cf. WB nai 'knead', jhe: nai 'cheap'; and, in Northern Naga itself, Ch sek bu 'expensive', sek ok bu 'hard', < NN HARD(2).

soft. See also HAIR(1).

SOLE. See PALM/SOLE(1)/(2).

sorry. See WRONG(1).

SON. NN *C-dza^{A}: Yo a ǰa (Dutta) (Walker has sa 'child', ya cik sa 'girl'); Mo ǰan 'son', ya ǰik ǰa(n) 'girl, daughter'; No c(h)a 'son', de hiek c(h)a 'girl, daughter' (Robinson, Brown) ~ da la cha 'son', de hiak-cha 'daughter', cha 'nephew, niece' (DG). In these forms, Yo ya cik/Mo ya ǰik/No de hiek ~ de hiak = 'woman', No da la = 'male', so that 'girl, daughter' ≃ 'woman-son' (in NN, PERSON(1)-FEMALE(2)-SON) and Nocte 'son' ≃ 'male-son' (in NN, PERSON(1)-MALE(2)-SON), this Nocte usage showing that the base meaning of *C-dza^{A} is actually 'child'. Wa sa 'young', nau-sa ~ man sa 'boy' (nau < CHILD), ku sa (Brown) ~ ko sa (Peal) 'son'; Ky a ha 'son', ǰe ko ha 'daughter', na ha 'boy', ǰe ko na ha 'girl', na ha lan 'child' (var.), ha pu 'small' (na- < nau 'child', se ko = 'woman', so that 'daughter' ≃ 'woman-son' and 'girl' ≃ 'woman-boy'); Ph ha 'son', ja ha 'daughter',

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ca ha 'child', ha Ši 'boy'; Ch Šo(u) 'son', (yak sa) Šo(u) 'daughter' (yak sa = 'woman'), he Šou 'young; boy, young man', Šo si 'childhood', na Šo si 'child, baby, boy' (na < NN CHILD). The root is also used in comp. to designate the young of animals: Wa mai hu 'cow', mai hu sa 'calf'; Ky ma hu 'cow', ma hu ə ha 'calf'; Ph mu ho 'cow', mu ho ca ha 'calf'; Ch ma su 'cow', ma su Šou 'calf'; kei 'dog', kei Šou 'puppy'; etc. It appears to have the sense of 'small' in ANT(1): Wa tik sa, Ky tik ha, Ch tak Šo (glossed 'small black ant'). Cf. also SOUL[b] and ARROW. Cf. PTB *tsa or *za 'child'.

SOUL. NN *C-gla^{A}: Yo a ci ja, Mo a ci ya ja, 'soul'; No maŋ da 'ghost' (DG; maŋ = 'dead man' [DG], < NN *maŋ, CORPSE), da pha 'soul'. In the forms below, the final syllable ≃ 'child', < NN SON: Wa ca sa 'soul'; Ky ya ha 'soul, spirit'; Ph la'aŋ ha 'soul, spirit'; Ch sou Šou 'soul' (GEM). Chang has the uncompounded form in sou 'ghost (seen in dreams, a phantom of the dead)', also (in comp.) 'likeness'. PTB *(s-)(g-)la^{A} (rev. of STC's *hla, partly based on NN), pcPKB.

SOUR. NN *krəy: Mo ə hi 'acid'; No a si, Wa si, Ky Ši pu, Ph thi hok, 'sour'; Ch hai cep bu 'sour' hai cap bu 'acid' (adj.) (cap = 'to taste'). PTB *kri(y).

TO SOW(1). NN *C$_{v}$-ga'y: No khet < *khe 'to plant' (Robinson), khet a li 'seed' (DG; li < NN SEED); Ky tei 'to sow'; Ph Šei 'to sow', Šei li 'seed' (li < NN SEED).

TO SOW(2). NN *C$_{v}$-gay: No a khiet < *a khi 'sow, plant' (DG; see under rhyme for -iet as the reflex of -t -suffixed -i < *-ay); Ch kie 'to sow', ki la hek ma 'spring (season)' (-la = '-for', hek < FRUIT). For

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both sets, cf. Di. gai, Jg. gat (with suffixed -t, as in Nocte), Li. maruk-khai, 'to sow'.

TO SPEAK(1). NN *thu˚ŋ: No tho 'to speak' (Robinson) a tho 'to say' (DG); Wa toa pit 'flute'; Ch pi thuŋ 'flute', pu thuŋ 'trumpet'. See also GUN ≃ 'speaking-iron' or 'speaking-dao' (No van tho, Wa jan tua, Ky yan šiŋ, Ch nam thuŋ). Cf. Lu. thu 'word'.

TO SPEAK(2). NN *C̬-wər: Wa wan (= /van/)(Brown) 'to speak'; Ky i 'to say' (probably also i 'to read'); Ph e 'to speak, to say', e tei 'to talk' (tei = 'to send'); Ch ŋəɣ wan yu 'to talk, to converse' (ŋəɣ = 'word', -yu ≃ 'together; with one another', < NN AMONG). Possibly also Nocte van, in van the 'one', va[n]ñi 'two', van ram 'three'. Cf. Khoirao wa 'to say'; also Khamti wa, Ahom ba 'to speak' (GEM 222).

TO SPEAK(3). NN *ŋa˚w: No a san ŋa 'to admire' (a san = 'good', also [in comp.] 'beautiful, charming' [DG]); Ky ŋau 'to speak; voice, word, speech, language'; Ph ŋaə 'voice'; Ch ŋa 'to call'. Cf. PTB *a˚w 'to cry out' (Lu. au 'scream, cry out' is cited, but see also Lu. aw 'voice', aw ka 'speech', suggesting that the meaning of this root is more general). In one other case, DUMB, NN *ŋa^{A}, an NN root in *ŋ- has an apparent PTB prototype in *Ø-, PTB *(m-)a. Cf. also PTB *gaw ~ *kaw 'call'.

For other NN roots in this semantic field, see WORD(1)/(2), TO CALL, and TO SHOUT.

SPEAR. NN *ŋu: Ky ŋo, Ph ŋu. Cf. S Naga ŋu (details under rhyme).

TO SPIN. NN *C̬-swi˚k: Ky phik, Ph phak, Ch lei šik (lei = 'thread'). Cf. PTB *(s-)mwəy 'twirl about; spindle'; for NN suffixed *-k, cf. 'fruit', PTB *sey > NN *sek, FRUIT(2) (Wa/Ky/Ph/Ch). The *C̬- specification is required only to account for Chang š-; it

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may represent lei- and be local to Chang.

SPINDLE. NN *2-paŋ: Ky phaŋ 'spindle'; Ph paŋ 'thread'. Cf. PTB pwaŋ 'spindle, spindleful of thread' (WT 'phaŋ, Jg. kə baŋ, WB 2a-waŋ).

TO SPIT. NN *tho°k: No a thoak, Ch tok. Possibly also Ch tak 'to bite'. Cf. Mk. iŋ thok 'spit; bite (as a snake)', Lhota ncok 'spit'.

TO SPLIT. NN *2-cum: Ky them 'to split'; Ch cam 'to cut (of meat only, = to cut up very small)'. This form is preceded by nin 'to cut up (of meat only)'; cf. pei ñin 'to split'. Possibly an allofam of MORTAR, Ch šam < NN *tsum < PTB *tsum^{B}. The NN rhyme is indeterminate; I include the root because of the rarity of NN *2- forms and reconstruct *-um rather than (e.g.) *-am on the basis of a possible connection with MORTAR.

to split. See also TO BREAK(2).

TO STAND(1). NN *gyap: Yo cap, Mo cap 'to stand', No cap 'to stand, to rise', Ch lak sab 'to rise (from recumbent [as vs. sitting] posture)'. PTB *g-ryap (> *g-yap [> Jg. tsap], pcPKB).

TO STAND(2). NN *yuŋ: Mo yuŋ 'high'; Wa a joŋ 'to stand' (Brown), 'erect, perpendicular' (Peal); Ky yoŋ 'to stand, to rise'; Ph yoŋ 'to stand'; Ch aŋ lek 'sloping'. Cf. Ao Mongsen yuŋ li, Maring ma yuŋ 'to stand'.

TO STAND. See also COME/STAND/LIFT and COME/RISE.

STAR[a]/MOON(2). NN *li°t: No da liet 'moonlight' (DG; da = 'moon', < NN MOON(1). The suggestion here that Nocte liet ≃ 'light' fits well with the terms below, which could plausibly be analyzed as 'big light' ['moon'] and 'small light' ['star']; Wa lit zu 'moon' (Peal) -- there is a troubling shift to a

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mid-vowel in the other Wancho forms: le nu < *len nu < *let nu 'moon' (Peal; cf. the parallel assimilative shift in final, -t > -n/__ñ- in the Ky/Ph forms for 'moon'; -nu < NN BIG(2)); let lu 'moon' (Brown; here it appears that it is the initial of the second syllable which has undergone assimilation [to the initial of the first]); let si 'star' (Brown; -si probably = 'small'; see STAR[b]);[1] Ky lin ñu < *lit ñu 'moon' (-ñu < NN BIG(2)) -- the Konyak word for 'star' is ša ha (-ha < ha pu 'small', < NN SON); Ph lin ñə < *lit ñə 'moon' (-ñə < NN BIG(2), lat 'salary' (= 'monthly wage', cf. Chang), lit ha 'star' (-ha ≃ 'small', < NN SON); Ch lit ñu 'moon' (-ñu < NN BIG(2)), lit nam 'salary, wages, monthly wage' (nam = 'money'), kan co li cu < *kan co lit cu 'star' (a redundant construction, with kan < PTB *s-kər 'star', -co < NN SMALL, probably also the source of the final -cu, with dissimilative shift in the vowel [cf. 'discord', o yo phet yu, -yo ≈ -yu < NN AMONG]). Thus Wa/Ky/Ph/Ch 'moon' is cognate throughout, < NN *li°t ɲə°w (*ɲə°w best identified as NN BIG(2), though it could also be NN MOTHER, which is identical -- indeed, these could be alternative uses of the same root). The selection of qualifiers for 'star', on the other hand, is variable, but draws on three roots all of which ≃ 'small': NN STAR[b], SON, and SMALL(/PARENT'S [YOUNGER] SISTER/BROTHER). The kinship usages of the latter two (along with -BIG = -MOTHER in 'moon') suggest that the one unanalyzable qualifier in the lot, -zu, in Wa lit zu 'star' (Peal), may be the missing Wancho term for 'grand-

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[1]For the possibility that Wa -et is an alternative reflex of NN *-i°t, cf. Wa a ket 'to tear', NN *ci°t, TO TEAR, also (in comp. with 'waist'), 'belt', Jg. -kit 'belt'. The palatal initial seems definite, however, and if so the Wancho regression to a velar (*h- expected) is unaccountable.

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child', NN *C-dzəw, Wancho *su expected. Thus the sub-title of Matisoff's (1980) paper on 'star' and 'moon' terms in Sino-Tibetan -- "bright beings of the night" -- may apply literally to NN, where the moon may be the 'mother-light' and the stars the "(grand)child-lights'. At any rate, NN supplies (only) a second example of the use of a single basic root (differently qualified) for both 'star' and 'moon' in the same languages. NN *li't may also be reflected in Yogli lik sei 'star', with dissimilative shift of final, but Nocte me rik (Robinson, Brown) ~ mi rik (DG) is distinct, to be compared with Wancho ni rik ha raŋ 'God' (Brown; Peal has just ha raŋ [= 'earth-sky'] 'God'), rather than with Wancho lit ~ let 'star/moon'.

NN *li't, however, is probably not Tibeto-Burman. Cf. Khamti lən 'moon', and for a possible source of both this and the NN, Khasi ba lih 'white' (ba = adjectival prefix) (Robinson 1849: 346,348).

STAR[b]. NN *dzi: Yo lik sei, Mo ri si, Wa let si (Brown) 'star'. Wa let-, and possibly Yo lik- *lit-, are from STAR[a] (see above); I have no etymology for Mo ri-. Matisoff (1980) suggested that Yo -sei/Mo -si might be from PTB *sey 'fruit; round object' on the basis of a similar usage in Lahu, but PTB *sey > NN *sey, FRUIT(1) > Yo -di 'fruit', Mo -di (/-n__) 'bullet' (< 'small round object') (NN *s- > Yo d-/Mo t-). Cf. instead PTB *zəy 'small, minute'. The expected Nocte reflex of NN *dzi is chi; this may be reflected in Nocte chi khok 'small basket' (DG; khok < NN *C-khuk, BAG/'basket'.

TO STEAL. NN *C$_{v}$-kə'w: Yo a hau (Walker) ~ hʌu2 (Weidert) 'to steal', a hau wa (Walker) 'thief'; Mo a gru wa 'thief' ('steal' not available; Yo/Mo -wa = 'agent noun suffix'); No hu (Robinson) ~ hu2 (Weidert) ~

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a hu (DG) 'to steal', a hu (Butler, DG) 'thief'; Wa a hu 'to steal'; Ky ku 'to steal', ku pa 'thief'; Ph gə2 'to steal', gə2 pa 'thief' (Ky/Ph -pa = 'agent noun suffix'); Ch kok 'to steal', kok pu 'thief'. Cf. PTB *r-kə'w.

steep. See SLOPING.

STICK(1). NN *C-thu'l: No man thun 'stick'; Ch cu 'stick', (ŋau)yaɣ cu 'fishing rod' (ŋau yaɣ = 'to fish'. Cf. Li. ta thun2 'stick'.

STICK(2). NN *tut: Ch wan tat 'firebrand' (wan = 'fire'). Cf. WB thut 'club', Rawang šiŋ thut 'stick' (šiŋ = 'wood'), tə mi mə thut 'firebrand' (thə mi = 'fire'), all pcPKB.

STONE. NN *C-luŋ (or *r-luŋ): Yo/Mo luŋ, No/Wa loŋ, Ky/Ph yoŋ, Ch laŋ. PTB *r-luŋ. NN *C_V-luŋ > Ch yaŋ, so that it is necessary to posit (*r- > *s-) prefix substitution in NN to account for Chang laŋ, unless NN *r-l- > pre-Chang *l-l- (as NN [root-initial] *r- > Ch l-), in which case one might expect *l-luŋ > Ch laŋ (rather than yaŋ).

stool. See DUNG.

STORM. NN *N-du'ŋ: Wa raŋ duŋ 'thunder; lightning'; Ky waŋ nyaŋ = /waŋ niaŋ/ (rather than, as is generally the case, /-ñaŋ/) 'wind'. Wa raŋ-/Ky waŋ- = 'sky; meteorological classifier', not to be identified with the prefix; i.e., the full reconstruction is *rən N-du'ŋ. Cf. WB mu ntuiŋ 'storm' (mu < muì 'sky'; WN -uiŋ < PTB *-u'ŋ [STC 76]), Mk. iŋ deŋ "thunder".

STRAIGHT. NN *tiŋ: No a tiŋ (Brown, Butler) ~ tin < *tiŋ (DG); Wa taŋ (possibly irregular: the usual Wancho reflex of *-iŋ is -iŋ, but Wancho has -a- for *-i- before dentals and labials); Ky tiŋ khu a ny pu

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(there is apparently a misprint in the fourth syllable here); Ch taŋ Šei 'straight', taŋ Še bu 'erect'. Cf. PTB *di'ŋ (STAL 173); this is probably from a doublet.

strong. See HARD(1).

TO SUCK//TO KISS.

TO SUCK. NN *C$_{v}$-cu'p: No a cup 'to suck', a cup(jok) 'to kiss' (both DG); Ky həp, Ch Šap 'to suck'.

TO KISS. NN *C$_{v}$-chup: Ky jep, Ph jəp, Ch Šep (GEM) 'to kiss'. The two roots are obviously closely related, but are clearly distinguished in Konyak.

Cf. PTB *ʔcup ≈ *ʔjup, SUCK/MILK[1] (TSR 73; cf. VSTB 32, where Matisoff observes that this is "an exceptionally complex word-family"). The voiced prefixes required for NN are also reflected in (e.g.) Mk. iŋ jup 'suck, kiss', Ao Mongsen me cep 'suck, kiss', Sema mcə 'suck, kiss', St. mə chəp, Maring mə cup, 'kiss'. Cf. also Jg. cyup 'suck, kiss', cu 'suck', cup 'kiss'; Bodo cup 'suck'; Mpri. cup 'kiss'. There are also forms in -ap, -op, and -ip, but the incidence of identical forms for the two glosses suggests that differentiation (where it occurs) may be a late and local development.

TO SUFFER(1). NN *C$_{v}$-da'k: Yo da 'sick', No cha 'to ache' (DG), Ch khon sak 'to suffer' (khon- = khon 'skin'?), si sak 'diarrhoea'. Cf. Yi. phə tsak 'fever' (phə = 'body'), Lp. a-dak 'illness' (Forrest).

TO SUFFER(2). NN *dzat: No a c(h)at 'sick; fever' (Butler) ~ tshʌt 'to ache' (Weidert) ~ (a)chet 'painful; pain, fever', ___-chet 'disease (of) ___' (DG); Ch Šat 'to ache; to be ill; to be sick'; khu'Šat 'headache' (khu = 'head'); as in Nocte, -Šat is used in comp. in terms for specific ailments. Cf. PTB *tsa, also with suffixed *-t in Lu. Ša ~ Šat

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'hot', as well as in Chinese dz'i̯ə̯t/dz'i̯et 'sickness, pain' (STC 159, n.429).

SUGAR CANE. NN *rui(y): Ky wui. PTB *(s-)rwi(y) 'cane'.

SUMMER. NN *C$_{v}$-khyu: Ky jo, Ph šou. Cf. Mpri. noŋ ju tha (second syllable; 'winter' is niŋ tham tha); for Mpri. j-: NN *(-)k(h)y-, and for additional comparisons (C and S Naga [an *N- prefix is general]), see under initial.

SUN. NN *car: Yo raŋ šal, Mo roŋ šar, No san, Wa raŋ han, Ky waŋ hi, Ch ca ñu < *can ñu. Phom has vaŋ hi (*vaŋ he expected). The first syllable in the Yo/Mo/Wa/Ky/Ph forms is 'sky; meteorological classifier'. Cf. PTB *car.

sunset. See EVENING.

TO SURPASS. NN *lay: No a liet choan (DG; choan < choan 'run, escape'?). PTB *lay 'pass, exceed'. This derivation is important because it confirms -iet as the Nocte reflex of *-ay + (suffixed) -t. Cf. No a khiet 'sow, plant' (DG) < NN *-gay (cf. Di. gai, Jg. gat).

to surround. See TO ENCLOSE.

to swear. See TO PROMISE(2).

SWEAT. See HOT(1)/SWEAT.

TO SWEEP. NN *saw: No a ru 'to sweep', Ch hau 'to gather up', hau sau 'rake'.

SWEET. NN *tuay: No a tu, Wa ti, Ch tei šik bu. Cf. PTB *twi(y).

TO SWIM. NN *wa't: Yo kham vai, Ch tei it. Yo kham/Ch tei = 'water'. Cf. PTB *s-wa 'be in motion', Ao Chongli a wa 'to swim', and further comparisons and discussion under initial or rhyme.

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TAIL. NN *C-me'y: Yo ʌ mi (Weidert), Mo a mi, No a me, Wa me kua (Brown); Ky ə nyiei = /ə ñei/ (cf. 'easy', Ky nyiai pu = /ñai pu/ and 'mithan', Ky nyia = /ña/); Ch mei. Cf. PTB *r-may.

TO TAKE(1)/TO GIVE. NN *C-la^{B}: No la he 'give' (Butler); Wa la 'take' (Brown), la he 'bring' (Peal); Ky ya 'take, get'; Ph ya2 'give, receive'. PTB *(-)la^{B} (Lepcha lyo < *slo < *s-la), pcPKB, with both the Lepcha form and Di. se la 'take' pointing to an *s- prefix.

TO TAKE(2). NN *(C-)lam: Yo lam kai 'bring' (-kai is probably the non-finite form of *ga^{A}, TO GO), mai lam 'marriage' (Dutta; mai = 'man (generic)', but in this form is probably < mai wa 'man (male)'; cf. the Chang form below); Mo lam van 'take' (-van is cognate with the No/Wa/Ky forms for 'bring', < NN BRING), mi lam 'marriage' (Dutta; mi < mi(va) 'man (male)'; cf. Yogli and Chang); Ch lau lam la hau 'marry (of a woman: lit.= 'go to take a husband')' (lau = 'husband', -la = 'gerund suffix: -to, -for', so that lam la ≈ 'for taking', hau = 'go'). The Tangsa forms for 'marriage' may be interpreted in the same way, as 'husband-taking' (lit. 'man-take'). Both the vowel and the presence or absence of a prefix are indeterminate (strictly, the reconstruction could only be NN *(-)l_m), but I suggest *C-lam on the basis of a probable allofamic relation with NN *C-la^{B}, TO TAKE (1) and *C-lap, TO SEIZE/TO CATCH(2) (> Yo a lap 'to get'. Cf. also Khasi wal lam (Robinson) 'to bring'.

TO TAKE(3). NN *C$_{v}$-khrap: No kap 'take' (Robinson, Brown), a kap 'take, elect', kap 'accept (take)', jan cho kap (~ jan cho siet 'marriage [girl-take]') 'marry' (DG); Wa kap 'take, get' (Brown). Cf. WT bkrab 'choose'

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(cf. particularly the Nocte gloss 'elect' and the semantic range of Chang le, 'take, accept, choose [lit.='take']').

TO TAKE (UP)(4). NN *nor: Wa non 'lift', Ky no-en 'raise, lift' (Ky en : Ph an 'lift'), Ph no 'take', no ei tei 'bring' = 'take-and-send' (though Ph tei 'send': Ky tei 'take'). Cf. the additional forms in other Konyak dialects: Tablung/Jaktung noh 'lift up, carry', Mulung/Sima noh 'carry' (Brown). See under rhyme for possible Ao cognates.

to take. See also TO SEIZE/TO CATCH(1), TO BRING, TO SEND, TO GO(3).

to talk. See TO SPEAK(1)/(2)/(3).

tall. See HIGH(2), LONG.

TO TASTE. NN *chap: No tha li (Robinson) ~ the li (DG) ~ thʌ li (Weidert), < *thap li 'tongue' (li by itself is cognate with the other Northern Naga forms for TONGUE; Nocte tha may be a prefix, but retention of *CV- prefixes [except in numerals] is uncharacteristic of Nocte, as of Northern Naga generally. If Nocte tha- in 'tongue' does reflect a root rather than a prefix, it is the only instance in which Weidert gives -ʌ for other recorders' root-final -a [as vs. -ʌ- for -a-], suggesting original closure and loss of final in non-word-final position. See also below for the semantics); Ky/Ph jep 'to taste'; Ch cap 'to taste', hai cep bu 'sour' ~ hai cap bu 'acid' (hai < NN SOUR). Cf. WT gžab-pa 'to lick', TN ma zap 'to lick; to taste', possibly from a PTB *(-)jap (pcPKB, who notes that 'lick' and 'taste' are often associated in Southeast Asian languages, while 'lick' and 'tongue' are alternative glosses for two PTB roots [cf. Nocte]).

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TEA. NN *C-khe: . No khe lap, Ky khe lep (lap/lep < LEAF (1)).

TO TEACH. NN *rin: No a rin 'to advise' (DG); Ph ven "to teach"; Ch len 'inform, tell, explain, teach', len bou 'teacher'. Cf. Jg. ǰa rin ya 'to teach'.

TO TEAR. NN *ci°t: Yo keŋ šit 'belt' (keŋ < NN WAIST); No kha syet (Brown) ~ a kha siet ~ a cien siet (DG) "to tear" (a kha = a kha 'to abuse'?; for cien, cf. khown cien "to peel" [khown (possibly a misprint) < kho-wan 'skin'], all DG); Ky hit 'to tear', šiŋ hit 'belt' (šiŋ = 'waist'); Ch cit nin 'to tear' (nin = 'to break'). On the formation of terms for 'belt' from WAIST + TO TEAR, cf. von Fürer-Haimendorf's comments:

> Thendu [Konyak] men preferred cane to bark belts for everyday wear, and they took a special pride in reducing the waist to an amazingly small size by pulling the cane as tight as was endurable (1969: 12).

Cf. PLB *jit (pcJAM), PST *-i°t (pcPKB). Benedict (pc) also suggests a comparison with Jg. šit 'split, strip (as bamboo splits used for tying)', which would provide yet another etymology for 'belt'.

to tear. See also TO BITE(1).

to tell. See TO TEACH.

TEN(1). NN *ro°k: Yo rauk ši 'ten' (ši < a ši, 'one'), rauk nei "twenty" (nei < a nei, 'two'), etc.; Mo rok ši 'ten', rok ni 'twenty', etc.; No ruak ŋi "twenty', etc. (Mo/No analysis as for Yogli). The Nocte word for 'ten' itself is i chi, possibly < NN *(-)dzay; cf. PTB *tsyay "ten' (Di. dži). Benedict in fact refers Namsang (= Nocte) i chi to this PTB form (STC 94).

TEN(2). NN *bo°n: Wa ban, Ky pen, Ph an, Ch an. Cf. Khasi ši pón (Robinson 1849: 349)(Khasi ši- = 'one-',

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"a specialized form . . . used only with quantifiers" [GEM 210]. As no ST comparisons can be found, this is evidently a loan from Austroasiatic into NN.

TO THANK. NN *C-gluŋ: Ky yoŋ 'thank', min yoŋ 'praise'; Ph men loŋ ñə pe it 'thank', men loŋ 'praise'; Ch ñen saŋ 'thank, praise'. Ky min/Ph men/Ch ñen = 'name'.

THICK. NN *C_V-tat: No a tat 'fat'; Wa tat, Ky jei pu 'thick'; Ch la tat pu 'how large?' (la- is an interrogative marker also found in, e.g., 'where?', 'when?', 'how much?', 'how often?', 'how long?'). PTB *r-tas.

thigh. See (=) -LEG- + -ROUND- (OF BODY PARTS)(2).

THIN(1). NN *pwe°r: Mo a var, Ky pe pu. Cf. PTB *pe°r 'flat, thin'; PTB *pwe°r also appears to be a possible reconstruction for the forms cited for *pe°r: see under initial.

THIN(2). NN *ri°n: Yo a rin 'small'; No a rin 'small; lean' (DG); Ch kop lin bu 'thin (of persons)' (kop may be from NN SHELL). For the 'small/lean/thin' association, see "large/fat/thick' < NN THICK. Robinson and Brown give Nocte 'small' as a riŋ, which I would take to be the source of Das Gupta's a rin if it were not for the Yogli and Chang forms in -in (see also Moshang a rean 'thin', with irregular [and uncanonical] rhyme). As it is, No a riŋ may reflect a doublet, *ri°ŋ (cf. Chang še li bu 'flat', ša li bu 'poor, needy').

THIN(3). NN *pek: Wa pak 'thin', Ch peg le bu 'thin (of materials)' (le = le 'to wear'?). PTB *(s-)be[°]k (pcPKB); NN *-bek is entirely possible.

TO THINK(1). NN *ʔ-da°y: Ky moŋ tei ~ ju tei (moŋ = 'mind', ju = 'mouth'), Ph dei2 "to think'. Possibly

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also Nocte pu te 'to believe' (DG) and/or Wancho thai 'to know' (Brown). Cf. Ze. ndai gum 'to think'; Jg. sin dai 'mind' (sin = 'liver'), Di. mi thai 'heart'; Nr. thai, Puiron thei, TN thei 'to know'.

TO THINK/TO WISH/TO HOPE. NN *2-so°m: No a soam 'pray, worship'; Ph moŋ jam thə 'friend' (moŋ = 'heart', -thə < -BEING), ≈ 'heart's desire'(?); Ch tam 'think, wish, hope', tam an 'recollect, remember' (an < NN OPEN(2) < PTB 'expand, be unrolled'). PTB *səm 'breath, voice, mind, heart, soul, spirit, thought, think'.

THIRSTY. NN *lə1: No kham lan (GEM [not in any of the major sources]; kham is 'water' in Yogli, 'rice-beer' in Nocte [DG]), jo lan (DG; jo = Nocte 'water'), both 'thirsty'; Ky li pu 'thirsty, dry (var.)'; Ph yuŋ le, Ch tei la 'thirsty' (Ph yuŋ/Ch tei = 'water'). Wancho has la 'thirst' (*lan expected). Cf. Lu. chha°w lha°l 'thirsty', Ao Chongli jə rər, id. (jə = 'water').

THIS. NN ÷C-ha^{A}: Wa ha ya, Ky ha to, Ph ha, Ch ho. PTB *a, 3rd person pronoun (> NN *(-)ha, pcPKB).

THORN. NN *cəw: Yo šʌu? (Weidert), Mo šu, No su, Wa huk, Ky hu, Ph hə?, Ch cak. In Chapter III I interpret the deviant Chang rhyme (the only instance of -ak < NN *-əw) in terms of conditioning by the initial, in a context of a range of such conditioned variation in the Chang reflexes of *-əw; but it is better interpreted as a function of accent: the PTB(/NN) *-B accent is clearly indicated for THORN by the glottal finals in Yogli and Phom (as well as by the irregular Wancho final -k), and the Chang low-vowel rhyme (-ak) matches the lower dipthong (-au) which is the Chang reflex of PTB(/NN) *-a^{B} (as vs. Ch -o(u) < PTB(/NN) *-a^{A}). Cf. PTB *tsow, but Jg. ju rather than the ex-

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pected *dzu (the reconstruction is presented in the text, before the recognition, in notes, of a PTB palatal series); a variant, *tsu(w), is posited at STC 69 on the basis of the Dimasa form. Thus there is actually support in the forms cited in the STC for a PTB *cəw, at least as a variant form.

THOU(1). NN *naŋ: Yo/Mo mnaŋ, No/Wa/Ky naŋ, Ph nəŋ. PTB *naŋ (STC). The Yo/Mo m- is a local development.

THOU(2). NN *ŋa·ŋ: Ch nuo ~ no. PTB *na·ŋ (pcPKB). The variation in vowel length goes all of the way back to PST *naŋ ~ *na·ŋ (STC 160, n.432). The Phom form, nəŋ, could actually go in either set, though irregular for both (*naŋ expected in both cases).

THREAD. See THREAD/(<LINE>)/BOUNDARY; also SPINDLE.

THREE. NN *C-sum: Yo a dim, Mo a tum, No van ram (Robinson) ~ wan ram (DG) ~ wan rʌm (Weidert), Wa a jam (Peal) ~ a zam (Brown), Ky lem, Ph jam (GEMa) = /jəm/ (GEM 74), Ch sam. PTB *g-sum. The unprefixed root is reflected in Chang ham ñet/ham ño 'three days/nights hence'.

thumb. See FINGER(1), also -ROUND- (of body parts)(1).

THUNDER. NN *muk: Mo roŋ muk, No raŋ mok, Ph vaŋ mok, Ch loŋ mak, 'thunder'. Cf. Ao cuŋ muk 'thunder'; Jg. mu? 'thunder, cloudy', attributed in the STC to PTB *r-mu·k (77, n.236). The NN vowel is definitely short, however, so either there are two roots here or *muk was borrowed by NN from a language (Ao or Jinghpaw, or a precursor of one of these) in which *-u·k had merged with *-uk.

thunder. See also STORM.

TO TIE(1). NN *C-ga: Yo a dam ka 'to tie' (dam < NN TIGHT); No khak 'to bind' (Butler, DG) ~ a khak 'to tie (fasten)' (DG) (*kha expected; khak may be from

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kha ko: Butler actually gives khako [syllabification uncertain as between kha ko (a compound of two roots) and khak-o (imperative form of the verb, regularly given by Butler [and Robinson] in their vocabularies); Das Gupta's transcription seems to imply the latter]); Wa luŋ ka 'knot'; Ky/Ph ša 'to tie, to bind'. Cf. Bodo-Garo *ka^{A} (Di. kha), pcPKB; Jg. ša jup 'to tie'.

TO TIE(2). NN *C-khyin: Ky šin 'to tie', Ch šen 'to tie; knot'. Cf. WB khyáñ 'bind, fasten' (WB -áñ < PTB *-in, STC 76,79), possibly also WT 'chin 'tie'.

TIGER. NN *C-gya^{B}: Yo ca, Mo ca, No ṣa, Wa ca ñu, Ky ša ñu, Ch sau ñu ~ sau yaŋ 'tiger', sau yaŋ ñu 'tigress'. Wa -nu/Ky -ñu/Ch -ñu in 'tiger' may be referred to NN BIG(2); Ch -yaŋ = 'big', < NN BIG(1). Ch -ñu in 'tigress', however, = 'female', < NN MOTHER. Cf. Burmese-Lolo *(k-)la (> WB kyà), which Benedict identifies as "ultimately a loan from Austro-Asiatic *k(u)la" (STC 177-178, n.472); the Khasi is u-kla (Robinson). This is probably also the source of the NN form, with the development of medial -y- < *-l- paralleled in Burmese, and NN *C- < PTB *s- 'animal prefix'.

TIGHT. NN *C$_{V}$-dam: Yo a dam ka 'to tie' (ka < NN TIE(1)); Ch yik sam 'to close one's fist; to be numb' (yik = 'hand'). Cf. WT dam po 'tight'.

time. See (=) SUN + ISSUE.

today. See DAY(1)/(2), NIGHT(1).

together. See TO GATHER.

tomorrow. See DAY(1)/(2).

TONGUE. NN *C-ley: Yo li, Mo la li, No tha li, Wa le, Ky yi, Ph yei, Ch li šaŋ (-saŋ ≈ 'body part suffix', also in kau šaŋ 'chin', yik ŋam šaŋ 'wrist', etc.). PTB *-ley (rev. of STC's *m-lay ~ *s-lay), pcPKB.

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tonight. See NIGHT(1).

TOOTH. NN *swa^{B}: Yo pa, Mo va, No pa, Wa va, Ky/Ph pha, Ch hau. PTB *s-wa^{B}.

TOP. NN *tə'k: Ky a tok me, Ph tok phi 'above' (Ky -me = '-on/-at/-in', so that Ky 'above' ≃ 'on top'); Ch šoŋ tok pu 'peak' (šoŋ = 'mountain, hill') ≃ 'mountaintop'. Cf. PTB *l-tak 'above' (WT ltag-ma 'upper part of place'), but also WT thog 'what is uppermost', Lepcha tok 'the head; the top of anything', etc. (pc PKB). Cf. also NN *tuk, BACK//ROOF, and the discussion of this word family under *t-.

top. See also HEAD(1), HIGH(3).

torch. See TO BURN(2), FLAME.

TO TOUCH/TO PUT(1). NN *lum: No lam 'to put', Ph ləm 'to touch'.

TO TOUCH/TO PUT(DOWN)(2). NN *po: Wa tham po 'to put down' (Brown), Ky po 'to touch', Ch po 'to set down', an tin po 'to hang up' (an < NN UP), yep ti an-pu < *yep ti yan-pu 'to lay down (= "put lying")' (yep = 'to lie down', -ti = CAUSATIVE, yan ≃ 'down' [see under UP]) ≃ 'put down- cause to lie down', a 'redundant' construction; hu din pu 'to hide' (tr.; intr.: hu). Cf. Ch phu 'to put', but the unaspirated initials in Wancho (Brown) and Konyak require a Chang cognate with unaspirated initial. Cf. Mk. pho 'touch', pe pho 'lie down'.

town. See VILLAGE.

to travel, traveller. See TO WALK, FOREIGNER.

TREE(1). NN *pul: Yo pul cuŋ 'tree', pul khauŋ 'bark' (a khauŋ = 'skin')(Walker), pul di 'fruit' (Weidert; di < NN FRUIT(1)) ~ a pil 'green', pil pauŋ 'flower' (a pauŋ = 'breast', < NN (BREAST/)FLOWER)(Walker);

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Mo pul "tree"; No pan 'wood' (Robinson), pan ri (DG) ~ pʌn ri (Weidert) 'fruit' (cf. a ri 'fruit' [Robinson], ri < NN FRUIT(1)); Wa pan 'tree', pan jak 'fruit' (Peal; jak < NN FRUIT(2)), pan kan 'bark' (Peal; kan = 'skin'), also (in comp.) 'root', 'leaf', 'branch'; Ky pi "tree, wood", (pi)lik "fruit" (lik < NN FRUIT(2)), pi šo 'bark' (šo = "skin"), also (in comp.) "root", 'leaf', 'branch'; Ph pə 'tree', pə nin 'bush'; Ch pu 'tree, wood, plant', pu khon 'bark' (khon = 'skin'), pu guŋ 'stalk' ~ po kuŋ 'log' (guŋ ~ kuŋ < NN BRANCH), po hek 'fruit' (hek < NN FRUIT(2)), (po)phek 'fork (of a tree or path)' pu phyek 'branch' (phek ~ phyek < NN TO JOIN(1)/FORK/BRANCH). PTB *bul ~ *pul.

TREE(2). NN *baŋ: No baŋ 'tree' (Robinson, DG), also (in comp.) "root", 'stem', 'bark', 'branch', "leaves", "timber" (DG). Cf. PLB *baŋ^{A} (WB sac paŋ), pcPKB. Also general SW Naga -baŋ in compound forms for "tree" < PTB *siŋ baŋ (PTB *siŋ "tree, wood"), Di. bu phaŋ ~ bo phaŋ "tree" (bu ~ bo probably from *bul ~ *pul, the PTB source of NN TREE(1)).

to tremble. See TO FEAR.

TRUE. NN *C_{V}-ji'ŋ: Wa ho tziŋ "true" (Peal; ho- seems to be an adjectival prefix); Ky ŋao tiŋ pu 'true' (ŋao = 'word'), ə tiŋ pa 'right (correct)', ə tiŋ lak "to believe"; Ph hiŋ mei pə 'true, right (correct)' (mei pə = "good"), hiŋ lem 'to believe' (lem < NN TO WORSHIP(1)); Ch yiŋ 'to be right', a yiŋ 'not so' (a- = 'not-'). Cf. SW Naga: Rengma ke ciŋ, Khoirao ka jiŋ ba, Nr. kə cuŋ mei, all "true".

trumpet. See TO SPEAK(1), TUBE, DRUM.

TUBE. NN *gek: Ky tik woŋ, Ph šək voŋ, 'trumpet' (Ky woŋ /Ph voŋ = 'horn', but cf. also Ky weŋ/Ph vəŋ 'to play music'); Ch lau cin kek 'quiver' (lau cin = "arrow").

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Cf. PTB *kek (rev. of STC's *(s-)ke(k), pcPKB), 'neck (-shaped)' (Jg. ke2 'to be or make neck-shaped'); could also be *gek, < PST *s-gek or *s-kek (Chinese d'iôk 'trumpet' ~ diọk < *sgiọk 'flute'), pcPKB.

TO TURN(1). NN *lip: Ky lip, Ch lap. Cf. Ao Chongli me yip 'turn'.

TO TURN(2)/RETURN(2). NN *lyey: No a lit < *a li 'to turn', tum lit < *tum li 'around' (both from DG: cf. a rit [DG] ~ ri [Robinson] 'to die'; tum = 'round'); Ky yi 'to return'; Ph ñok ei lei 'to return' (ñok < NN RETURN(1), -ei- = 'conjunctive participle suffix'), a 'redundant' construction. Cf. Mpri. lei sin, TN Ši rei, Ze. nrei waŋ, Rengma nri, all 'to turn' (see under initial for TN/Ze./Rengma r- : NN *ly-).

TWENTY. NN *ja: Wa tsa (Brown), Ky ta, Ph ha, Ch sau cie (cie = 'one'; cf. sau ñi, '40', sau sam '60' [ni = 'two', sam = 'three'], etc.). The Yo/Mo/No forms for 'twenty' are compounds of 'ten' and 'two'.

TO TWIST/TO BIND. NN *kiak: Ch kəɣ 'twist; bind; fix'. Cf. WT 'khyig-pa 'bind', WB kyats < *kyik 'twist hard and tight', attributed to PTB *kik.

to twist (cloth). See TO WRAP.

TWO. NN *2-ni: Yo a nei (Walker) ~ A nAi (Weidert), Mo a ni, No va ñi < *van ñi (Robinson) ~ wan ñi (DG); Wa a ñi (Brown) ~ a ni (Peal); Ky i; Ph ñi, Ch ñi. PTB *g-ni-s, but with prefix substitution in NN also reflected in Nung ə ni, < PTB *2a-ni (see under initial for full discussion).

u-

UNDER. NN *phaŋ: Wa ho phaŋ (Brown) 'under' (Peal has hɔ pɔ̃ŋ 'below'), Ky phaŋ me, Ph phaŋ ei, Ch paŋ a ~

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paŋ to ~ -paŋ 'under' (Ky -me/Ph -ei/Ch -a = 'in, at'; Ch -to = 'to'). PTB *paŋ, as represented in Rawang phaŋ 'below, under, down', hi phaŋ 'sole of foot [hi]', laŋ phaŋ 'bottom, end of anything, base', mə phaŋ 'after', Jg. phaŋ 'to be behind; to follow; behind', phaŋ de 'after(wards)' -- to be distinguished from its convergent homonym, Jg. phaŋ 'begin, commence, start' (cf. NN *praŋ, TO BEGIN); Mk. paŋ 'rear, back, after' (pcPKB). The Ky/Ph constructions parallel those for 'above' ≃ 'on top' < NN TOP, so that this root might better be glossed BOTTOM (cf. Rawang).

to understand. See TO KNOW(1)/(2), INTELLECT.

UP. NN *dian: Mo ka ten 'to rise' (ka = 'go') ≃ 'go up'; Wa din ko 'above'; Ky ta ten 'housepost' (ta- possibly < PTB *ta 'put, place'; cf. Mulung Konyak tan 'above' (Brown)); Ch tig an- an ti 'throw up (lit.)' (cf. tig an-yan ti 'throw down (lit.)': tig = 'throw', yan = 'descend', -ti = CAUSATIVE); an tin po 'hang up' (po = 'set down', < NN TOUCH/PUT(DOWN)(2); the sequence -tin po is also found in hu din pu 'hide [tr.]'; intr.: hu, with -pu here = /-po/, also < NN *po, TOUCH/PUT(DOWN)(2), cf.). Cf. Lu. pa thian 'God' (pa = 'father'; "the creator who lives in the sky" [Shakespear 1912: 157]). See discussion under initial. Also cf. Chinese d'ʿiəŋ/dʑʿiəŋ, whose glosses include 'be on top, above' (STC 183, n.482).

up. See also HIGH(3).

URINE. NN *C-chi: Yo ši (Weidert); Ky ši šok (GEM), ši (Weidert; this is one of only a handful of cases in which Weidert gives a form from GEM's dialect of Konyak); Ch cet 'urine', cet cet 'to pass urine'. Cf. PTB *ci (WB chi, with aspirated initial).

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v-

valley. See (= EARTH +) HOLLOW, DITCH.

VEGETABLE. NN *dzui: Wa sui, Ky hui lai (-lai possibly ≈ 'leafy', < NN *lay, LEAF(2)/BOOK). Cf. NN *dzo°y, CURRY.

VILLAGE. NN *C-griŋ: Wa tiŋ khua (Brown) ~ tiŋ koŋ (Peal); Ky jiŋ 'village', jiŋ ñu 'town'; Ph jəŋ 'village' ciŋ 'village, town' (these forms are phonemically identical); Ch saŋ 'village', saŋ ñu ~ san yaŋ 'town'. Ky/Ch -ñu < NN BIG(2), Ch -yaŋ = 'big', < NN BIG(1); cf. the same pattern, Ky -ñu/Ch. -ñu ~ -yaŋ, in the forms for TIGER. Cf. Jg. kriŋ-muŋ 'hill', Mpri. ciŋ, id., but particularly PTB *grwa-ŋ 'village' (Matisoff 1972c: 278); see under initial for discussion of rhyme correspondence.

village. See also EARTH(1).

voice. See SING(1), SPEAK(3).

TO VOMIT. NN *pha°t: Yo phai (Weidert), No phat (Weidert), phat phe (DG), Ky phai. Cf. PLB *C-pat (TSR 38; WB phat), Jg. mphat.

to vomit. See also TO POUR OUT.

w-

WAIST. NN *C-geŋ: Yo keŋ šit 'belt'; Ky šiŋ 'waist', šiŋ hit 'belt' (Yo -šit/Ky -hit < NN TO TEAR [see for the semantics of 'belt']); Ph. šəŋ 'waist', Ch šen caŋ 'waist' (-caŋ ≈ 'body part suffix', see under TONGUE). Cf. Jg. šiŋ kit 'belt' and particularly Chepang giŋ 'lower back' (Matisoff 1978: 280, n. 274). Matisoff relates the Chepang form to Garo džaŋ-gal 'back', suggesting that the two may be linked by a 'transfer of palatality', either from

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(Garo) initial to (Chepang) vowel or vice-versa. The NN reconstruction points to the latter development -- palatalization of the Barish initial; Di. jeŋ khoŋ 'waist' closes both the phonological and the semantic circles. A similar transfer of palatality may account for Jg. nšaŋ 'waist', while the gloss for the Chepang form, 'lower back', suggests that Yogli kheŋ paŋ 'back' might be analyzed as from NN *C-geŋ phaŋ, WAIST/'back' + UNDER, i.e., really 'lower back ~ small of back', with, in this case, a transfer of aspiration from the initial of the second syllable to that of the first, as the expected form would be *keŋ phaŋ; in the absence of any other evidence for such a development, however, I continue to refer Yogli kheŋ paŋ to NN *khe'ŋ, BACK(1), though internal and external comparisons of this root with forms for 'waist' point to a doublet formation: NN *C-geŋ ~ *(C-)khe'ŋ, WAIST//BACK.

TO WAIT. NN *ʔ-da'n: Ky tan, Ph dan. Cf. WB tan(') "stop, remain for a while" (pcPKB).

TO WALK. NN *kyo'm: No khoam, Wa a ham, Ky kem, Ph kam(han). Cf. TN yam thui 'walk' (thui = 'move'), Jg. khon, id., and particularly NN *C$_{v}$-kyom, TO GATHER, and *C-kyo'm, TO ENCLOSE, very probably prefixed forms of the same root ('to gather' < 'to come together', 'to enclose' < 'to go around'); see under initials for discussion and further comparisons.

to walk. See also GO(2), COME/STAND/LIFT.

to want. See TO ASK FOR.

WAR. NN *ral: Mo raluŋ < *ral luŋ (cf. Ch luŋ yu 'to take part in conflict", possibly from an NN *lu'ŋ); No ran (Robinson); Wa ran (Peal) 'battle'; Ky we hok (hok = 'to fight'). Cf. NN *rəl, ENEMY, which differs only in Konyak (wi- rather than we-),

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and the discussion under the rhyme for WAR. Externally, cf. PTB *(g-)ra·l (but PST *g-râl), 'war'.

war. See also TO FIGHT(1)/(2).

TO WASH. NN *pra·w: Ky wao, Ph paə 'to wash (clothes, pots', Ph paə tək "to wash (self)'.

TO WASH/TO BATHE(1). NN *C-ru: No a ru 'to clean' (DG); Ky yo yaŋ "to wash (self)'; Ch yu ~ maŋ yu (maŋ = 'body') "to bathe". Cf. PTB *krəw 'bathe, wash' (Di. gru) but Di. gu ru bi 'clean', showing both separation of the initial cluster and a gloss more compatible with that for the Nocte form; also Mpri. i ru ja 'to bathe'.

TO WASH/TO BATHE(2). NN *2-suar: No suan "to wash (self)' (GEM), jo soan "to bathe' (DG; jo = 'water'); Ky to 'to wash (face)'. Cf. PTB *šwar 'flow, pour'.

to wash. See also CLEAN.

WATER(1). NN *təy: No ti "soup', pham ti 'mixture' (pham 'medicine'), ñə khu ti 'honey' (na khu < BEE)(all DG); Wa ti 'water', tsam ti (Brown) ~ tzam ti (Peal) 'milk' (tsam ~ tzam < NN BREAST), na ti 'honey' (na < BEE), ti kut 'lake', ti kai 'well', ti coŋ 'flood' (coŋ = 'big'); Ky ñə tai ji lo 'honey' (ñə tai = 'bee'); Ph ñə2 ji u 'honey' (na2 = 'bee'); Wa tei 'water', nau tei 'honey' (nau = 'bee'), san tei 'milk' (san = 'breast', pu tei "sap; poison (for arrows)' (pu = 'tree, plant'), tei lu 'current' (lu < NN RIVER/CURRENT), tei it 'to swim' (it < NN SWIM), and many other compounds. PTB *ti(y).

WATER(2). NN *C-yu·ŋ: Mo yeŋ "water, river'; No jo 'water' ~ joan 'river', jo cha 'spring', jo doŋ 'flood', (doŋ = 'big'), jo kham 'vapor' (kham = "boil, hot'), jo soan 'to bathe', jo loam 'to float'; Wa šua ko 'river', šua nu 'small river', šua kun 'ditch' (kun

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< NN DITCH), šua ta ha 'dike'; Ky yiaŋ 'water', yiaŋ ñu 'river' (ñu < NN BIG(2)), also yeŋ yin (yin < NN TO FLOW), yiaŋ luŋ ~ yeŋ luŋ 'well', yeŋ luŋ 'pool', yeŋ phoŋ 'valley', yeŋ tik 'kettle' (tik < NN POT), yeŋ šeŋ 'cup' (šeŋ = 'dish'), tem yiaŋ 'milk' (tem < NN BREAST), nik yiaŋ 'rice-beer' (nik = 'cooked rice'); Ph yuŋ 'water, river', šem yuŋ 'pool' (šem < NN POOL(1)), yuŋ kok 'well' (kok < NN HOLLOW), yuŋ šoŋ 'cup' (šoŋ = 'dish'); Ch yuŋ maŋ 'river', yuŋ sen 'flood', pi yuŋ kan 'channel' (kan < NN DITCH), yuŋ kək 'south' (kək < NN ASCEND(2)), yuŋ taŋ 'north' (cf. Wa suo thoŋ "west"; these forms may go with those for NN GRAVE).

The immediate affinities of this root are with C Naga: Ao Mongsen a yuŋ ~ yuŋ ba, Yi. youŋ, St. yoŋ khi, all 'river' (not 'water'). Cf. PTB *klu°ŋ 'valley, river' (WT kluŋ 'river'), also Lepcha kyoŋ, id. (STC 40, n.129); also WB khyuiŋ 'valley' (< *klu°ŋ), khyoŋ 'river'.

It seems that perhaps a better pair of glosses for the roots I have labelled NN WATER(1) and WATER (2) would be WATER/JUICE and RIVER/WATER, respectively. Yogli has yet a third root, kham. Of the other six languages, only Wancho and Chang retain reflexes of *təy for 'water' itself, while all six employ reflexes of *C-yu°ŋ for 'river'. These latter terms were then apparently extended to 'water' itself (and in Konyak at least, to such "juicy" substances as 'milk' and 'rice-beer') except in Wancho and Chang, where their range of reference remains restricted to rivers, streams, and their appurtenances. Strictly, then, the reconstructions must be: NN *C-yu°ŋ 'river'; NN *təy 'water'.

wax. See BEE.

WE. NN *nəy: Yo naŋ taŋ < *nai taŋ (Walker), Mo ni si,

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No ni ma (Robinson, Brown) ~ ni (DG), all given for 'we (inclusive)', but with contrastive exclusive and dual forms supplied only for Yogli; Ch sa nei bə (inclusive) ~ ka nei bə (exclusive) (GEM). Cf. SW Naga: Puiron a ni, Nr. a niu, Ze./Mz. a nui.

TO WEAVE. NN *tak: No kha tak < *khat tak 'weaving' (DG; khat = 'cloth'); Ky/Ph tak 'to weave'; Ch (nei)tak 'to weave' (nei = 'cloth'). PTB *r-tak (rev. of STC's *tak ~ *trak), pcPKB.

TO WEEP. NN *krəp: No sap, Wa sap (Brown), Ky šəp, Ph. thep, Ch hap. Cf. PTB *krap, but PST *krəp (STC 183, n. 482).

West. See TO SET (of the sun).

WET. NN *C-krə'l: No a san (DG) 'wet', Wa šun 'damp' (Peal). Possibly related to Lepcha ól < *s-król < PST *(s-)krwa'l 'to wash' (pcPKB).

wet. See also CLOUD/MIST.

to whisper. See LOW(1).

WHITE(1). NN *luaŋ: Yo a lauŋ, Mo a lə. PTB *lwaŋ (WB lwaŋ 'glossy, shining', Lepcha (a-)lóŋ 'reflective light; (comp.) moonlight'), pcPKB.

WHITE(2). NN *poy: Yo ya poi, Mo ya pi 'moon', No da pe 'month' (Butler). Yo/Mo ya, No da < NN MOON(1), *gla (Nocte 'moon' is given as just da, but da pe is undoubtedly a variant also extended to 'month', which Butler, who does not give a form for 'moon', happened to elicit); Ch thu pai bu 'white' (thu = 'to turn pale'). Cf. WB phwe: 'very white' (pcPKB); for PTB *-oy > WB -we, see STC 67.

WHITE(3). NN *po'k: No a po 'white', Ch sam pok 'money' ~ sam pak 'rupee'. Cf. PTB *bok 'white', and for the semantics Jg. phraw 'white', kum phraw 'money'.

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WHITE(4). NN *the˚ŋ: Wa ce 'white' (Brown), nak ce 'blue' (Peal; nak = 'dark', raŋ nak = 'night'. The basic reference for nakce is probably the color of the brightening morning sky); Ky heŋ pu 'white'; Ch theŋ thou 'firefly' ~ theŋ do 'glowworm' (for thou ~ do, cf. Kuki-Naga *m-thow ~ *m-tow 'fly'), (lit ñu) kam theŋ 'full moon' (lit ñu = 'moon', kam < NN COMPLETE(2)). Cf. Mk. theaŋ 'to shine', ke theaŋ 'light (bright)', theŋ tom 'torch', and other comparisons under initial.

WHITE(5). NN *thow: Ph šu pə 'white'; Ch thu pai bu 'white', nin thu 'snow' (nin = 'dew'), lei thu 'white thread' (lei = 'thread'), thu 'to turn pale'. On the basis of only these two forms, the NN rhyme could be either *-u or *-ow, but Muthun Wancho (Brown) has thoh 'white', which points to the latter.

WHO?. NN *ha˚w: Yo hau, No ha na (Butler), Ky au hi, Ph ə̲ am ~ ə̲ pa, Ch au. Cf. PTB *ha˚w 'announce, bespeak'.

whole. See ALL(1), ONE(2), COMPLETE(2).

wide. See BIG(1).

WIND. NN *gle˚y: Wa raŋ ce 'wind' (Brown) ~ raŋ cai 'hurricane, storm' (Peal); Ch yei 'wind, air', yei saŋ šou 'breeze, zephyr' (saŋ < saŋ teŋ bu 'fresh', -šou ≃ 'small', < NN SON), yei laŋ 'gale, storm' (laŋ = 'rain'), yei nak 'very severe storm, tempest, whirlwind, hurricane' (nak < NN BLACK). Cf. PTB *g-lə̆y.

wind. See also STORM.

WING. NN *C̬-rəŋ: Mo wu roŋ (wu < vu 'bird'), No a raŋ, Wa (o)raŋ (o = 'bird'), Ky/Ph yaŋ. Cf. Bodo-Garo *g-raŋ (pcPKB).

WINTER/COLD(1). NN *C-juŋ: Yo hraŋ suŋ 'cold', Mo roŋ šuŋ 'cold', No raŋ choŋ 'cold' (DG); Ph ha hoŋ 'winter'; possibly Ch pu aŋ 'winter, cold season'

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(pu < puo 'year'), but this form could also be from WINTER/COLD(3) (see below). Yo hraŋ-/Mo roŋ-/No raŋ- = 'sky; meteorological classifier'. Cf. Jg. kə šuŋ 'cold', nšuŋ tā 'winter', Mk. cùŋ 'cold, (in comp.) autumn', WB tshoŋ: 'winter', < PTB *juŋ or *cuŋ (initial in doubt), pcPKB; also Di. ga jaŋ thor.

WINTER/COLD(2). NN *khyəm: Wa raŋ kam 'cold' (Brown); Ky waŋ šəm 'winter'; Ch kam 'to be cold', kam a leɣ a 'winter' (leɣ ≃ ləɣ 'to shiver'). Wa raŋ-/Ky waŋ- = 'sky; meteorological classifier'. PTB *kyam ([but N.B. for rhyme] Jg. gyen ~ khyen ~ cen 'snow, ice').

WINTER/COLD(3). NN *klaŋ: Wa daŋ 'cold' (Peal); possibly Ch pu aŋ 'winter; cold season' (pu < puo 'year'), but this could also be from WINTER/COLD(1) (see above). Cf. PTB *glaŋ 'cold (weather)'.

WINTER/COLD(4). NN *riaŋ: Ky weŋ pu, Ph viŋ pə 'cold'; Ch nam leŋ bu 'wet' (also just nam bu), kam a leɣ a 'winter' (kam 'to be cold' < WINTER/COLD(2), leɣ: cf. ləɣ 'to shiver', < *leɣ < *leŋ). Cf. Khari (Ao Mongsen) ta yaŋ 'cold' (Brown).

wise. See TO KNOW(1).

TO WISH. See THINK/WISH/HOPE, TO ASK FOR.

within. See HEART/MIND.

WOLF. NN *C-khyual: Wa šan, Ky/Ph/Ch šo 'wolf', Ch šuo 'wild dog'. Cf. Jg. cyə khyon 'fox, wolf, wild dog'; on the basis of this form and the NN reconstruction, Benedict suggests a PTB *kywal (pc).

WOMAN. NN *C-khye'k: No ciak phe 'to divorce', a ciak min 'divorce': -phe also appears in the verbs 'abandon/acquit/free/push/throw/vomit', -min in 'barter/fight/quarrel'; Wa ši ku 'woman, girl'; Ky še ko *šek ko 'woman', šeko ñu 'wife', šeko ha 'daughter', šeko na ha 'girl' (-ñu < NN MOTHER, -ha < NN SON,

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-na ha = 'boy'). Cf. Lahu gɛ̀2 'female' (Matisoff), which Benedict (pc) refers to a PLB *C-kyak. This root is certainly ultimately related to NN *C-ci°k, -FEMALE(2) (Nocte -hiek ~ -hiak DG, as for the forms for '(to) divorce', also with -iak, cited above), but neither the rhymes nor the initials for the two sets correspond. As the external comparisons for *C-ci°k are limited to Bodo-Garo, it is possible that this form (which also differs from *C-khye°k in the manner in which it is used in compounds -- i.e., as '-female' rather than as 'woman-') was re-introduced into NN (or its more northerly exponents) from a Barish language after undergoing phonological differentiation in Bodo-Garo.

woman. See also (=) PERSON(1) + FEMALE(2); MOTHER + PERSON(1).

WOOD/FIREWOOD(1). NN *gya°n: Yo can 'wood'; No can 'firewood, fuel' (DG); Ch pu sin 'pine tree' (pu = 'tree'; speculatively, pu sin ≈ 'firewood-tree' -- cf. WB thaŋ 'firewood', thaŋ ru 'pine' [STC 69]); lau sin 'stock (of gun on [sic.; or?] cross-bow)' (lau = 'bow', hence lau sin ≈ 'bow-wood').

WOOD/FIREWOOD(2). NN *kya: No baŋ kha 'timber; plank' (DG; baŋ = 'tree'); Wa ha "firewood, fuel' (Peal; GEM gives under 'wood (timber)', but the word is not in Brown or Peal in this sense). These two reconstructions support each other, suggesting an NN doublet formation, *kya ~ *gya°n.

wood. See also TREE(1).

WORD(1). NN *gra: Yo kə ca 'word', Mo ka ca 'to call'; Ph šə2 'word, speech, language', and in comp. 'news, judgment, law; to pray, to lie'. The vowel pattern in the initial elements in the Tangsa forms (Yo -ə : Mo -a) indicates that these elements are prefixes;

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this suggests the possibility of a prefixed prototype in NN, *$\underset{V}{C}$-gra. As we do not have any examples of Tangsa or Phom forms from an NN *$\underset{V}{C}$-gr-, this reconstruction is available. And as the Ky/Ch reflex of *$\underset{V}{C}$-gr- is t-, an NN *$\underset{V}{C}$-gra, WORD, might be represented in Ky ta lei pu 'false', Ch to lei 'to deceive' (Ky/Ch lei < NN FALSE(2); cf. Ky ŋao lei 'to lie' [ŋao = 'word']; also Ph Ša2 Šem 'to lie'). These elements (Ky ta, Ch to) do not, however, appear elsewhere in a form in which they might be analyzed as having the sense 'word'; and the glottal final in Phom Ša2 points to a *-B accent for *($\underset{V}{C}$-)gra, while the Chang -o in 'to deceive' is the reflex of *-a^{A}. These forms are therefore better set aside as only possible derivatives of an NN *$\underset{V}{C}$-gra in the absence of further evidence. Cf. PTB *(s-)gra (WT sgra 'sound, noise; voice; word, syllable, language'), pc PKB.

WORD(2). NN *ŋiak: Ch ŋəɣ 'word, speech, language, news, bark (of dog)'; also in ŋəɣ wan yu 'to talk, to converse' (wan < NN SPEAK(2), -yu ≈ 'together; with one another', < NN AMONG) and many other compounds. This form really represents only an alternative interpretation of a prototype common to it and to Ch ŋek 'to shout' < NN ŋye'k, TO CALL. Cf. WT ŋag 'speech'.

word. See also TO SPEAK(2).

work. See TO DO/TO MAKE(1)/(2)/(3)/(5).

world. See EARTH(1).

WORM. See INSECT/WORM.

TO WORSHIP(1). NN *lim: Yo u lim him sam 'funeral offering' (Dutta 1959: 84); Ph hiŋ lem 'to believe' (hiŋ < NN TRUE), moŋ lem 'to hope' (moŋ = 'heart'); Ch lem 'to worship', mai lem 'to believe' (mai = 'true, right'); lem bu 'sacrifice'. Cf. C Naga: Ao Chongli

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kə lem, Ac Mongsen kə lam 'to worship'; SW Naga: Nr. lum 'to pray', kə lum 'to worship', lum lu 'to believe', lum mei 'faith'; Li. ma lum khai 'to believe', ma lum bou 'faith'; Ze. ke(l)lum 'to pray, to worship'; Mz. nlum 'to believe', pe ken lum 'faith', possibly from a doublet *lum. Cf. also NN *lu°m, HEAVEN.

TO WORSHIP(2). NN *C-khru°m: Ky/Ph khəm. Cf. WT skurim 'sacrifice', TN kho rum 'to worship'. Together with TO WORSHIP(1) and HEAVEN, these forms suggest a composite PTB proto-doublet formation such as *s-g-rim *s-g-ru°m.

to worship. See also THINK/WISH/HOPE.

WOUND. NN *ma^{A}: No ma (DG), Ky ma ko ~ ma jiŋ, Ph ma, Ch mou 'wound' (in Chang, 'wound (when no longer fresh); sore'). PTB *r-ma(-t).

TO WRAP. NN *srəp: No a rap 'to twist (cloth)' (DG); Ph šep 'to wrap'. Cf. Mk. rip 'to bind'; the glosses 'wrap/twist/bind' represent aspects of a semantic field expressed by a number of TB roots.

WRONG(1). NN *mo°ŋ: No a moaŋ 'wrong', mo tho 'false, untrue', mo tho tho 'to lie' (DG; a tho = 'to say'); Ky meaŋ 'sin', ə meaŋ 'wrong', meiaŋ 'bad', meŋ 'mistake', meŋ ši pu 'cruel', moŋ men pu 'sorry' ~ moŋ men pu 'sad'; Ph maŋ 'sin', maŋ pə 'wicked', moŋ maŋ pə 'sorry, sad' (Ky moŋ = 'mind', Ph moŋ = 'heart', < NN HEART/MIND). Cf. Kh./Ko. ke the mo 'wrong', khre mo/khrie mo 'cruel', Lhota mmho 'bad, wrong'; also the Chinese forms glossed 'ashamed, despondent' which Benedict (STC 182, n.479) compares with PTB *mu°ŋ 'cloudy, dark; sullen'.

WRONG(2). NN *N-kru: Ph a dhu li. Cf. Jg. nkhru 'wicked', and Phom a dhu pa 'dove', < NN *N-kru, DOVE

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(PTB *m-krəw > Jg. khru).

wrong. See also FALSE(1).

y-

YEAR. NN *pa°ŋ: No raŋ pa, Ky waŋ paŋ (No raŋ-/Ky waŋ- = 'sky; meteorological classifier'); Ph poŋ, Ch puo, all 'year', Ch pu aŋ 'winter, cold season' (aŋ < NN WINTER/COLD(1) or (3)). Cf. Ao Mongsen ma baŋ 'time'.

YEAST. NN *tual: Ky to, Ph to, Ch to ke. Cf. Lu. chawl (for Lu. ch- < PTB *t-, see STC 17, n.63), Nr. tuaŋ (Nruangmai does not have -l or -r; cf. Nr. muoŋ 'mouth' [Li. ca mun, Ze./Mz. mi muil , < PTB *mu°r, for another example of *-r/-l > Nr. -ŋ).

yellow. See RIPE(1).

yesterday. See NIGHT(1).

YOUNG. NN *krə°y: Ky nau ši (nau = 'child'); Ph ne the pə, Ch he šou bu (šou < NN SON). Cf. Angami: Kh. kri sa, Ko. khrie sa 'young'.

young. See also SON.

YOUNGER BROTHER. See (YOUNGER BROTHER/)CHILD.

younger sister. See (YOUNGER BROTHER/)CHILD.

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V. THE CLASSIFICATION OF NORTHERN NAGA

5.1 Introduction

In this chapter, I consider the implications of the patterns of agreement among the seven Northern Naga data languages for subgrouping, and of the patterns of agreement between these languages and selected external languages for the classification of Northern Naga itself.

5.1.1 The problem of internal relations. As discussed in Chapter I, Marrison (1967: 260) divides what I have called the Northern Naga languages into two "types". Marrison's classification of the Naga languages is primarily based on a comparison of twelve selected diagnostic criteria, obviously intended to sample a broad compass of linguistic features. Thus, two of these are phonological: systematic differences in the inventory of (1) initial consonants, and (2) final consonants. Three are morphological: systematic differences in the inventory of (3) noun prefixes, and (4) classificatory verbal prefixes, and in (5) the shape of the agent noun suffix. Five are lexical: Marrison chooses five basic vocabulary items, each of which is represented by two distinct roots in the Naga languages at large, and each of which reveals a different dichotomy of these languages; these items are (6) 'fire', (7) 'fish', (8) 'house', (9) 'road', and

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(10) 'stone'. Finally, two are syntactic: (11) position of negative particle (preceding or following the verb), and (12) use of interrogative particle (+/-) (253-258).

Although some of these criteria neatly distinguish the Northern Naga languages from all of the others, most of them do not distinguish among the Northern Naga languages themselves. None of the five vocabulary items do so (only the Konyak form for 'house' breaks an otherwise perfect pattern of agreement). None of the Northern Naga languages have noun prefixes (except, it should be noted, with kinship terms and with numerals). All have an agent noun suffix of "-pa type" (i.e., with non-nasal labial initial). None have an interrogative particle.

Yogli and Moshang are set apart by the addition of -r and -l to the "Common Naga" set of six final consonants (which we know to be a retention of an ancestral Tibeto-Burman feature; actually, -r is uncanonical in Yogli, regularly becoming -l). Yogli and Nocte are set apart by the negative particle following the verb (in Nocte, "precedes or follows", but in the indicative, the latter [Robinson 1849: 328]). But neither of these contrasts is invoked by Marrison for the purpose of subgrouping these languages.

In fine, only two of Marrison's twelve criteria support his typological division of Yo/Mo/No/Wa vs. Ky/Ph/Ch. These are: the use of vocalic classificatory verbal prefixes in the languages of the former set, vs. the ab-

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sence of any such prefixes in the latter; and the absence of initial r- in the latter set (it is retained in the former)(262). It may be questioned, however, whether the replacement of *r- by l- in Chang and its replacement by w-/v- in Konyak/Phom are not independent developments.

In prefacing the presentation of his criteria for subgrouping, Marrison remarks that these will be "capable of statistical presentation" (253); the criteria he selects draw plausible distinctions among a number of subsets of Naga languages (including the Northern Naga languages as a group) but do not adequately penetrate the internal coherence of this group. As Marrison's comment and treatment suggest, when it comes to drawing fine distinctions among closely related languages, one must finally count up similarities and differences -- and the more items counted, the better. Two congruent isoglosses are not enough.

There is certainly additional evidence, in the preceding chapters of the present work, that Marrison's grouping of Wancho with Yo/Mo/No may be justified. In terms of purely phonological comparison, Wancho most often stands with Yo/Mo/No on both differentiated initial consonant correspondences and differentiated closed-syllable rhyme correspondences. Its retention of *r-, in common with these languages, may be taken to stand for a substantial number of comparable cases. There are two problems with accepting this pattern as decisive evidence

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for subgrouping, however. The first is that in many of these cases, as for *r-, it is a shared retention, the more archaic of two contrasting correspondent segments, which is in question. The second is that these Yo/Mo/No/Wa equivalences often also include Chang. Konyak and Phom, often in tandem, are easily the most phonologically divergent of the Northern Naga languages; they almost seem to be converging on a syllable canon composed entirely of palatal initials and front vowels. The other five languages are relatively conservative.

It would of course be possible to count similarities and differences in the realizations of correspondent phonemes for the entire inventory of NN proto-segments, and to use the results of such a comparison as one class of evidence for subgrouping. But apart from the practical difficulties of scoring and weighting involved, beside which the difficulties in scoring lexical cognates (see Matisoff 1978: 99-133) seem slight, the results of such an analysis would be of less import than those to be obtained from standard lexical comparison: shared phonological innovations, preserving cognacy, are necessarily of a lower order of language change than lexical substitution.

Accordingly, presented with a choice between two difficult and substantial comparative analyses, I shall construct my solution to the problem of Northern Naga subgrouping on the basis of similarities and differences

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in the representation of basic vocabulary items. There is, I think, an excellent methodological reason for the widespread use of lexical comparison as a basis for language classification, and one which goes some distance toward answering the criticism that lexical substitution is, after all, only one among many kinds of potentially diagnostic language change. If counting is to provide the evidence for subgrouping -- as, implicitly or explicitly, it finally must -- it is preferable to have as many countable items as possible, and for these items to be of the same kind, while being capable of undergoing categorical changes independently of one another. The relative independence of lexical items constitutes yet another important advantage of lexical over phonological comparison, while their commensurability renders a strictly lexical comparison preferable to the sort of eclectic approach employed by Marrison. I propose, then, to present a model of the internal relations among the Northern Naga languages on the basis of a lexicostatistical comparison of patterns of cognacy for basic vocabulary items.

5.1.2 The problem of external relations. The advantages of lexical comparison as a basis for subgrouping noted above are no less pertinent to the problem of determining the place of Northern Naga in a broader classification of Tibeto-Burman. But here, in the absence of the sort of detailed delineations of the phonological systems of NN

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and its daughter languages presented above for other Tibeto-Burman languages, lexical comparison is really the only practical option. Accordingly, I propose to extend the lexical comparison of the seven Northern Naga data languages with one another to a set of representative external languages, again tabulating patterns of cognacy to arrive at a model of the relations within a sector of Tibeto-Burman including NN and its closest collaterals.

5.2 Lexical comparisons, internal and external

The basic vocabulary list for which I shall present comparisons will be a subset of Matisoff's CALMSEA ("Culurally Appropriate Lexicostatistical Model for SouthEast Asia") list, constructed by this author to remedy the problems presented by the standard "Swadesh lists" for lexical comparisons of Southeast Asian languages in general, and Tibeto-Burman languages in particular (Matisoff 1978: 133-140; 283-296). Matisoff advances convincing arguments that the "Swadesh lists" are culturally, grammatically, and semantically inappropriate in their selection of items for optimally useful lexical comparisons of the languages of this region. His own revised list of 200-plus words (apparently to be limited to just 200 in practice) includes 112 entries which are also on the Swadesh 200-word list, implying a minimum of 88 new entries; it includes just 75 entries from the Swadesh 100-word list, so that even for this "minimal core" vocabulary, a fourth of the Swadesh words

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have been replaced or collapsed. The "Matisoff list", then, is not just an emendation of the received lexico-statistical inventory, but represents a very different view of what comprises the "basic vocabulary", at least for the languages of this region. As it was devised by a Tibeto-Burmanist with Tibeto-Burman in mind, it should be particularly appropriate to the problem at hand. Its obvious disadvantages are a lack of temporal calibration and the incommensurability of results obtained from it with results obtained from Swadesh-list comparisons. But temporal interpretations of Swadesh-list cognate counts have generally been viewed with skepticism (Bynon 1977: 269-270; cf. Hymes 1964: 571) and it would not in any case be my intention to propose such an interpretation here. As for incommensurability of results, missing entries in the available word lists for the Northern Naga languages do not permit me to undertake a complete set of comparisons against any basic vocabulary list. My results would thus be incommensurable with the results of other Swadesh-list comparisons even if I were to base my own list on the Swadesh lists rather than on Matisoff's. The purpose of the comparisons to be presented below is to solve a specific problem -- that of the classification and subclassification of Northern Naga -- and for this purpose the possible disadvantages of using the CALMSEA list are irrelevant, while its advantages will be clear to any student of comparative Tibeto-Burman.

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I should perhaps note here that my use of lexical comparison as a basis for classification and subgrouping is not subject to some of the criticisms of the use of lexicostatistics for this purpose (see Bynon 1977: 271), as it is not a substitute for reconstruction. It is, rather, in the case of the internal comparisons, based on the reconstructions already presented in Chapter IV and justified in Chapter III; in the case of the external comparisons, it is based on these and on PTB reconstructions already presented by Benedict in the STC or subsequently worked out by Benedict or Matisoff (pc), and in some cases by my mapping additional forms onto the correspondences underlying these PTB reconstructions. I use lexicostatistics to produce a controlled, quantitative measure of relatedness, derived from data in which cognacy has already been sifted out of similarity or established in the face of dissimilarity.

As noted above, I am forced to work with only a subset of Matisoff's 200-plus word list because many of his items are not adequately represented in the Northern Naga word lists. For an item to be included on my list, I require representation in at least six of the seven Northern Naga data languages. Using this criterion, I arrive at a list of 116 basic vocabulary items. The composition of this list comprises a reasonably good sampling of the composition of Matisoff's list by semantic category (see below for comparison). This number of

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comparisons -- in effect, an augmented 100-word list -- seems adequate, particularly in view of Hymes's summary admonition that the 100-word Swadesh list "should now be used" in preference to the 200-word list (Hymes 1964: 571). This list provides a minimum of 100 comparisons (Moshang) for all languages except Yogli (93), but as we shall see, the results allow us to treat these two languages as a unit for certain purposes, raising the minimum to 111 (Phom). The number of words compared could of course have been increased by relaxing the representation criterion to 5/7, but at too great a cost in difficulty of interpretation and possible incommensurability of results. On the other hand, requiring representation in all seven languages would have permitted only 70 comparisons, too far short of the 100-word standard. The 6/7 criterion seems an ideal compromise, particularly in view of the adjustment which becomes possible for Tangsa.

Although we have two distinct problems to consider -- those of internal and external relations -- it is convenient to present the data for the external languages selected for comparison at the same time as those for the Northern Naga languages themselves. I now turn to the question of how these external languages were selected.

As we saw in Chapter I, Shafer devoted an article to his contention that the Northern Naga languages are Baric (Shafer 1953) -- i.e., that they are so closely related to Bodo-Garo as to be placed with it (and with no

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other Tibeto-Burman languages) in the same taxon. One of our external languages must thus be a representative of Bodo-Garo (Shafer's Barish). In his 1976 paper, Benedict suggested that the Northern Naga languages were probably members of a "supergroup" embracing not only Bodo-Garo but also Jinghpaw; we shall thus want to include Jinghpaw. Thirdly, I am interested in testing these hypothethes against the possibility that there is a greater continuity between the Northern and the Central and/or Southern Naga languages than previous opinion has allowed.

To determine which of these other languages might give the greatest promise of being most closely related to Northern Naga, I conducted a rough preliminary comparison on my 116-word list, counting the number of probable instances of agreement between any root representing one of these items in any of the Northern Naga languages and the roots representing these items in sixteen external languages. These languages were: seven of the eight non-Naga languages included by Marrison in his comparative vocabularies (including written but excluding spoken Burmese); and nine Naga languages. The non-Naga languages were written Tibetan, written Burmese, Lushai, Dimasa, and Jinghpaw (representative of primary divisions of Tibeto-Burman) and the problematic isolates Meithei (Manipuri) and Mikir. The Naga languages, selected as a result of my impressions as to the frequency with which they offered comparisons with the reconstructed NN forms

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presented in Chapter IV, were: from Central Naga, Ao Chongli, Ao Mongsen, and Yimchungrə; from the Angami Branch of Southern Naga, Kohima and Khonoma; and from the Southwest Naga Branch of Southern Naga, Mzieme, Zemi, Liangmai, and Nruanghmei. (My concentration on this last group of languages derived from several striking comparisons, which led me to suspect the possibility of a special link between them and Northern Naga.)

As this was an exploratory and inexact comparison, I refrain from presenting actual figures, which would imply an unwarranted precision of results. Nevertheless, the results are clear-cut. The languages tested fall into three discrete groups with respect to their rate of agreement with Northern Naga, viz.,

<u>High</u>
Jinghpaw, Dimasa.

<u>Moderate</u>
Burmese, Lushai, Ao Mongsen.

<u>Low</u>
Tibetan; Meithei, Mikir; Ao Chongli; Zemi, Nruanghmei, Liangmai, Mzieme; Yimchungrə; Kohima, Khonoma.

I included Tibetan as a control, for one would expect it to be as linguistically as it is geographically remote from Northern Naga. That its score is among the highest of the low scores suggests that none of the other languages in this group enjoys a relationship with Northern Naga which is much more recent than the differentiation of Tibeto-Burman itself. This is probably an overstate-

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ment, as the time depth of the written language is greater. Nevertheless, the comparability of this large set of low scores suggests a baseline beneath which it would be futile to pursue the possibility of relationship. The moderately high scores attained by Burmese (though also a written language) and by Lushai, well to the south of the Naga area, present additional barriers to the possibility of establishing a closer relation between Northern Naga and any of the Naga languages in the low group. The best hope of establishing a link between Northern Naga and Central/Southern Naga rests with Ao Mongsen. Indeed, this is also the conclusion to be derived from Marrison's own lexical comparisons, on which Konyak has a rate of agreement with Ao Mongsen (30% for a list of 50 items selected for their ability to differentiate among the Naga languages) which is higher than that with any other Central or Southern Naga language (next highest are Ao Chongli and Sangtam at 22% and Yimchungrə at 21%; all of these are Central Naga languages)(Marrison 1967: 143-144). Finally, it should be noted that the difference between the scores of Jinghpaw and Dimasa and the middle group is considerably greater than that between the middle and the low group; these preliminary results thus support Benedict's hypothesis of a Bodo-Garo/Northern Naga/Jinghpaw link rather than Marrison's hypothesis of Naga linguistic unity.

On the basis of these results, I shall extend my

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lexical comparison of the seven Northern Naga data languages to include a comparison of these languages with Dimasa, Jinghpaw, Ao Mongsen, and (essentially as controls) written Burmese and Lushai. With the exception of Ao Mongsen, these languages are among those which Benedict employs as primary sources for the reconstruction of PTB in the STC, so that their comparative phonology is relatively well understood; thus assessments as to the cognacy of forms in these languages with reconstructed forms in NN, or with odd forms in one or another Northern Naga language, or with each other, can be made with some degree of confidence in most cases. The situation is less assured with Ao Mongsen, and on two of the 116 comparisons sufficiently obscure that I refrain from judgment; for most items, however, a determination of (+/-) cognacy may be made without difficulty.

I have generally been conservative about crediting cognacy in the face of apparent semantic displacement, even if this is slight, counting cognate forms as instances of agreement only if they are given with the glosses supplied by Matisoff for his CALMSEA items; thus I do not count Chang sak 'to expend' with Wa sak//Ky/Ph sak for 'to buy', even though I attribute all of these forms to NN *C-krak, TO BUY(2), because Hutton gives a different form, ceg, for 'to buy' itself. This is approved lexicostatistical method (see Hymes 1964: 571) and avoids the difficulty of having to decide whether or not a dis-

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tinct gloss is sufficiently similar to the item label for a form given under the divergent gloss to be counted. I have relaxed this criterion for a few external comparisons, however, when this was the only way to establish a connection between a root appearing in Northern Naga and any external language(s). I give formal recognition, for example, to the fact that in Northern Naga the reflexes of NN *$\underset{v}{C}$-ta't, TO HEAR, embrace the semantic field 'hear/listen/obey', in order to credit agreement with Jg. ma tat 'listen, obey', as there are no cognate forms for 'hear' itself in any of the external test languages. I believe decisions of this sort to be defensible in view of the principal objective of the exercise, which is not to establish absolute levels of cognacy but to determine the external affinities of Northern Naga on the basis of relative levels of cognacy; I must thus admit to a bias in favor of finding differential agreement of Northern Naga roots with the 'test' languages, particularly when the alternative is to credit no agreement at all. I trust, however, that most such departures from strict lexicostatistical method will be found to be as well-motivated as that noted above for 'hear'.

Actually, Matisoff's critique of standard lexicostatistical procedure (1978: 90-140; see especially pp. 99-106 on "semantically shifted cognates") culminates in recommendations which would go even further in the direction of giving credit for agreement in spite of semantic

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displacement. These recommendations would entail the development of some system of fractional scoring, however, and this is not the place to embark on such a project. I retain a binary calculus, scoring 1 or 0 for each pairwise comparison, but supplying the evidence on which all positive decisions (as well as many negative decisions, when these might be open to question) are based, so that the critical reader may make such adjustments as he feels are indicated. The reader is referred to the entries in Chapter IV for information on non-credited semantically shifted cognates within Northern Naga itself.

5.2.1 Data and preliminary analyses. I reproduce below Matisoff's full 200-plus word list, arranged by semantic category, as the framework for my comparisons. This allows me to indicate, by semantic category, just where my 116-word list falls short of the full CALMSEA complement. For each item for which the Northern Naga data is insufficient to permit a comparison, I show the degree of shortfall, thus: (--5) means "entry for this item in only five (of the seven) languages", etc. (recall that I require entries in at least six languages as the criterion for comparison). For each item for which there is a missing entry in one language, I show its identity immediately following the item label, thus: (Yo--) means "entry missing for Yogli".

The headings for the fourteen semantic categories (e.g., "A. Bodyparts") are Matisoff's. Within these

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categories, I list all of the items which he lists, retaining the same run of item numbers for each category (e.g., #47-#51 for "C. Foodstuffs"). But I have reordered the items within each category to reflect a "natural" semantic progression, replacing Matisoff's use sometimes of alphabetization and sometimes of a principle which eludes me. And when Matisoff lists more items than item numbers, I have extended to all such instances his sometime practice of assigning semantically related items to the same item number. (For the original list, see Matisoff 1978: 283-296.)

Following each item label for which a comparison is offered, I give all of the forms for which cognacy is asserted, for however many cognate sets are attested among the twelve languages compared, adding comments and qualifications when appropriate. After thus presenting all of the comparisons for a semantic category, I summarize the results in tabular form; the key to the symbols employed will be found following the first such summary table, that for terms for bodyparts. For several underrepresented categories, I defer summary to a later table, in effect creating composite categories for summary purposes. There are nine of these altogether, six for nouns and three for verbs. Only three items, represented in these languages by verbs but listed by Matisoff under semantic categories composed mainly of nouns, prevent a dichotomization of the semantic categories by

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morphological category; I defer summary of these items to a verb table, allowing me to discuss separately the cumulative patterns of cognacy for nouns and for verbs. Following each summary table, I point out the major patterns of agreement characteristic of the domain. Following the presentation of the data for nouns, I summarize the major patterns of agreement for all nouns considered together. Following the presentation of the data for verbs, I summarize the major patterns of agreement for all verbs considered together, comparing these with those obtaining for nouns, and finally discuss the implications of the patterns for nouns and verbs combined. Without as yet referring to the actual cognate counts for pairwise comparisons (which are presented in the two folowing sections for internal and external comparisons, respectively), these summary discussions of major patterns of agreement will take us a good way toward our conclusions as to the subgrouping and classification of Northern Naga.

The reader who wishes further information regarding the evidence on which the judgments of cognacy made below are based should consult the relevant entries in Chapter IV and, beyond these, the evidence for phonological correspondences given in Chapter III. It should be noted, however, that these judgments of cognacy are not necessarily dependent upon the precise shapes proposed for NN reconstructed forms. The comparisons follow.

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NOUNS

A. Bodyparts

1. head. Yo/Mo/Ch khu and No kho are from NN *khow, HEAD (1): TOP OF THE HEAD; cf. Di. kho ro. Wa khaŋ ra/ Ky šaŋ/Ph šaŋ jiŋ are from NN *khaŋ, HEAD(2): FOREHEAD; cf. WB khoŋ.

2. eye. I consider my analysis of the Northern Naga forms for "eye", which sets up proto-doublets, NN *mik ~ *me˚k, too uncertain to be used for comparative assessment.

3. ear/hear. These two words, often represented by the same root elsewhere in TB, which Matisoff thus combines as a single entry in his word list, are distinct in Northern Naga. I include both in my own list; see below, under VERBS, for 'hear'. Yo/Mo/No/Wa/Ky na and Ch nou 'ear' are from NN *na^{A}, EAR; cf. Jg. na, AoM -na-, WB nā: 'ear', Di. kha na 'hear'. Phom thoŋ 'ear' is distinct and apparently isolated.

4. nose. (Mo --) Yo khauŋ, No kho, Wa na kuŋ, Ky na teŋ, Ph šuŋ cu, and Ch kuŋ are all from NN *C$_{v}$-gu˚ŋ = *na gu˚ŋ, NOSE; cf. Di. guŋ, WB hnā khoŋ.

5. mouth. (Yo --) Mo nər, No thun, Wa tun, and Ky/Ph ju are from NN *N-thu˚r, (EDGE/)MOUTH(1); Benedict (pc) relates this root to Di. khu jer 'lip' (khu = 'mouth') and Jg. nten, id. I refer the first syllable of the Chang word for 'mouth', sam puŋ, to NN *kyam, (EDGE/)MOUTH(2); cf. Lu. kam "bank, shore, mouth", WB knut-kham 'lips' (STC 71).

6. tooth. Word represented and cognate in all languages: Yo/No pa, Mo/Wa va, Ky/Ph pha, Ch hau, < NN *swa^{B}; Jg. wa, Di./Lu. ha, WB swā:, < PTB *s-wa^{B}; AoM to pa.

7. tongue. Word represented and cognate in all languages except Burmese: Yo/Mo/No (-)li, Wa le, Ky yi, Ph

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yei, Ch li šaŋ, < NN *C-ley; Di. sa lai, Jg. lai (couplet form), Lu. lei, < PTB *-ley; AoM tə mi li.

8. neck. (Mo --) NN *kliŋ, NECK, is represented by Yo khiŋ, Wa din ku < *diŋ ku, and Ky/Ph əŋ; cf. Lu. riŋ, WB lañ, < PTB *liŋ; also AoM tə khuŋ len. (Nocte has bo, agreeing with Angami (-)vo; Chang has ŋam, agreeing with Chokri [E Angami] ŋəm 'throat'.)

9. breast/milk. (Mo --) Yo pauŋ and No ni po, 'breast', are from NN *pu:ˀŋ, (BREAST/)FLOWER; cf. Di. a bo 'breast'. Wa tsam ti (Brown) ~ tzam ti (Peal) 'milk' and Ky təm 'breast', tem yiaŋ 'milk' (Wa -ti/Ky -yiaŋ = 'water') are from NN *C̬-jəm, BREAST; no comparisons. Phom ama 'breast' is cognate with AoM mama, id., and may be a loanword (cf. Ao Chongli/St. mama 'breast', Yacham-Tengsa mama tə 'milk' -- i.e., this root is general in this group of languages). Chang sən ~ san 'breast', san tei 'milk' appears to be isolated, but may be related to the Wa/Ky forms with change of final. The most general TB root for 'breast/milk', *(s-)nəˀw^{B}, is represented in NN by *ɲəˀw, MOTHER.

10. belly (exterior). Yo vuk/Mo vak/No vok/Wa vok ~ vək are from NN *wuk, BELLY; cf. PTB *wuk (Matisoff 1978: 125), represented in Garo and C Naga (TN, Maring) but not in Ao; to these, however, should be added Di. haw, as Shafer (1953: 241) suggested (cf. PIG, NN *wak, Di. hao-). Konyak and Chang have ši(-); no comparisons. But Phom vom moŋ can be related to WB wam:.

11. navel. (-- 4)

12. penis. (-- 1)

13. hand/arm. NN *gləkˀ, HAND, is represented in all seven Northern Naga languages: Yo yak, Mo yok-, No dak, Wa cak, Ky yak, Ph lak, Ch yik; cf. Di. yao < *yak, Jg.

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lə-, WB lak, from the general TB root, PTB *g-lak. Contrast Lu. kut/AoM tə khet.

14. leg/foot. (Matisoff has 'foot', distinct from 'leg', which he does not include, but in Northern Naga the two words are represented by the same root, just as are 'arm' and 'hand'.) As with HAND, NN *gla^{A}, LEG, is represented in all seven languages: Yo/Mo ya, No da, Wa ca ~ cia, Ky ya, Ph la, Ch yo(u); cf. Di. ya, Jg. Ia-.

15. palm. (— 5)

16. finger/toe. The Northern Naga forms are all found in comp. with 'hand(/foot)'. Yo yak ši 'thumb' ('finger' not available), Mo yok ši 'finger, thumb', No dak su, Wa cak khi (Brown) ~ caki (Peal), both < *cak hi, Ch yik ci šou, all 'finger', < NN *glək cuəy; FINGER(1); cf. Di. yao si. Ky yak Ian and Ph lak jaŋ, however, are from NN *glək sa°ŋ, FINGER(2); cf. Jg. Ia ta-lat saŋ (la ta = 'hand').

17. nail/claw. (— 5)

18. head hair.

19. body hair. The forms supplied under these two headings by GEM seem confused, making them unsuitable for this kind of analysis. All seven languages have an entry for 'head hair', but in Yogli this is khu mil, a compound of 'head' (khu) and mil < *muil, generally 'body hair'; in Moshang, ku mul, which may or may not be distinct from kə mul 'body hair'; in Konyak, min, also given for 'body hair'. Yo -mil/Mo -mul/Ky min are cognate, from NN *muil, HAIR(1), but it does not seem correct to count them under 'head hair'. On the other hand, strictly speaking, we are missing entries for 'body hair' in two languages (Yogli and Wancho), so that the word does not meet our criterion

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for inclusion. See the entries for NN HAIR(1) and HAIR(2) in Chapter IV for further problems and discussion.

20. skin/bark. Mo a kru, No a khuon, Wa kuon ~ kan, Ky šo, Ph šu, and Ch khon are from NN *C$_{v}$-khuar, SKIN(1); cf. Di. bu gur. Yogli a khauŋ may belong in this set but must be excluded in the absence of an explanation for the velar final.

21. bone. (Yo --) Mo a ran, No a ra, Wa ho ra, Ky wan, Ph vaŋ, and Ch luo are from NN *ra$^{\circ}$ŋ, BONE; cf. Di. be ge reŋ, Jg. nra. (Lu./WB/AoM < PTB *rus.)

22. marrow. (-- 1)

23. blood. This is our first clear-cut example of a word whose development in Northern Naga illustrates the coherence of the more northerly languages (Yo/Mo/No) in opposition to that of the more southerly (Wa/Ky/Ph/Ch) (but cf. 'breast', above). Yo a hai, Mo ta gri, and No he 'blood' (along with Ch hai 'marrow') are from NN *C-hə$^{\circ}$y, BLOOD(1); cf. Jg. sai. Wa a ji, Ky/Ph i, and Ch si are from NN *syi, BLOOD (2); cf. Di./Lu. thi, WB swe:, AoM a yi.

24. brain. (-- 1)
25. heart. (-- 4)
26. guts. (-- 2)
27. liver. (-- 3)
28. snot. (-- 1)
29. spit. (-- 4)
30. vomit. (-- 3)
31. piss. (-- 4)
32. shit. (-- 5)
33. sweat. (-- 3)
34. breath/life. (-- 4)

35. horn. Mo a ruŋ, No/Wa roŋ, Ky ə woŋ, Ph voŋ, and Ch laŋ are from NN *ruŋ, HORN; cf. Di. bo groŋ, Jg.

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nruŋ. Yogli tai is distinct.

36. wing. (Yo --) Mo wu roŋ, No a raŋ, Wa (o)raŋ, and Ky/Ph yaŋ are from NN *C_v-rəŋ, WING; cf. Di. ba ga raŋ thoŋ. Chang kak is distinct.

37. tail. (Ph --) Yo ʌ mi (Weidert), Mo a mi, No a me, Wa me kua, Ky ə ñei, and Ch mei are all from NN *C-me°y, TAIL; cf. Di. be rmai, Jg. nmai, Lu. mei, and WB a mrī: (< *a-mai-ri [STC 64, n.204]), all referred to PTB *r-may; also AoM ta mi. Thus the word for "tail" is cognate in all languages except possibly Phom, for which it is not available.

38. fat/grease. (-- 2)

39. egg. (Yo --) Mo -di, No/Wa/Ph -ti, and Ch -tei (except in Nocte, in comp. with 'bird') are from NN *C_v-təy = *(C-)wa(w) təy, EGG; cf. Di. -di, Jg. ti, < PTB *ti(y). Lushai -tui, however, is from PTB *twəy. AoM an sə (< an 'chicken' + a tsə 'water') could be from either, but on the basis of its presumptive status as Kuki-Naga must be grouped with Lushai in absence of evidence to the contrary. Konyak au kiak is distinct from both.

Of the 39 bodypart terms selected by Matisoff for lexical comparison, 19 are sufficiently well represented in our Northern Naga data to be used to help determine the relations of these languages. In the table on the next page, where I summarize the comparisons presented above, I present these terms in a revised order, designed to show more clearly the implications of this portion of the vocabulary for grouping and subgrouping. Note particularly the division between the first seven words, represented by widely distributed roots, and the others.

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Summary: Bodyparts

	Yo	Mo	No	Wa	Ky	Ph	Ch	Di	Jg	WB	Lu	AoM
6 tooth	x	x	x	x	x	x	x	x	x	x	x	x
37 tail	x	x	x	x	x	--	x	x	x	x	x	x
7 tongue	x	x	x	x	x	x	x	x	x	nc	x	x
3 ear	x	x	x	x	x	nc	x	x	x	x	nc	x
8 neck	x	--	nc	x	x	x	nc	A	A	x	x	x
13 hand/arm	x	x	x	x	x	x	x	x	x	x	A	A
4 nose	x	--	x	x	x	x	x	x	nc	x	A	A
14 leg/foot	x	x	x	x	x	x	x	x	x	A	A	nc
21 bone	--	x	x	x	x	x	x	x	x	A	A	A
35 horn	nc	x	x	x	x	x	x	x	x	nc	nc	nc
39 egg	--	x	x	x	nc	x	x	x	x	nc	A	A
20 skin/bark	nc	x	x	x	x	x	x	x	A	nc	A	nc
36 wing	--	x	x	x	x	x	nc	x	nc	nc	nc	nc
5 mouth/lip	--	1	1	1	1	1	2	1	1	2	2	nc
16 finger/toe	1	1	1	1	2	2	1	1	2	A	A	A
10 belly	1	1	1	1	2	3	2	1	nc	3	nc	nc
1 head	1	1	1	2	2	2	1	1	nc	2	nc	nc
9 breast/milk	1	--	1	2	2	3	nc	1	nc	A	A	3
23 blood	1	1	1	2	2	2	2	2	1	2	2	2

Key to symbols

-- form not available

x cognate

1,2, etc. cognate (more than one root relatable to at least one other language represented in Northern Naga)

A,B, etc. cognate (roots not represented in Northern Naga)

nc not cognate (not relatable to any other root having this gloss among the languages shown)

(The reader may easily refer to the actual forms asserted to be cognate by utilizing the number in the left-hand column.)

The data above indicate that, within this portion of the core vocabulary, most words (13/19) are represented by a single root in all or most (6/7, 5/6) of the Northern Naga languages. In the five cases in which a second root

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is represented in two or more Northern Naga languages, the unity of a Yo/Mo/No subgroup is never broken. A second subgrouping, of Konyak and Phom, is partially qualified only by the appearance in Phom of yet a third root for 'belly' and 'breast'. Wancho and Chang emerge as intermediate, each agreeing with Yo/Mo/No in two of these five cases, and with Ky(/Ph) in 2-3 of them.

The external comparisons point to a strong affinity between Northern Naga and Dimasa and a somewhat less strong affinity between Northern Naga and Jinghpaw. The (first) fourteen comparisons -- those in which a single root is dominant in Northern Naga -- are evenly split between seven in which this root appears externally only in Dimasa (all seven) and Jinghpaw (five), and seven in which it has a broader distribution. On those words which suggest a split within Northern Naga, the Yo/Mo/No subgroup is in agreement with Dimasa in four out of five cases; "blood" is the only exception. The numbers of cases in which each of the languages selected for external comparison has a form which is cognate with a root represented in at least two Northern Naga languages are: Dimasa: 18; Jinghpaw: 12; Burmese: 8; Ao Mongsen: 6; Lushai: 5. Within the domain of terms for bodyparts, the association of Yo/Mo/No with Dimasa actually appears to be stronger than the association of these languages with their Northern Naga compeers. But note that (e.g.) Konyak is still more closely associated with Yo/Mo/No

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(13), and with Dimasa (13) and Jinghpaw (10), than with any of the other external languages (WB: 8; AoM: 6; Lu: 5).

B. Pronouns/kinship terms/nouns referring to humans

40. person/human being. Yo mai, Mo/No/Wa mi(-), and Ch mat are from NN *C-məy, MAN(GENERIC); cf. Lu. mi, AoM a mi. Ky ka ta and Ph šen ñak agree with none of the other languages, nor with each other.

41. thou. The Northern Naga forms here must be referred to proto-doublets, differing only in vowel length: Yo/Mo mnaŋ and No/Wa/Ky naŋ to NN *naŋ, THOU(1); Ch nuo ~ no, to NN *na°ŋ, THOU(2). Phom nəŋ is a problem, as it is irregular for both sets, more so in that the expected form in both cases would be *naŋ; I arbitrarily place it with Konyak, and with the majority, from *naŋ. The external comparisons are also a problem; only Lushai reliably distinguishes long and short vowels, and though it often agrees with NN, this is not always the case. The Lushai form here has short vowel, naŋ. According to Benedict (pc), the Bodo-Garo forms are from *na°ŋ; these would presumably include Dimasa nuŋ. This is a revision of the STC, which sets up only PTB *naŋ, though doublets are recognized for PST (160, n.432). I follow the STC in referring the other forms cited there (Jg. naŋ ~ na, WB naŋ, as well as Lu. naŋ) to *naŋ, to be compared with NN THOU(1) -- add also AoM naŋ -- while Di. nuŋ is to be compared with NN THOU(2), thus with Chang, the odd man out in Northern Naga.

42. I. Yo/Mo/No ŋa and Ch ŋo are from NN *ŋa^{A}, I; cf. WB ŋa, Di. aŋ, Lu. ka (see STC 93, where Di. aŋ and "perhaps" Lu. ka are referred to PTB *ŋa; the Lushai form seems too similar to be excluded). Wancho and

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Konyak have forms with back vowels and initials which could be from NN *g- (Wa ku, Ky tau), but the rhymes do not correspond, so they are better not counted as cognate; Wa ku is perhaps to be compared with WB kuiy < *kəw 'self', Ky tau with Ahom/Khamti khau 'I' (GEM 219). Phom has ŋei 'I', which could be from NN *ŋa˚y; cf. (Ao) Tengsa ŋai 'I', probably a loan from Phom (Chongli and Mongsen have ni), and Jg. ŋai, attributed to PTB *ŋay.

43. child/son. Like 'ear' and 'hear', 'child' and 'son' are often represented by the same root in Tibeto-Burman generally (e.g., in all five of our external 'test' languages, though all have variant forms for 'child'); but they are represented by two different roots in Northern Naga, the forms given for 'child' utilizing the same basic root as those for 'younger brother'. Once more, therefore, a single entry on Matisoff's list becomes two on mine:

43a. child. Yo nau-, Mo no-, No na-, Wa nau- (in 'babe, boy, girl', 'child' not available), Ky nau, Ph nao, and Ch na-, except in Wancho all 'child', are from NN *na˚w, (YOUNGER BROTHER/) CHILD; cf. Lu. nau, AoM a nu 'child'. In all of these languages, this root is also used for 'younger brother'; Jinghpaw has nau 'younger brother', but this form is not given for 'child'.

43b. son. Yo a šə (Dutta), Mo šan, No cha, Wa ku sa (Brown) ~ ko sa (Peal) (ku- ~ ko- = 'my'), Ky a ha, Ph ha, and Ch šo(u) are all from NN *C-dza^{A}, SON; cf. Di. -sa, Jg. -šə, WB sā:, Lu. fa, all 'son, offspring', and all attributed to PTB *za 'child (offspring)'. Thus the word for 'son' is cognate in all languages except Ao Mongsen, which has a nu (see 43a).

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44. grandchild (nephew). (-- 4)

45. son-in-law. (-- 1)

46. name. (Yo --) No min, Wa man, Ky min, Ph men, and Ch nen are from NN *min, NAME; from PST/PTB *min, but with no direct comparisons among our test languages (though WB a mañ could be from *min as well as *miŋ; I follow the STC in attributing it to the latter). Mo miŋ is from the more usual TB root, PTB *r-miŋ; cf. Jg. myiŋ, WB a mañ, Lu. hmiŋ, AoM te niŋ.

Summary: Words referring to persons

		Yo	Mo	No	Wa	Ky	Ph	Ch	Di	Jg	WB	Lu	AoM
43b	son	x	x	x	x	x	x	x	x	x	x	x	nc
41	thou	1	1	1	1	1	1	2	2	1	1	1	1
42	I	1	1	1	nc	nc	2	1	1	2	1	1	nc
43a	child	x	x	x	x	x	x	x	A	A	nc	x	x
40	person	x	x	x	x	nc	nc	x	nc	nc	nc	x	x
46	name	--	1	2	2	2	2	2	nc	1	1	1	1

Matisoff lists seven words in this category. Because of the distinction drawn in Northern Naga between 'child' and 'son', I have six. But they are a mixed bag, about which any generalization would not be worthwhile. The Yo/Mo/No subgroup is not clearly discernible here, though the deviance of Konyak and Phom may be seen in 'I' and 'person'. Note, however, that in two cases ('child' and 'person'), the general Northern Naga root is also found in Lushai and Ao Mongsen, but not elsewhere, a pattern which did not appear among the comparisons of terms for body-parts.

C. Foodstuffs

(In this category, as in two of the categories to follow, Matisoff lists more items than item numbers --

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here, eight items but only five numbers, possibly suggesting that only five comparisons are to be selected from among the eight. I have rearranged the items but retain the framework with its limit of five.)

47a. rice (in fields). (-- 5)

47b. rice (cooked). (-- 5)

47c. liquor. (Yo --) Wa zu 'brandy, rum, spirit', Ph yiə 'rice-beer', and Ch i 'liquor' are from NN *yəw, RICE-BEER; cf. Di. ju, Lu. zu, AoM a zə. Konyak has a compound here, nik yiaŋ, = '(cooked) rice-water'. Mo sai and coal both appear to be isolated. No kham 'rice-beer' (with kham lan 'thirsty', and Yo kham 'water') goes with WT skom 'thirst; drink (in "food and drink")' (pcPKB), hence probably not also with WB gyum 'rice-beer'.

47d. medicine/juice. (-- 2)

48. peas, beans. (-- 3)

49. plantain/banana. (-- 5)

50. mushroom/fungus. (-- 0)

51. poison. (-- 3)

As the Northern Naga data are sufficient for only one item in this category, I include 'liquor(/rice-beer)' in the summary for F. Artifacts and social organization (see below).

D. Animal names or animal products

(Twenty items, 18 item numbers)

52. fish. Word represented and cognate in all languages: Yo/Mo/No ŋa(2), Wa/Ky ñ̃a, Ph ñ̃a2, Ch ŋau, < NN *ŋya^{B}; cf. Di. na, Jg. ŋa, WB. ŋā:, Lu. hŋa, AoM a ŋa, < PTB *ŋya^{B}.

53. snake. Yo po, Mo/No/Wa/Ky pu, Ph bə(2), and Ch pi-

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are all from NN *2-bəw, SNAKE; cf. Di. ju bu, Jg. (lə)pu, 'snake', attributed to PTB *bəw, 'insect, snake'. (WB mrwe < *mrul, Lu. ru°l, and probably AoM a phi [cf. Yi. phu ru, Yacham-Tengsa pha lə] are from the other common TB root for 'snake', PTB *b-ru°l. But the Ao form is from the prefix only.)

54a. bird. I attribute Yo wu/Mo vu/No vo to NN *C-waw, BIRD(1), and Wa o~ɔ/Ky au-/Ph ou-/Ch au to NN *ua, BIRD(2), suggesting that the latter is merely a reduced form of the former; i.e., *C-waw > *ua through dissimilative loss of final glide and loss of prefix. There is a possibility, however, that the relation between these two reconstructed forms is more remote: that BIRD(1), *C-waw, is more closely related to Jg. wu, and BIRD(2), *ua, more closely related to Lu. sa <u>va</u>, than they are to each other. If only because this is the most interesting possibility for a solution, it is the one I adopt here. (WB ŋhak and Di. dao are distinct; AoM wa ya could be related [in its first syllable] to the Lushai form, but is better compared with WT bya < PTB *bya.)

54b. fowl. Here Matisoff's list is over-differentiated with respect to Northern Naga: the Northern Naga forms for 'chicken/hen/cock' are the same as, or compounds of, the forms for 'bird'.

55. dove. (-- 5)

56. meat/animal. (Yo --) Mo ŋam 'deer' ('meat' and 'animal' not available) and No ŋam 'beast; meat' are from NN *ŋam, (GAME)ANIMAL; no comparisons. Wa mai(i) 'animal; deer; meat', Ky mei 'animal; meat; (in comp.) barking deer', and Ch mei 'game (of four-footed game only); (in comp.) barking deer' are from NN *me°y, MEAT/FLESH(1); cf. Di. mei 'deer', possibly ~ mi 'animal', mi šai 'barking

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deer'. (This is a case in which my choice of two distinct labels for these two NN roots is misleading, as the glosses for the actual forms which they subsume -- in both instances, 'animal/deer/meat' -- indicate that they cover exactly the same semantic field. Because of the regular association of words for 'deer' with the 'animal/meat' coupling in at least this sector of Tibeto-Burman, it seems proper to count Di. mei 'deer' as an example not of semantic shift but only of specialization within the 'animal/meat' semantic field.) Finally, Phom has yem ha 'animal'; cf. Lu. ram sa, id. (Ph yem < NN *C̬-ram, JUNGLE; cf. Lu. ram 'country; [in comp.] forest, jungle'). Lu. sa is of course from PTB *ša 'meat, animal' (> Jg. šan 'meat, deer', WB sā: 'beast, flesh', AoM a sa 'meat', sa rar 'animal'), but I count only the Lushai form as cognate with the Phom, because the two are cognate throughout. (To minimize complication, I do not include Ph phai, Ch pheh ~ phie 'meat, flesh', < NN *phay, MEAT/FLESH(2); these forms appear to differ from those cited above in having no reference to living animals, and have no comparisons elsewhere.)

57. bear. (-- 5)

58. otter. (-- 2)

59. monkey. (-- 5)

60. rat/rodent. (-- 5)

61. frog. (-- 4)

62. dog. Yo hi-, Mo gui-, No hu, Wa hi, Ky kui, Ph ši, and Ch. kei are all from NN *kuəy, DOG; cf. Di. si, Jg. gwi, WB khwe:, Lu. ui, < PTB *kwəy. AoM a yi is probably from the same source: cf. Ao Chongli a zə 'dog'; the Ao terms for 'blood' are identical, and the original STC reconstruction for 'blood' is *s-hwiy.

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63. pig. Yo/Mo/No/Wa vak, Ky ak, and Ph/Ch ok are all from NN *wak, PIG; cf. Jg. wa2, WB wak, Lu. vok, < PTB *pwak, to which may be added AoM a ok and Di. hao no (cf. 'belly', ɔ above: PTB *wuk > Di. haw).

64. horse. Mo gi-, Ky koi , Ph kau ye (or kauɛyɨ ye), and Ch ko- are from NN *ko°y, HORSE; cf. Di. go rai, Jg. ku mra (cf. Singpho gu mraŋ; mra ~ mraŋ < PTB *m-raŋ 'horse'), Lu. sa kor, AoM kuŋ ri (with -ŋ possibly from *m-; cf. Yacham-Tengsa ku ri). (WB has mraŋ:.) (Yo --, No mok//Wa man isolated.)

65. insect, bug, vermin. I have a general term for 'insect' only in Chang, for 'bug' only in Chang and Wancho. But the multiple glosses here, particularly the very general 'vermin', suggest that the comparisons here need not be limited to these three words, but should be those which best represent the semantic field which they delineate. In Northern Naga, these are to be found in greatest concentration in the terms given for 'worm' and 'caterpillar', as indicated by the glosses for Chang yaŋ: 'caterpillar; insect generally', No -doŋ 'mosquito', Wa coŋ 'caterpillar, beetle', Ky yoŋ(-) 'caterpillar, worm'. Ph loŋ- 'worm', and Ch yaŋ are from NN *gluŋ, INSECT/WORM; cf. Di. yuŋ 'insect; (in comp.) caterpillar, worm'. We do not have a Yogli form for any of these glosses (Yo --), but Moshang has cil ba 'worm'; cf. WB ti 'earthworm', < PTB *zril 'worm'.

66a. leech. (-- 4)

66b. water leech. (-- 0)

67. louse. (-- 4)

68. ant. (-- 4)

69. bee. (Yo --) No ŋ̃a, Wa na-, Ky ñ̃a-, Ph ñ̃a2, and Ch nau are from NN *C-na^{B}, BEE; cf. AoM a nah. Moshang yan, which could be from NN *ya°ŋ, is very

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probably a derivative of PTB *(s-)brəŋ 'fly, bee' (orig. *yaŋ, on the basis of several forms having this shape, including WB yaŋ 'fly, insect' [but not 'bee']; cf. Di. be re yuŋ "bee' (not cited for *(s-)brəŋ in the STC, but cf. Lepcha sum-bryoŋ, which is cited [176, n.469] ; for NN *-a'ŋ : Di. -uŋ, see 'thou', #41 above).

Summary: Animals

	Yo	Mo	No	Wa	Ky	Ph	Ch	Di	Jg	WB	Lu	AoM
52 fish	x	x	x	x	x	x	x	x	x	x	x	x
62 dog	x	x	x	x	x	x	x	x	x	x	x	x
63 pig	x	x	x	x	x	x	x	x	x	x	x	x
64 horse	--	x	nc	nc	x	x	x	x	x	nc	x	x
53 snake	x	x	x	x	x	x	x	x	x	A	A	nc
65 insect/worm	--	1	2	2	2	2	2	2	nc	1	nc	nc
69 bee	--	1	2	2	2	2	2	1	nc	nc	nc	2
54 bird	1	1	1	2	2	2	2	nc	1	nc	2	nc
56 animal/meat	--	1	1	2	2	3	2	2	A	A	3	A

In this category, the Northern Naga data allow nine comparisons, as against the suggested 18. (This is average; to this point, I have presented 35 comparisons out of a suggested 69.) As with terms for bodyparts and those referring to persons, for most animal names a single root is general throughout Northern Naga. Moshang's deviance in its terms for 'worm' and 'bee' does not suggest a pattern, as it agrees with Burmese in the first case but with Dimasa in the second. The general Northern Naga word for 'bee' is remarkable, however, as it agrees with that in Ao Mongsen (and with other C and S Naga forms for 'bee'; see Chapter IV) but not with the forms for 'bee' in any of the other 'test' languages.

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Two animal terms, 'bird' and 'animal/meat', exhibit the dichotomy between Yo/Mo/No and Wa/Ky/Ph/Ch which we noted above for 'breast/milk' and 'blood'. With regard to external affinities, 'snake' may be added to the set of terms for which a general Northern Naga root is shared with Dimasa and Jinghpaw, but not beyond.

E. Natural objects or phenomena; the inanimate landscape; vegetable and mineral kingdoms

70. sky. Yo hraŋ, Mo roŋ, No/Wa raŋ, Ky waŋ, and Ph vaŋ- are from NN *rəŋ, SKY(1); no comparisons for 'sky'. Ch məy is from NN *məw, SKY(2); cf. WB mui:, < PTB *(r-)məw. (Jg. lə mu? is referred by Benedict to a separate, though related, root, PTB *r-mu'k. The *r- prefix in these PTB forms for 'sky' [cf. also PTB *r-wa 'rain'] may be related to NN *rəŋ, SKY(1), also used as a meteorological prefix or classifier).

71. sun/day. As with Matisoff's 'ear/hear' and 'child/son', this entry is under-differentiated for Northern Naga, providing us with two separate comparisons:

71a. sun. Yo -šal, Mo -šar, No san, Wa -han, Ky -hi, Ph -hi (though *-he is expected), all except Nocte in comp. with 'sky', and Ch ca ñu < *can ñu (-ñu < NN *ɲə'w, MOTHER and/or BIG (2)) are all from NN *cər, SUN; cf. Di. saiŋ < *sal and Jg. jan, from PTB *car. The Burmese and Lushai words for 'sun' are the same as their words for 'day', from PTB *nəy (see next page). The Ao Mongsen word, cuŋi, is a problem: the first syllable is cuŋ (cf. AoM cuŋ muk 'thunder', cuŋ pret 'lightning'), but the initial of the second may have been lost.

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71b. day. (Yo --) Mo -ni, No -ŋ̃i, Wa a ñi, Ky ñi, Ph ñi2, and Ch ñet are all from NN *C-ni, DAY(1); cf. Jg. ni 'day', dai ni 'today' (ndai 'this'), Di. di ni 'today' (di 'this'), WB ne, Lu. ni 'day', AoM tha ni 'today'. The Northern Naga forms are also used (generally in comp.) for 'today'.

72. night. (-- 5)

73. moon. Yo/Mo ya- and No da are from NN *gla, MOON(1); cf. Jg. šə ta, WB la, Lu. thla, < PTB *(s-)(g-)la; also AoM la ta, < Ao *l-ta (cf. the Jinghpaw, also Mpri. tha < *khla, STC 42). Only Di. dain (< *dal?) is a mismatch. Wa le nu (Peal) ~ let lu (Brown), Ky lin ñu, Ph lin ñə, and Ch lit ñu are from NN *li't, STAR[a]/MOON(2), probably = 'light' (in comp. with NN *ŋə'w, BIG(2)); no comparisons.

74. star. Wa lit zu (Peal) ~ let si (Brown), Ph lit ha, and Ch -li cu < *-lit cu are, again, from STAR[a]/MOON(2), probably = 'light' (in comp. with terms ≈ 'small'; see Chapter IV for details); no comparisons. Yogli lik sei is probably from the same source, < *lit sei, and cognate throughout with Wa let si. Moshang ri si, despite its similarity to the Yogli form, can be counted as cognate only in its second syllable (see STAR[b], ≈ 'small, minute'), as *l- and *r- are perfectly stable in both languages; but cf. Lu. ar si. Nocte me rik ~ mi rik is yet another 'look-alike', but again stability of *r- and *l- precludes immediate comparison with Yogli (the comparison is rather with No da liet 'moonlight'), and the different composition of No me rik ~ mi rik and Mo ri si (as well as the open syllable in Moshang) does not favor an immediate comparison here either.

Finally, Ky ša ha (ha pu 'small') and Ch kan co-

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(-co bu 'small', < NN SMALL) may be referred to an NN *kha°r (with NN *kh- > Ch k-/__a(-), as for *ph-) -- the full Chang form, kan co li cu 'star' is thus a "redundant" construction whose first half matches Konyak, and whose second half matches Wancho and Phom (above); cf. Jg. šə kan, < PTB *s-kər.

Let me summarize this complicated picture for 'star': the dominant root in Northern Naga (< NN *li°t) is found in Yogli, Wancho, Phom, and Chang; the Moshang form is isolated within Northern Naga, but has a possible homologue in Lushai; the Nocte form is entirely isolated (for 'star' -- though cognate with a segment in the Wancho compound for 'God' -- see Chapter IV); and the most common TB root for 'star' is reflected in Konyak and Chang, as in Jinghpaw. (The Dimasa, Burmese, and Ao Mongsen terms appear to differ from all of these, and from each other.)

75. cloud. (Yo --) Moshang has roŋ (= 'sky'); no comparisons. No phuam, Ky waŋ phom, and Ph phum are from NN *phuam, CLOUD/MIST; no comparisons. Wancho has raŋ šai (Peal) ~ ran diŋ (Brown); no comparisons. Chang has saŋ mei; no comparisons.

76. shade/shadow. (-- 4)

77. wind. (Mo --) Yogli has hraŋ hil (possibly < *hraŋ ril; cf. Yo kham ril 'river': kham = 'water', ril < *NN rul, RIVER/CURRENT); no comparisons. Nocte has poŋ; cf. Jg. mboŋ. Wa raŋ ce and Ch yei are from NN *gle°y, WIND; cf. WB le, Lu. thli < *khli, < PTB *g-ləy. Ky waŋ ñaŋ is from NN *N-du°ŋ, STORM; no comparisons for 'wind'. Phom has vaŋ lək; no comparisons.

78. rain. Yogli has hraŋ gin, which I attribute to NN *gi°n, TO POUR OUT; no comparisons. Mo raŋ and Ch laŋ (contrasting with Mo roŋ 'sky' and Ch loŋ-, in

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'thunder') are from NN *raŋ, RAIN(1); cf. Jg. ma raŋ. No raŋ pat and Wa raŋ vat are from NN *swa°t, RAIN(3), and Ky wai is from the closely related NN *C-wa°t, RAIN(2); the difference between these two reconstructed forms is so slight as to imply no more than a difference in the interpretation of a single NN prototype, *s(ə)wa°t. I therefore combine them for the purposes of comparison with Di. ha 'to rain' (ha di 'rain', di = 'water'), WB rwa 'to rain', Lu. rua2, 'rain', < PTB *r-wa-s (prefix substitution in NN). Phom vaŋ kei is unanalyzable and isolated.

79. fire. Yo wal, Mo var, No/Wa van, Ky a~ka, Ph o, and Ch wan are all from NN *2-wa°r, FIRE; cf. Jg. 2wan, Di. wai. (The WB, Lu., and AoM forms are from PTB *mey).

80. smoke. (Ph --) Word represented and cognate in all languages except Phom: Yo khʌu2, Mo -kru, No -khu2 Wa -khut, Ky -ši, and Ch -kəkh (all except Yogli in comp. with 'fire') are all from NN *khəw, SMOKE; cf. Di. -khu di, Jg. -khut, WB -khui:, Lu. -khu (all in comp. with 'fire'), AoM ma kə~mu ku li (ma~mu probably < mi- 'fire').

81. ashes. (Yo --) In four of the six Northern Naga languages for which this word is available, it is compounded with forms from NN *təp (cf. PTB *tap), HEARTH. The general Northern Naga root for 'ashes' is *la: No tap la, Wa la bu, Ky təp la, Ph tep la; cf. Di. thap la (thap 'hearth') and WB pra < *pla 'ashes'. In Chang, the second syllable of the proto-compound *təpla has been dropped, leaving tap 'ashes' (the Chang word for 'hearth' is from a different source); cf. Jg. dap, both 'hearth' and 'ashes'. Mo tap tha I consider to be distinct, with -tha < NN *C-kya°k, -DIRT. Lu. -va°p~vut and AoM

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op u (cf. Ao Chongli ap for syllabification) are again distinct, but with the AoM form probably related to the first Lushai form.

82. earth. Yo/No/Wa ha, Mo ga, Ky/Ph ka(-), and Ch kau are all from NN *ka^{B}, EARTH(1); cf. Di. ha, Jg. ka. WB mre < PTB *mlәy, Lushai lei, and AoM a li form a second set.

83. field. (-- 4)

84. mountain. Yogli bum is a rare transparent borrowing from Jinghpaw (also bum). Moshang ku appears to be isolated. All three of these terms are given for both 'mountain' and 'hill'. No ha ho 'mountain, hill', Wa ha hoa 'mountain' (Brown) ~ ha huŋ 'crag' (Peal, who does not give 'mountain'), Ky ka kiaŋ 'hill', and Ph ka šaŋ 'mountain, hill' (all in comp. with 'earth'), and Ph šoŋ 'hill', Ch šoŋ 'mountain, hill', are from NN *C-ko°ŋ, HILL; cf. Jg. koŋ 'elevation, hill', AoM tә koŋ 'mountain' ~ tә khoŋ 'hill'.

85. road. Word represented and cognate in all languages: Yo/Mo/No/Wa lam, Ky lәm, Ph lem, and Ch lam are from NN *lәm; cf. Di. lama, Jg. lam, WB lam:, Lu. lam-lian (lian 'large'), AoM a limaŋ < *a lim (m)aŋ (cf. Ao Chongli len 'road', and the same vowel pattern in AoM -kyim, Ao Chongli -kem 'winter', NN *khyәm, WINTER/COLD(2)).

86. water. Yogli has kham; no comparisons for 'water', but see under #47c, 'liquor'. Mo yeŋ, No jo, Ky yiaŋ, and Ph yuŋ are from NN *C-yu°ŋ, WATER(2) -- perhaps better RIVER/WATER; no comparisons for 'water', but see below under 'river'. Wa ti and Ch tei are from NN *tәy, WATER(1); cf. Di. di.

87. river/valley. These two words are distinct in Nor-

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thern Naga; for 'valley', I have only (-- 3), so the following comparison is limited to 'river'. Yogli is again isolated, with kham ril (kham = 'water', ril < NN *rul, RIVER/CURRENT), with possible comparisons for -ril only in S Naga. Mo yeŋ, No joan, Wa ǰua-ko, Ky yiaŋ ñu, Ph yuŋ, and Ch yuŋ maŋ are all from NN *C-yu°ŋ, WATER(2). Note that the same word is given for both 'water' and 'river' in Moshang and Phom, while Ky yiaŋ ñu 'river' differs from yiaŋ 'water' only in the addition of -ñu, probably < NN *ɲə°w, BIG(2), and No joan 'river' is simply a variant of jo 'water'. Thus there is an argument for combining the two entries in a single comparison, for water/river; but the two senses are not merged in Wancho and Chang -- i.e., this is not a case like 'meat/animal' where distinct English glosses tap a single Northern Naga semantic space, but of two semantic spaces which have coalesced in some languages but not in others. For NN *C-yu°ŋ as 'river', cf. WB khyoŋ, AoM a yuŋ ~ yuŋ ba, 'river' (but not 'water').

88. tree/wood. A term for 'wood' is available in five Northern Naga languages. In two of these (Ky/Ch), it is the same as the word for 'tree'; but in three (Yo, No, Wa) it is different. Thus two separate comparisons are indicated, but as the data for 'wood' are insufficient (-- 5), I compare only terms for 'tree'. This is problematic because the Nocte term for 'wood' (or rather one of its three terms, if 'timber' and 'firewood' are admitted as alternative glosses for 'wood', as the data -- see WOOD/FIREWOOD(1)/(2) -- suggest they should be) is cognate with the 'tree' terms in the other six languages. Nevertheless, Nocte has its own, distinct word for 'tree', which is also found (in

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comp.) in the terms for 'root', 'stem', 'bark', 'branch', 'leaves', and 'timber': No baŋ 'tree'; cf. WB sac paŋ, Di. bu phaŋ ~ bo phaŋ. Yo/Mo pul(-), Wa pan, Ky pi, Ph pə, and Ch pu are from NN *pul, TREE(1); cf. (again) Di. bu phaŋ ~ bo phaŋ (first syllable), Jg. phun.

89. root. (-- 5)

90. joint. (-- 0)

91. branch. (-- 5)

92. thorn. Yo šʌu2 (Weidert), Mo šu, No su, Wa huk, Ky hu, Ph hə2, and Ch cak are all from NN *cəw, THORN; cf. Di. (bu)su, Jg. ju, WB chū:. Lu. lhiŋ and AoM a yiŋ are from a second set.

93. leaf. (Yo --) In Mo na yok, No a dak ~ baŋ dak, Wa hu cak (Brown) ~ pan cak (Peal), Ky pi yak, and Ph lak the second syllable (where there are two) is the word for 'hand/arm'; none of the 'test' languages uses this construction. In Phom and in the first of the two forms cited for Nocte and Wancho, 'leaf' = 'hand' (prefixed in No/Wa), while in Konyak and in the second of the two forms cited for Nocte and Wancho, 'leaf' = 'tree-hand' (probably the original construction for all of these forms). But the first syllable of the Moshang form is different, and is to be compared with Lu. hna2 < PTB *s-nas (Matisoff 1972c: 281). Chang has lie, < NN *lay, LEAF(2)/BOOK; cf. Di. ba lai.

94. flower. (-- 5)

95. fruit. (Mo --) Yo pul di and No a ri ~ pan ri (Yo pul/No pan = 'tree') are from NN *sey, FRUIT(1); cf. Di. ba thai, Jg. (ə)si, WB a sī:, Lu. thei, from PTB *sey. Wa hu jiak (Brown) ~ pan jak (Peal), Ky (pi)lik, Ph bet jək, and Ch po hek (Wa pan/Ky pi/Ch po- = 'tree') are from NN *sek, FRUIT(2); no com-

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parisons for what is apparently a suffixed form of FRUIT(1), *sey. This may be regarded as an innovation on the part of the common ancestor of the more southerly subgroup of Northern Naga.

96. stick. (-- 5)

97. bamboo. (Ph --) Yo vʌ2 (Weidert), Mo wa(n), No va2, and Ch wau (Weidert) are from NN *C$_{v}$-wa^{B}, BAMBOO(2); cf. Di. wa2, Jg. (kə)wa, WB wā:, Lu. rua < *r-wa, AoM au. Wa ñad and Ch ŋat are from NN *ŋyat, BAMBOO(1); no comparisons. Ky weaŋ, from NN *re'ŋ, BAMBOO(3), has comparisons only in S Naga.

98. grass. (Mo --) Yo thiŋ-, No/Wa hiŋ, Ky həŋ, Ph thiŋ, and Ch saŋ are all from NN *C$_{v}$-criŋ, GRASS; cf. Jg. tsiŋ. For Chang han cam, cf. Di. sam (possibly from (NN/)PTB *cam [Ch c- < NN *c- : Di. s-]; cf. also Mk. ke cam 'raw').

99. iron. Yo/Mo yan, No/Wa jan, and Ky yan are from NN *ya'n, IRON; cf. AoM a yin. Ph niyam (= /nam/; cf. Ph namet < *nam met 'needle', Wa jan mat 'awl', both ≈ 'iron nettle' -- see NEEDLE[a]) and Ch nam may also be paired, but have no further comparisons. (Di. šer and Lu. thi'r, < PTB *syi'r, are from yet a third set. AoM a yin may belong here rather than with the Northern Naga forms, but the presence of a back vowel in Lhota yon cak 'iron' [like Ao, C Naga] supports the latter connection.)

100. silver. (-- 5)

101. stone. Word represented and cognate in all languages: Yo/Mo luŋ, No/Wa loŋ, Ky/Ph yoŋ, and Ch laŋ are all from NN *-luŋ, STONE; cf. Di. loŋ, Jg. (n)luŋ, WB kyauk < *k-lauk (see STC 79), Lu. luŋ, all from PTB *r-luŋ; AoM a luŋ.

102. salt. (Yo --) Mo šum, No sum, Wa hum, Ky/Ph həm,

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and Ch cam are all from NN *cu°m, SALT; cf. Di. sem, Jg. jum. (Lu. ci and AoM me tsə are both from K-N. *m-tsyi [STC]).

Summary: Inanimate Nature

		Yo	Mo	No	Wa	Ky	Ph	Ch	Di	Jg	NB	Lu	AoM
101	stone	x	x	x	x	x	x	x	x	x	x	x	x
85	road	x	x	x	x	x	x	x	x	x	x	x	x
80	smoke	x	x	x	x	x	--	x	x	x	x	x	x
71b	day	--	x	x	x	x	x	x	x	x	x	x	x
92	thorn	x	x	x	x	x	x	x	x	x	x	A	A
81	ashes	--	nc	1	1	1	1	2	1	2	1	A	A
78	rain	nc	2	1	1	1	nc	2	1	2	1	1	nc
82	earth	x	x	x	x	x	x	x	x	x	A	A	A
79	fire	x	x	x	x	x	x	x	x	x	A	A	A
71a	sun	x	x	x	x	x	x	x	x	x	A	A	?
102	salt	--	x	x	x	x	x	x	x	x	nc	A	A
88	tree	1	1	2	1	1	1	1	1+2	1	2	A	A
98	grass	1	--	1	1	1	1	1/2	2	1	nc	nc	nc
84	mountain	2	nc	1	1	1	1	1	nc	1/2	nc	nc	1
87	river	nc	x	x	x	x	x	x	nc	nc	x	nc	x
99	iron	1	1	1	1	1	2	2	A	nc	nc	A	1
70	sky	1	1	1	1	1	1	2	nc	nc	2	nc	nc
75	cloud	--	nc	x	nc	x	x	nc	A?	A?	A?	A?	nc
74	star	1	3	nc	1	2	1	1/2	nc	2	nc	3	nc
93	leaf	--	3+1	1	1	1	1	2	2	nc	nc	3	nc
86	water	nc	1	1	2	1	1	2	2	nc	nc	nc	?
77	wind	nc	--	1	2	nc	nc	2	nc	1	2	2	nc
97	bamboo	1	1	1	2	3	--	1/2	1	1	1	1	1
73	moon	1	1	1	2	2	2	2	nc	1	1	1	1
95	fruit	1	--	1	2	2	2	2	1	1	1	1	nc

(N.B.: The numbers employed above do not necessarily correspond to the numbers assigned to NN reconstructed forms; they were chosen to represent the tabulated patterns of similarities and differences as clearly as possible.)

Our data for this category are particularly good, furnishing 25 comparisons against a suggested 33. Once again, these comparisons show that, within Northern Naga, a single root is dominant in most cases. For 14 of the

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25 entries, the same root is represented in at least six of the seven languages (where the word itself is available in all seven) or in at least five of six (where the word is not available in one). There are only seven cases in which a second root is represented in two or more Northern Naga languages, and two of these ('star' and 'bamboo') depend upon a second form, in addition to the dominant one, in Chang.

Note the last four comparisons: 'moon' and 'fruit' may be added to the list of words exhibiting the Yo/Mo/No vs. Wa/Ky/Ph/Ch dichotomy, also suggested in the distribution of forms for 'wind' and 'bamboo'. Unlike in our previous examples, however, the forms for 'bamboo', 'moon', and 'fruit' in Yo/Mo/No are widely distributed elsewhere, while those in the remaining languages are distinctive.

For the external affinities of Northern Naga nature terms, see particularly the second section of the table; on these seven comparisons, from 'earth' through 'mountain', a general Northern Naga root is in agreement with Dimasa (five cases) and/or with Jinghpaw (all seven) but with none of the other 'test' languages except Ao Mongsen (one case, 'mountain'). The "Kachin-Konyak-Bodo-Garo" linkage pointed out by Benedict with particular reference to 'sun' and 'fire' (STC 7) thus receives further support here. The incidence of agreement of the 'test' languages with roots represented in at least two Northern Naga lan-

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guages, for this category, is: Jinghpaw: 17; Dimasa: 15; Burmese: 12; Ao Mongsen: 9; Lushai: 9. These results are less skewed, but of the same general order as the comparable figures for bodyparts, with the qualification that the extremely strong association of Northern Naga with Dimasa in the latter domain does not appear here. The sum of the two suggests instead an equally strong association with Dimasa and with Jinghpaw.

F. Artifacts and social organization

103. needle. (-- 5)
104. arrow. (-- 5)
105. bow. (-- 5)
106. mortar. (-- 4)

107. house. Yo him, Mo yim, No hum, Wa ham, Ph Šem, and Ch cam are from NN *kium, HOUSE; cf. WB im, Lu. in, < PTB *(s-)kyum (orig. *kyim ~ *kyum)(pcPKB); also AoM a ki. For Ky nok, cf. Di. no2. Jg. nta is distinct.

108. village. Yogli and Nocte have ha, = 'earth', in Yogli also 'land'; cf. Jg. ka 'earth, land, country', kah toŋ 'village'. Moshang has an uncanonical kian, possibly = /ki yan/; cf. Lhota o yan, Yacham-Tengsa yam, AoM a yim. An intriguing possibility is that these forms and the words for 'house' in these languages have become dissociated from an original *kyum; cf. 'house' + 'village': Lhota o ki +(o)yan; Yacham-Tengsa ki + yam; Ao Mongsen a ki +(a)yim; also Ao Chongli ki + im. The Moshang form for 'village' would in that case retain both syllables, while its form for 'house' (with irregular initial, *g- expected) would have

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gone the way of C Naga 'village'. In any case, it seems reasonable to cite AoM a yim as a comparison for a Mo *ki yan.

Wa tiŋ-, Ky jiŋ, Ph jəŋ ~ ciŋ, and Ch saŋ are from NN *C-griŋ, VILLAGE; cf. WB rwa, Lu. khua, referred in the STC to PTB *r-wa and *g-wa, respectively, but brought together by Matisoff (1972c: 278), along with WT groŋ, in the composite reconstruction PTB *grwa-ŋ. For the derivation of NN *-griŋ from PTB *grwa-ŋ (via *gryaŋ > *gryiŋ), see under *C-gr- in Chapter III. Dimasa no lai is apparently distinct.

109. boat. (Mo --) For Yo li, cf. Jg. li, WB hle; as the Yogli form is isolated within Northern Naga, and particularly in view of the nature of the item (Nagas generally do not build or use boats on their alternately torrential and shallow streams [Hutton 1921a: 366; Peal 1892-3: 252], and it is Singpho [Jinghpaw; Singpho also has li 'boat' (Robinson)] who occupy the valleys of the larger rivers adjoining the Tangsa country), the Yogli form is probably, like bum 'mountain', a loanword. For Chang loŋ, at the other end of the Northern Naga area, cf. WB lauŋ 'canoe', Lu. loŋ 'boat', < PTB *(m-)loŋ; also Di. ruŋ, AoM a roŋ. No khuoŋ kho (probably both syllables) and Wa khuŋ (Brown) 'boat' ~ kua sa (Peal) 'canoe' are from NN *kho°ŋ; no comparisons for 'boat' or 'canoe' in the test languages. Ky wan and Ph a ei appear to be distinct from all of these, and from each other.

Summary: Artifacts

	Yo	Mo	No	Wa	Ky	Ph	Ch	Di	Jg	WB	Lu	AoM
107 house	1	1	1	1	2	1	1	2	nc	1	1	1
108 village	1	3	1	2	2	2	2	nc	1	2	2	3
47c liquor	--	nc	nc	x	nc	x	x	x	nc	nc	x	x
109 boat	1	--	2	2	nc	nc	3	3	1	1/3	3	3

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There is not enough material here to support generalization about this portion of the vocabulary, but several observations may be made about the individual items. The exclusive agreement between Konyak and Dimasa on 'house' is so far unique. The Yo/Mo/No vs. Wa/Ky/Ph/Ch dichotomy is exhibited by 'village', possibly also by 'liquor'. It is becoming possible to discern a pattern in the external affinities of these "split" words. Compare:

	Yo	Mo	No	Wa	Ky	Ph	Ch	Di	Jg	WB	Lu	AoM
23 blood	1	1	1	2	2	2	2	2	1	2	2	2
54 bird	1	1	1	2	2	2	2	nc	1	nc	2	nc
56 animal/meat	--	1	1	2	2	3	2	2	A	A	3	A
77 wind	nc	--	1	2	nc	nc	2	nc	1	2	2	nc
108 village	1	3	1	2	2	2	2	nc	1	2	2	3
47c liquor	--	nc	nc	x	nc	x	x	x	nc	nc	x	x

Of the 63 comparisons presented so far, nine (14%) display the Yo/Mo/No vs. Wa/Ky/Ph/Ch dichotomy without overlap or exception. On two of these nine comparisons, #73 'moon' and #95 'fruit', all or most of the external languages are in agreement with the Yo/Mo/No subgroup; on one, #9 'breast/milk', only Dimasa agrees with either dominant root, and it agrees with the one found in Yo/(Mo)/No. On the six comparisons tabulated above, however, there appears to be an external dichotomy matching the internal one, setting Jinghpaw with Yo/Mo/No, and Di/WB/Lu/AoM with Wa/Ky/Ph/Ch.

G. Spatial/directional

110. leftside. (-- 5)
111. rightside. (-- 5)

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112. far (v.). (Yo --) For Mo jal and Ch sa bu, I reconstruct NN *ja·l; cf. Di. ga jaiŋ < *ga ja(i)l and Jg. tsan, < PTB *ja·l. Wa a tai, Ky jai pu, and Ph tai pə are from NN *$\underset{V}{C}$-tay, FAR(2); no comparisons. Nocte has ha lo, probably = 'earth-long'. (Lu. lha and AoM u ra form an external pair; cf. Lu. l-: AoM r- < PTB *(-)l- in 'boat'.)

113. near (v.). (Yo --) This is one of only two comparisons for which none of the Northern Naga forms is cognate with any other; nor do any of these forms agree with any forms in the test languages. The skeptic may try to make something out of the following jumble: Mo a ñek; No thek ro (Butler; Robinson, followed by Brown and Marrison, has the uncanonical therko, an apparent misprint); Wa a tsai; Ky o lok ~ ə o; Ph yu pai ~ yo bai pə; Ch ñaŋ bu. There are two external sets: Jg. ni, WB nī:, Lu. hnai, < PTB *ney; and WB nā:, AoM unha. The first of these may be related to Mo a ñek, the second to Ch ñaŋ bu, but in neither case is the relationship immediate.

114. year. (-- 5)

Because both of the words in this category for which comparisons are feasible are in fact verbs rather than nouns, I defer their summary to that for M. Stative verbs with non-human patients.

H. Numerals and quantifiers

115. one. I refer Yo/Mo a šǐ, No van the, and Ch cie to NN *$\underset{V}{C}$-tse, ONE(1); cf. Di. se. Wa ta and Ky ja are from NN *$\underset{V}{C}$-kla^{A}, ONE(2); no comparisons for 'one'. For Ph hək (possibly from an NN *(-)dzik), cf. WB tats, < PTB *(g-)tyik. (AoM a kha is probably, like Lu. pa khat, from K-N *khat. Jg. laŋai is isolated.)

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116. two. Yo a nei, Mo a ni, No vañi < *van ñi, Wa a ñi (Brown) ~ a ni (Peal), Ky i, Ph ñi, and Ch ñi are all from NN *2-ni, TWO; cf. Di. gi ni, Jg. ni, Lu. pa hni2, < PTB *g-ni-s; also AoM a net. Benedict (STC 16, n.60,61) excludes WB hnats from this set because of its aberrant final, probably < *-k, as for 'one', WB tats -- possibly influenced by the latter?

117. three. Word represented and cognate in all languages: Yo a dim, Mo a tum, No van ram, Wa a jam (Peal) ~ a zam (Brown), Ky lem, Ph jəm, and Ch sam are all from NN *C_{v}-sum, THREE; cf. Di. ga tham, Jg. ma sum, WB sum:, Lu. pa thum, AoM a sam.

118. four. Word represented and cognate in all languages: Yo bə lai, Mo ba li, No be li, Wa a li, Ky pe li, Ph a li, and Ch lei are all from NN *bə ləy, FOUR; cf. Di. bi ri, Jg. ma li, WB le:, Lu. pa li, AoM phə li.

119. five. Word represented and cognate in all languages: Yo/Mo/No ba ŋa, Wa a ga, Ky/Ph ŋa, and Ch ŋau are all from NN *C_{v}-ŋa^{B}; cf. Di. bo ŋa, Jg. ma ŋa, WB ŋā:, Lu. pa ŋa, AoM pha ŋa.

120. six. Word represented and cognate in all languages: Yo tə ruk, Mo ta ruk, No i rok, Wa a rok, Ky wok, Ph vok, and Ch lak are all from NN *d-ruk, SIX; cf. Di. do (see STC 82), Jg. kru, WB khrauk (see STC 76, 115, and 115, n.321), Lu. pa ruk, all from PTB *d-ruk, with replacement of *d- by k- before root-initial *r- in the Burmese and Jinghpaw forms (STC 95); also AoM te rok.

121. seven. No i ŋit, Wa a nat, Ky ñit, Ph ñet, and Ch ñet are from NN *C_{v}-nit, SEVEN; cf. Di. si ni, Jg. sa nit, < PTB *s-nis; also AoM te ni. Yo mi ši and Mo ma ši have no comparisons outside of Tangsa. WB khu hnats must be disqualified on the same grounds as hnats 'two'; Lu. pa sa ri2 is implicit-

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ly excluded from the reflexes of *-nis at STC 16(5).

122. eight. Word represented and cognate in all languages: Yo ta cat, Mo ta cat, No i sat, Wa a cat, Ky tet, Ph ša-t, and Ch sat are all from NN *C$_{V}$-gyat, EIGHT; cf. Di. jai < *jat, Jg. ma tsat, WB hrats, Lu. pa riat, all from PTB *(b-)g-ryat; also AoM tsit < *t-sit (cf. [Ao] Yacham te set, Changki te zet, < K-N *d-ryat [STC 95]), with *d- substituted for PTB *g- (STC 45, n.148).

123. nine. Word represented and cognate in all languages: Yo ta kau, Mo ta kru, No i khu, Wa a ku, Ky tu, Ph ša, and Ch guh are all from NN *C$_{V}$-ga°w, NINE; cf. Di. su gu, Jg. ja khu, WB kui:, Lu. pa kua, AoM ta ku.

124. ten. Yo rauk ši and Mo rok ši 'ten' (a ši 'one') and No ruak 'a decade' (Robinson 1849: 326:

> The numeral system of the Namsangiyas [= Noctes] is emphatically decimal -- of the ten fingers. Thus they count. 1. Vanthe . . . 9. Ikhu. 10. Ichi. and then throwing their fingers in an imaginary heap they exclaim, Ruak, a decade.),

also 'ten' (in comp.) in the terms for multiples of ten, are from NN *ro°k, TEN(1); cf. AoM te ra (general C/S Naga *-rV, as in Tangsa dialects other than Yogli and Moshang: Shangge/Langsing ro ši, Khemsing ro si, etc.). For Nocte i chi, cf. Di. ji, Jg. ci~si, WB a chai. Wa ban, Ky pen, and Ph/Ch an are from NN *bo°n, TEN(2); cf. Khasi ši pón: the root may be Austroasiatic, as no ST comparisons can be found. Lu. šom is distinct.

125. twenty. Yo rauk nei, Mo rok ni, and No ruak ni are from NN *ro°k(-)ni, TEN(1) [times] TWO; no comparisons. Wa tsa, Ky ta, Ph ha, and Ch sau cie (cie = 'one') are from NN *ja, TWENTY; cf. Di. bi sa si. (Di. khon and Jg. khun form an external pair; WB and Lushai have 'two tens' constructions, but from dif-

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ferent components; AoM has ma kyi.)

126. hundred. Yo ša kha, Mo rok ša si, and No ca are from NN *C$_V$-khya, HUNDRED; cf. Di. ra ja (with the ra- < *r- possibly cognate with NN *ro°k, TEN(1) > Mo rok-), Jg. la tsa, WB a ra, Lu. za < *ya, all from PTB *r-gya. Wancho has pu ga (ga = 'five', pu apparently = 'twenty', also in pu ñi 'forty' [ñi = 'two'; 'sixty' and 'eighty' not available]); no comparisons. Chang has sau ŋau (= 'twenty [times] five'); no comparisons. Ky kho and Ph gho clearly go together, but the initials correspondence is unique, and no satisfactory reconstruction is at hand; no comparisons. AoM has nok laŋ, with nok- possibly related to NN *ro°k, TEN(2), but no comparison for laŋ.

127. (be) many (v.). (Yo --) Like #113, 'near', this is one of the only two comparisons on which all of the Northern Naga forms are from different sources. But for Mo a paŋ, cf. Di. ga baŋ. For No a ja, cf. AoM iya. Wa tai hu is probably from NN *C$_V$-tay, FAR(2), < PTB *tay, 'great, large'; no comparisons for 'much' or 'many' for this or for Ky ma e, Ph loŋ i ~ loŋ ši, or Ch cuŋ.

Summary: Numerals

	Yo	Mo	No	Wa	Ky	Ph	Ch	Di	Jq	WB	Lu	AoM
123 nine	x	x	x	x	x	x	x	x	x	x	x	x
122 eight	x	x	x	x	x	x	x	x	x	x	x	x
120 six	x	x	x	x	x	x	x	x	x	x	x	x
119 five	x	x	x	x	x	x	x	x	x	x	x	x
118 four	x	x	x	x	x	x	x	x	x	x	x	x
117 three	x	x	x	x	x	x	x	x	x	x	x	x
116 two	x	x	x	x	x	x	x	x	x	nc	x	x
121 seven	1	1	2	2	2	2	2	2	2	nc	nc	2
115 one	1	1	1	2	2	3	1	1	nc	3	A	A
126 hundred	1	1	1	nc	2	2	nc	1	1	1	1	nc
124 ten	1	1	1/2	3	3	3	3	2	2	2	nc	1
125 twenty	1	1	1	2	2	2	2	2/A	A	nc	nc	nc

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(#127, 'many', like #112 "far" and #113 'near' a verb, is summarized with M. Stative verbs with non-human patients.)

Northern Naga numerals fall into two groups. The first, consisting of the numerals 'two' through 'nine' (with the partial exception of 'seven'), shows a single root throughout Northern Naga as well as in the external "test" languages. The second group of four words, shown in the lower section of the preceding table, reflects the subdivision of Northern Naga and particularly the divergent tendencies of the more southerly subgroup. These "split" numerals, however, do not support a special association of Jinghpaw with the more northerly subgroup.

This completes my presentation of comparative data on Northern Naga core vocabulary nouns. Excluding #112, "far", #113, 'near', and #127, "many", which are verbs, Matisoff's list comprises 124 separately numbered entries for nouns; the Northern Naga data have permitted 75 comparisons, 60% of the suggested total. Before moving to the verbs, let me sum up, for the entire set of nouns, some of the measures of coherence, divergence, and external affinity abstracted above for particular semantic categories.

A single root is dominant throughout Northern Naga (i.e., appears in at least 6/7 or 5/6 languages) for 45 (60%) of the 75 nouns compared. By way of contrast, in only 20 of these 45 cases does the same root appear in at least four of the five "test" languages. These figures

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furnish a rough measure of the coherence of Northern Naga as a subgroup of Tibeto-Burman insofar as this moiety of the lexicon is concerned. That is, in 20/75 cases, the coherence of Northern Naga is merely reflective of the coherence of Tibeto-Burman (or at least of "Eastern" Tibeto-Burman) at large. But for one-third of the comparisons (25/75 cases) there is a general Northern Naga root which is not also a general (Eastern) Tibeto-Burman root. In 15 of these 25 cases, however, the general Northern Naga root is shared with Dimasa (14 cases) and/or Jinghpaw (12 cases), but with none of the other test languages.

Internal divergence is indicated on 20 of the 75 comparisons by the occurrence of two roots each appearing in two or more Northern Naga languages. Ten comparisons are intermediate, showing neither a single dominant root (by the strict criteria defined above -- no more than one exception) nor two complementary ones; but, on these, a relatively dominant root (i.e., one which appears in at least 4/7 or 3/6 languages, including at least one language in each subgroup) is present in seven out of the ten cases. Thus, the overall distribution is:

			#	%
General Northern Naga root (6/7 or 5/6 lgs.)	#	%	45	60
also general ETB root	20	27		
shared only w. Di. a/o Jg.	15	20		
other	10	13		
One shared root, broken distribution			10	13
Two shared roots			20	27

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But if we add to the 45 words for which there is a general Northern Naga root the seven for which there is a relatively dominant root with only idiosyncratic exceptions, we may say that for over two-thirds of the nouns compared (52/75 = 69%), Northern Naga demonstrates an internal coherence.

I turn now to the internal divergence suggested by the minority of comparisons showing two roots shared by two or more of the Northern Naga languages. On four of these, the groupings seem to be idiosyncratic:

		Yo	Mo	No	Wa	Ky	Ph	Ch
78	rain	nc	2	1	1	1	nc	2
86	water	nc	1	1	2	1	1	2
74	star	1	3	nc	1	2	1	1/2
99	iron	1	1	1	1	1	2	2

On one, #121 'seven', Yogli and Moshang are divergent from an otherwise general Northern Naga root. Because of the relatively large number of cases in which an entry is missing for one of these two languages, we may ask whether such a pattern of Tangsa divergence may not be more common. And, indeed, there are nine words for which a unique root is attested for one of these two languages while an entry is missing for the other. But there are also eight words for which a unique root in either Yogli or Moshang is not in agreement with the root attested in the remaining dialect, so that there are probably few additional cases like 'seven' (on probability, only one).

The fifteen remaining comparisons suggest patterned divergence. On all of these, only one of the two comple-

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mentary roots appears in Yo/Mo/No; on ten, the root appearing in this subgroup does not appear among the other four languages (it is shared with Wancho in two cases and with Chang in four).

There are two patterns of divergence here. The first pattern, exhibited on ten comparisons, divides Yo/Mo/No from Wa/Ky/Ph/Ch. The second, exhibited on five comparisons and hence the weaker of the two, also demonstrates the coherence of the Yo/Mo/No subgroup, but in combination with Wancho, Chang, or both. As the first pattern is twice as common, the basic dichotomy within Northern Naga must be between Yo/Mo/No and Wa/Ky/Ph/Ch. What we have on the second set of comparisons are general Northern Naga roots, maintained in the more northerly subgroup but generally, though not universally, supplanted in the more southerly by a different root.

On the fifteen comparisons suggesting patterned divergence, Konyak and Phom are in agreement on ten words; Konyak's incidence of agreement with Wancho (11 cases) and Chang (9 cases) is of the same order, but in four of the five cases in which Konyak and Phom are not in agreement, Phom has yet a third root; thus the question of whether a further subgrouping of Konyak with Phom is justified must be held in abeyance.

I have already noted the exclusive affinities of 15/45 of the general Northern Naga roots (by strict criteria) with Dimasa and/or Jinghpaw. The table below compares the

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affinities of each of the external languages with: (a) general Northern Naga roots, more broadly defined to include all roots attested in both subgroups and which appear in at least 4/7 or 3/6 languages with only idiosyncratic exceptions (seven cases); or which appear in four languages in spite of a second root appearing in others and are thus dominant in Northern Naga as a whole (nine cases); (b) roots limited to the Yo/Mo/No subgroup (ten cases); (c) roots limited to the Wa/Ky/Ph/Ch subgroup (the fifteen cases of "patterned divergence" plus root #2 on 'water', 'star', and 'iron' and the shared roots on 'liquor' and 'wind' -- twenty cases in all):

External affinities of:	N	Di	Jg	WB	Lu	AoM
(a)General Northern Naga roots	61	45	38	27	26	30
(b)Yo/Mo/No subgroup roots	10	3	6	3	3	2
(c)Wa/Ky/Ph/Ch subgroup roots	20	5	2	4	5	2
Total: all shared Northern Naga noun roots*	73**	53	46	34	34	34

* except both shared roots for 'rain' and the one for 'boat', which alone do not fall into any of the three categories, and Yo/Mo 'seven'.

** although double agreement of (two roots in) a test language with an (a) and a (c) root, or with a (b) and a (c) root is possible, it does not occur; thus the total incidence of agreement of each test language includes no duplication on any word, and is measurable against this figure.

These figures confirm an association of Northern Naga with Dimasa and Jinghpaw. They again suggest, as did the comparison of bodypart terms which they incorpor-

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ate, a stronger association of Northern Naga at large with Dimasa than with Jinghpaw. As the comparable incidence of agreement between Dimasa and Jinghpaw themselves is only 41-42, however, Northern Naga would appear to be lexically, as well as geographically, intermediate between them.

The number of instances of agreement of the test languages with one or the other subgroup is to small for any firm conclusions to be drawn, but two patterns may be noted. First, all of the test languages show a proportionally higher incidence of agreement with the Yo/Mo/No subgroup than with the other. As with the maintenance, in this subgroup, of general Northern Naga roots which have been partially supplanted by other roots in the more southerly subgroup, noted above, this suggests a greater conservatism on the part of the Yo/Mo/No complex.

The second pattern is that of a special association between Jinghpaw and the Yo/Mo/No subgroup, complemented by what, in relative terms, virtually amounts to a negative association between Jinghpaw and the Wa/Ky/Ph/Ch subgroup. This suggests the re-establishment of a communicative field embracing Jinghpaw and NN after NN split off from Dimasa and a subsequent maintenance of communicative field relations between Jinghpaw and the more northerly (but not the more southerly) offshoot of NN after the internal split.

I shall return to these hypotheses, suggested by comparison only of nouns, after presenting the data for verbs.

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VERBS

I. Verbs of utterance, body position or function

128. be born. (-- 1)

129. sit. Yo ŋaŋ and Mo noŋ do not correspond, but are sufficiently similar to each other and to Ahom/Khamti naŋ (GEM 222) that they have probably been borrowed from this source, either independently or via *noŋ or *nəŋ (either of which would yield Yo *naŋ/Mo noŋ), with assimilation of the initial to the final in Yogli; a common prototype is probable, so I count them as cognate. Nocte toŋ (GEM has taŋ, following Butler, but Robinson, Brown, and Das Gupta all have toŋ) is probably from an NN *tuŋ; cf. Jg. duŋ, WB thuiŋ (attributed to a PTB *tu'ŋ ~ *du'ŋ on the basis of the Burmese rhyme, but the Nocte form requires an NN short vowel rhyme). Wancho ŋo, Konyak ba, and Phom uo have no comparisons for 'sit' among our languages, but for Ky šut 'sit', šut ciŋ 'chair' and Ch sat 'sit', sat caŋ 'seat', < NN *C-kru't(-khliŋ), TO SIT(PLACE), cf. Lu. thut thle'ŋ < *krut kle'ŋ 'chair'.

130. lie down/sleep. Yogli a kun is isolated. Moshang voil is isolated within Northern Naga, but is probably related to Jg. šə mə wi 'to be heavy with sleep' and WB mwé 'sleep, enjoy sleep', attributed to PTB *(-)mwəy but possibly from a PTB *(-)mwil (see STC 15, n.53,55, for examples of loss of *-l in Jinghpaw and Burmese); cf. also Lu. muhil. The hypothetical development of the Moshang form would have been from *mwil via *vwil. No (a)jup, Wa jup (DG 1980), and Ch yep are from NN *C̬-yu'p, TO SLEEP(1); cf. Jg. ʔyup and WB ip < *yip < *yup, < PTB *yup (pcPKB); also AoM yip li. Ky/Ph ši and Ch ñek at ši (nek 'eye(s)', at 'drop, fall'),

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'sleep' are from NN *C-khli, TO SLEEP(2); no comparisons among the test languages. All of the Northern Naga forms cited are given for 'sleep'; Ky ǰi and Ch yep are also given for 'lie down'. Although I have another set for the latter gloss, I do not include it here, as I have entries for 'lie down' only for Ky/Ph/Ch, and the (Ky/Ph) forms from NN TO LIE DOWN (unlike those above) are given only for this gloss.

131. awaken. (-- 5)

132. stand. Yo/Mo/No cap is from NN *gyap, TO STAND(1); cf. Jg. tsap < *gyap, WB rap, < PTB *g-ryap. Wa a joŋ and Ky/Ph yoŋ are from NN *yuŋ, TO STAND(2); cf. AoM yuŋ Li. Chang luo stands alone.

133. laugh. Word represented and cognate in all languages except Burmese: Yo ni (Weidert), Mo ni, No ŋi, and Wa/Ky/Ph/Ch ñi are all from NN *C-ni, TO LAUGH; cf. Di. mi ni, Jg. mə ni, and Lu. nui < Kuki *m-nui, from PTB *m-nwi(y); also AoM me ni.

134. weep. Yogli has a kau; Moshang has the uncanonical form a kwar — if from *a ku war, these two would go together; but no comparisons. All of the rest, except Burmese, are cognate: No/Wa sap, Ky ǰəp, Ph thep, and Ch hap are from NN *krəp, TO WEEP; cf. Jg. khrap, Lu tap, < PTB *krap; also Di. ga ra and AoM cep.

135. cough. (-- 2)

136. die. (Yo --) Otherwise, word represented and cognate in all languages: Mo ti, No ri, Wa ji ~ zi, Ky li, and Ch hai are from NN *səy, TO DIE. I include also Ph di (*ji expected), though I cannot account for the shift in initial: no other language of the region for which data are available to me has a form for 'to die' with d-, so it is unlikely that

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Phom di is a loanword. (Curiously, *di would be the expected form for Yogli, but Yogli is at the opposite end of the Northern Naga area from Phom.) Cf. Di. thi, Jg. si, WB se, Lu. thi, < PTB *s∂y; also AoM s∂.

(As the Northern Naga data permit few comparisons for the next two categories, and as these categories are related to the one above, I defer summary.)

J. Verbs of motion

137. emerge. (-- 0, -- 3 for 'come out')

138. climb, ascend. (-- 5)

139. descend. (-- 5)

140. fall. (-- 5)

141. fly. (Ph --) I refer Yo a pau, Mo ba, No pu (Weidert), Wa pi (DG 1980), Ky pu, and Ch pi to NN *$\underset{V}{C}$-piaw, TO FLY; cf. Jg. pyau ~ byau, < PTB *pyaw. Another Jinghpaw form, pyen, and WB pyam form an external pair.

142. run/flee. I refer Yo son (Weidert), Mo yu, and No chuan to NN *$\underset{V}{C}$-juan; no comparisons. Wancho rik is isolated. Ky phet and Ph -pei (in mok ei pei, ei = 'and') could be from an NN *2-pe't; no comparisons. For Chang laŋ, cf. Jg. phroŋ, WB hraun 'flee', Lu. luaŋ 'run'.

143. hide. (-- 4)

(See at end of next category for summary.)

K. Verbs of emotion, cognition, perception

144. see. (Wa --) Yo khoi, Mo khi, and No khe are from NN *khyoy, TO SEE; no comparisons for 'see'. Ky ŋi, Ph e ~ vei, and Ch hap are all isolated as far as this gloss is concerned. Jg. mu and Lu. mhu form an external pair.

145. hear (given by Matisoff under 'ear/hear', but alto-

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gether distinct from 'ear' in Northern Naga, where it shares a semantic field with 'listen' and 'obey'. Admission of forms given for these additional glosses to the comparison is justifiable in view of their identity with forms for 'hear' in Northern Naga (see below) and allows us to identify the external affinity of the NN root used to express them all.)

Thus, 'hear/listen/obey'. (Mo --) Yo tai 'hear', No tat 'hear, obey', Wa a tat 'hear', Ky jai 'hear, listen, obey', and Ch tit 'hear, obey, (in comp.) listen' are from NN *C-ta°t, TO HEAR; cf. Jg. ma tat 'listen, obey'. (Forms for these glosses are available only for Nocte, Konyak, and Chang, as shown above, and for Phom.) I include Phom tan 'hear' (*tai expected) with the set above despite its aberrant final; Phom phaŋ 'hear' ~ paŋ 'listen, obey' are isolated. Di. kha na 'hear, (in comp.) listen', Jg. na 'hear', and WB nā: 'listen; (in comp.) obey' are from the general TB root for 'ear/hear'.

146. smell. (-- 5)

147. dream. (-- 5)

148. know. (-- 5)

149. forget. (-- 5)

150a. fear/frighten. I refer Yo a khiar, Mo a hi, No ce, and Ch hat to NN *C-khra°y, TO FEAR; cf. Jg. khrit, Lu. ti < *kri, < PTB *kri(y); also Di. mi grim, AoM ci ba. There are no comparisons for Ky/Ph ñim, nor for Wancho ra 'afraid' (for the latter, see NN SHAME(2)).

150b. ashamed. (-- 4)

I combine the last two entries under one number to make room for 'hear'.

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Summary: Physical processes and activities

		Yo	Mo	No	Wa	Ky	Ph	Ch	Di	Jg	WB	Lu	AoM
136	die	--	x	x	x	x	x	x	x	x	x	x	x
133	laugh	x	x	x	x	x	x	x	x	x	nc	x	x
134	weep	1	1	2	2	2	2	2	2	2	nc	2	2
150a	fear	1	1	1	nc	2	2	1	1	1	nc	1	1
145	hear	x	--	x	x	x	x	x	A	x/A	A	nc	nc
141	fly	x	x	x	x	x	--	x	nc	x/A	A	nc	nc
130	sleep	nc	1	2	2	3	3	2/3	nc	1/2	1/2	1	2
132	stand	1	1	1	2	2	2	nc	nc	1	1	nc	2
129	sit	3	3	1	nc	2	nc	2	nc	1	1	2	nc
142	run	1	1	1	nc	2	2	3	nc	3	3	3	nc
144	see	x	x	x	--	nc	nc	nc	nc	A	nc	A	nc

For Matisoff's first three verb categories, I present 6/9, 2/7, and 3/7 comparisons, respectively, for a total of 11/23. On the first six comparisons tabulated above, a single root is dominant in Northern Naga; the last four suggest the familiar internal dichotomy in which Yo/Mo/No are set apart from the other Northern Naga languages. The pattern of external affinities, however, is quite different from anything we observed among the noun comparisons: a Dimasa form is cognate with a Northern Naga root in only four of the eleven cases, and in all four of these cases it is a general Tibeto-Burman root which is shared. But for ten of the eleven comparisons, a root found in one or more of the Northern Naga languages is also found in Jinghpaw; a Jinghpaw root is found in three or more Northern Naga languages in eight of these.

L. Stative verbs with human patients

151. alive. (Yo --) In Chapters III and IV above I refer

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Mo a ta roŋ and Wa a zaŋ 'to live' and e zaŋ 'green' (both Wancho forms from Brown) to NN *ryəŋ, ALIVE(2), and Wa a raŋ 'alive; raw' (Peal), along with Ch laŋ 'to live, living' to NN *C-raŋ, ALIVE(3). But parallel variation in the Wancho forms for 'six' -- a zok (Brown) ~ a rok (Peal) -- which I suggest is the result of a *d- prefix in NN (*d-r- > *dr- > r- [with re-prefization], or *d-r- > a r- in Peal's dialect, but *d-r- > *dr- > *dz- > z- [with re-prefixation], or *d-r- > *d-z- > a z- in Brown's) -- see Chapter IV, under SIX -- raises the possibility that both Wancho forms for 'live/alive' are from an NN *d-rəŋ, with the further possibility that Moshang -ta- in a ta roŋ has its source in this *d- prefix (as in Mo ta ruk 'six', though here re-prefixed). Phom yaŋ ñu, which could be from either *ryəŋ or *C-raŋ, cannot be from *d-rəŋ, as the Phom reflex of NN *d-r- in SIX is v-, as if from *r-; Chang laŋ, also, cannot be from *d-rəŋ, as this prototype would yield Ch *loŋ. Thus, a second proto-form is still required, but the proto-allofams *d-rəŋ ≠ *C-raŋ, with both Wancho forms attributed to the former, and the Phom to the latter, seem perhaps to be a preferable solution.

I thus group Mo a ta roŋ and Wa a zaŋ (Brown) ~ a raŋ (Peal), from an NN *d-rəŋ; and suggest that a similar PTB form, with *d- prefix, is the source of Jg. khruŋ 'live, be alive', through prefix substitution, exactly as in 'six', Jg. kru, < PTB *d-ruk (STC 95). For Ph yaŋ ñu and Ch laŋ, < NN *C-raŋ, ALIVE(3), cf. WB hraŋ, Di. ga thaŋ < *g-sraŋ, both attributed to PTB *s-raŋ (~ *s-riŋ) in the original text of the STC -- in view of the Northern Naga data, a solution preferable to Benedict's later subsumption of these forms under PTB *šriŋ (STC 85, n.252).

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The Northern Naga data suggest, in fact, that there are at least three proto-forms to be disarticulated here. Front-vowel variants are represented by Nocte hiŋ 'to live' (Brown), from NN *criŋ, ALIVE(1) -- cf. PTB *šriŋ -- and by Phom yem ñu 'to live' (var.), from NN *C-rin, ALIVE(4) -- cf. PTB *s-riŋ; but there are no comparisons, among our languages, for the glosses 'live, alive' for either of these forms, so they will not be considered further.

For Nocte a toŋ 'to live' (Das Gupta), however, cf. Di. doŋ, id. (also NN *duaŋ, TO BE(1)). Finally, for Ky ñoi and the second element in Ph yaŋ ñu ~ yem ñu, < NN *C-nə°ŋ, TO BE(3)/BEING, cf. Lu. nuŋ; all of these forms are given for 'to live', though Phom ñu in isolation is 'to be'.

The asserted patterns of cognacy for 'alive' -- a word which shares semantic fields extending in at least two different directions, to 'be, being' on the one hand and to 'raw/green/grass' on the other -- are, then: (1) Mo/Wa//Jg.; (2) No//Di.; (3) Ky/Ph//Lu.; (4) Ph/Ch//Di./WB.

152. thin. (-- 5)

153. fat. (-- 5)

154. ill. (Mo --) (GEM does not give 'ill'; I compare forms for 'sick'.) Yogli da is from NN *C$_{V}$-da°k, TO SUFFER(1); no comparisons among the test languages (but cf. Lepcha a-dăk 'illness', which Forrest [1962] relates to Austroasiatic forms). No a chat and Ch šat are from NN *dzat, TO SUFFER(2); cf. Di. sa 'ache, pain', < PTB *tsa (the glosses given for WB tsha 'hungry', a tsha 'hunger; something faulty or hurtful' and Lu. ša ~ šat 'hot', also attributed to this root, are so divergent that I do not count them for 'ill'; but note the -t variant in Lushai). Wa ka ka < *kak a 'sick' (cf. kak

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'ache; fever') and Ky tak pu seem to go together, from an NN *(C$_{\text{V}}$-)g{a,ə}k; no comparisons. Phom din pə is isolated. Jg. ə na 'illness', WB na 'to be ill, a na 'pain, disease', and Lu. na ~ nat 'to be ill; illness', < PTB *na, form an external set unrepresented in Northern Naga.

155. itchy. (-- 0)

156. old. (-- 5)

(See at end of next category for summary.)

M. Stative verbs with non-human patients

157. long/tall. (Mo --) Yo a lu, No a lo, Wa lo (Brown) ~ lɔ (Peal), Ky lau pu, Ph lu aŋ pə, and Ch lo bu are all from NN *low, LONG; cf. Di. ga lau ~ lau ba, Jg. gə lu. (Two variants, Ky i ñaŋ pu or in yaŋ pu [syllabification uncertain] and Ch səŋ bu, cannot be related with confidence to each other or to any of a number of possible external cognates with -ŋ.)

158. thick. (-- 3)

159. full. (-- 4)

160. round. (Mo --) Yo a biŋ, No a tum, and Wa a ŋe are all isolated. Ky toi mei pu and Ph ši nei are from NN *goy, TO REVOLVE/ROUND/AROUND; no comparisons for 'round'. The first syllable of Ch pam sam bu, < NN *phum, -ROUND-(of body parts)(1) -- except in this Chang form, found in Northern Naga only in terms for body parts -- is cognate with Lu. pum 'rounded out'.

161. sharp. (-- 5)

162. heavy. (Yo --) Mo/No a li, Wa li, Ky yi pu, and Ch at cei tam (tam = 'adjectival suffix', like -bu) are from NN *lyəy, HEAVY; cf. Di. ri si, Jg. li, WB le:, Lu. rit, all referred to PTB *(s-)ləy; also AoM ret ər (cf. Chongli ta ret). Phom haŋ kə pə is dis-

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tinct and isolated.

163. light(weight). (Ky --) Yo caŋ (Weidert), Mo a can, No -ca (Weidert), Wa cia, Ph šaŋ kha lok pə, and Ch so ŋok pu are all from NN *gyaŋ, LIGHT; cf. Di. re jeŋ < *r-yaŋ, Jg. tsaŋ < *g-yaŋ, Lu. za'ŋ < ya'ŋ, all from PTB *r-ya'ŋ ~ *g-ya'ŋ.

164. soft. (Mo --) Yo a nen, No a ñen (Brown), Ky ñin pu, and Ph ñen pə are from NN *C-nen, SOFT(1); cf. WB nū: ñam, Lu. ne'm. For No a noap (Das Gupta), cf. AoM a nap. Wa nai and Ch i ñai bu are from NN *ɲa'y, SOFT(2); no comparisons for 'soft'.

165. warm. (Ph --) (GEM does not give 'warm'; I compare forms for 'hot'.) Yo kal and Mo a kal (possibly from a composite form like TN kha lum) are isolated as such. Yo hraŋ lim and Ch lam bu are from NN *lim, HOT(1)/SWEAT; cf. Di. lim ~ lum 'to be hot, have fever', Jg. lum 'warm', WB lum 'warm', attributed to PTB *lum -- also Lu. lum 'hot', AoM te lam, id. -- but in addition to the Dimasa doublet, cf. Jg. kha lim a ci 'fever', Nung lim 'warm', suggesting a PTB doublet *lim. Because of the possibility of a PTB *-u- > NN *-i- vowel shift, however, I count all the external forms cited as cognate. Finally, No a kham, Wa kam, and Ky šem pu are from NN *kham, HOT(2)/TO BOIL; no comparisons for 'warm' or 'hot'.

166. cold. Yo hraŋ sun, Mo roŋ šuŋ, and No raŋ choŋ (Das Gupta) are from NN *C-juŋ, WINTER/COLD(1); cf. Jg. kə šuŋ. Wa raŋ kam and Ch kam are from NN *khyəm, WINTER/COLD(2); cf. WB khyam. Ky weŋ pu and Ph viŋ pə are from NN *riaŋ, WINTER/COLD(4); no comparisons among the test languages. I do not include the Ky/Ph/Ch forms for 'winter', nor the additional external comparisons for 'winter' (Di./WB for WINTER/COLD(1)) because 'winter' is not available in Yo/Mo/

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No/Wa.

167. new. (Mo --) For Yo a ñal and No a ñan, cf. Jg. niŋ nan. Wa ho zan, Ky a la pu, Ph ja pə, and Ch ham bə < *han bə (form from GEM) ~ han (Weidert) are from NN *sa˚r; cf. Lu. thar, < PTB *sar; also WB sae, AoM te sen.

168. ripe/well-cooked. (Yo --) (Comparisons only for 'ripe', 'well-cooked' not available.) No a cum, Wa jum, Ky ə-yim, and Ch sam bu are from NN *ryu˚m, RIPE(1); no comparisons of any kind. Mo a muin and Ph men pə are from NN *min, RIPE(2); cf. Di. gi min ~ gu mun, Jg. myin, WB hmyañ ~ hmañ, and Lu. hmin, all from PTB *s-min.

169. bitter. Word represented and cognate in all languages except Moshang, which has the uncanonical form a krip, almost certainly a loanword and very possibly derived from PTB *kri(y) 'acid, sour' (NN *krəy [> Mo ə hi 'acid'], but Lepcha kri 'bitter'); cf. also its derivative, PTB *(m-)kri-t 'bile'. Yo kha (Weidert), No a kha (Robinson) ~ kha2 (Weidert), Wa kha, Ky kha bu, Ph kha, and Ch khau ək pu ~ khau yek pu are from NN *C-kha^{B}, BITTER; cf. Di. ga kha ~ kha ba, Jg. kha, WB khā:, Lu. kha, AoM tə kha.

170. sour. (Yo --) (I compare also 'acid' in order to meet the criterion of entries in six languages -- for Moshang we have 'acid' but not 'sour'.) Mo ə hi 'acid', No a si, Wa si, Ky ši pu, and Ph thi hok, all 'sour', and Ch hai cep bu 'sour' ~ hai cap bu 'acid (adj.)' are all from NN *krəy, SOUR; cf. Di. khi ri 'sour', Jg. khri 'sour, acid'. WB khyañ < *khyiŋ and Lu. hi˚ŋ probably go together (cf. Nr. khieŋ mai, Ze./Mz. ke hia); similarly Lu. thu˚r < *su˚r and AoM tə san.

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171. sweet. (-- 4)

172. black. Yo/Mo/No a ñak, Wa nak, Ky ñak bu, Ph ñak pə, and Ch nak ə bu are all from NN *C-ŋak, BLACK; cf. WB nak, AoM te nak.

173. white. Yo a lauŋ and Mo a lə are from NN *luaŋ, WHITE(1); no comparisons for 'white'. Nocte a po is from NN *po°k, WHITE(3); cf. Di. gu phu < *g-phuk, < PTB *bo[°]k (Garo gi bok ~ gi pok). Wa ce and Ky heŋ pu are from NN *the°ŋ, WHITE(4); no comparisons for 'white'. Ph šu pə and Ch thu 'to turn pale', thu pai bu 'white', are from NN *thow, WHITE(5) (no comparisons), while the second syllable of Ch thu pai bu is from NN *poy, WHITE(2); cf. WB phwè: 'very white'. Surely WB phru < PLB *plu and Jg. phrau < *phlau form an external pair, probably from a PTB *plow.

174. red. Yo a šaŋ and Mo kai šan, probably from an NN *-khya°ŋ, are related to Jg. khyeŋ ~ ceŋ, attributed to PTB *kyeŋ. No a cak, Ky təak = /tak/, Ph hak ei-pə and Ch sak laŋ bu are from NN *jak; cf. Di. ga jau < *ga jak. Wancho khi is isolated in Northern Naga and has no comparisons among the test languages.

This completes our set of comparisons for stative verbs, the last category being particularly well represented, with 14 comparisons out of a suggested 18. The summary which follows includes #112 'far', #113 'near' (from G.), #127 'many' (from H.), #151 'alive', and #154 'sick' (from L.) -- all stative verbs for which comparative detail has already been presented. For all stative verbs, I present 19 comparisons out of a suggested 27; for all verbs so far, 30/50 (60%), just as for nouns.

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Summary: Stative verbs

	Yo	Mo	No	Wa	Ky	Ph	Ch	Di	Jg	WB	Lu	AoM
169 bitter	x	nc	x	x	x	x	x	x	x	x	x	x
162 heavy	--	x	x	x	x	nc	x	x	x	x	x	x
163 light	x	x	x	x	--	x	x	x	x	nc	x	nc
170 sour/acid	--	x	x	x	x	x	x	x	x	A	A/B	B
157 long	x	--	x	x	x	x	x	x	x	nc	nc	nc
172 black	x	x	x	x	x	x	x	nc	nc	x	nc	x
164 soft	1	--	1/3	2	1	1	2	nc	nc	1	1	3
165 hot(warm)	1/3	3	2	2	2	--	1	1	1	1	1	1
168 ripe	--	1	2	2	2	1	2	1	1	1	1	nc
112 far	--	1	nc	2	2	2	1	1	1	nc	A	A
174 red	2	2	1	nc	1	1	1	1	2	nc	nc	nc
154 sick(ill)	nc	--	1	2	2	nc	1	1	A	A	A	nc
167 new	1	--	1	2	2	2	2	nc	1	2	2	2
166 cold	1	1	1	2	3	3	2	nc	1	2	nc	nc
173 white	1	1	2	3	3	4	4/5	2	A	A/5	nc	nc
151 alive	--	1	2	1	3	3/4	4	2/4	1	4	3	nc
160 round	nc	--	nc	nc	1	1	2	nc	nc	nc	2	nc
127 many	--	1	2	nc	nc	nc	nc	1	nc	nc	nc	2
113 near	--	nc	nc	nc	nc	nc	nc	nc	A	A/B	A	B

This is the most variable set of words we have considered, with only six of the nineteen comparisons turning up a general Northern Naga root, while (the last) five appear to tap concepts which are not lexical foci in this group of languages. Some familiar patterns are repeated, however, though in limited degree: 'sour' and 'long' are represented by a general Northern Naga root shared with Dimasa and Jinghpaw, but not with any of the other test languages; and 'new' and 'cold' show a grouping of Yo/Mo/No with Jinghpaw alone, opposed to a more diffuse grouping of Wa/(Ky/Ph)/Ch with WB/(Lu/AoM). But except on these two words, the special association between Northern Naga and Jinghpaw (excluding Dimasa) which appeared to

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pertain on the previous set of verbs is missing here.

N. Action verbs with human agent

175. lick. (-- 4)

176. bite. (-- 5)

177. eat. Yo sa2, Mo sa, No cha2, Wa sa, Ky ha, Ph hak, and Ch šau are all from NN *dza^{B}, TO EAT(1); cf. Jg. ša, WB cā:, < PTB dza^{B}; also AoM ca. A Yogli variant, sei, is from NN *they, TO EAT(2); cf. Lu. ei.

178. drink. I set up NN doublets here -- Yo/Mo niŋ, Wa liŋ, and Ky/Ph yiŋ from NN *N-li°ŋ, TO DRINK(1); Ch yuŋ from NN *N-lu°ŋ, TO DRINK(2) -- but for purposes of comparison they are better treated as a unit; cf. Di. liŋ ~ luŋ, AoM yuŋ (but Ao Changki iŋ). Nocte jok is distinct, and if reconstructible could only be from an NN *(-)yuk -- cf. WB sauk, which could be from *syuk -- but it is perhaps likelier that it is derived from jo 'water', < NN *C-yu°ŋ, and that its ultimate affinities are with *N-li°ŋ ~ *N-lu°ŋ after all.

179. drive/hunt. (-- 4)

180. shoot. (-- 5)

181. kill. I refer Yo a jaut, Mo tat, Ky toi, and Ph ja to NN *2-sot, TO KILL; cf. Di. thai, Jg./WB sat, Lu. that, < PTB *-sâ̆t; also AoM en set ~ yak set. Nocte uses a compound, rik vat (Robinson, Brown) ~ a rit wat (Das Gupta), probably < 'beat to death'; a rit = 'to die' (DG), vat = 'to beat' (Robinson) = a wat 'attack (assault); beat' (DG). Wancho has laŋ mai (Muthun laŋ); no comparisons. Chang has lab 'kill and behead (used of warfare)' -- no comparisons -- and hai ti, = 'cause to die'; though No (a)ri(t) and Ch hai, both 'die', are cognate,

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the composite forms for 'kill' are differently constructed, so I do not count them as a match.

182a. cut. (-- 4 each for 'cut', 'cut with a knife', and 'cut with an axe')

182b. scratch/scrape. (-- 2)

183a. rub. (-- 4)

183b. squeeze. (-- 1)

184. kick. (-- 3)

185. dig. (Mo --) Yo thu (Weidert), No thu, Wa tɔ, Ky šo, Ph šou, and Ch thu are all from NN *thu, TO DIG; cf. Jg. thu, WB tu, AoM thu.

186. grind. (-- 2)

187. cook/boil. (-- 5)

188. burn. (Mo --) Yo a cak, No thak, Ph jak, and Ch cik are from NN *chak, TO BURN(1); no comparisons in the test languages. Wancho šun (Brown) is from NN *grɔ̃ʔn, TO BURN(2); no comparisons in the test languages. For Ky a ha (a = 'fire'), cf. Lu. haʔl. Externally, Di. sau and Jg. ju go together, as do WB laun and AoM run (both from *luŋ).

189. extinguish. (-- 5)

190. blow. (-- 5)

191. wash. (-- 4)

192. tie. (Mo --) Yo a dam ka (dam < NN TIGHT), No a khak, Wa luŋ ka 'knot' ('tie' actually unavailable, but as the expected form for this set would in fact be *ka, I assume this is what is represented in 'knot', and count it for 'tie' in order to make up the required complement of entries in six languages), and Ky/Ph ša are from NN *C-ga, TO TIE(1); cf. Di. kha, Jg. ša jup (see under initial for this comparison). Ky šin and Ch šen (also 'knot') are

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from NN *C-khyin, TO TIE(2); cf. WB khyañ < *khyin.

193. weave. (-- 4)

194. sew. (-- 3)

195. let go; set free; loosen. (-- 4 for 'free', -- 4 for 'open')

196. give. Yo ku2, Mo ku, No ko2, Ph šuo, and Ch ku are from NN *gow, TO GIVE(1); no comparisons. Wa/Ky pha are from NN *pha, TO GIVE(2); no comparisons for 'give'. All test languages distinct from one another as well.

197. sell. Yo a šaŋ, Mo šoŋ, No saŋ, and Wa haŋ are from NN *coŋ, TO SELL(1); no comparisons. Ky yau, Ph yu, and Ch yak are from NN *C$_{v}$-ya°k, TO SELL(2); cf. AoM yuk.

198. buy. Yo a rei, Mo ri, and No ri are from NN *rey, TO BUY(1); cf. Di. ba rai, Jg. mə ri, < PTB *b-rey. (The superficially similar WB wai is from PTB *ywar; Lu. lei and AoM li, from PTB *(r-)ley.) Wa sak and Ky/Ph šak are from NN *C-krak, TO BUY (2); no comparisons. Chang ceg is distinct; no comparisons.

199. steal. Yo a hau, Mo a gru (in 'thief', a gru wa [cf. Yo a hau wa]), No hu, Wa a hu, Ky ku, Ph gə2, and Ch kok are all from NN *C-kə°w, TO STEAL; cf. Di. khau, Jg. lə gu, WB khui:, < PTB *r-kə°w.

200. put, place. (GEM does not give 'place'; forms cited are for 'put' unless otherwise indicated.) Yo hram is isolated for 'put' (but cf. NN KEEP). Mo ta and Ph to are from NN *ta, TO PUT; cf. Jg. ta ≈ da and WB thā:, < PTB *ta; also Lu. da2. No thien and Ky hen are from NN *the°n, TO PUT/TO KEEP (1); cf. Di. deŋ. The second syllable of Wa tham po 'put down' (Brown, who gives this as a

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common heading [rather than a gloss], also subsuming No thien, elsewhere 'put' (DG), 'place' (Robinson)) and Ch po 'set down' (~ phu 'put') are from NN *po, TO TOUCH/TO PUT(DOWN)(2); no comparisons. Ky aŋ and Ph hoŋ are from NN *C-joˀŋ, TO PUT/TO KEEP(2); no comparisons.

Summary: Human actions

	Yo	Mo	No	Wa	Ky	Ph	Ch	Di	Jg	WB	Lu	AoM
181 kill	x	x	nc	nc	x	x	nc	x	x	x	x	x
199 steal	x	x	x	x	x	x	x	x	x	x	nc	nc
178 drink	x	x	nc	x	x	x	x	x	nc	nc	nc	x
185 dig	x	--	x	x	x	x	x	nc	x	x	nc	x
177 eat	1/2	1	1	1	1	1	1	nc	1	1	2	1
192 tie	1	--	1	1	1/2	1	2	1	1	2	nc	nc
196 give	1	1	1	2	2	1	1	nc	nc	nc	nc	nc
188 burn	1	--	1	nc	2	1	1	A	A	B	2	B
197 sell	1	1	1	1	2	2	2	nc	nc	nc	nc	2
198 buy	1	1	1	2	2	2	nc	1	1	nc	A	A
200 put	nc	1	2	3	2/4	1/4	3	2	1	1	1	nc

The gaps in our data for active verbs, particularly for Moshang, are severe, so that I am able to present only 11 out of a suggested 26 comparisons for this last category. This is partially offset by the relatively complete data for core statives, so that for all verbs I give 41 out of 76 suggested comparisons (54%).

There are dominant or general Northern Naga roots, loosely defined, for (the first) eight of the eleven words tabulated above, a high proportion. But unlike in other sectors of the core vocabulary, the external affinities of these roots are fairly evenly distributed among the test languages (with the exception of Lushai). One word, 'buy', is split along subgroup lines, with Yo/Mo/No = Di./Jg.

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I have presented 116 comparisons in all, 58% of the suggested total (nouns: 75/124 = 60%; verbs: 41/76 = 54%), in effect an augmented 100-word list. I have already briefly summarized the patterns of cognacy for nouns. I now give a parallel summary for verbs, comparing their patterns of cognacy at each step with those for the nouns, and then combining the two.

The first question to be addressed is that of the coherence of Northern Naga as a distinctive subgroup of Tibeto-Burman. We found a general Northern Naga root on 45/75 (60%) of the noun comparisons, by a strict definition requiring representation in 6/7 or 5/6 languages. By the same definition, the number of verbs represented by a general Northern Naga root is much smaller: only 15/41 (37%). (Total: 60/116 = 52%.) But the proportion of verbs for which the presence of a general Northern Naga root is only a reflection of a general (Eastern) Tibeto-Burman root (one occurring in at least 4/5 test languages) is even smaller than for the nouns (nouns: 20/45; verbs: 4/15). Thus, in total, there are 24 instances of "reflective coherence" but 36 instances of a coherence across Northern Naga which is not that of (Eastern) Tibeto-Burman at large.

We saw in the case of the nouns, however, that a majority (15/25) of this latter set of general roots were shared with Dimasa and/or Jinghpaw, but with no other test language; of the eleven verbs in this set, five are so

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shared (all five with Jinghpaw, three also with Dimasa). Thus we arrive at the following breakdown:

	Nouns		Verbs		Total	
	#	%	#	%	#	%
General Northern Naga root	45	60	15	37	60	52
also general ETB root	20	27	4	10	24	21
shared only w. Di. a/o Jg.	15	20	5	12	20	17
other	10	13	6	15	16	14
Total comparisons (base for calculating percentages)	75	100	41	100	116	100

Note that exactly one-third of the general Northern Naga roots in each of the two morphological categories are exclusively shared with Dimasa and/or Jinghpaw. (Of the 20 roots so shared, 14 are shared with both, three with Dimasa alone, and three with Jinghpaw alone; in this portion of the core vocabulary, Northern Naga is equally related to Dimasa and to Jinghpaw.)

For nouns, in addition to the 45 words represented by a general Northern Naga root (strictly defined), we found ten words represented by one partially shared root and two or more isolated ones, and twenty words represented by two shared roots (with or without additional isolated ones). These two categories accounted for 13% and 27% of the nouns, respectively. Upon closer examination, the "intermediate" category was found to consist mostly (7/10 cases) of comparisons showing one relatively dominant root (defined as one appearing in at least 4/7 or 3/6 languages, including at least one language in each subgroup): i.e., a general Northern Naga root, but one

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which has been subjected to idiosyncratic substitution.

Just as there are far fewer general Northern Naga roots among verbs, so there are fewer words in this intermediate category: only four (10%); of these, two ('kill' and 'burn') are represented by relatively dominant roots. Thus, while we were able to classify 45 + 7 = 52 (69%) of the noun entries as demonstrating the internal coherence of Northern Naga, we can so classify only 15 + 2 = 17 (41%) of the verbs.

Not only do a majority of the verb entries (21/41) exhibit multiple shared roots; four of these have three shared roots, and two entries (for "many" and 'near') show no shared roots at all. The representation of the verbal entries on the basic vocabulary list is much more diffuse than that of the nouns. The overall comparison, with combined totals, is as follows:

	Nouns		Verbs		Total	
	#	%	#	%	#	%
General Northern Naga root, strict definition	45	60	15	37	60	52
General Northern Naga root, loose definition	7	9	2	5	9	8
Sub-total	52	69	17	42	69	59
Two shared roots						
Idiosyncratic groupings, one root relatively dominant	3	4	3	7	6	5
One root dominant, Tangsa divergent	1	1	2	5	3	3
Dominant root in Yo/Mo/No subgroup + Wa a/o Ch	5	7	2	5	7	6
Cumulative sub-total	61	81	24	59	85	73
Yo/Mo/No vs. Wa/Ky/Ph/Ch	10	13	5	12	15	13
no dominant root, no opposition	4	5	12	29	16	14

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Let me point out the principal features of this distribution before reviewing the particular categories isolated. As we found in reviewing the distribution of the nouns, there are a number of words represented by two roots each appearing in two or more Northern Naga languages, for which one of these roots is nevertheless dominant (in that it appears in at least four languages and in both subgroups). Although these words do not provide evidence for the internal coherence of Northern Naga -- rather, they suggest alternative patterns of subgrouping -- the low incidence of each of the various patterns they display allows us to reject them as being of primary importance for subgrouping, and to count their dominant roots as general Northern Naga roots which have been subjected to a measure of patterned substitution. These words comprise the first three categories of words with two shared roots in the table above. As they provide additional examples of words with relatively dominant roots, I combine them with the general Northern Naga roots already discussed in cumulative sub-totals. Again we find a greater proportion of this most broadly defined set of words with general Northern Naga roots among nouns (81%) than among verbs (59%), but they now comprise a majority even among the latter.

The incidence of words split along subgroup lines, however, proves to be virtually the same for verbs (12%) as for nouns (13%). Note also that the ratio of words

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showing this form of patterned divergence to those for which a root found in Yo/Mo/No is also found in Wancho, Chang, or both remains essentially the same for verbs (5:2) as for nouns (10:5). This is to say that the subgrouping of Yo/Mo/No in oppposition to Wa/Ky/Ph/Ch, based on the dominant form of patterned divergence among nouns, is confirmed by the verbs (see below for detail).

The principal difference between patterns of cognacy for nouns and for verbs in Northern Naga is recorded in the final entry in the table. Whereas for nouns there are only a few basic vocabulary items represented neither by a general Northern Naga root (broadly defined) nor by two roots split along subgroup lines, such items constitute 29% of the verb entries. At least a part of this difference is probably to be explained by a greater degree of overlap among the concepts expressed by verbs, resulting in a higher incidence of semantic shift. In some extreme cases ('near', 'many', 'round', 'white') the English glosses for even these presumptive basic vocabulary items appear to denote concepts which are not lexical foci in these languages.

We may summarize the overall pattern of cognacy for basic vocabulary items in Northern Naga (nouns and verbs together) as one in which about half of these items are represented by general Northern Naga roots, strictly defined; in which about half of the remaining items are represented by general roots which have been displaced in

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two or three languages; and in which another fourth of the items are evenly split between words exhibiting a subgroup dichotomy and words having more diffuse patterns of cognacy -- or no pattern at all. It is in their relative contribution to the first and the last of these subsets that nouns and verbs differ.

I now turn to the problem of subgrouping, and to the categories discriminated under the heading of words with two shared roots. In the first of these categories, the groupings are idiosyncratic. In considering the patterns of cognacy for four nouns with idiosyncratic groupings -- 'rain', 'water', 'star', and 'iron' -- it was found that the last three of these words are actually represented by one root which can be considered general, plus a second root restricted to languages in the Wa/Ky/Ph/Ch subgroup; three verbs may be added to this category (although, on 'ripe', both roots cross subgroup lines):

		Yo	Mo	No	Wa	Ky	Ph	Ch
168	ripe	--	2	1	1	1	2	1
196	give	1	1	1	2	2	1	1
74	star	1	3	nc	1	2	1	1/2
99	iron	1	1	1	1	1	2	2
86	water	nc	1	1	2	1	1	2
164	soft	1	--	1/3	2	1	1	2

The patterns on the first four comparisons are indeed idiosyncratic, with a different pair of languages displaying the "minority" root in each case. But the juxtaposition of 'soft' with 'water' raises the question of whether there may not be a special relation between Wancho and Chang. Four additional comparisons offer some support for

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this possibility:

		Yo	Mo	No	Wa	Ky	Ph	Ch
97	bamboo	1	1	1	2	3	--	1/2
166	cold	1	1	1	2	3	3	2
200	put	nc	1	2	3	2/4	1/4	3
77	wind	nc	--	1	2	nc	nc	2

I shall return to this question below.

The next category readdresses the question of Tangsa divergence, originally raised by 'seven'; two verbs show the same pattern:

		Yo	Mo	No	Wa	Ky	Ph	Ch
121	seven	1	1	2	2	2	2	2
134	weep	1	1	2	2	2	2	2
174	red	2	2	1	nc	1	1	1

We also have:

129	sit	3	3	1	nc	2	nc	2
165	hot	1/3	3	2	2	2	--	1

Yogli and Moshang, of course, are presented by Marrison as no more than dialects of a single language; if this is so, we should expect some sets of this kind. The question here is whether their incidence is sufficiently great to challenge our hypothesis that the fundamental dichotomy within Northern Naga is between Yo/Mo/No and Wa/Ky/Ph/Ch. With only the five sets tabulated above showing an exclusive pairing of Yogli with Moshang, there is so far no more evidence for a special association between them than for one between Wancho and Chang -- recall that we have fifteen sets supporting a basic grouping of Yogli and Moshang with Nocte.

We must ask, however, how many further exclusive pairings might be obscured by the relatively large number

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of missing entries for these languages. Again, I compare the number of words for which a unique root in either language does not agree with a root attested in the other (8 nouns + 3 verbs = 11) with those which show exclusive pairings (1 noun + 4 verbs = 5) and apply the resulting ratio (5/16 = .3125) to the number of words having a unique root in either language and a missing entry in the other (9 nouns + 4 verbs = 13) to arrive at an estimate that there are likely to be only four (13 x .3125 = 4.0625) additional exclusive pairings -- three if the calculation is done separately for nouns and verbs. This gives a total of 8-9 exclusive Yo/Mo couplings, which is still substantially fewer than the fifteen exclusive Yo and/or Mo/No roots we have counted above.

I come now to the less frequent of the two types of "patterned divergence" identified for nouns; as mentioned above, the occurrence among the verbs of only two further instances in which a Yo/Mo/No subgroup root is also found in Wancho, Chang, or both confirms the interpretation of this pattern as subordinate to the other, in which Yo/Mo/No stand alone. This pattern is nevertheless important in that it points to the Yo/Mo/No complex as conservative, and to the Wa/Ky/Ph/Ch grouping, and particularly to Konyak and Phom, as the locus of change in the Northern Naga lexicon. I should note that of the ten possible combinations of Yo/Mo/No with either one or two of the other languages, these three combinations (with Wa/Ch, with Wancho,

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with Chang) account for nine words, while the other seven combinations account for only five words among them. As the principal import of these words now appears to be the way in which they point to loci of conservatism and change, rather than to subgroup boundaries, I add two words ('person' and 'I') which conform to the majority pattern, though they do not show a second shared root. Note that, on the evidence of these groupings, Chang appears to be somewhat more conservative than Wancho:

		Yo	Mo	No	Wa	Ky	Ph	Ch
16	finger/toe	1	1	1	1	2	2	1
40	person	x	x	x	x	nc	nc	x
197	sell	1	1	1	1	2	2	2
10	belly	1	1	1	1	2	3	2
1	head	1	1	1	2	2	2	1
115	one	1	1	1	2	2	3	1
150	fear	1	1	1	nc	2	2	1
42	I	1	1	1	nc	nc	2	1
97	bamboo	1	1	1	2	3	--	1/2

All of the categories discussed to this point consist of words which, whatever their secondary or minority patterning, are represented by one "relatively dominant" root: a general Northern Naga root, broadly defined. As the data for words split along subgroup lines are best recapitulated in conjunction with a consideration of their external affinities, I first present the combined data on the external affinities of general roots:

External affinities of general Northern Naga roots	N	Di	Jg	WB	Lu	AoM
Nouns	61	45	38	27	26	30
Verbs	24	14	16	9	9	11
Total	85	59	54	36	35	41

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These figures confirm the association of Northern Naga with Dimasa and Jinghpaw suggested by the noun comparisons alone and by the relatively high incidence of general Northern Naga roots, strictly defined, shared exclusively with these two languages. The verb data do not much alter the relative levels of cognacy indicated by the nouns, except to reduce the discrepancy between the strength of the association with Dimasa and that with Jinghpaw, so that the relation with these two languages is clearly set apart as being of a higher order of magnitude than that with the other three. This difference in order of magnitude may be more clearly seen if one factors out the similar levels of agreement for what I have called "general Eastern Tibeto-Burman" roots:

External affinities of general Northern Naga roots		N	Di	Jg	WB	Lu	AoM
general ETB roots							
Nouns		22	21	22	19	21	21
Verbs		7	7	7	4	7	7
	Total	29	28	29	23	28	28
other							
Nouns		39	24	16	8	5	9
Verbs		17	7	9	5	2	4
	Total	56	31	25	13	7	13

(Note: The three verbs for which an ETB root is missing in Burmese are 'laugh', 'weep', and 'fear'; on all three, Burmese shares what might be called a "Northern Tibeto-Burman" root with Tibetan.)

Among those general Northern Naga roots which are not also general Eastern Tibeto-Burman roots, the incidence of agreement with Dimasa and Jinghpaw is roughly twice that with Burmese and Ao Mongsen, and four times that with

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Lushai.

That Northern Naga is more closely related to Dimasa than to Jinghpaw, however, is not to be denied. In only one of the semantic categories delineated by Matisoff to order the basic vocabulary list is the difference between Northern Naga's incidence of cognacy with Dimasa and with Jinghpaw greater than one; but that is in what may be the most basic category of all: terms for bodyparts. The net difference between Dimasa's 31 instances of agreement with a general Northern Naga root which is not also a general Eastern Tibeto-Burman root and Jinghpaw's 25 may be accounted for by six bodypart terms: 'head', 'nose', 'belly', 'finger', 'skin', and 'wing'.

The incidence of cognacy for Dimasa and Jinghpaw themselves, on our word list, is: for nouns, 41-42/75 (55-56%); for verbs, 18/41 (44%); in total: 59-60/116 (51-52%). These figures should not be directly compared with those presented above for Northern Naga, however, for the latter are based on only the 85 general root comparisons, and instances of cognacy between Dimasa and/or Jinghpaw and a root appearing only in one or the other of the two subgroups of Northern Naga probably also reflect cognacy at the NN level (with subsequent substitution in one subgroup). Therefore a consideration of how Dimasa, Jinghpaw, and Northern Naga are related to one another must be deferred until patterns of subgroup cognacy can be taken into account.

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The table below recapitulates the complete data for the fifteen key comparisons on which the hypothesis of a division of Northern Naga into two subgroups rests. I add four words which seem to belong with these, in that their patterns of cognacy do not violate subgroup lines, while showing either a dominant root in one or the other subgroup, though not both ('see', 'liquor'), or what look like traces of a subgroup split ('wind', 'sit'):

		Yo	Mo	No	Wa	Ky	Ph	Ch	Di	Jg	WB	Lu	AoM
95	fruit	1	--	1	2	2	2	2	1	1	1	1	nc
126	hundred	1	1	1	nc	2	2	nc	1	1	1	1	nc
73	moon	1	1	1	2	2	2	2	nc	1	1	1	1
124	ten	1	1	1/3	2	2	2	2	3	3	3	nc	1
9	breast	1	--	1	2	2	3	nc	1	nc	A	A	3
198	buy	1	1	1	2	2	2	nc	1	1	nc	A	A
132	stand	1	1	1	2	2	2	nc	nc	1	1	nc	2
129	sit	3	3	1	nc	2	nc	2	nc	1	1	2	nc
23	blood	1	1	1	2	2	2	2	2	1	2	2	2
167	new	1	--	1	2	2	2	2	nc	1	2	2	2
108	village	1	3	1	2	2	2	2	nc	1	2	2	3
54	bird	1	1	1	2	2	2	2	nc	1	nc	2	nc
77	wind	nc	--	1	2	nc	nc	2	nc	1	2	2	nc
166	cold	1	1	1	2	3	3	2	nc	1	2	nc	nc
47	liquor	--	nc	nc	x	nc	x	x	x	nc	nc	x	x
56	animal	--	1	1	2	2	3	2	2	A	A	3	A
125	twenty	1	1	1	2	2	2	2	2/A	A	nc	nc	nc
142	run	1	1	1	nc	2	2	3	nc	3	3	3	nc
144	see	x	x	x	--	nc	nc	nc	nc	A	nc	A	nc

In the first section of the table I list seven words for which the Yo/Mo/No roots have more than one external comparison, though one of these is always with Jinghpaw ('breast' is an exception to both statements); and for which the Wa/Ky/Ph/(Ch) roots, with only two minimal exceptions, appear to be isolated (but see below).

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In the second section, I list nine words which show a very different pattern: either an exclusive agreement of a Yo/Mo/No root with Jinghpaw, complemented by agreement between a Wa/(Ky/Ph)/Ch root and WB/Lu/(AoM) -- six words -- or a grouping of Wa/Ky/Ph/Ch with Dimasa -- four words; 'blood' conforms to both arrangements -- or perhaps illustrates the complete pattern.

In the third section, I add two words for which no shared root has any comparisons for the item as given. But Yo/Mo/No *khyoy, TO SEE, is a semantically shifted cognate of Jg. coi < *kyoi 'know, understand'.

The source of the Yo/Mo/No roots in the first section of the table is fairly clear. They are either general ETB roots by my own test criteria ('fruit', 'hundred', 'moon') and/or go back to established PTB prototypes ('buy', 'stand', 'ten' #3, 'sit' #1) or, in the case of 'breast', have widely distributed cognates elsewhere (in Nruanghmei, Miri, Lepcha). (Yogli and Moshang have probably borrowed 'sit' #3 from Ahom, so I take 'sit' #1 as the "genuine" Yo/Mo/No subgroup root for this item.) Only 'ten' #1 is obscure.

In contrast, there is not one of the Wa/Ky/Ph/(Ch) roots in this section which can be related to a general or widespread Tibeto-Burman root. A review of the comparisons proposed for these roots is illuminating:

1. 'fruit': NN *sek, FRUIT(2) is apparently a *-k suffixed version of NN(/PTB) *sey, FRUIT(1). Final -k forms are found only in Wa/Ky/Ph/Ch.

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2. 'hundred': Ky kho/Ph gho; no comparisons.

3. 'moon': NN *li˚t, STAR[a]/MOON(2); cf. Khamti lan 'moon', and for a possible source of both this and the NN, Khasi ba lih 'white'.

4. 'ten': NN *bo˚n, TEN(2); cf. Khasi ši pón, id.

5. 'breast': NN *C-jam; no comparisons.

6. 'buy': NN *C-krak (also > Chang sak 'expend'); cf. Angami k(h)ri ~ k(h)ra.

7. 'stand': NN *yuŋ; in addition to AoM yuŋ li, cf. Maring ma yuŋ, but also Khasi yeŋ (GEM 213).

8. 'sit': NN *C-kru˚t; cf. Lu. thut thle˚ŋ 'chair'.

Syllable closure on 'fruit' is apparently an innovation on the part of the ancestor of the Wa/Ky/Ph/Ch subgroup. I can find Tibeto-Burman comparisons for only three of the seven remaining roots, and these are sparse. But three of these roots have provocative analogues in Khasi, suggesting that one source of the divergence displayed by the Wa/Ky/Ph/Ch subgroup may be the assimilation of an Austroasiatic component.

The words listed in the second section of the table above are a different matter. Here the Wa/Ky/Ph/Ch roots have clear links with the test languages -- i.e., with Dimasa (4), Burmese (5), Lushai (6) and Ao Mongsen (3) -- and, in the first seven of the nine cases, to established PTB prototypes. But -- strikingly -- not with Jinghpaw. Note, however, that in five of the six instances in which a Yo/Mo/No root, agreeing only with Jinghpaw, stands opposed to a Wa/Ky/Ph/Ch root agreeing with WB/Lu/(AoM),

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Dimasa agrees with neither; 'blood' is the only exception. There is thus a possibility that on these words an original association of Yo/Mo/No//Jg. with Dimasa, as for 'buy', has become obscured by substitution in the latter. What is clear is that there is a special association between the Yo/Mo/No subgroup and Jinghpaw, and one which excludes Dimasa:

External affinities of Yo/Mo/No subgroup roots	N	Di	Jg	WB	Lu	AoM
Nouns	10	3	6	3	3	2
Verbs	6	1	4	1	--	--
Total	16	4	10	4	3	2

(Includes 'see', but not 'liquor', 'wind', or 'sit'.)

I count as Wa/Ky/Ph/Ch subgroup roots all shared roots restricted to this subgroup. This differs from my definition of Yo/Mo/No roots in that I do not count among the latter roots shared only by Yogli and Moshang, because these languages represent a further subgrouping. Because the possibility of further subgrouping also exists for the Wa/Ky/Ph/Ch complex, I show the affinities of roots occurring in only two of the languages separately:

External affinities of Wa/Ky/Ph/Ch subgroup roots	N	Di	Jg	WB	Lu	AoM
roots in 3-4 languages						
Nouns	10	4	--	3	4	2
Verbs	6	--	--	1	1	2
Sub-total	16	4	--	4	5	4
roots in two languages						
Nouns	10	1	2	1	1	--
Verbs	11	1	--	2	2	1
Sub-total	21	2	2	3	3	1
Total	37	6	2	7	8	5

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The affinities of the roots attested in only two languages do not alter the conclusions to be drawn from the affinities of those attested in three or four, but their low incidence and balanced distribution show that it would be futile to attempt to find external correlatives for any further subgrouping.

The addition of the data for the verbs to those for the nouns, however, does alter one of the tentative conclusions advanced on the basis of the nouns alone. For nouns, all of the test languages show a higher incidence of agreement with the Yo/Mo/No subgroup than with the other. For nouns and verbs together, Lushai and Ao Mongsen show a higher incidence of agreement with the Wa/Ky/Ph/Ch subgroup, whether one considers only roots occurring in three or four of these languages or the entire set:

% agreement with		N	Di	Jq	WB	Lu	AoM
Yo/Mo/No		16	25	63	25	19	13
Wa/Ky/Ph/Ch	(3-4)	16	25	--	25	31	25
	(all)	37	16	5	19	22	14

The percentage differences are not large, nor are the figures on which they are based, but there is just enough here to allow a suggestion that a Kuki-Naga component, along with an Austroasiatic one, may be a contributing factor in Wa/Ky/Ph/Ch divergence from NN.

Our second tentative conclusion, however, is not only confirmed but reinforced when the data on the affinities of split verbs is added to that for nouns. There would appear to be no question that communicative field rela-

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tions between Jinghpaw and the parent language of the Wa/Ky/Ph/Ch subgroup were decisively broken with the emergence of that language, so that differential replacement of cognates proceeded without hindrance. Jinghpaw's 0-5% agreement figures with Wa/Ky/Ph/Ch subgroup roots are even more striking than its 63% agreement figure with Yo/Mo/No roots. But these figures are complementary: the virtual absence of any trace of a relationship between Jinghpaw and the Wa/Ky/Ph/Ch subgroup is an artifact of its close association with the other subgroup. (If this were not so -- if it were simply a matter of isolation and independence -- there would be no way to account for maintenance of cognacy between Wa/Ky/Ph/Ch and the other test languages, particularly Burmese.) Let me explain.

As we saw, the dichotomous patterns for the first eight comparisons on the split-word table appear to be the result of substitution in the Wa/Ky/Ph/Ch subgroup. Jinghpaw has no comparisons with this subgroup on these words, but with two isolated exceptions neither do any of the other test languages.

The discrepancy between Jinghpaw's patterns of subgroup affinity is attributable to the next six comparisons -- the first six in the middle section of the table. For these words, as we saw, the Wa/Ky/Ph/Ch subgroup roots are all traceable to established PTB prototypes. The Yo/Mo/No subgroup roots, however, are not. The situation is the reverse of that obtaining for the upper section of the

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table, with one qualification: here the innovating subgroup is in tandem with a collateral relative, Jinghpaw. (Note that if these six comparisons were discounted, there would be virtually no difference between Jinghpaw's patterns of cognacy with either subgroup and those of WB/Lu/AoM.) The evidence for my assertion that, on these six critical words, the Wa/Ky/Ph/Ch subgroup has retained an NN root, while the Yo/Mo/No subgroup, in conjunction with Jinghpaw (very possibly borrowing from Jinghpaw) has replaced that root with another, is as follows:

#23 'blood'. The rhyme in Jg. sai 'blood' is irregular for the STC's PTB *-əy. One solution, which Benedict now favors, is to reconstruct PTB *-ə̆y. Another, suggested by Matisoff (1978: 184), is to propose two PTB/PST roots for 'blood/marrow', grouping Jg. lə səwi 'marrow' with the general PTB 'blood' root in *-əy. The incompatibility of the two NN subgroup roots for 'blood', together with the contrast between Chang si 'blood' and hai 'marrow', favors the latter interpretation. The cognacy of Ch hai 'marrow' with Yo a hai/Mo ta gri/No he 'blood' indicates that both roots must have been present in NN. (The other, NN *syi, is from the general TB root for 'blood'.) We thus have in NN *syi 'blood' and *C-hə̆y 'blood/marrow', the latter perhaps having a more general referential range (cf. also Ch haih 'brains'). In the Wa/Ky/Ph/Ch subgroup *syi was maintained for 'blood', with (in Chang at least, possibly in the other languages as well) *C-hə̆y being retained as 'marrow'; as *syi is cognate with, e.g., Di. thi, WB swe:, Lu. thi < *si < *s-yi (STC 51, n. 169), < PTB *(s-)h(y)wə[̆]y (also AoM a yi) -- with words for 'blood' throughout Tibeto-

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Burman -- it may be presumed that this was also the principal NN word for 'blood'. But in the Yo/Mo/No subgroup, and in Jinghpaw -- but not, so far as one can tell, elsewhere in Tibeto-Burman (Matisoff gives no other comparisons) -- this root was displaced by the other: NN *C-ha°y, Jg. sai.

#167 'new'. The Wa/Ky/Ph/Ch subgroup has forms reconstructible as NN *sa°r; cf. PTB *sar, with reflexes in Tibetan, Nungish, and Kuki, also -- I suggest -- Burmese. For Yo a ñal and No a ñan, the only comparison I can find is Jg. niŋ nan.

#108 'village'. Yogli and Nocte have ha, = 'earth', < NN *ka^{B} < PTB *r-ka^{B} (cf. also Dutta: "a village is called kha, ha, nau ga, ga, and so on by the different [Tangsa] sub-tribes" [1959: 11]; Moshang has ga 'earth'); cf. Jg. ka 'earth, land, country', kah toŋ 'village'. Dimasa also has ha < *r-ka^{B} for 'earth', but not for 'village'. The Wa/Ky/Ph/Ch forms are from *C-griŋ, ultimately from PTB *grwa-ŋ (via *gryaŋ > *gryiŋ), with reflexes in Loloish and Tibetan as well as Burmese and Lushai.

#54 'bird'. I derive the Wa/Ky/Ph/Ch forms for 'bird' from an NN *ua, suggesting that this is a variant realization of NN *wa, attested (only in comp.) in Nocte as well as in Konyak and Phom. If this is so, it was probably only the latter which was a general Northern Naga root, the *wa > *ua shift being restricted to the southern subgroup. These roots may definitely be compared with PTB *(b)wa (Lushai and general Kuki, Mikir, Nyi Lolo, Chepang [Kiranti]). But Nocte does not retain va < *wa for 'bird' itself. Yo wu/Mo vu/No vo (~ vu [DG]) require a back-vowel rhyme, *-ow or *-aw. I reconstruct *C-waw in an attempt to bring all of the forms for 'bird' together in a composite prototype, NN *(C-)wa(w), but the similarity of the Yo/Mo/No forms

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to Jinghpaw wu argues for a closer connection with the latter than with *wa ~ *ua. There are no further clear comparisons for a *(-)waw or *(-)wow; the Jinghpaw form is not treated in the STC.

#77 'wind'. For the Wancho and Chang forms, from NN *gle°y, cf. PTB *g-lay, with reflexes in Gyarung [Tibet] and in Jinghpaw itself (buŋ-li 'breeze' [buŋ 'blow']) as well as Burmese and Lushai. The Jinghpaw word for 'wind', however, is mboŋ, agreeing with Nocte poŋ. The other comparisons for this root are local: C Naga *N-puŋ (Ao Chongli, Yacham-Tengsa, Yimchungrə, Sangtam) and Nruanghmei mpoŋ. This root, then, unlike those considered above, has a distribution well beyond the Yo/Mo/No//Jg. complex; nevertheless, *g-l-y is still more general, and has a better claim to probable NN status.

#166 'cold'. For this word, as for 'blood', we have two roots with NN credentials, but whose mapping of forms against the two glosses 'cold' and 'winter' suggests that the Yo/Mo/No root, *C-juŋ, may in NN have been used primarily for 'winter', and the Wa/Ch root, *khyəm (definitely a verb), for 'cold'. The Yo/Mo reflexes of *C-juŋ are given only for 'cold', but 'winter' is not available; the Nocte form is given only by Das Gupta, in the following context: 'cold' is a ki (as for Robinson and Brown); 'cold day' = raŋ choŋ (raŋ ≈ 'meteorological classifier'); 'cold water' = jo a ki (jo = 'water'). The 'meteorological classifier' is also used with the Tangsa terms, so that 'cold (of weather)' might be a more appropriate gloss for these terms. For Nocte also, 'winter' is not available. This set also includes Phom ha hoŋ 'winter'. Its external comparisons include WB tshoŋ: 'winter' and Di. ga jaŋ thor, id., and forms having both glosses in Jinghpaw: nšuŋ ta 'winter' (cf. nlum ta 'summer', kə šuŋ 'cold'. As the assessment of cog-

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nacy is for 'cold', I count only the Yo/Mo/No and Jinghpaw forms, and not those in Phom, Burmese, and Dimasa, which are given only for 'winter'. It is certainly possible to argue that the two glosses are not really separable in these languages, and that all of the forms cited above should be counted; in that case, NN *C-juŋ, WINTER/COLD(1), with reflexes in four of seven languages, would qualify as a "relatively dominant" general Northern Naga root. The alternative is to treat the distinction as significant and the use of reflexes of *C-juŋ for 'cold' only in Yo/Mo/No and Jinghpaw as an extension of meaning limited, among the languages with which we are concerned, to these four, and constituting further evidence of their exclusive association. Because of its realization in Phom ha hoŋ 'winter' (possibly also in Ch pu aŋ, id.), however, *C-juŋ is properly assigned to the NN level.

The Northern Naga reflexes of the second root, NN *khyəm, are: Wa raŋ kam 'cold' (Brown); Ky waŋ šəm 'winter'; and Ch kam 'to be cold', kam a leɣ a 'winter' (but the last appears to be a "redundant" construction in which kam- has a human rather than a 'meteorological' patient, for leɣ ≈ laɣ 'to shiver', and -a is the preterite suffix). The Burmese cognate, khyam: 'cold', is critical in three respects: (1) it leads me to reconstruct NN *khyəm rather than *C-khəm, which is equally possible on internal evidence alone; (2) it shows that this root is not merely an innovation of the Wa/Ky/Ph/Ch subgroup of Northern Naga, but of some antiquity in Eastern Tibeto-Burman; (3) in juxtaposition with WB tshoŋ: 'winter', it lends support to the possibility that NN *C-juŋ and NN *khyəm also reflected a fine semantic distinction between 'winter' and 'cold'.

The absence of reflexes of *khyəm in Yo/Mo/No is not surprising in view of homonymic clash with the

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reflexes of NN *kham, HOT(2)/TO BOIL: in Konyak, these are differentiated by rhyme: waŋ šəm 'winter', šem pu 'hot'; in Wancho, Brown's dialect has raŋ kam 'cold' (Peal's has daŋ), while Peal's dialect has kam 'hot' (Brown's has ha hiŋ); but in Nocte, which has a kham 'hot', and in Tangsa, the reflexes of both proto-forms would have the same shape: *(-)kham. This would also be true of Phom (*šem) and of Chang (*kam). The two roots may of course be on different tones --Muthun manages with kham 'hot' and raŋ kham 'cold' (Brown) -- but among our seven languages, the two roots are both attested in the same dialect only in the one language which distinguishes *-əm from *-am, Konyak. It rather looks as though a *(raŋ)kham 'cold' may have failed to survive a clash with a kham 'hot', at least in Nocte.

For at least five of these six words, then, there is fair to excellent evidence that the Wa/Ky/Ph/Ch subgroup root is original (i.e., the general NN root for the item in question), while the establishment of the Yo/Mo/No root postdates the split in NN, reflecting a close association of these more northerly languages with Jinghpaw. Lexically, this association was probably compounded of shared retention of cognate forms with shared semantic specialization ('blood') or extension ('village', 'cold'), and of borrowing ('new', 'bird', 'wind'), but particularly in these latter cases there is no way to be sure. In any event, this association of Yo/Mo/No and Jinghpaw accounts for a fair measure of the lexical divergence of the two Northern Naga subgroups and (consequently) for the strikingly low incidence of agreement between Jinghpaw and the

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more southerly subgroup on split words.

There remains the question of why, on these same "critical" words which discriminate between Yo/Mo/No and Jinghpaw, on the one hand, and Wa/Ky/Ph/Ch and WB/Lu./(AoM), on the other, Dimasa, the closest of the test languages to NN itself, should agree with neither. In view of the interpretation of these patterns of agreement given above, the question can now be made more specific: why should Dimasa diverge from the Eastern Tibeto-Burman root maintained in (NN >) Wa/Ky/Ph/Ch as well as in WB/Lu./(AoM) on just those words on which Yo/Mo/No//Jg. are also divergent? There is no entirely satisfactory answer, but several observations are pertinent. First: the level of lost connection is relatively remote, going back beyond the postulated Dimasa/NN/Jinghpaw grouping to the Eastern Tibeto-Burman level. Second: the very fact that the NN split affected these words suggests that they may be more-than-normally susceptible to variation and substitution; this seems to be true of 'wind' on the grounds of variation in Northern Naga alone; of 'bird' and 'cold' on those of variation in the test languages (four different roots in four languages [excluding Dimasa, which makes five]); and even of 'new' and 'village' in that the number of languages cited for the PTB roots here is smaller than is usual, or ideal. Third: the last observation does not apply to 'blood'; but here, of course, Dimasa is in agreement with the other languages. Note that this is

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also the case with 'liquor', for which there is no Yo/Mo/No subgroup root, but for which NN *yaw, RICE-BEER (Wa/Ph/Ch) is from PTB *yu(w) (Di./Lu./AoM). Thus Dimasa does agree with the Wa/Ky/Ph/Ch subgroup root in two out of seven cases in which the latter is traceable to Eastern Tibeto-Burman. Fourth: although the regular Dimasa reflex of PTB *s- is th-, in one STC root (PTB *r-sa 'vein' > Di. ra da, id. [STC 1093), it is d-; this raises the possibility that Dimasa ga dain 'new' is a reflex of PTB *sar (or *(g-)sar; cf. WT gsar-ba), as the rhyme checks: cf. Di. ga jain < *ga ja(i)l < PTB *ja"l 'far' -- this is a long-vowel rhyme, but so, on the evidence of NN, is that in 'new', NN *sa"r. If this is so, it would raise Dimasa's incidence of agreement to 3/7.

I now return to the problem of the external affinities of NN itself, particularly with respect to the exact nature of its relation to Dimasa and Jinghpaw. I presented above, and recapitulate below, figures on the external affinities of the 85 roots which I identified as general Northern Naga roots on the basis of their distribution in Northern Naga itself. I now add to these figures on the external affinities of 21 additional roots which may be identified as the probable NN roots for the items in question on the basis of an analysis of both their internal and external distribution. These include, from the table of split words, root #1 on the first seven items (Yo/Mo/No subgroup roots) and root #2 on eight of the nine

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items in the middle section of the table, excluding only 'cold' (Wa/Ky/Ph/Ch subgroup roots); also, root #1 on #78 'rain', #112 'far', #154 'sick', #165 'hot', and #200 'put', and root #2 on #130 'sleep'. All six of these roots are attested in both subgroups as well as among the test languages, and are probable for NN on the basis of the kind of analysis conducted above for 'blood', etc. The resulting indices of external affinity are as follows:

External affinities of:	N	Di	Jg	WB	Lu	AoM
General Northern Naga roots	85	59	54	36	35	41
Yo/Mo/No subgroup roots attributable to NN	7	4	5	4	3	2
Wa/Ky/Ph/Ch subgroup roots attributable to NN	8	4	0	4	6	3
Additional (non-dominant) roots attributable to NN	6	4	4	4	3	2
Total	106	71	63	48	47	48

Once again, I divide these figures into those which pertain to "general Eastern Tibeto-Burman" roots and those which pertain to roots with more limited distributions:

External affinities of:	N	Di	Jg	WB	Lu	AoM
general ETB roots						
General Northern Naga	29	28	29	23	28	29
Yo/Mo/No subgroup	3	2	3	3	3	1
Wa/Ky/Ph/Ch subgroup	1	1	0	1	1	1
other	1	1	1	1	1	1
Total	34	32	33	28	33	32
other						
General Northern Naga	56	31	25	13	7	13
Yo/Mo/No subgroup	4	2	2	1	0	1
Wa/Ky/Ph/Ch subgroup	7	3	0	3	5	2
other	5	3	3	3	2	1
Total	72	39	30	20	14	17

The pattern of external affinities for the 21 addi-

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tional roots which I propose to have represented CALMSEA items in NN does not much alter the pattern of external affinities shown by the 85 general Northern Naga roots; nor does the pattern of external affinities for the 16 of these 21 roots having limited external distributions much alter the pattern shown by the 56 general Northern Naga roots having such distributions. Analysis of the affinities of these 21 additional roots shows them to be fairly evenly distributed among the test languages — with the exception of the general replacement in Jinghpaw of the cognates of NN roots retained only in the Wa/Ky/Ph/Ch subgroup.

This expansion of the set of probable NN roots for basic vocabulary items from 85 to 106, however, allows us to undertake a more firmly grounded assessment of the relationship between NN, Dimasa, and Jinghpaw. I noted above that the incidence of cognacy between Dimasa and Jinghpaw themselves, for the full set of 116 comparisons, is 59-60/116 = 51-52%. The incidence of cognacy between NN and Dimasa is 71/106 = 67%; between NN and Jinghpaw, 63/106 = 59%. But the difference between the two bases of comparison, represented by the ten items for which a single basic NN root cannot be identified, must be eliminated if the comparison is to be valid. If these ten words are discounted, the incidence of cognacy between Dimasa and Jinghpaw becomes 59-60/106 = 56-57%, as Dimasa and Jinghpaw do not agree on any of these ten words. This

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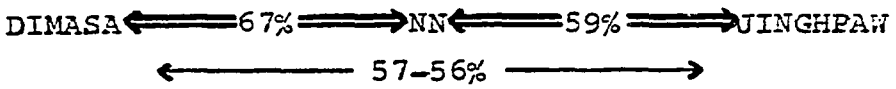
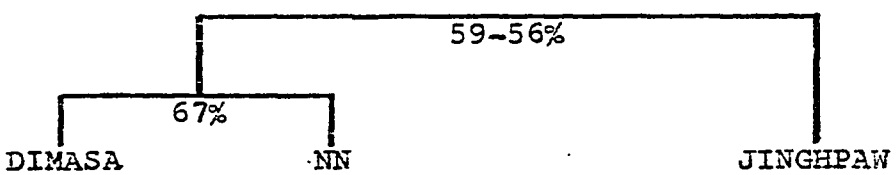
result favors an interpretation of the relation among the three in terms of a branching-tree model rather than a clinal model; i.e., not:



Because the incidence of agreement between Dimasa and Jinghpaw is nearly as high as that between NN and Jinghpaw, it cannot plausibly be interpreted as merely a secondary, mediated, or residual phenomenon. Rather, these two relations are of the same order:



The implication is that the Northern Naga languages are more closely related to Bodo-Garo than to any other Tibeto-Burman nucleus; and that, as Shafer maintained, they may be placed in an intermediate taxon with Bodo-Garo, forming a "Nagish" section of "Baric". At the same time, however, it should be noted that Shafer seriously underestimated the strength of the relationship between the Northern Naga languages and Jinghpaw: his figures suggest that this relationship is of the same order as that between the Northern Naga languages and both Burmese and Kukish. The comparisons presented above clearly show that the most significant discontinuity in the external affinities of NN is between its relation to Dimasa and

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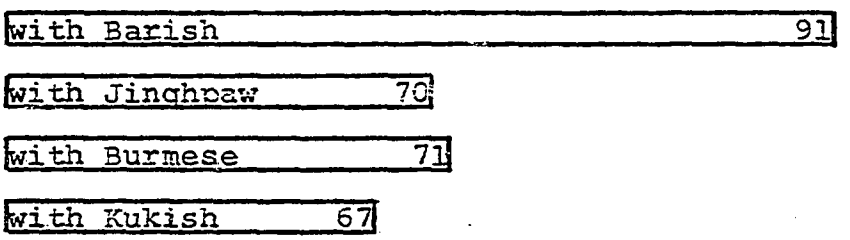
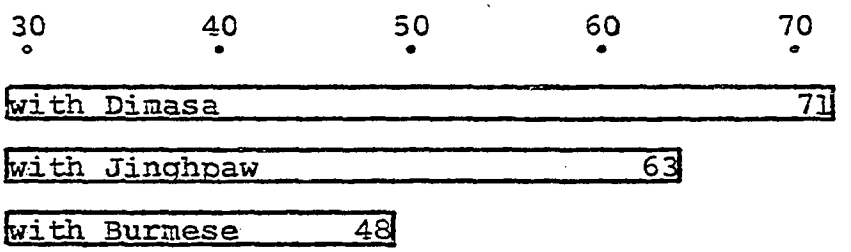
Jinghpaw, on the one hand, and its relation to Burmese, Lushai, and Ao Mongsen on the other:

Number of comparisons found between Northern Naga languages and external languages and groupings (Shafer 1953: 230)



Number of comparisons found between NN and external languages, present study



(N.B.: These two sets of figures are comparable only in relative terms, as Shafer's represent the sum of comparisons found for each Northern Naga language considered separately.)(1)

As we shall see below, however, the strength of the association between NN and Jinghpaw supports Benedict's (1976) postulation of a "supergroup" embracing Jinghpaw, Bodo-Garo, and "probably also" "Konyak" (178).

---

[1]Thus, Shafer gives the following numbers of comparisons for Moshang alone: with Barish 15, Jinghpaw 12, Burmese 11, Kukish 10; while my own figures for Moshang (see below) are: with Dimasa 56, Jinghpaw 60, Burmese 38, Lushai 39 (all /100). (Shafer's base consists of a "sample" of his 150-odd comparisons, selection criteria and N unspecified.)

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Finally, the implications of the full set of comparisons for the possibility of a further subgrouping of the Wa/Ky/Ph/Ch subgroup are suggestive but not conclusive. Among the ten possible two- and three-way groupings of these four languages, those which show the greatest number of exclusive instances of agreement (within Northern Naga) are: Ky/Ph (8); Wa/Ch (6); Wa/Ky (5); Wa/Ky/Ph (4); and Ky/Ch (4). Of the eight roots exclusively shared by Konyak and Phom, six are definitely, and two very probably, innovative -- i.e., different from the NN root for the item in question. For two of these items (#166 'cold' and #200 'put'), the Ky/Ph pairing is complemented by a Wa/Ch pairing, but in both cases the latter root (root #2 for 'cold' [NN WINTER/COLD(2)], root #3 for 'put' [NN TO TOUCH/TO PUT(DOWN)(2)]) has a semantically shifted cognate in Konyak, suggesting that it is the more archaic of the two.

What can be stated with reasonable confidence on the basis of these figures is that Phom is more closely related to Konyak than to Wancho or to Chang; but the affinities of Konyak itself, while it is closest to Phom, are more equivocal.

5.2.2. Conclusions: the subclassification of Northern Naga. I have suggested above, on the basis of fifteen key comparisons, that Northern Naga may be divided into two subgroups, one consisting of Yogli, Moshang, and Nocte, and the other embracing Wancho, Konyak, Phom, and

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Chang. I now present the results of the 21 pairwise comparisons of the seven Northern Naga data languages, which substantiate this claim:

Yogli: N = 93				Moshang: N = 100				TANGSA: N = 116			
	N	+/-	%+		N	+/-	%+		N	+/-	%+
Mo	77	66-11	.86	Yo	77	66-11	.86				
No	93	70-23	.75	No	100	72-28	.72	No	116	85-31	.73
Wa	92	51-41	.55	Wa	99	56-43	.57	Wa	115	65-50	.57
Ky	92	46-46	.50	Ky	99	51-48	.52	Ky	115	60-55	.52
Ph	88	46-42	.52	Ph	95	51-44	.54	Ph	111	62-49	.56
Ch	93	52-41	.56	Ch	100	56-44	.56	Ch	116	65-51	.56
Unique	12		.13	Unique	13		.13				

As the 86% agreement between them indicates, Yogli and Moshang can indeed be considered dialects of a single language, Tangsa. As I was concerned about the possible effect of the large number of missing entries for these two languages (or dialects) -- 16 for Moshang, 23 for Yogli -- on the comparability of their scores with those of other pairs of languages, I tested the possibility of combining them for further comparative purposes. The results, shown on the right, count an agreement of either Yogli or Moshang with some other language as an agreement between that language and Tangsa. These figures may slightly understate the "true" indices of agreement by this definition, because in some of the cases in which we must rely on an entry in only one dialect to stand for the language, and in which the root appearing there does not agree with those appearing in other languages, the "missing" root might do so. There are only twelve such

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cases, however, out of the (16 ÷ 23 =) 39 for which we have only one entry -- i.e., in 27/39 cases, the available root does agree with one in one or more other Northern Naga languages. If the 86% agreement figure for Yogli and Moshang is applied to these twelve cases, in ten of them the "missing" root would agree with the one attested. We need not worry unduly about conflicting patterns of agreement: in none of the eleven attested cases of disagreement between Yogli and Moshang does a conflicting pattern occur; that is, in all eleven cases, one of the two distinct roots is unique in Northern Naga. As is to be expected of dialects, Yogli and Moshang do not show differential patterns of agreement with other closely related languages. The actual values for the combined, "Tangsa" comparisons are so similar to those for each dialect considered separately (particularly to those for Moshang) that, on the one hand, they confirm the reliability of the separate values and, on the other, may conveniently be used in place of them in futher discussion.

Along with the extremely high incidence of agreement between Yogli and Moshang, these languages are much closer to Nocte than they are to any of the other Northern Naga languages, whether the latter difference is measured in absolute (Yo/Mo .86 - Ts/No .73 = .13 < ½ Yo/Mo .86 - Ts/Wa .57 = .29) or relative (Ts/Wa .57 / Yo/Mo .86 = .66 < Ts/No .73 / Yo/Mo .86 = .85) terms. The last calcula-

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tion given in fact suggests that Nocte is about as closely related to (Proto-)Tangsa as Yogli and Moshang are to each other.

The results of the full set of internal pairwise comparisons (substituting the values for Tangsa for those for Yogli and Moshang) are as follows:

TANGSA: N = 116			Nocte: N = 116			Wancho: N = 115		
N	+/-	%+	N	+/-	%+	N	+/-	%+
No 116	85-31	.73	Ts 116	85-31	.73	Ts 115	65-50	.57
Wa 115	65-50	.57	Wa 115	72-43	.63	No 115	72-43	.63
Ky 115	60-55	.52	Ky 115	68-47	.59	Ky 114	84-30	.74
Ph 111	62-49	.56	Ph 111	63-48	.57	Ph 110	74-36	.67
Ch 116	65-51	.56	Ch 116	68-48	.59	Ch 115	78-37	.68
Unique 19*		.16	Unique 15		.13	Unique 13		.11

Konyak: N = 115			Phom: N = 111			Chang: N = 116		
N	+/-	%+	N	+/-	%+	N	+/-	%+
Ts 115	60-55	.52	Ts 111	62-49	.56	Ts 116	65-51	.56
No 115	68-47	.59	No 111	63-48	.57	No 116	68-48	.59
Wa 114	84-30	.74	Wa 110	74-36	.67	Wa 115	78-37	.68
Ph 110	85-25	.77	Ky 110	85-25	.77	Ky 115	72-43	.63
Ch 115	72-43	.63	Ch 111	71-40	.64	Ph 111	71-40	.64
Unique 12		.10	Unique 16		.14	Unique 19		.16

(* The 19 cases in which Tangsa is counted as unique include 12 in which an entry is missing in one dialect while the other has a unique root, two in which both have unique roots, and five in which Yogli and Moshang agree with each other but not with any other language.)

Note that the lowest incidence of agreement between any two languages assigned to the same subgroup (Ky/Ch, 63%) is equal to the highest incidence of agreement between any two languages assigned to different subgroups (No/Wa, 63%). Nocte and Wancho are geographically contiguous --

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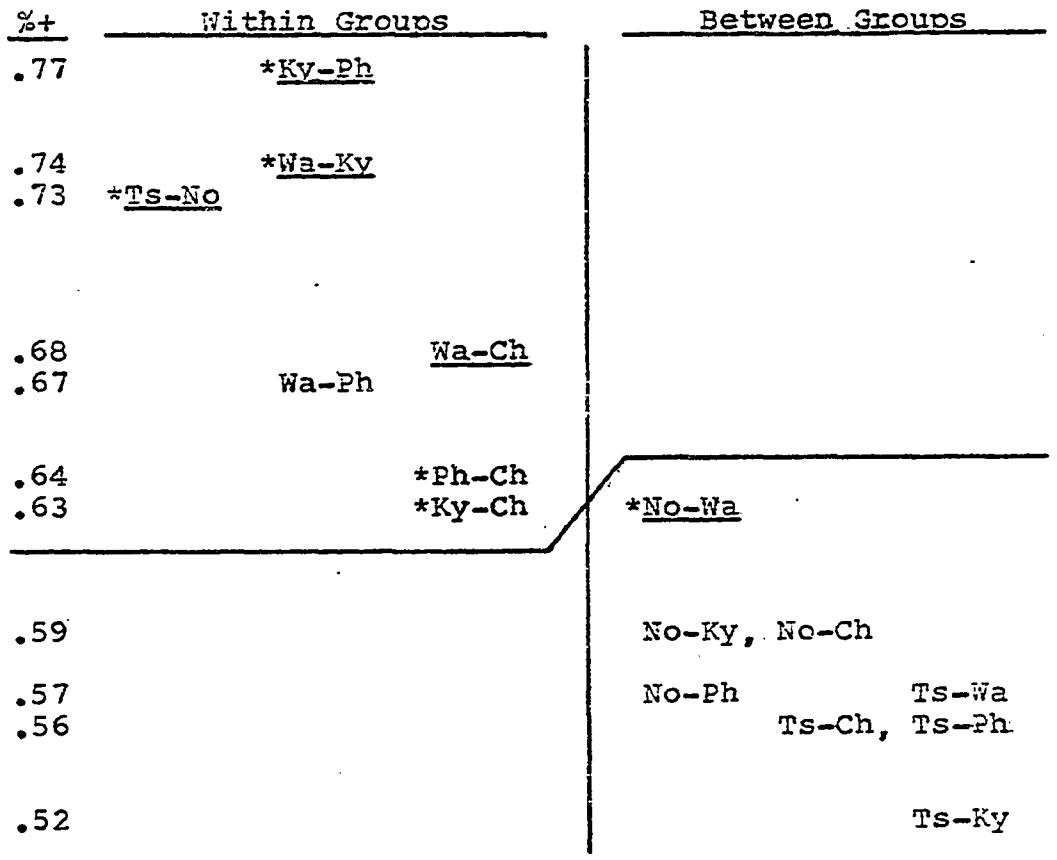
this is the only case in which two languages assigned to different subgroups are geographically contiguous -- and are thus in position to have re-established contact after their respective ancestral languages diverged from each other.

For every language, however, the indices of agreement with other languages of its subgroup are uniformly higher than those with languages of the other subgroup. The relative differences involved may be shown graphically:



(An asterisk identifies geographically contiguous languages. Underlining denotes primary relationships [see below].)

While the relative strength of the association between Nocte and Wancho may be attributed to contiguity, the

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strength of the within-group associations of both Konyak and Phom with Chang is of the same order, and these languages are also contiguous. We should expect these figures to be higher. To account for them, we require a clinal model, as follows.

In the last section, I raised the question of whether a further subgrouping of Ky/Ph within the Wa/Ky/Ph/Ch subgroup is justified. The figures above indicate that Konyak and Phom have a higher proportion of shared vocabulary than any other pair of Northern Naga data languages (excepting the only dialectically differentiated Yogli and Moshang). The strength of association between Konyak and Wancho, however, is very nearly as high as that between Konyak and Phom; essentially, it is of the same order. This would seem to preclude mapping the relations among these three languages onto a branching-tree model; but let me briefly review the possibilities.

I take the maximal strength of association between Konyak and Phom as the necessary starting-point for any further subgrouping. This association is supported, as we have seen, by Konyak and Phom having the highest number of exclusively shared roots of any pair of languages in this subgroup (only one of these eight roots, by the way, is phonologically identical in the two languages, and five differ both in initial and in rhyme, so that the possibility that borrowing is involved is minimal). Furthermore, it is hardly possible not to recognize, without

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undertaking a formal tabulation, that Konyak and Phom are in many of their reflexes phonologically identical, that much of this phonological identity is exclusive, and that, particularly among initials, much of it can only be considered innovative.

If Konyak and Phom were to be subgrouped, there would be two plausible ways of modelling their relation to Wancho and Chang: to posit a higher order subgrouping Wa/Ky/Ph; or to posit a parallel subgrouping Wa/Ch. The first would be favored by the relatively high incidence of agreement between Wancho and Konyak (74%), but runs up against the findings that the incidence of agreement between Wancho and Chang (68%) is of the same order as that between Wancho and Phom (67%) -- one would expect it to be lower -- and that this same Wancho/Chang index is higher than those for Phom/Chang and Konyak/Chang (64-63%) -- one would expect them to be the same, or even, because of the possibility of contact influence in the latter cases, reversed. In short, the incidence of agreement between Wancho and Chang is higher, relatively, than it should be under this mode of subgrouping -- and Wancho and Chang are not contiguous, so that their index, unlike some of the others, should be uncontaminated by contact.

The other alternative -- subgrouping Wancho and Chang, as well as Konyak and Phom -- at first sight implausible, is actually a more satisfactory solution if and to the degree that contiguity relations are taken into

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account. It is, again, true that the relation between Wancho and Phom is of the same order as that between Wancho and Chang, and that this pair of languages is also non-contiguous; but this is a secondary or transitive relation, whose relatively high index (67%) could be a dependent function of the still higher indices for Wa/Ky (74%) and Ky/Ph (77%) -- these are primary relationships: there is no higher index on which they in turn could be dependent; but they are both contiguous pairings. That the relatively high score for Wa/Ph is a transitive function of those for Wa/Ky and Ky/Ph is supported by the really striking fact that these two languages do not exclusively share any roots with each other.

My general argument is that the indices of agreement plotted above, no matter how carefully derived, and even if they are entirely reflective of cognacy (rather than borrowing), are of differing degrees of reliability, thus not necessarily directly comparable; and that this is why it is impossible to map them onto a branching-tree model. The source of the unreliability is attributed to the re-establishment of communicatory fields embracing genetically related languages which have not undergone such a degree of phonological divergence as to render the replacement of at least some cognate forms irrelevant to communication; a tendency to retain phonologically similar cognate forms in languages in contact would result in a rate of replacement lower than that to be expected from

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their degree of genetic divergence. Such communicatory fields may of course be established only to be broken off again — recall that in Chapter I it was necessary to hypothesize Burmese participation in a succession of such fields in order to account for its roughly equivalent indices of agreement with Tibetan, Jinghpaw, and Lushai on Benedict's (1976) comparison. Within a closely related group of languages such as Northern Naga, however — in the case at hand, within one of its subgroups — historic patterns of geographical distribution may be taken to form a reasonable basis for inferences regarding communicatory fields.

Thus, when an array of cognate-count values is irreconcilable with any possible branching-tree model, it is the magnitude of the values for geographically contiguous pairs of languages whose comparability should first be questioned. If there is reason to suppose that one (or more) of these values is higher than would be expected on the basis of genetic relatedness alone, the magnitude of any secondary or transitive relation dependent upon the suspect value is similarly open to question. Note that this is not to say that these values do not accurately reflect levels of cognacy, but that levels of cognacy do not necessarily reflect degree of genetic relatedness when it is a question of comparing pairs of languages which share a communicatory field with pairs of languages which do not.

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Among the pairs of Northern Naga languages whose indices of lexical agreement are graphically displayed above, there is only one whose relationship is both primary and non-contiguous -- that is, there is only one case in which a language's strongest link is with a non-contiguous language: the link between Wancho and Chang, through which the latter is joined by transitive relations to the balance of Northern Naga. Every other figure in our tables, save only this one, may be inflated by retardation in the rate of lexical replacement, resulting either from contiguity or from the transitivity of contiguous relations. The one figure in particular which tells against the recognition of a Wancho/Chang subgrouping -- the higher index for Wancho and Konyak -- is almost certainly so inflated, if one accepts the evidence presented above for the primacy of a Konyak/Phom grouping, for its value (74%) is altogether too close to that of the latter (77%) to be genuinely comparable with it.

A careful analysis of the implications of the relative values for all of the pairwise comparisons, in conjunction with the admission of data on geographical contiguity, thus suggests the probability of an initial division of the common ancestor of Wa/Ky/Ph/Ch into two languages, one of which, through a further split, gave rise to Konyak and Phom, while the other similarly gave rise to Wancho and Chang. In the last case, however,

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according to this reconstruction, the geographical separation was, if not permanent, at least relatively decisive, so that differential replacement of cognates proceeded without retardation. Thus the relative value of the index of agreement between Wancho and Chang fails to reveal their genetic relatedness precisely because its absolute value reflects only that relatedness. Thus, too, (to return to the question with which we began) the relative values of the within-group indices for Ky/Ch and Ph/Ch are no higher than the between-group index for Nocte/Wancho: the latter pair, though genetically more distant, enjoy contiguity and a primary relationship; the former are linked only transitively, and the link has been broken. The situation is closely parallel, on a more limited scale, to that obtaining for Benedict's (1976) array, on which the relation between Garo and Jinghpaw (Kachin), like that between Chang and Wancho, may be interpreted as having been obscured by protracted geographical separation, also reflected in the low indices for Garo and other TB languages (as in those for Chang with Konyak and Phom).

Nevertheless, while we can draw on the evidence of geographical contiguity and the distinction between primary and secondary relationships to identify those pairs of languages whose cognate counts may be out of line, there is no way of quantifying these inferences, of factoring the purely genetic component out of the cumula-

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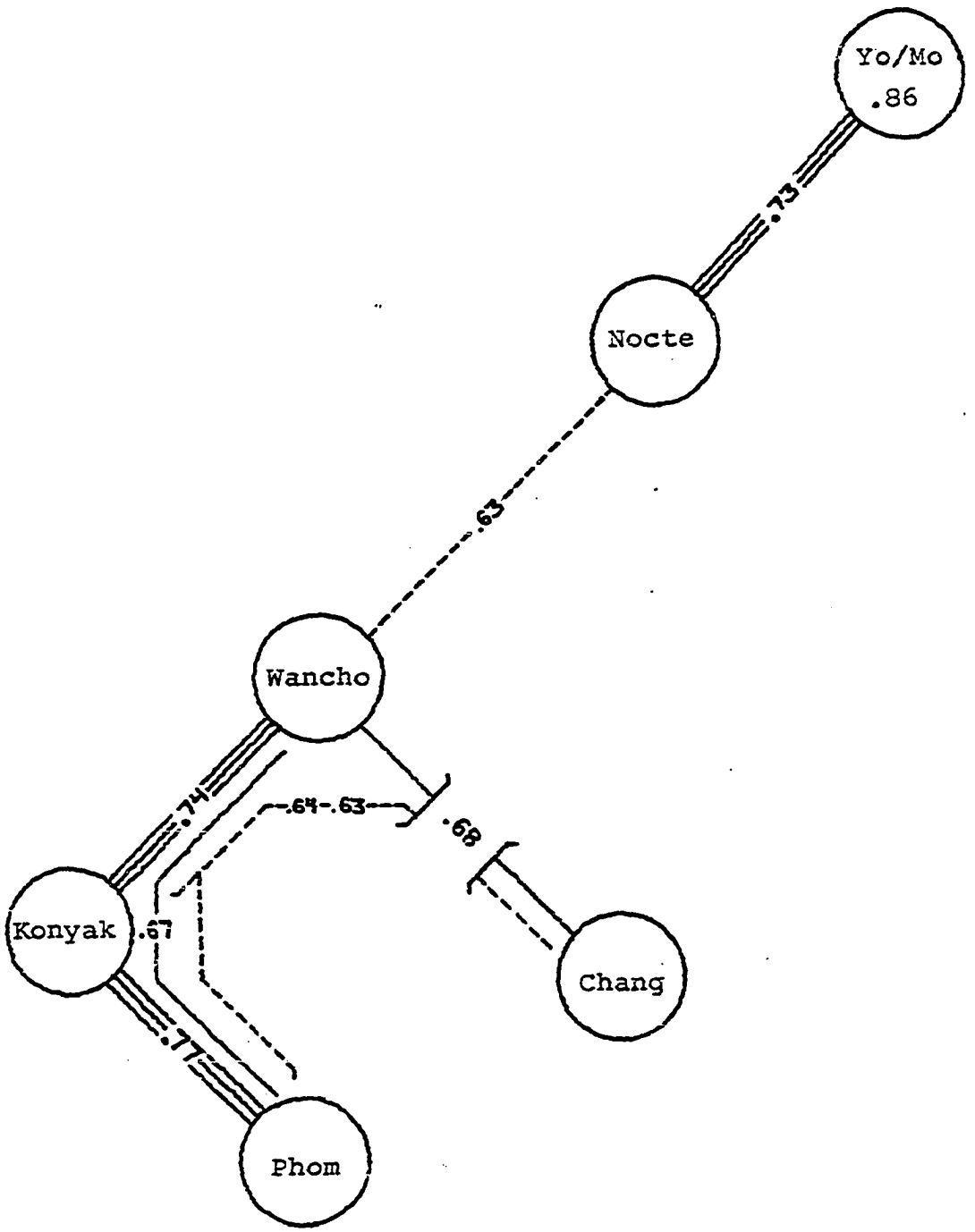
tive historical relatedness which is what our figures really reflect. In terms of cumulative historical relatedness, Wancho is closer to Konyak than to Chang, and only a clinal model is possible:



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The diagram on the preceding page encapsulates most of the important information regarding the relations of the Northern Naga languages, with the prominent exception of the hypothesized further subgrouping of Ky/Ph and Wa/Ch. The languages are aligned in their approximate geographical positions. Primary relationships are shown by lines directly joining the circles surrounding the language names; the break in the line joining Wancho and Chang signifies their lack of contiguity. Secondary relations are shown by lines paralleling those representing primary ones, and not directly joined to circles; the break in the line joining Chang with Konyak and Phom signifies the transitivity of their relationship (mediated by Wancho), but recall that these three languages are actually contiguous, and this may contribute something to their scores. For clarity, I show only those relations represented by scores greater than 60%. The distances between the circles along the lines of primary relationship are roughly proportional to (1.00 - C), where C = incidence of agreement. The order of magnitude of the relations shown is also indicated by differentiation of the lines. The basic dichotomy between Yo/Mo/No on the one hand and Wa/Ky/Ph/Ch on the other may thus be seen both in the maximal distance separating Wancho from Nocte and in the relative "weakness" of the broken line which bridges the gap. At this juncture the implication of the clinal model is that the substitution of a branching-tree

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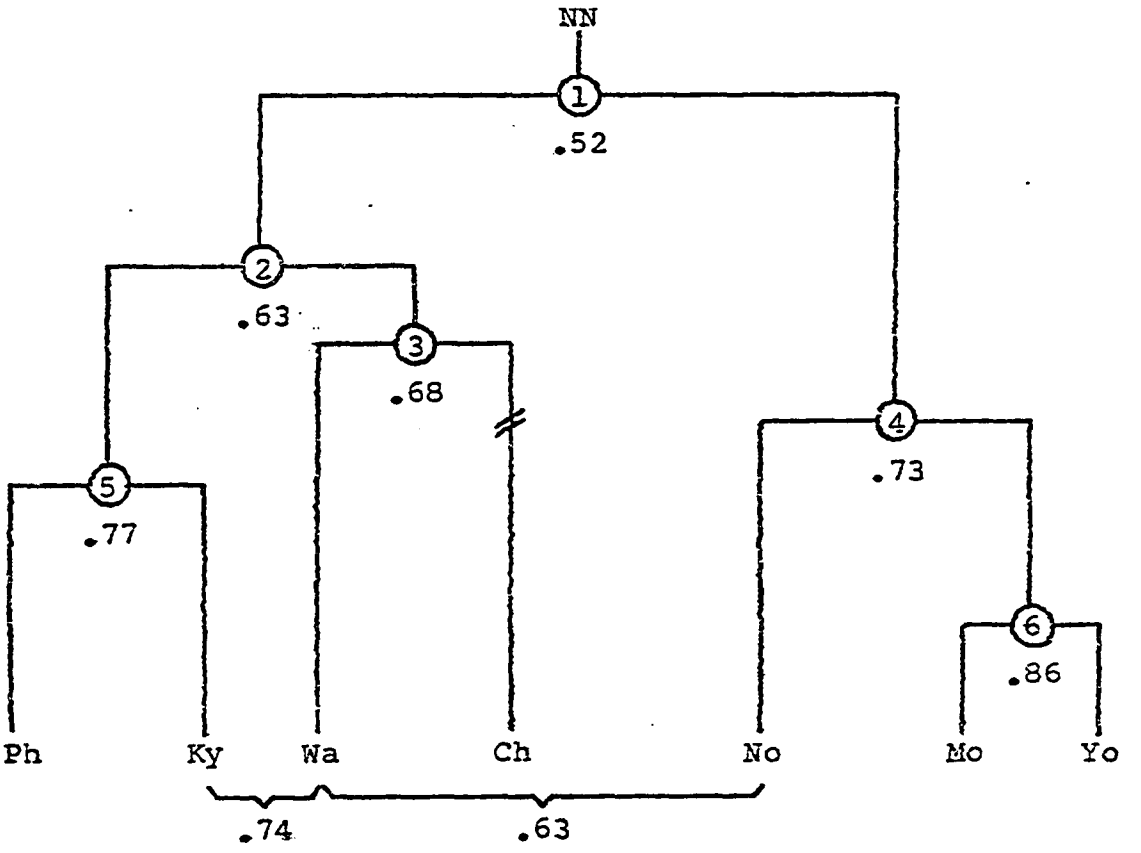
model is permissible. This is also true for the unproblematic splits between Nocte and Tangsa and between Yogli and Moshang -- but not for that between Wancho and Chang, for the fact that the scores for Wa/Ky and for Ky/Ph are of the same order of magnitude, precluding subgrouping, in conjunction with the break in contiguity between Wancho and Chang, warns us of complications. Nevertheless, as I have argued above, I believe that it is possible to stipulate the branching pattern underlying these problematic relations, viz.:



The scores shown for splits #(1) and #(2) are the lowest recorded for any pair of languages separated by the split; I assume that higher scores reflect later contact influ-

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ences. Conversely, at the bottom of the diagram, I show the highest between-group or between-subgroup scores, assuming that lower scores reflect transitive relations.

The models depicted in the diagrams on the preceding pages, a clinal model and a branching-tree model, may be said to represent, respectively, a weak and a strong hypothesis regarding the internal relations of -- diachronically, the prehistory of -- the Northern Naga languages. The first does not go beyond the data which are the results of my chosen method of reconstructing these relations; the second, while also based on these data, is the product of confronting them with an independent premise: that the differentiation of languages is in the first instance characteristically dichotomous. While the Northern Naga data do not offer support to this premise, neither are they incompatible with it. While these data, reflecting relations among contiguous, closely related languages, are easily explicable in terms of a theory of language differentiation through dialect intergradation (see Swadesh 1959), it must be remembered that their pattern is not dissimilar to that which can be produced by languages widely separated in space and time (see Benedict 1976), for which the notion of differentiation through dialect intergradation is much less tenable. A branching-tree model, supplemented by the recognition of communicatory field relations, remains a viable and useful way of making sense of comparative data.

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5.2.3. Conclusions: the place of Northern Naga in Tibeto-Burman. Let me begin this section by presenting what Tibeto-Burman looks like from the vantage point of Northern Naga: the setting within which a place for the latter must be found. This is derivable from a by-product of the lexical comparison of the Northern Naga languages with five external Tibeto-Burman languages representing major nuclei or groupings of what I have called (because no Himalayan language was included) "Eastern Tibeto-Burman". This by-product consists of the indices of agreement of these five languages with one another, easily calculable from the tables above:

Dimasa (N=116)			
	N	+/-	%+
Jg	115	59-56	.51
WB	115	39-76	.34
Lu	115	38-77	.33
AoM	114	33-81	.29

Jinghpaw (N=116)			
	N	+/-	%+
Di	115	59-56	.51
WB	115	47-68	.41
Lu	115	42-73	.37
AoM	114	36-78	.32

Burmese (N=116)			
	N	+/-	%+
Di	115	39-76	.34
Jg	115	47-68	.41
Lu	115	53-62	.46
AoM	114	42-72	.37

Lushai (N=116)			
	N	+/-	%+
Di	115	38-77	.33
Jg	115	42-73	.37
WB	115	53-62	.46
AoM	114	53-61	.46

Ao Mongsen (N=114)			
	N	+/-	%+
Di	114	33-81	.29
Jg	114	36-78	.32
WB	114	42-72	.37
Lu	114	53-61	.46

(Note: The missing comparison for the first four languages [with one another] is for #75 'cloud'; the two missing comparisons for Ao Mongsen are for #71a 'sun' and #86 'water'. All are due to indeterminacy of cognacy.)

The values for the first four languages may be compared with those reported by Benedict on the basis of his Swa-

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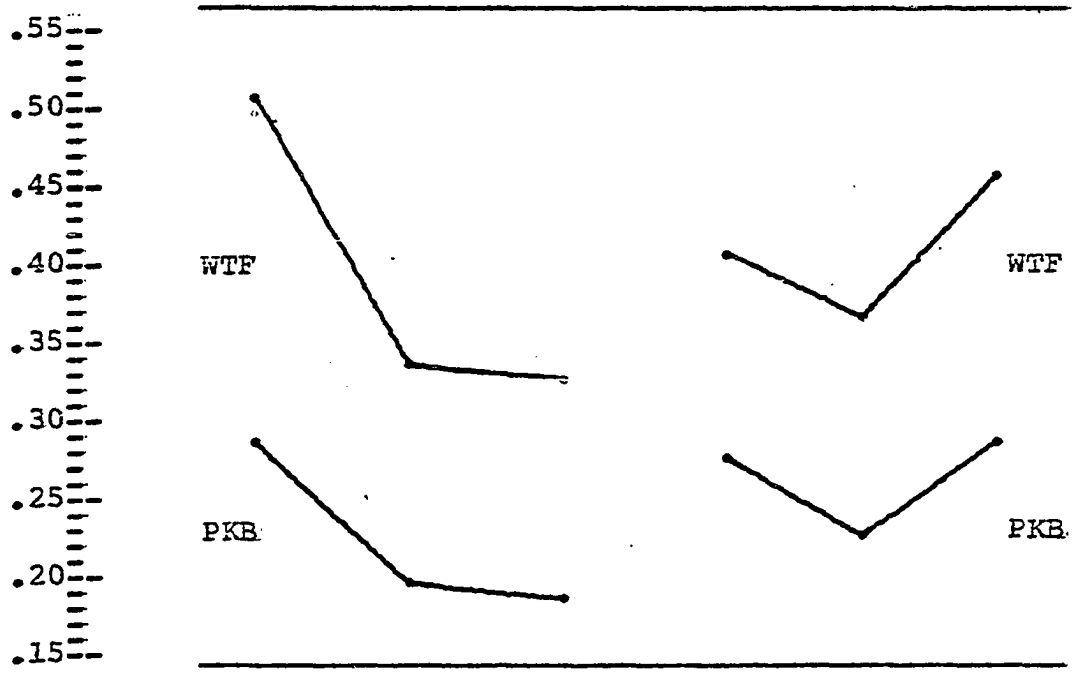
desh 100-word list comparison of Garo, Jinghpaw, Burmese, and Lushai (Benedict 1976). The absolute values for levels of cognacy given above are very different from Benedict's; but their relative values are very similar:

	BG*-Jg	BG*-WB	BG*-Lu	Jg-WB	Jg-Lu	WB-Lu
WTF	.51	.34	.33	.41	.37	.46
PKB	.29	.20	.19	.28	.23	.29
WTF/PKB	1.76	1.70	1.74	1.46	1.61	1.59
$\frac{\text{WTF/PKB}}{.016}$	110	106	109	91	101	99



(BG*=Bodo-Garo: Dimasa for WTF, Garo for PKB. The fourth row of figures converts the ratios in the third row to indices to a base 1.60 [x 100].)

The differences in absolute values are a function of the differences in the word lists employed in the two comparisons: of my 116 items, 53 (46%) are not on the Swadesh List. This difference, in turn, is primarily a function

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of Matisoff's revision of Swadesh for Southeast Asian languages: of the 75 items on both of these lists, I include 63; 25 of the Swadesh-list items are excluded or collapsed by Matisoff, while I exclude an additional 12 because of insufficient data. To the degree that my reduced CALMSEA-based list is representative of the whole, the comparison of comparisons above suggests that CALMSEA is capable of replicating relative values obtained on Swadesh-list comparisons while drawing finer distinctions than are possible with the latter; the latter capability is based in the broader variance made possible by the generally higher values. Whether these higher values are also "truer", thus implying a reduction in time-depth estimates for Tibeto-Burman at large, is an interesting question I leave to those bold enough to attempt such estimates.

The similarity in relative values may be seen in the comparability of the ratios presented in the third row of the table, of the indices presented in the fourth row, and in the graphic representation of the raw values (rows #1 and #2). Because of the possibility of systematic differences due to the representation of Bodo-Garo by Dimasa in my comparison, but by Garo in Benedict's, I present the values which involve Bodo-Garo together on the left. Note that the ratios for these three values are uniformly higher than those for values which do not involve Bodo-Garo, and fall within a limited range (1.76-

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1.70). Given a difference between the two, one would expect Dimasa to have somewhat higher levels of agreement with other Tibeto-Burman languages than Garo on geographical grounds, and this may account for the somewhat higher values of these ratios. As these ratios are skewed high, one (Jg-WB, 1.46) is skewed low; the close agreement between the remaining two (Jg-Lu, 1.61; WB-Lu, 1.59) suggests the possibility that these are "normal" and leads me to take their median (1.60) as a base for calculating indices of divergence (row #4). These indices show that the divergence of the ratios is confined to a range of ± 10% around the base, providing numerical substantiation for the observation that the relative values of the levels of cognacy found in this study are very similar to those reported by Benedict.

The same point is made graphically immediately below. The upper lines represent my scores, the lower lines Benedict's. In both cases the incidence of agreement for Bodo-Garo drops off sharply as one passes from its primary relationship with Jinghpaw to transitive relations with Burmese and Lushai. In the right-hand half of the diagram the dips at the centers of both curves represent the transitive relation between Jinghpaw and Lushai, mediated by the primary relationships of each with Burmese (left and right).

There is one remarkable feature in the pattern of scores calculated on the basis of the lexical comparisons

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presented in this study: it is captured in the divergently low value of the ratio for Jg-WB (1.46, Index 91), which implies that the level of agreement between these two languages on my list is lower than would have been expected on the basis of Benedict's figures. As we noted in Chapter I, in his 1976 article Benedict proposed a "basic cleavage" within Tibeto-Burman between Bodo-Garo and Jinghpaw on the one hand and most of the rest of the family, including Lolo-Burmese and Kukish, on the other; yet, as I pointed out (Section 1.2.1 above), the results of his own lexical comparison, reported in this article, do not directly support this hypothesis: his between-groups score for Jg-WB (.28) is of the same order as his within-group scores for Garo-Jg (.29) and WB-Lu (.29). But my own scores, based on what may be a more sensitive word-list (see above), do support it; for my list, the level of cognacy for Jg-WB (.41) is, as the hypothesis would predict, lower than those for Di-Jg (.51) and WB-Lu (.46) by .05-.10 points. Thus, in the one instance in which the relative value of one of my scores is unaccountably divergent, its divergence is in a theoretically predicted direction. I think that it may be concluded that these scores are reliable indicators of cumulative historical relationships among the sample of Tibeto-Burman languages to which they apply.

These relationships, it happens, may be perfectly plotted on a clinal model consisting of only a single

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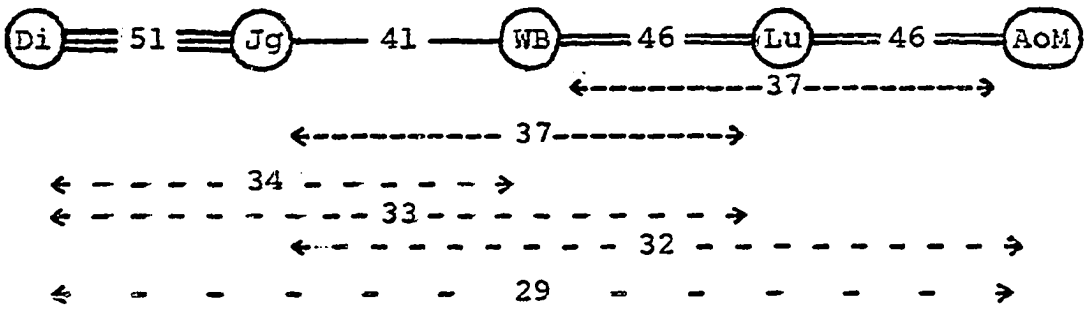
chain; their values fall into six order-of-magnitude classes which I distinguish by the "strength" of the lines representing the links:



The three strongest classes of association are all confined to the level of primary relationships, and are more sharply differentiated from one another than are the weaker, transitive ones; the strongest links Dimasa with Jinghpaw; the next joins Burmese to Lushai and Lushai to Ao Mongsen; finally, there is the link between Jinghpaw and Burmese. Next come the three secondary relations, mediated by only one intervening language; the one joining Dimasa to Burmese across the line between "supergroups" is weaker than the others, of the same order as the two tertiary relations, mediated by two intervening languages. Finally, there is the relation between Dimasa and Ao Mongsen at opposite ends of the chain, which is in a class by itself.

It is worth remarking that although Lushai and Ao Mongsen are both classified as Kukish or Kuki-Naga, the distance between them is the same as that between Lushai and Burmese, always taken to represent two distinct pri-

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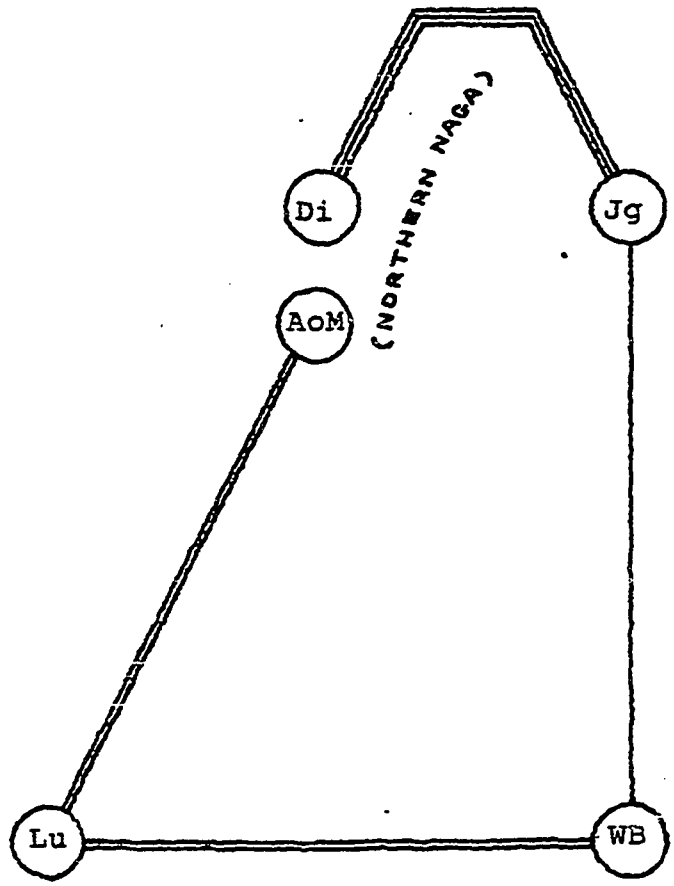
mary divisions of Tibeto-Burman; this suggests that the internal diversity of Kukish may be greater than has been recognized -- possibly that there is a major division between Kuki-Chin (including Lushai) and at least some of the Central and Southern Naga languages.

It is the Central and Southern Naga languages which would occupy the space in the center of the following schematic mapping of the chain diagrammed above onto geographical coordinates:



The linguistic distances are to scale. But Dimasa and Ao Mongsen, whose index of agreement is the lowest found in the entire study and is apparently attributable only to

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a succession of transitive relations (or what amounts to the same thing at this level, a common Tibeto-Burman residue) are in fact geographically very close: Ao Mongsen is spoken along the outermost ridges of the Ao country, adjoining the plains of Assam (Mills 1926: 5) where, until the sixteenth century or later, Bodo-Garo was the dominant speech (see Chapter I).

The diagrams above, then, represent the linguistic environment in which Northern Naga is situated. (Recall that although this environment is specified in terms of only five languages, it was these five languages which on our preliminary comparison showed the highest levels of agreement with Northern Naga; that Northern Naga should appear to be more closely related to Lushai and Burmese than to any Central or Southern Naga language except Ao Mongsen *is* surprising, as the schematic map on the preceding page makes clear. The only hypothesis I can think of which would account for this is that these other Central and Southern Naga languages have in their make-up a substantial non-Tibeto-Burman element -- on probability, Austroasiatic.)

On the basis of an extended consideration of the patterns of cognacy for roots attributable to NN or to one of its major subgroups, I have already proposed that Northern Naga is most closely related to Dimasa -- i.e., to Bodo-Garo -- and only somewhat less closely related to Jinghpaw; but that after the split in NN which gave rise

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to the languages ancestral to Yo/Mo/No, on the one hand, and Wa/Ky/Ph/Ch on the other, the former re-entered a communicatory field with Jinghpaw. It is now time to test these propositions against the full set of figures for pairwise comparisons of the Northern Naga languages with the external test languages. As before, I first present the scores for Yogli and Moshang separately and then combine them in a single set of scores for Tangsa:

Yogli	(N= 93)			Moshang	(N=100)			TANGSA	(N=116)		
	N	+/-	%+		N	+/-	%+		N	+/-	%+
Di	93	47-46	.51	Di	100	56-44	.56	Di	116	63-53	.54
Jg	93	53-40	.57	Jg	100	60-40	.60	Jg	116	70-46	.60
WB	93	37-56	.40	WB	100	38-62	.38	WB	116	46-70	.40
Lu	93	35-58	.38	Lu	100	39-61	.39	Lu	116	45-71	.39
AoM	91	35-56	.38	AoM	98	38-60	.39	AoM	114	43-71	.38

(Note: I count two instances in which, in my judgment, a Yogli form is a loanword borrowed from Jinghpaw [#84 'mountain', #109 'boat'] as cases of non-agreement [-] for Yo-Jg and for Ts-Jg.)

The reason for this procedure is, as before, to eliminate possible distortion resulting from the reduced samples available for Yogli and Moshang. As before, the results appear to justify the procedure in that the combined values are closely similar to those for each of the two dialects considered separately, particularly to those for Moshang with its larger sample.

The single most prominent aspect of the pattern of external affinities for Tangsa -- that it is much more closely related to Dimasa and Jinghpaw than to the other

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test languages -- is characteristic of each of the other Northern Naga languages as well:

TANGSA (N=116)			
	N	+/-	%+
Di	116	63-53	.54
Jg	116	70-46	.60
WB	116	46-70	.40
Lu	116	45-71	.39
AoM	114	43-71	.38

Nocte (N=116)			
	N	+/-	%+
Di	116	66-50	.57
Jg	116	65-51	.56
WB	116	43-73	.37
Lu	116	36-80	.31
AoM	114	42-72	.37

Chang (N=116)			
	N	+/-	%+
Di	116	66-50	.57
Jg	116	57-59	.49
WB	116	45-71	.39
Lu	116	43-73	.37
AoM	114	44-70	.39

Wancho (N=115)			
	N	+/-	%+
Di	115	57-58	.50
Jg	115	52-63	.45
WB	115	40-75	.35
Lu	115	36-79	.31
AoM	113	42-71	.37

Konyak (N=115)			
	N	+/-	%+
Di	115	56-59	.49
Jg	115	52-63	.45
WB	115	39-76	.34
Lu	115	37-78	.32
AoM	113	41-72	.36

Phom (N=111)			
	N	+/-	%+
Di	111	53-58	.48
Jg	111	51-60	.46
WB	111	39-72	.35
Lu	111	37-74	.33
AoM	109	39-70	.36

Notice that I have altered the arrangement of this table to show Wancho, Konyak, and Phom on the same row, to allow the reader to see more clearly that their patterns of external affinity are so similar as to be for all practical purposes identical.

This common pattern for Wa/Ky/Ph consists of two order-of-magnitude levels of agreement: on the higher, there is a primary affinity with Dimasa and a secondary association with Jinghpaw; on the lower, these languages show similarly depressed levels of agreement with Ao Mongsen and Burmese and an even weaker association with Lushai.

This description of the pattern of external affinity for Wa/Ky/Ph also characterizes that for Chang. But

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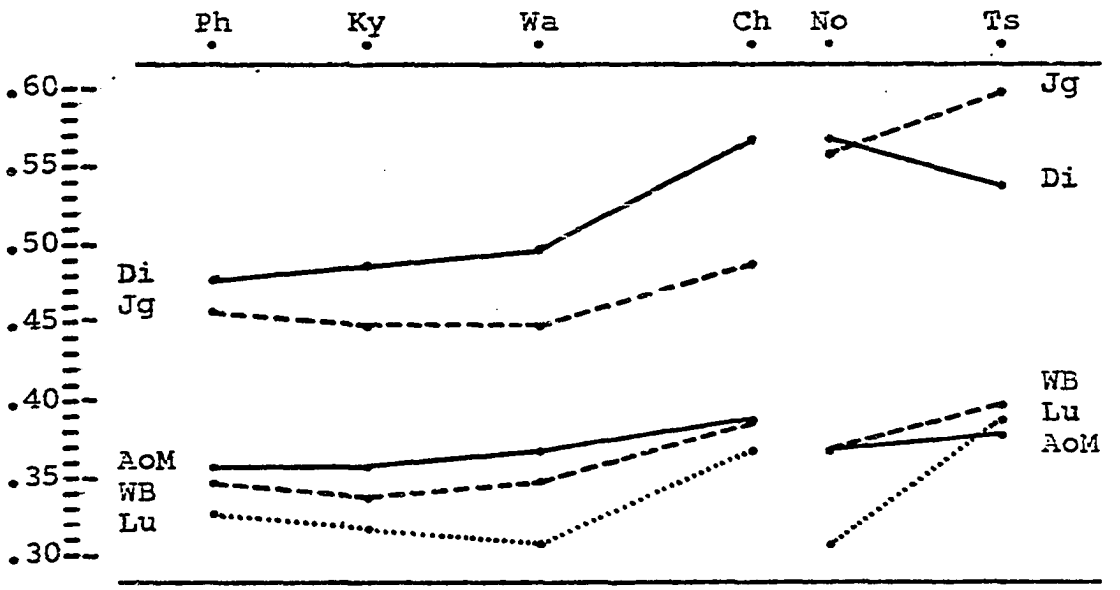
the levels of agreement for Chang are higher in every case, suggesting greater conservatism -- perhaps related to its interior location.

In general, Nocte and Tangsa share Chang's conservatism, but with two differences. For the first, Nocte agrees with Wancho rather than Chang in showing a particularly low incidence of agreement with Lushai. The second constitutes the principal departure from the general pattern holding, with the modifications noted, across all of the Northern Naga languages. This is the considerably higher incidence of agreement with Jinghpaw shown by both Nocte and Tangsa, but particularly by the latter. Cf.:



above: ——— Dimasa; ----- Jinghpaw.
below: ——— Ao Mongsen; ----- Burmese; ..... Lushai.

(Linguistic distances between Northern Naga languages approximately to scale, including distance between Wancho and Nocte.)

The graph simply recapitulates the data given in tabular form on the preceding page.

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Now, in general, these patterns are what we should have expected to find on the basis of our analysis of the external affinities of only those roots attributable to the protolanguage (NN) for the items on our list:

External affinities of:	Di	Jq	WB	Lu	AoM
Probable NN roots for basic vocabulary items (from 5.2.1 above), #	71	63	48	47	48
% vs. N=114 for AoM, N=116 for others (A)	.61	.54	.41	.41	.42
All roots, median % for six Northern Naga languages (B)	.52	.48	.36	.33	.37
Ratio of median individual agreement to agreement with protolanguage (B/A)	.85	.87	.87	.80	.88

That the indices of agreement for the data languages (B) are lower than those for the protolanguage (A) indicates that the odd instances of agreement of one or another sparsely distributed root with one or more of the test languages are insufficient to compensate for the frequency with which NN roots have been replaced by others with uncertain affinities. Nevertheless, as the comparable values of the ratios (B/A) confirm, the general (median) pattern of external affinities for the data languages is very similar to that for the protolanguage.

To assess the variance from this general (median) pattern, we need to take into account not only the recorded divergence of individual scores from the median for a given test language, but also the different levels of <u>overall</u> external affinity for the data languages. That

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is, as was remarked above, the data languages differ systematically in their degree of conservatism, and these differences form a part of the context within which their levels of agreement with particular test languages must be evaluated. By calculating the mean index of agreement for each of the data languages, and comparing this to the mean index of agreement for all of the data languages together (.42), I derive an adjustment factor for each data language, to be applied to the median indices of agreement for each of the test languages; this produces an "expected value" for each pairwise score, to which its actual value may be compared in order to assess its true deviance. Thus:

		Phom		Konyak		Wancho		Chang		Nocte		Tangsa	
		$\bar{X}$ = .40		$\bar{X}$ = .39		$\bar{X}$ = .40		$\bar{X}$ = .44		$\bar{X}$ = .44		$\bar{X}$ = .46	
		af -.02		af -.03		af -.02		af +.02		af +.02		af +.04	
	(B)	Exp	Act	Exp	Act	Exp	Act	Exp	Act	Exp	Act	Exp	Act
Di	.52	50	48	49	49	50	50	54	57*	54	57*	56	54
Jg	.48	46	46	45	45	46	45	50	49	50	56**	52	60**
WB	.36	34	35	33	34	34	35	38	39	38	37	40	40
Lu	.33	31	33	30	32	31	31	35	37	35	31**	37	39
Ao	.37	35	36	34	36	35	37	39	39	39	37	41	38*

By this rough-and-ready digitalization of the patterns of agreement presented graphically above, we find that only six of the thirty scores deviate by more than ± .02 (I omit decimal points for clarity in the body of the table) from their expected values. Three of these six (*) deviate from their expected values by only ± .03. One,

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the low score for Nocte-Lushai (**) is off by - .04; as noted above, here Nocte appears to have followed a pattern of replacement shared with Wancho, whose incidence of agreement with Lushai is identical. Two scores, however, are significantly deviant: Nocte-Jinghpaw (+ .06) and Tangsa-Jinghpaw (+ .08).

Again, this was to be expected on the basis of our previous analyses -- or at least that major portion of this deviance which Nocte and Tangsa have in common was to be expected. I have discussed in detail the striking pattern of exclusive agreement between a substantial subset of Yo/Mo/No subgroup roots and Jinghpaw. Six items -- #23 'blood', #54 'bird', #77 'wind', #108 'village', #166 'cold', and #167 'new' -- account for .05/.06 of the deviance of the Nocte-Jinghpaw score from its "expected" or "pattern" value; five of these six items account for .04/.08 of the deviance of the Tangsa-Jinghpaw score. I have presented evidence that for at least five of these six items the Yo/Mo/No subgroup root was not the root representing the item in NN; and I have attributed Yo/Mo/No subgroup-Jinghpaw agreement on these items to shared participation in a communicatory field established after the split in NN. On one further item, #174 'red', Yogli and Moshang show exclusive agreement with Jinghpaw in opposition to the rest of Northern Naga (including Nocte) and a common PTB root. This, along with the presence in Yogli of two Jinghpaw loanwords for basic voca-

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bulary items (#84 'mountain', Jg/Yo bum; #109 'boat', Jg/Yo li) suggests that the residue of Tangsa-Jinghpaw agreement over and above that shared with Nocte can plausibly be attributed to a continuation of contact between Jinghpaw and these northernmost Naga dialects following the Tangsa-Nocte split.

Thus, the inflated levels of agreement between Nocte and Jinghpaw, and to an even greater degree between Tangsa and Jinghpaw, are partially the result of contact influences. We have no warrant for inferring contact influence in any other case, so that the remaining indices of agreement between the several Northern Naga languages and the test languages must be assumed to reflect genetic relatedness.

This being so, the magnitude of the scores for Nocte-Dimasa (.57) and Tangsa-Dimasa (.54) may occasion surprise, for these scores are almost as high as those linking Nocte and Tangsa with most of the languages of the more southerly subgroup of Northern Naga itself. On the one hand, the magnitude of these scores implies that NN and Dimasa are very closely related indeed; on the other, they may appear to call into question the very internal coherence of Northern Naga.

The possibility raised here, of a clinal relationship linking Dimasa with Yo/Mo/No and the latter with Wa/Ky/Ph/Ch (rather than a branching-tree relation between Dimasa and Northern Naga) may be rejected on two

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grounds. First, the incidence of agreement between Chang and Dimasa is identical to that for Nocte-Dimasa. Now, there is no possibility whatever, in view of the interior location of Chang (entirely cut off from direct contact with the Assam plain by Ao and Konyak territory), that this score has been inflated through contact influences. It may thus be taken as an estimate of the purely genetic distance between Dimasa and the Wa/Ky/Ph/Ch grouping -- but this is then at least as close as that between Dimasa and the Yo/Mo/No grouping, as reflected in the Nocte-Dimasa score. The lower indices obtaining between Dimasa and Wa/Ky/Ph must be attributed to the generally greater rate of replacement in these languages as compared to Chang.

Secondly, and decisively: we saw above, when we compared test language agreement with the protolanguage with median test language agreement with the daughter languages, that pairwise comparisons do not reflect the full magnitude of the relation between NN itself and any external language (because of replacement in all of the daughter languages). By the same token, pairwise comparisons do not reflect the full magnitude of the coherence of Northern Naga. Having reopened the question of this coherence on the challenge posed by the high pairwise scores with Dimasa, we need to compare only those roots independently attributable to one or the other grouping (Yo/Mo/No; Wa/Ky/Ph/Ch) with Dimasa and with

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each other. For the purpose of this comparison, I count as a Yo/Mo/No grouping root any root shared by Nocte and at least one of the two Tangsa dialects; I count as a Wa/Ky/Ph/Ch grouping root any root shared by at least three of these four languages. There are, as it happens, 85 roots in each of these two categories; for 68 items both groupings have roots attributable to their respective parent languages by the criteria defined above, while in 34 cases (17 each) one grouping but not the other has such a root. The levels of agreement are as follows:

	N	+/-	%+
Yo/Mo/No - Dimasa	85	54-31	.64
Wa/Ky/Ph/Ch - Dimasa	85	55-30	.65
Yo/Mo/No - Wa/Ky/Ph/Ch	68	55-13	.81

Because of the possibility of bias resulting from the smaller size of the sample for the last comparison, I have also calculated the incidence of agreement of each grouping with Dimasa for only these 68 items:

	N	+/-	%+
Yo/Mo/No - Dimasa	68	46-22	.68
Wa/Ky/Ph/Ch - Dimasa	68	46-22	.68

These figures offer conclusive proof of the coherence of Northern Naga as a genetic grouping, not only because of the substantially higher level of agreement of the two Northern Naga groupings with each other than with Dimasa, but also because the levels of agreement of each grouping with Dimasa are virtually identical. The two groupings are equally closely related to Dimasa be-

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cause they are both related to this language only through their common predecessor, NN.

This equidistant relation of the two Northern Naga subgroups to Dimasa does not hold, however, when one descends to the level of the individual data languages. Here the level of agreement with Dimasa ranges from 57% (Nocte, Chang) through 54% (Tangsa) to 50-48% (Wa/Ky/Ph). As there can be no difference in the purely genetic relation of these languages to Dimasa, and as borrowing can be ruled out as a possible cause of inflation in the higher indices (because of lack of contiguity with Bodo-Garo, definite at least in the case of Chang), this variation can only be ascribed to differences in the rate of replacement: as we saw above, Ts/No and Chang are <u>generally</u> more conservative than Wa/Ky/Ph. As we have also seen, there is similar variation in the levels of agreement of the various Northern Naga languages with the other test languages. Except in the special case of the relation of Nocte and Tangsa to Jinghpaw, this variation must be attributed to the same source: differential rate of replacement.

As we come finally to consider the place of Northern Naga in Tibeto-Burman, this variation presents a problem. I have presented the linguistic environment within which Northern Naga must be situated in terms of the pattern of agreement among the five test languages, based on their pairwise scores. The indices of agreement

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between Northern Naga and these languages must be comparable. Therefore we cannot use for this purpose scores expressing the affinity of NN itself to these languages, for these represent Northern Naga at a much greater time depth and would consequently overstate its relation to any external language; as we have seen, the indices of external agreement for NN roots are consistently higher than the median indices for the data languages. What we need is a single language to represent Northern Naga in a comparison with other individual languages, just as we have used Dimasa to represent Bodo-Garo.

One option, then, is to choose one of our six data languages for this purpose, but there are two disadvantages to this approach: first, none of the six can really be said to be "typical". Chang is perhaps closest, but the Chang-Dimasa score is (along with that for Nocte-Dimasa) the highest for any of the data languages, differing from its "expected" value by three percentage points. Now, it is true that this score (along with the higher-than-expected Chang-Lushai score) is probably a more accurate reflection of the relative affinity of NN to Dimasa and the other test languages than those other, lower, scores which reflect a higher rate of replacement. This should be true of higher scores generally as long as contact influences can be ruled out, as they can be for Chang. But to choose a more conservative language to represent Northern Naga when this was not a criterion for

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choosing the other languages to be compared is to introduce a bias. And to choose any particular language to represent the full set is to ignore the greater part of the data.

Thus I prefer to use an average: in this case, because we are dealing with fine differences, so that precision is imperative, a weighted mean rather than a median. (One reason for my use of a median in the comparisons above was that this measure fortuitously eliminates the effect of the post-NN communicatory field relations between Yo/Mo/No and Jinghpaw; this was desirable when the issue was the relation between data language and protolanguage agreement with the test languages, and allowed us to specify the degree to which the Tangsa-Jinghpaw and Nocte-Jinghpaw scores reflect contact influences. Here, however, it is cumulative historical relationship which must be compared: if, for example, the Jinghpaw-Burmese score reflects, as Benedict suggested (1976: 177), a "newer . . . Burmese level" in Jinghpaw, we must also count the "Jinghpaw level" in Tangsa and Nocte except where this can definitely be put down to borrowing.)

It would not do, however, to take a simple mean of the indices for our six data languages, as these languages were chosen for availability of data, rather than as a representative sample; and, as our analysis of their interrelations has shown, as some are indeed more closely

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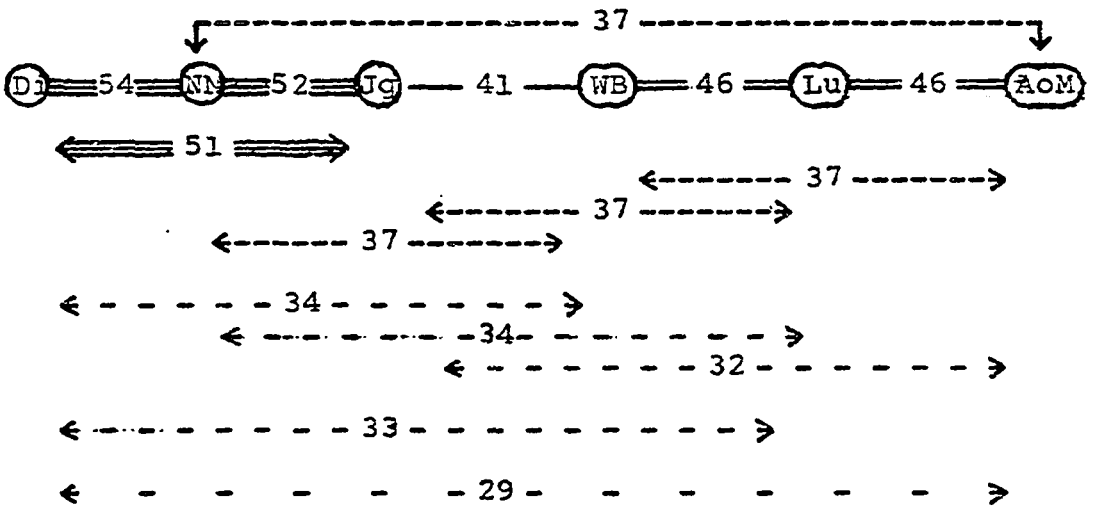
related than others. I give equal weight to each of the two subgroups, and within the more southerly count Konyak and Phom as a unit, on a par with Wancho and with Chang. This results in the following indices of agreement with the test languages (with other possible measures shown for comparison):

% Cognate with:	WEIGHTED MEAN	Simple High	Simple Mean	Simple Median	Simple Low
Dimasa	.54	.57	.52	.52	.48
Jinghpaw	.52	.60	.50	.48	.45
Burmese	.37	.40	.37	.36	.34
Lushai	.34	.39	.34	.33	.31
Ao Mongsen	.37	.39	.37	.37	.36

The weighted means differ from the simple means (and by more than 1% from the medians) only for Dimasa and Jinghpaw. Their values allow us to insert Northern Naga into our clinal chain as follows:



Again, we have six order-of-magnitude classes graphically distinguished by the "strength" of the lines representing

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the links in the chain. This time, however, the strongest class includes not only the primary relationships of Northern Naga with Dimasa and Jinghpaw, but also the secondary relationship -- i.e., what has now become a secondary relationship -- between Dimasa and Jinghpaw. Clearly, these three units form, within the context of the array of scores diagrammed, a coherent group; we shall have a final word about their exact relation to one another below.

The next two classes are, as before, confined to the level of primary relationships. The three remaining secondary relations (mediated by only one intervening language in the chain) are of the fourth order-of-magnitude class. All three tertiary relations (mediated by two intervening languages) are of the fifth class. So is that between Dimasa and Lushai, mediated by three intervening languages (but note that its value is one percentage point lower than those of the two tertiary relations which it reflects). The sixth class consists of only the maximally distant relation between Dimasa and Ao Mongsen, mediated by four intervening languages.

Unlike the chain formed by only the five test languages, however, this one is imperfect: it is "short-circuited" by a fourth-order relation between Northern Naga and Ao Mongsen, where we should expect a fifth- or sixth-order one (31% or less) if this relation were purely transitive. Even though it is relatively weak, this

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relation emerges as significant in the context of the otherwise regular clinal model, particularly in view of the fact that the relation between Dimasa and Ao Mongsen is the weakest of all. It is to be interpreted as reflecting a late communicatory field embracing NN itself (for there is virtually no variation, and no patterned variation at all, in the levels of agreement of the various Northern Naga languages with Ao Mongsen [range: 39-36%]) and some language ancestral to Ao Mongsen <u>within</u> the hill country of the divide. This is entirely plausible, as the territories in which Konyak, Phom, and Chang are spoken are all contiguous to the Ao country, though to that portion of it which is dominated by Ao Chongli. That the relation between Northern Naga and Ao Mongsen goes back to the level of the protolanguage (NN) is further supported by the facts that the indices for Ky-AoM and Ph-AoM are the <u>lowest</u> for any of the Northern Naga languages (both 36%), and while that for Ch-AoM is the highest (39%), Chang-Ao territorial contiguity is of recent date (see Section 1.3 above).

On the next page, as before, I give a schematic mapping of the chain diagrammed above (primary relationships only) onto geographical coordinates. As before, it is the linguistic distances which are to scale; that is, the lengths of the lines constituting the links in the chain are proportional to the probable time depths of separation among the languages compared, as indicated

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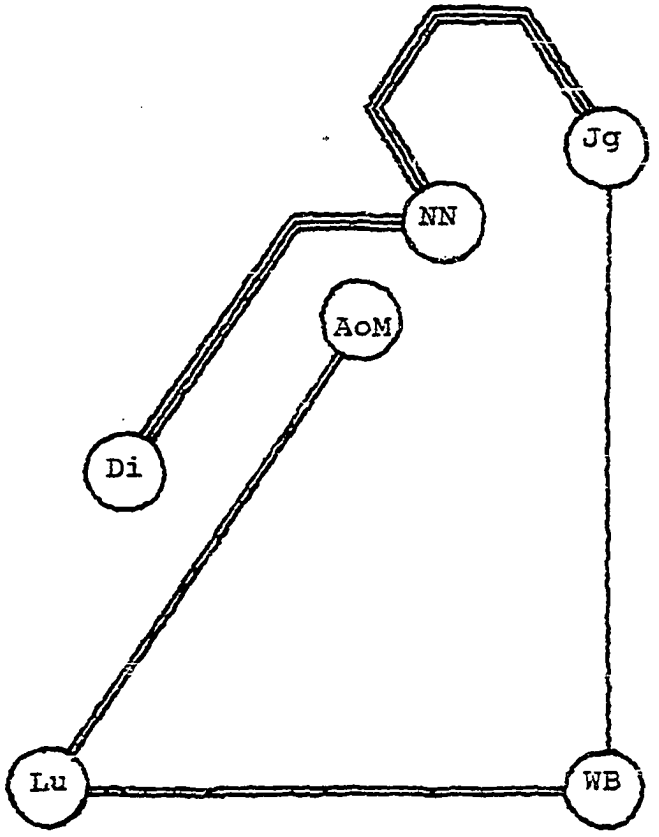
by the levels of cognacy given above (utilizing the conversion table in Swadesh 1971: 284). Given these linguistic distances, I have attempted a rough representation of the relative geographical positions of the languages and of the probable routes which carried them to these positions:



This representation captures, more accurately than the previous one, the relative position of Dimasa to the southwest of Ao Mongsen. It traces the probable route of entry of the Bodo-Garo languages into Assam valley over the head of the Assam-Burma divide (W and then SW) and shows the intrusion of Northern Naga up into the hills of

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the divide, where it remains in closer proximity to Jinghpaw than to Dimasa. At the other end of the chain, it shows the suggested northeastward movement of the Southern and Central Naga languages up the divide, and the proximity thereby established between Northern Naga and Ao Mongsen.

These last two diagrams present my solution to the problem of the place of Northern Naga in Tibeto-Burman on a long view. It remains to specify more precisely the implications of this study for its relation to the languages to which it is most closely related, Dimasa and Jinghpaw. In terms of cumulative historical relationship, the three are almost equally closely related; the 51% level of agreement between Dimasa and Jinghpaw is too high to be a merely transitive function of the 54-52% levels of agreement of these languages with Northern Naga. It barely satisfies the formal requirement of the clinal model. Nevertheless, it has been useful to present these relations in terms of such a model in order to show how the relations of these languages with the other test languages follow its contours. We know, however, that the Northern Naga-Jinghpaw score is inflated by the special association of Jinghpaw with Nocte and Tangsa. If we were to eliminate the six items for which Nocte-Jinghpaw agreement involves a Yo/Mo/No subgroup root which did not represent the item in NN, the Nocte-Jinghpaw score would be reduced from 65/116 = 56% to 59/110 = 54%; if we were to count

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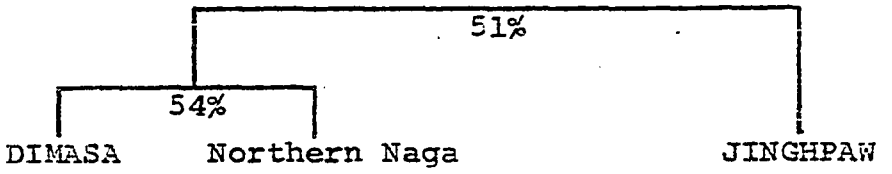
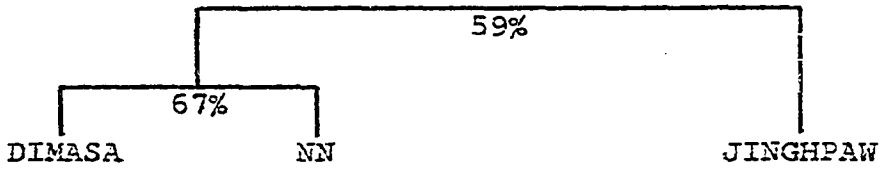
these items as cases of non-agreement, as if they involved loanwords (which some of them indeed may), the score would be reduced to 59/116 = 51%. Comparable treatment of the six such items shared by Tangsa-Jinghpaw (five of the above, plus 'red') would reduce the Tangsa-Jinghpaw score from 70/116 = 60% to 64/110 = 58% or 64/116 = 55%. The effects of these adjustments would be to lower the weighted mean agreement for Northern Naga-Jinghpaw from 52% to 51% in the first instance and 50% in the second. The first of these figures is identical to that for Dimasa-Jinghpaw, allowing us to construct the following branching-tree model:



The difference between the two (or three) figures is still slight, suggesting that the separation of Northern Naga from Bodo-Garo followed soon after the separation of Baric and Jinghpaw; though, as we saw above, when the comparison is made at the level of the protolanguage, the difference is clear-cut:



(When I first presented this latter model in Section 5.2.1

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I showed the Baric-Jinghpaw score as a range, 59-56%, but it is the 59% [NN-Jinghpaw] score which should be used, as this is comparable to the 67% NN-Dimasa score in referring to an earlier time depth.)

The important point here is that despite the difference in the scores on which these two models are based, they are structurally identical. Despite uncertainty as to where to set the Northern Naga-Jinghpaw score for comparative purposes (from an unadjusted weighted mean of 52% to the median at 48%), the Northern Naga-Dimasa score, whatever measure is used, is always higher (54-52%). Thus the conclusion to be drawn from the comparison of pairwise indices of agreement among data languages is the same as that which we drew from an analysis of the affinities of reconstructed NN roots: Northern Naga is more closely related to Dimasa than to Jinghpaw, and properly grouped with Bodo-Garo (or Barish) in a superordinate taxon which, following Shafer, may be called Baric. This grouping of Bodo-Garo and Northern Naga, however, is in turn closely related to Jinghpaw in a still more inclusive taxon, the "Kachin-Garo supergroup" of Benedict 1976.

In conclusion, let me present the major findings of this chapter in a combined diagram showing both the internal and external relations of the Northern Naga languages and the relations of the test languages with one another. Probable genetic relations, based on weighted means of levels of agreement which can be assumed to be

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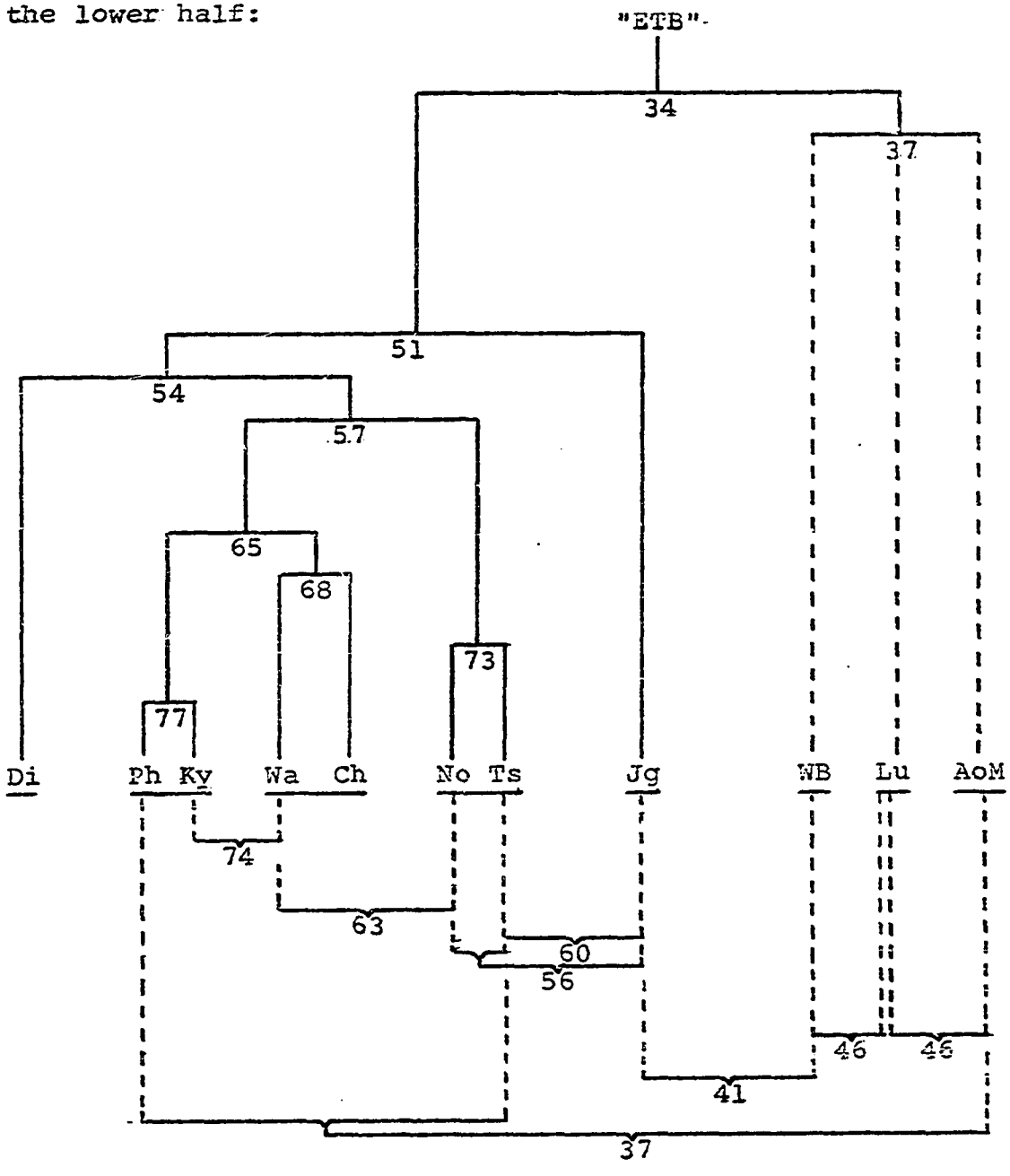
free of contact influences (where more than one such score is available) are shown in the upper half of the diagram; scores influenced by the re-establishment of a communicatory field among already separated languages are shown in the lower half:



The implication of the model, so constructed, is that Burmese, Lushai, and Ao Mongsen are scarcely more closely

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related to one another than they are to the Baric-Jinghpaw grouping when contact influences are discounted; but my comparisons were not designed to give assured answers to questions of this sort. To derive such answers, other Lolo-Burmese, Kuki, and (Central and Southern) Naga languages would have to be included. One might then be able to promote one or the other of the 46% agreement scores of Lushai with both Burmese and Ao Mongsen to the status of an indicator of genetic relationship. Existing classifications would suggest that the grouping Lushai-Ao Mongsen is the likelier of the two; and it is possible that because Burmese is represented here by the written language, with its greater time depth, all of its scores are inflated. But my own findings do not permit subgrouping in this case; the only possible inference from them is that the 37% agreement score for Burmese and Ao Mongsen represents the genetic component in the higher levels of agreement for the other two pairings, and that the overage reflects retardation in the rate of replacement of cognate forms due to (mediated) contact. The possibility that the Central (and Southern?) Naga languages may constitute a major genetic subgrouping of Tibeto-Burman, on a par with Lolo-Burmese, Kuki, and Baric-Jinghpaw, should, however, be seriously considered. That the last-named of these -- Bodo-Garo-Northern Naga-Jinghpaw -- does constitute such a major genetic subgrouping of Tibeto-Burman should, on the results of this study, no longer be in doubt.

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