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A Historical-comparative Study of the Tani (Mirish) Branch in Tibeto-Burman

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A Historical-Comparative Study of the Tani (Mirish) Branch in Tibeto-Burman

by

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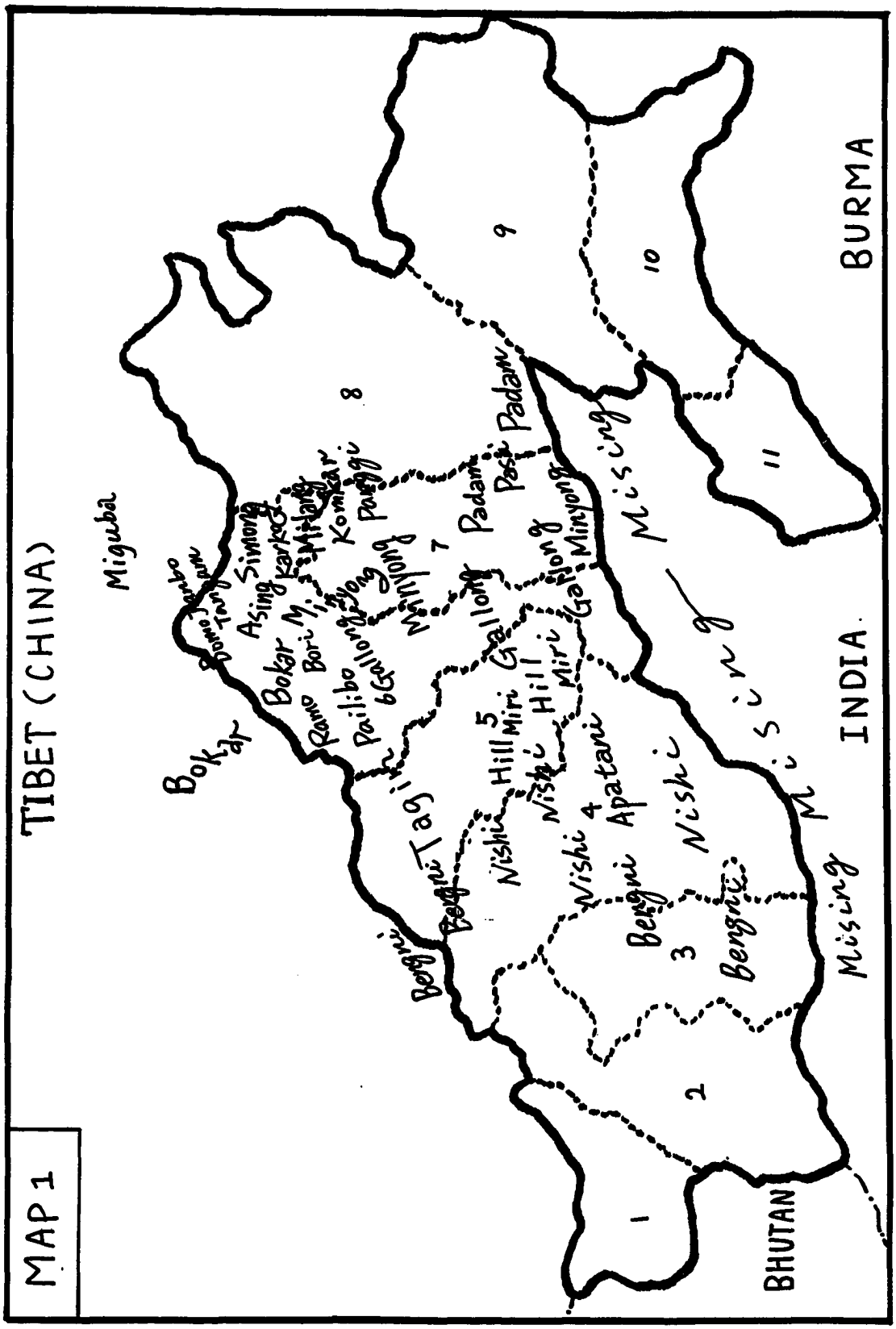

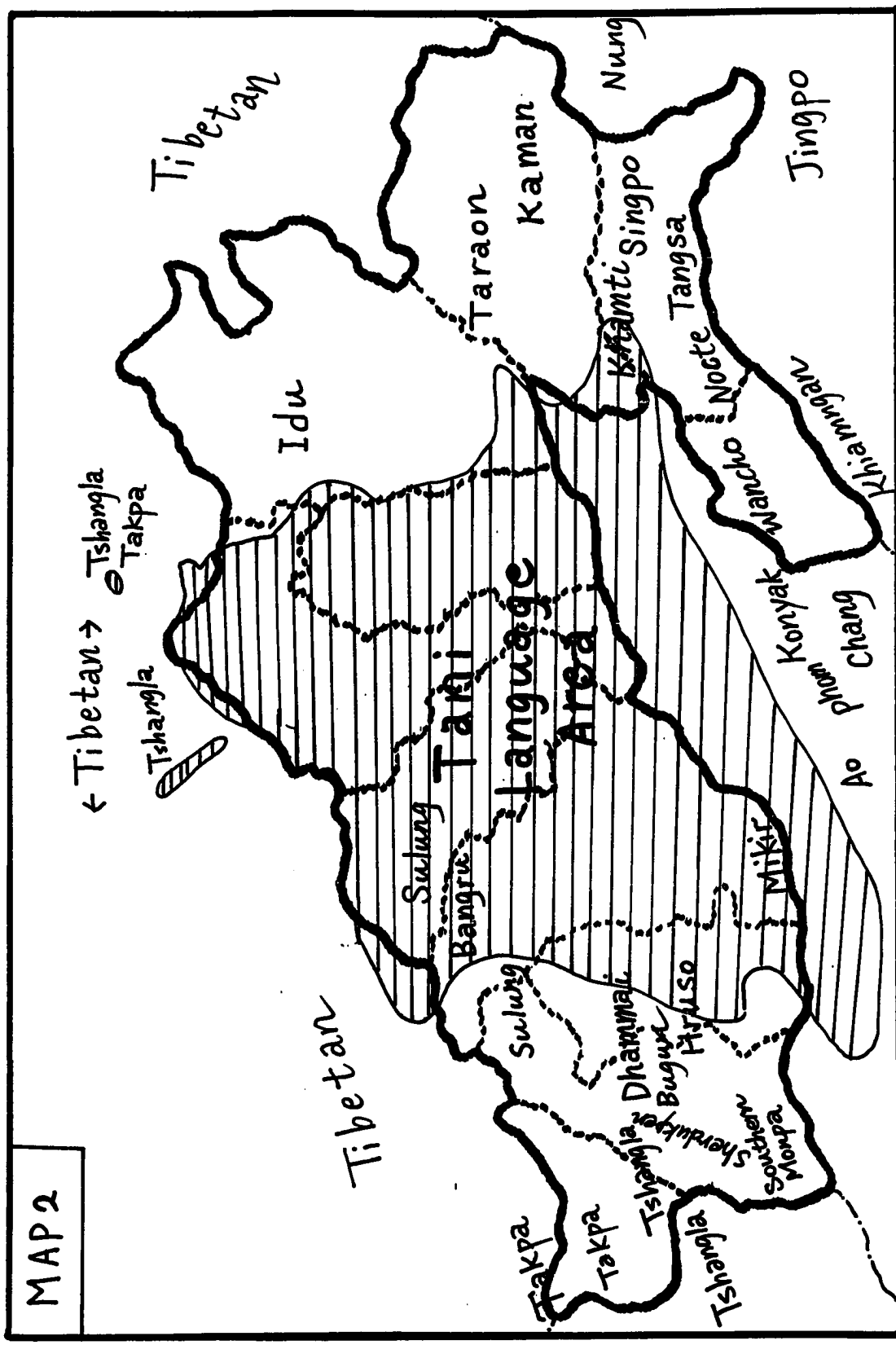

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Chapter I

Introduction

1.0. Preliminaries

1.0.1. Objectives and Limitations

This dissertation explores a branch of Tibeto-Burman languages which has been known previously under such names as Abor-Miri-Dafla, Mishingish, North Assam, or Mirish, but which we will refer to as **Tani**. Spoken chiefly in Arunachal Pradesh and abutting areas in southern Tibet and northern Assam, the Tani languages were already recognized to constitute a compact linguistic unit more than one and a half centuries ago (Brown 1837). Yet, even to this day, this important Tibeto-Burman group is still very much a terra incognita, due mainly to the inaccessibility of the regions where these languages are distributed. There are still no unequivocal answers to such fundamental questions as: (1) What languages belong to this group? (2) What are the phonological correspondences between these languages? (3) What are the main subgroups? (4) What are the phonological equations between this branch and Proto-Tibeto-Burman? (5) How do these languages relate to other Tibeto-Burman languages, especially those situated in the same language area?

The documentation of the Tani language has been considerably improved over the last two decades, making it possible to re-examine

the foregoing questions in the light of the newly acquired linguistic data, and to attempt a reconstruction of the sound system and core vocabulary of Proto-Tani (hereafter **PT**). These are the general objectives of this study.

Given our still limited knowledge on the numerous Tani languages and dialects, however, we will not presume to reconstruct the complete PT phonological system. To achieve this ultimate goal, we will need, in our estimation, well-recorded vocabularies of 3,000 words for at least seven to ten different Tani languages, and the more conservative the chosen languages are the better. Unfortunately, this demands a much more extensive documentation of Tani languages than is presently practicable. Both Arunachal Pradesh and the Tani-speaking localities in southern Tibet are still highly sensitive border regions, and large scale linguistic surveys (conducted by trained linguists) are unlikely to happen in either area in the near future. It now seems that we will have to content ourselves with a gradual and cumulative approach to this objective. What the present contribution aspires to achieve is then simply a preliminary framework which can be improved upon as our accumulated knowledge on the Tani languages gradually matures. Our initial efforts, hopefully, will become useful groundwork for the ultimate establishment of a clearly defined Tani nucleus in the Tibeto-Burman family.

1.0.2. Why a New Name?

A few remarks of justification are now in order for **Tani**, the new name we wish to give to this Tibeto-Burman group. Our drive for this

new cover name does not stem from whims of the moment or perverse desires to deviate from established terminology, but rather from a keen awareness that all of the currently existing alternatives are in one way or another inadequate. In the days of the Linguistic Survey of India, the expedient term **'North Assam'** was used to refer to the little-known Tibeto-Burman languages spoken in a stretch of land between Tibet and Assam. This geographically based label, adopted by Weidert (1987) to denote specifically the languages we now call Tani, is not very useful because of its misleading vagueness.[1] The other old term **Abor-Miri-Dafla**, composed of names of the three major tribal groups speaking these languages, must also be discarded, since the outdated pejorative exonyms it is based on are now resented by native speakers of these languages. The term **Mirish** (Benedict 1972), widely recognized as it is, is inappropriate because it is also based on the objectionable exonym Miri which not only sounds offensive to its bearers, but covers only a small subset (e.g. the Misings and the Hill Miris) of the Tani-speaking tribes. Founded on autonyms (i.e. of the Misings of Assam and some tribes of the Nishi-Bengni tribal complex), Robert Shafer's term **Mishingish** (q.v. Shafer 1967) is superior, but unfortunately also suffers from incomplete reference, since the term Mising is not recognized by such other major groups as the Apatanis, the Bengnis, and the Adis. There is, therefore, a real need to find an alternative term that can be readily acceptable to speakers of all languages belonging to this group, when a common comprehensive

[1]First, North Assam in this context should read 'north of Assam', rather than 'northern Assam'. Second, not all Tibeto-Burman languages found in this designated region are closely related, contrary to the implication of the term.

self-designation does not yet exist. Luckily, there is indeed some common ground on which such a term can be based; namely, speakers of these languages share a legendary ancestor by the name of **Abo Tani:** (not to be confused with Apatani the Subansiri tribe), with whom they all proudly identify. Further, in some languages of this group, **/ta-ni:/** is also the general word for 'person, human being'. It seems, therefore, reasonable to designate this group of Tibeto-Burman languages as **Tani.**[2] Actually, the term **Tani languages** in a similar usage has already been proposed twice in the literature, in one case by a native-speaking author (Padun 1971:87, Pegu 1981:102). Thus, in our opinion a solution to a long-standing naming problem can be reached by abiding by the principle of calling people what they wish to call themselves[3] and reintroducing sensible suggestions that so far have gone unheeded.

1.1. Significance of Proto-Tani Reconstruction

Proto-Tibeto-Burman (**PTB**), the hypothetical common ancestor of all Tibeto-Burman languages, has not yet been thoroughly reconstructed. In the past, various scholars have attempted partial reconstructions of PTB on the basis of a limited number of individual

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[2]We have experimented with adding the -ish suffix to this term. For esthetic reasons, we have decided that the bare stem form **Tani** seems preferable to the suffixed form **Taniish.** Two other major Tibeto-Burman groups that still bear unaffixed appellations on the same esthetic grounds are Yipho and Kiranti (instead of *Yi-ish and *Kiranti-ish).

[3]This is from the Chinese dictum, míng cóng zhǔ rén (i.e. With regard to names, one follows the wish of their bearers), a principle which the Chinese themselves have not always abided by when naming their non-Han neighbors in the past; for an amusing account of the issue of autonym vs. exonym, please see Benedict 1987.

Tibeto-Burman languages. This approach to historical reconstruction, termed by Benedict 'teleo-reconstruction' and employed with remarkable success in Benedict 1972, is a useful expedient which can chisel out working outlines of the proto-system at a time when the dearth of satisfactory descriptive data on modern languages renders a more rigorous branch-by-branch comparative reconstruction impracticable. However, a proto-language cannot be considered to be satisfactorily reconstructed until the sound laws that account for the developments of the various daughter languages are exhaustively uncovered. Judging by this standard of rigor, PTB reconstruction still remains at a rather immature stage, although tremendous progress has been made in recent years.[4] It seems to us that an equally important (and perhaps more urgent) task that can significantly upgrade our present understanding of historical Tibeto-Burman phonology is to keep documenting the hundreds of poorly described modern Tibeto-Burman languages before it is too late,[5] and fill in the gaps left by the teleo-reconstructional process by working out the proto-languages of

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[4]A systematic revision of the PTB reconstructions in Benedict 1972 (hereafter **STC**) has not yet appeared. Both the author and the contributing editor of STC, however, have suggested significant amendments to the PTB and Proto-Sino-Tibetan (**PST**) reconstructions in STC in subsequent publications (e.g. Benedict 1976a; and especially Matisoff 1985a, 1985b). A large batch of such revisions are also scheduled to appear in the output of the comprehensive Sino-Tibetan Etymological Dictionary and Thesaurus Project at UC Berkeley (principal investigator: Professor Matisoff), of which the first fascicle on body-part terms is now in preparation.

[5]Many poorly documented tribal Tibeto-Burman languages are now moribund. Incidentally, Tibeto-Burman field workers will do historical linguists a good turn by making sure to produce **full-sized** bilingual dictionaries. This, alas, has rarely happened in the past. Brief wordlists of a few hundred words appendixed to descriptive grammars, even if well-recorded, are not very useful for historical comparative research. Professor Matisoff's exemplary Lahu dictionary (Matisoff 1988b), if supplemented with an English-Lahu index, would be an ideal model for Tibeto-Burman field workers to emulate. Good comparative Tibeto-Burman vocabularies, for example Hale 1973 on TB languages of Nepal, and Anonymous 1991 on those of China, deserve even greater appreciation.

the various intermediate branches, or **mesolanguages.**[6] The advantage of step-by-step, from-the-bottom-up reconstruction over directly comparing modern languages cannot be overstated. The restitution of the ultimate proto-language is facilitated immensely by the existence of intermediate proto-languages not only because the latter mirror the linguistic past of the subgroups they represent more fully than any modern language, but also because secondary innovations in the daughter languages are weeded out in the process of deriving the respective mesolanguages, so that there are simply fewer extraneous details to lead the comparative linguist astray. Up to now, the Tibeto-Burman mesolanguages that have been partially worked out include Lolo-Burmese (Burling 1967, Matisoff 1972, 1979, Thurgood 1974, Bradley 1978), Bodo-Garo (Burling 1959), Naga Kukish (Shafer 1950a, Weidert 1979, 1987),[7] Kuki-Chin (Ono 1965, Weidert 1979), Northern Naga (French 1983), and Karen (Jones 1961, Haudricourt 1975, Benedict 1979). In addition, Proto-Kiranti and Proto-Tamang are now in preparation (Boyd Michailovsky and Martine Mazaudon, p.c.). With few exceptions, however, these reconstructed mesolanguages exist only in bare blueprint form, since etymological dictionaries have rarely been compiled to give the reconstructions

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[6]For the origin of this term, please see Matisoff 1978a: 252.

[7]The label Naga Kukish reflects Shafer's belief that all of the languages spoken by the Naga tribes except Northern Naga languages (which are affiliated with Bodo-Garo) are closely related to Kuki-Chin, which he calls 'Central Core' Kukish. This view seems to be espoused by Weidert, who, though separating the Naga Kukish languages into three groups: Naga I (e.g. Angami and Sema), Naga II (e.g. Lotha and Ao), and Naga III (e.g. Liangmei and Zemei), links them all with Kuki-Chin under his Kuki-Chin-Naga branch.

substance.[8] A major contribution of PT reconstruction is, therefore, the addition of one more important item to the growing list of Tibeto-Burman mesolanguages, so that future Tibeto-Burman historical work will stand on more solid ground to the extent that the Tani evidence for PTB shall no longer comprise randomly picked forms from individual modern Tani languages.

1.2. Tani Tribes and Languages

The valleys and hill tracks of the Eastern Himalayas remains a largely unexplored frontier of the Tibeto-Burman tribal world. Here is situated a vast region which Tibetans throughout the ages have called ཀློ་ ཡུལ་ **Klo-yul** ('barbarous country'), and since February 1987 has become a new state of India, Arunachal Pradesh (alias Land of the Rising Sun).[9] This is the homeland of the Tani languages. The tribal groups that speak these languages therefore live mainly in currently Indian territory. Specifically, They concentrate in the Sibsagar,

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[8]Actually, Professor Matisoff's colossal Lahu dictionary (Matisoff 1988b) is in itself an etymological dictionary of Proto-Lolo-Burmese because of the rich etymological information supplied with almost every entry. French 1983 also contains a miniature Northern Naga etymological dictionary, but the data on which the reconstructions are based (all second-hand) leaves much to be desired. Also, the reconstructions in the latter work often go beyond the evidence of the data itself and seem suspiciously close to the PTB roots. For instance, we are told clearly that French's data is sufficient only for reconstructing **segmental** phonology (section 2.2.4.), yet, many of the PNN forms are posited with tones (all of which, no doubt, were offered by Benedict p.c. to French, e.g. *ŋya^{B} 'fish', cf. Benedict's PTB reconstruction *ŋya^{B}). But it strikes us as dangerously circular to force the PST tonal system (itself a **controversial postulation,** cf. Matisoff 1987:30-1) onto the mesolanguage of a Tibeto-Burman subgroup, without first checking the evidence of the modern tone systems of that subgroup (not available to French at the time of his writing).

[9]Territorial disputes between China and India over this border area have quieted down nowadays but have not been completely settled.

Dibrugarh, and Darrang districts of Assam, and East Siang, West Siang, Dibang Valley, Upper Subansiri, Lower Subansiri, and East Kameng districts of Arunachal Pradesh. Small pockets of Tani-speakers are also found on the Chinese side of the border, mainly in Sminling, Lhunrtse, and Metog counties of the Autonomous Region of Tibet.[10] As a rough estimation, there may be around 600,000 speakers of Tani languages in the present world.[11] The major Tani-speaking tribal groups are the Adis (paleo-exonym Abor) with many culturally and linguistically related subtribes, Nishis and Bengnis (paleo-exonym: Dafla), Hill Miris, Tagins, Apatanis of Arunachal Pradesh,[12] and the Misings of northern Assam. The Tani language area (see **Map 1**), barring a few aberrant linguistic islands, seems to consist of a continuum of mutually intelligible local varieties shading gradually into one another. The Tani branch, as far as we know, contains at least the following significantly divergent varieties: (1) Apatani (2) Milang (3) Bokar (perhaps also the speech of related tribes such as Pailibo, Ramo, and Asing) (4) Damu (5) Mising and Padam (and perhaps also the

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[10]The Tani-speakers of China are officially recognized as belonging to the Luoba (from the Tibetan pejorative term `klo-ba`, euphemistically shifted now to `lho-ba`, i.e. 'southerners' which used to refer rather to the Bhutanese) nationality, which also includes a number Tibeto-Burman tribes speaking non-Tani languages, such as Sulung, Bangru, and Idu.

[11]The numerically most important Tani language is unquestionably Mising, with at least three hundred thousand speakers (figure based on Pegu 1981:14). Taid (1987:130) gives the surprising number of half a million for the Mising pupulation, whilest the entire tribal population of Arunachal Pradesh by 1981 is only 628,000. It is not clear whether this figure is realistic, nor is it known what percentage of ethnic Misings still speak their own language. Chhangte 1992a:1 places the number of Nishi speakers (presumably including the Bengnis?) at 130,000.

[12]The Tani-speaking area covers some 40,000 square kilometers, or roughly half of the area of Arunachal Pradesh (Simon 1978).

speech of such Adi tribes as Bori, Pasi, Panggi, Simong, Minyong, and Karko) (6) Bengni, Tagin, and some northern (e.g. Nishing DG) and western dialects (e.g. Yano B) of Nishi (7) Gallong and perhaps Hill Miri and neighboring dialects of Nishi (8) Such other Nishi dialects as Sagali, South Aya and Leli (Chhangte 1992a), Tagen B, and Nyisu H. Incidentally, it is important to note that the ethnologically based tribal divisions do not always coincide with linguistic ones. In the existing literature on Tani ethnology and linguistics, some of the Tani tribal names are put to use as **linguistic** terms.[13] Marrison 1988:207 claims for instance that 'there is one principal language of the Siang region, the Adi...with dialects which to some degree correspond with tribal divisions'. This statement is falsified by the following facts. First, Padam Adi and Mising resemble each other more than either does to the speech of the Bokar Adis, even though the Padam Adis and Misings are considered to form two separate ethnic groups. Similarly, the Tani dialects spoken by some of the Gallong Adis are more similar to some varieties of Nishi than to the speech of any other Adi groups. Furthermore, one of the most divergent languages of the entire Tani branch is spoken by the Milang tribe, which belongs to the Adi tribal complex on **non-linguistic** grounds. What is even more confusing is the practice of some Indian publications to refer to the Bangni, Nishi, Tagin, Hill Miri, Sulung, and Bangru tribes by the socio-culturally motivated blanket term 'Nishi' or 'Nishang'; the languages of the

[13]Thurgood (1985:81), for instance, seems to use the term 'Adi languages' to denote the whole Tani branch.

Sulungs and Bangrus do not even belong to the Tani branch.[14] Therefore, it seems prudent in purely linguistic discussions to handle such blanket ethnic terms as 'Adi' and 'Dafla' with caution. In this dissertation, therefore, we will operate rather with **specific varieties of Tani** as described in the primary sources, each of which is identified with a binome consisting of the ethno-linguistic name followed by the initial of the respective author's family name (e.g. Apatani S (for I. M. Simon's Apatani), Apatani W (for Alfons Weidert's Apatani), etc.[15] For the sake of convenience, we will refer to all these varieties loosely as 'languages', even though strictly speaking some of them may be more properly regarded as dialects of the same language.

1.3. Background of the Tani Language Area

The Tani language area, with its formidable natural barriers (even to this day), and the reputation of its inhabitants as fierce raiders and warriors (no longer true today), has had all of the qualities

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[14]Sulung is a newly discovered distinct Tibeto-Burman language showing remarkable similarities to Bugun, another obscure Tibeto-Burman language spoken further to the west of the Sulung country. Bangru (autonym Levai [lə-vɛ], not to be confused with the western Hindi dialect bearing the identical name, is closely related to Dhammai (exonym Miji), and thus belongs to Shafer's Hrusish group.

[15]In addition to the major sources on the five 'key languages' (see below), a number of supplementary sources have also been consulted, of which the following have been more frequently drawn upon:

Apatani W	Weidert 1987	Mising T	Taid 1987a;1987b; p.c.
Bokar M	Megu 1990	Nishi C	Chhangte 1990; 1992a; 1992b
Bori M	Megu 1988	Nishing DG	Das Gupta 1969
Damu OY	Ouyang 1985; p.c.	Nyisu H	Hamilton 1900
Gallong DG	Das Gupta 1963	Padam T	Tayeng 1983
Gallong W	Weidert 1987	Tagen B	Bor 1938
Hill Miri S	Simon 1976	Tagin DG	Das Gupta 1983
Milang T	Tayeng 1976	Yano B	Bor 1938

that promote linguistic seclusion and dialect diversification. It does not seem, however, that Tani languages have been in any sense linguistically isolated. On the contrary, the home of the Tani-speaking tribes, in the words of Sten Konow, 'may be considered a kind of backwater...the eddies of the various waves of Tibeto-Burman migrations have swept over it and left their stamp on the dialects' (Konow 1909b:572). In fact, the Tani languages themselves do not appear to be indigenous to the present regions they occupy. A number of facts suggest that the Tani speakers represent relatively recent waves of Tibeto-Burman migrations to Arunachal Pradesh and all the way to the Brahmaputra Plain. First, the migration routes recorded in the oral traditions of many northern Tani tribes, such as Ramo, Bokar, Tagin, and Simong, point unambigously to southern Tibet as their original habitat (Roy 1960:11-17). In the case of the Tangam tribe, their forced exodus from the Padma-bkod (Motuo county) area in southern Tibet and resettlement in northern Arunachal Pradesh happened as late as the eighteenth century (Anonymous 1987: 131-132).[16] The striking linguistic uniformity of Tani tribes distributed over an extensive territory, the distinct racial types among the present-day Tani speakers (Fürer-Haimendorf 1982:22), and the enclaves of non-Tani languages (e.g. Bangru and Sulung) in the corners of this language area demonstrate the remarkable expansion of the ancestral Tani language to areas originally occupied by other linguistic groups. The northern Adi languages, especially Bokar, Bori, Damu, and

[16]The motley tribe Miguba Luoba (consisting of only about eighty tribesmen from as many as five distinct branches) of the Damu area at Methog County of Tibet could contain remnants of the Tangams of Tibet.

perhaps also some dialects of Bengni and Tagin show ostensible linguistic influence from Tibetan and, to a lesser extent, Tshangla. At the other end of the Tani language area, more external linguistic influence has come from Indic, especially in the language of the Misings (previously known as the 'plains Miris') who have long since settled down in northern Assam and have been gradually assimilated to the Indosphere.[17]

The immediate neighbors of Tani languages are the three Mishmi languages Taraon (Digaro), Idu (Chulikata), and Kaman (Miju) to the east, Singpo (a dialect of Jingpo), Northern Naga (Tangsa, Wancho, Nocte) and Khamti (a Tai language) to the southeast, Tshangla and Tibetan to the north, Northern Monpa (Takpa), Bugun, Lishpa, Sherdukpen, Hruso, Dhammai, and Bangru[18] to the west, Bodo-Garo, Mikir, and Assamese (Indic) to the south (please see **Map 2**). As a result of extended mutual contact, traces of structural and lexical similarities have long been noted between Tani and neighboring Tibeto-Burman languages, especially Hruso and the Mishmi languages. This is why Tani was tentatively placed with these languages under the geographically based '**North Assam Group**' in the Linguistic Survey of India. While the complicated linguistic relations among the little-

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[17]This term is proposed by professor Matisoff to refer to those mainland Southeast Asian languages exposed to extensive Indian cultural and linguistic influence (Matisoff, in preparation).

[18]All of these languages have only very recently become accessible for linguistic study. From the meager published data, it seems likely that Bugun, Lishpa, and Sherdukpen may constitute a new Tibeto-Burman group yet to be recognized (Bugunish?). The peculiar Sulung language (whose autonym Puroit [pu-ɣoʂ~pu-roʂ] also seems relatable to the autonym Bugun) may also turn out to be most closely akin to this group. Hruso and Dhammai (= Miji = Shafer's Dialect A of Aka) were already recognized to form a single Hrusish group (Shafer 1947), to this group we may now add Bangru.

known 'North Assam' languages are yet to be fully disentangled, recent suggestions to associate Tani with such Tibeto-Burman languages as rGyarong (Nagano 1984) and Lepcha (Bodman 1988) add further complication to the issue. Although it is relatively easy to determine whether a language belongs to **Tani proper** or not,[19] the higher-order relationship between Tani and other Tibeto-Burman languages are far from straightforward. Clearly, only by properly understanding the characteristic linguistic structures of Tani, and successfully reconstructing PT phonology and lexicon will we be ready to conduct a truly convincing appraisal of the genetic position of this Tibeto-Burman nucleus. The comparative study of Tani therefore may hold the key to some of the old mysteries in the phylogenetic interrelations of the vast Tibeto-Burman language family. We will be defer full treatment of this topic until Chapter V.

1.4. Previous Research on Tani Languages

1.4.1. Descriptive Studies

Descriptive study of individual Tani languages in terms of modern linguistic techniques has yet to make much headway. Tani still remains one of the most under-explored major Tibeto-Burman branch, despite the appearance of a number of publications on these languages over the years. Written mostly by (and for) non-linguists,

[19]Thus, we can now say with confidence that, Milang, notwithstanding its aberrancy, is indeed a Tani language, whereas Hruso (pace Nishida 1979:77), Bangru, Sulung, Dhimal, and the Mishmi languages are not.

many of these publications are meager and unsatisfactory. They should however be greatly appreciated for enhancing our overall knowledge on this linguistic group, particularly considering the tremendous practical difficulties involved in conducting fresh in-situ field research in Tani country.[20] Following is an author-by-author survey (in chronological order) of the more important of these descriptive endeavors.

M. A. Robinson

Robinson 1851 is one of the world's first records of Tani languages. The variety described therein was not identified but was spoken by Daflas who call themselves **Bangni**. The liguistically relevant portion of this paper is only a grammatical sketch followed by a vocabulary of about 120 words. It is important not just for its historical value but also because the dialect of Bangni recorded turns out to be very conservative with regards to initial consonant clusters (e.g. **a-pli** 'four'; **ak-ple** 'six'; **plag-nag** 'eight', **mlo**-di 'hill'). Shafer (1967) calls this dialect Central Nyising and says (and we concur) that it agrees in essential points with Western Nyising or Bor's Yano Bengni (see below).

[20]In Arunachal Pradesh, the 'Inner Line' policy handed down from the British colonial administration forbidding all outsiders to enter the area without a special permit, is still enforced by the Indian government. On the Chinese side of the border, southern Tibet is still very much off-limits to foreign visitors.

J. F. Needham

Needham 1886, written by a British civil officer stationed at Sadiya, is the first book-length account of any Tani language and hence is a much more substantial contribution than Robinson 1851. This booklet contains a description of Miri (Mising) as spoken by the Shaiyang (Sa:yang) clan, based on data collected during the author's residence at Sadiya for two and a half years. The transcription of the data is understandably impressionistic and inconsistent. For the purpose of the comparativist, the most valuable portion of the book lies in the 44-page English-Miri-Abor Vocabulary, although the rich collection of illustrative sentences in Part II and III (dealing respectively with morphology ('accidence') and syntax) are also useful for studying Mising morphosyntax.

R. C. Hamilton

The second major publication after Robinson 1851 was R. C. Hamilton's Dafla grammar (Hamilton 1900). The dialect described is a variety of Nishi (self-designation **Nyisu**) spoken to the north of the North Lakhimpur town, and termed by the author 'Eastern Dafla'.[21] This book, which follows Needham 1886 closely in both style and content, contains an outline grammar, some sentences and short

[21]This variety could be the same as what Chhangte 1992a:1 calls the **Durum** dialect of Nishi. In many ways, it seems to be one of the most important Tani languages for Proto-Tani reconstruction.

texts, and an English-Dafla vocabulary. The Nishi dialect recorded in the book is of particular diachronic interest in that it is remarkably conservative in terms of retention of PT consonant clusters whereas the original rhymes have been drastically reduced (e.g. **mɲo-bl** 'earthquake' < PT ***mroŋ-brɯ**).

J. H. Lorrain

J. H. Lorrain, a Baptist missionary well-known also for his classic dictionary on the Lushai language, made another enduring contribution to Sino-Tibetan studies by producing a comprehensive Abor-Miri (i.e. Padam-Mising) dictionary (Lorrain 1907). The copious material (over 3,000 entries in the Mising/Padam--English vocabulary section alone) in this book makes it still the best source on any Tani language.

The dictionary was compiled during the author's stay at Sadiya (June 1900-Feb. 1903). The main language treated in this work seems to be an unidentified variety of Mising, but the entries were also meant to cover the closely related Padam, and sometimes also other forms of Adi (e.g. Pasi-Minyong). When different dialect forms exist for the same gloss, disambiguating labels are used (A for Padam; P for Pasi-Minyong, and absence of marking for Mishing).

Despite some imperfections in the transcription of the data (more below), and the insufficient differentiation of the two varieties of Eastern Tani, this book is without doubt the single most important publication that makes comparative Tani linguistics possible, and will

remain one of the most influential dictionaries on Tibeto-Burman languages.[22]

N. L. Bor

N. L. Bor, an Indian civil servant stationed in NEFA, authored one of the most abundant lexical sources on Bengni-Nishi (Bor 1938). This article deals with two divergent varieties of Dafla, Yano (spoken by the Bengnis of East Kameng) and 'Tagen', or a variety of Subansiri Nishi. The first 25 pages of this paper is devoted to a sketchy Yano grammar, including scores of illustrative sentences and three short texts. The main body consists of a 37-page comparative vocabulary of Yano and Tagen. This source is rather difficult to use because of Bor's impressionistic and inconsistent transcription of the data which misses significant distinctions such as central vowels (/ə/ and /ɯ/) and vowel length while recording what appear to be non-phonemic distinctions (e.g. transcribing three e-like vowels: é as in French *été*; e as in English *pet*; and grave è as in French *è*). Handled with caution, however, Bor's paper can become a useful supplementary reference on the Bengni-Nishi languages.

[22]This dictionary made it possible for Padam and Mising (Abor and Miri) to be included among the pilot languages on which the Proto-Tibeto-Burman reconstructions in Benedict 1972 were based.

Nicholas C. Bodman

The distinguished Sino-Tibetanist Nicholas C. Bodman also did field work on some Tibeto-Burman languages of North-Eastern India in the sixties, including an unidentified dialect of Adi (Padam?). The Adi data has not been published, but extensively cited in his subsequent publications (especially Bodman 1988).

Grace Jolly

Grace Jolly is not only one of the earliest people in this century to do field work on Tani (Nishi and Apatani), but also wrote the world's first PhD dissertation related to Tani languages (Jolly 1970). Her corpus supposedly contains vocabulary lists, songs, stories, and proverbs in two dialects of Nyisi, the Lel and Aya dialects of the Subansiri District, recorded between October 1962 and April 1963 at North Lakhimpur, Assam. This dissertation, while a good source on Bengni-Nishi sociolinguistics and stylistic studies of Nyisi oral literature, is from a descriptive linguist's viewpoint very inadequate because of the paucity of actual Nyisi forms cited and the absence of any glossary. Also, the few Nishi forms that do appear in the text are of little use both for the lack of indication of dialect identity, and for the dubious transcription (e.g. no phonemic inventory given, vowel length not indicated, etc.). After her dissertation, Jolly presented only one more paper on Nishi at a Sino-Tibetan Conference (Jolly 1973), before disappearing completely from the scene, leaving most of her data unpublished.

Directorate of Research of the Government of Arunachal Pradesh (DRGAP)

This research center has over the years played an important role of providing valuable information on the various Arunachal Pradesh aboriginal tribes. Many of the Tani linguistic studies published to date were also done by language officers affiliated with this institution, notably K. Das Gupta and I. M. Simon. These publications are mostly language manuals meant for use by the civil servants of the local government; as such, their qualities are quite uneven from a linguist's point of view.[23] Yet, they deserve credit for bridging the gaps of our knowledge on many varieties of Tani. The phonological simplicity of Tani languages has also minimized the potential danger of using these materials. Outstanding among the DRGAP publications is Simon's manual on Apatani (Simon 1972). This is by far the most comprehensive and valuable source on the important Apatani language in existence, more useful for comparative purposes even than the supposedly more up-to-date Abraham 1987.

Nagaland Bhasha Parishad (NBP, Nagaland Language Society)

Under the guidance of B. B. Kumar, this Nagaland institution has also published dictionaries on the following Tani languages: Nishi (Kumar and Malo 1974), Apatani (Kumar et al. 1974), Hill Miri (Kumar

[23]The most common complaints are: dialect-mixture, impressionistic transcription, typos, and omission of important words in the bilingual glossaries.

and Hui 1974), and Padam Adi (Kumar 1976). Written in Hindi and using a Devanagari-based transcription system, most of these sources are difficult to use. However, we do not always share Weidert's disgust for language materials from NBP (Weidert 1981:2), for some of these items, Kumar 1976 for instance, contain more than 2,000 entries and the transcription systems (both the Devanagari and the Roman ones), in all fairness, do indicate important distinctions like central vowels and vowel length. Our personal judgement regarding the NBP publications on Tani is that, though inadequate as major data sources, they can indeed serve as good supplementary references and it would be a mistake to ignore them completely.

P. T. Abraham

A linguist affiliated with the Central Institute of Indian Languages at Mysore,[24] Abraham produced a reference grammar (Abraham 1985) and a small trilingual dictionary (Abraham 1987) on the Apatani language. The varieties of Apatani studied by Abraham seem less conservative than those of either Simon 1972 or Weidert 1987. The treatment of Apatani syntax in Abraham 1985 is tantalizingly brief (pp.121-141) but includes enough examples to highlight the specially interesting Apatani syntactic constructions. The collection of folktale texts (Appendix V) is another merit. The usefulness of Abraham's Apatani dictionary, however, is unfortunately diminished by the compiler's indiscriminate inclusion of variant forms from a number of

[24]Unfortunately, Abraham has already left CIIL (p.c. from P. P. Giridhar). His present academic affiliations and activities are unknown to us.

Apatani dialects. The awkward English glosses, the omission of important vocabulary items, and the profusion of typos are the other factors that detract from the value of this new source on Apatani.[25]

Tabu Taid

A Mising from the Oyan clan of north Assam, Taid is probably the best trained native-speaking Tani linguist in the world. The two important articles on Mising based on his unpublished University of Reading thesis[26] on Mising phonology and morphology, Taid 1987a and 1987b, provide the most up-to-date information on the Mising phonological system, morphophonemics, and dialect variation. Current director of the Anundoram Borooah Institute of Language, Art, and Culture (Guwahati, Assam), Taid has organized a couple of research projects on Tibeto-Burman languages of Assam, Mising included. Exciting new work on Tani linguistics seems to be in progress at this new center of Tibeto-Burman research.

Alfons Weidert

An eccentric but amazingly productive lone-wolf descriptive Tibeto-Burmanist, Weidert spent his lifetime recording and analyzing lesser known Tibeto-Burman languages of Nepal, Burma, and North-

[25]For instance, `ta-ko` 'body dirt' and `pu-di` 'to fart' are glossed respectively as 'waste coming out of the human body' and 'release the gas of the stomach'! Some entries seem completely incomprehensible, such as `tà-gé`, glossed 'be sober (serious in hearing)' and `bu-lju`, glossed 'tail frog'!

[26]This is now being revised for publication, Taid, p.c.

Eastern India. Conspicuous among his long-lasting contributions to Tibeto-Burman linguistics is the volume on Tibeto-Burman tonality (Weidert 1986), in which he cited a limited number of high-quality new data on two tonal Tani (which he called North Assam) languages, Apatani and Gallong. It is a great pity that with his tragic demise at Bangkok, his invaluable language materials, including the unpublished bulk of his Apatani and Gallong data, will probably be lost to the world forever.

G. E. Marrison

In an important recent paper, Marrison, who is well-known in the Tibeto-Burman field for his 1967 SOAS dissertation on the subclassification of Naga languages, surveys the Adi-Dafla (i.e. Tani) branch of Tibeto-Burman (Marrison 1988). During his stay in northern Assam in 1964, Marrison had opportunities to study such Tani languages as Padam, Miri (Mising), Tagen (Nishi), and Apatani. In this paper, Padam is treated as a representative Tani language; its phonological system and a few sample sentences are given. A useful comparative vocabulary of eight Tani languages/dialects appears in the appendix, the Padam, Miri, Tagen, and Apatani forms being taken from Marrison's field notes. The bulk of Marrison's Tani material is unfortunately not yet published.

Ouyang Jueya

The Tibeto-Burman field is fortunate to have had Ouyang Jueya, a renowned Chinese Tai-Kadai specialist at the Chinese Academy of Social Sciences to contribute, purely by accident, his descriptive expertise to Tani linguistics. Assigned willy-nilly to the Tibet Ethnological Expedition to study the minor Tibeto-Burman languages of the Tibet-Indian border in 1976, he became involved in the investigation of three Tani languages, Bokar, Damu, and Bengni. When the results of his research on Bokar was first published (Ouyang 1979), it became one of the first pieces of Tani linguistic writing produced by a professional linguist. Consisting of a brief account of the basic structures of the Bokar language, this paper is similar in content to the Luoba-language section of Sun et al. 1980, which is the official report of the above-mentioned expedition. A special merit of Ouyang's work is his observation that Bokar, Damu and Bengni do not have contrastive tones. Although the existence of atonal Tani languages has been suspected by previous scholars, it is in Ouyang 1979 that the first definitive statement to this effect was made.[27] The Bokar lexical data was not released, however, until the appearance of Ouyang 1985, a booklet containing an outline Bokar grammar, a Chinese-Bokar vocabulary, and a comparative study of the phonemic inventories of Bokar, Bengni, and Damu.

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[27]Ouyang's opinion on the lack of tone in Bengni seems, however, not entirely correct, please see 2.2.4.2. below.

Thangi Chhangte

An ethnic Lushai and a current graduate student at the University of Oregon, Chhangte is among the few fortunate non-local field workers to manage to penetrate the barriers to Arunachal Pradesh, the forbidden homeland of the Tani languages. Her field research was done mainly at Itanagar, Lower Subansiri District, during 1989 and 1990 with speakers of (Padam?) Adi and several varieties of Nishi. The results of her work have formed the basis of two conference papers, respectively on Nishi grammar (Chhangte 1990) and Nishi phonology (Chhangte 1992a).[28] She is currently planning a second field trip to Arunachal Pradesh (Chhangte, p.c.), and many more exciting contributions to descriptive Tani linguistics may be anticipated.

Jackson T.-S. Sun

My own fieldwork on the Tani languages was conducted at Lhasa and Rtsedthang (Tibet, China) during the Fall of 1992. It was at Lhasa that I met my Bokar consultant, a female speaker from the Saji clan. I had time only to go over with her the Bokar lexical material recorded by Ouyang Jueya, besides consulting her on a few morphosyntactic areas. At Rtsedthang I was lucky to be able to work more extensively

[28]The fact that her data comprise forms taken from three insufficiently differentiated Nishi dialects has, unfortunately, made it difficult to benefit fully from her useful work. Forms from her wordlist (distributed at the 1992 Sino-Tibetan Conference at Berkeley), however, will be cited sporadically in this dissertation under the label Nishi C, which is not to be taken as a uniform source of data.

with three speakers of Bengni. Since their varieties of Bengni are all slightly different, I decided at the outset to stick to one consultant during field sessions (in which usually all three speakers participated) while taking note of dialectal differences as they occurred. As a result, a corpus consisting of over two thousand lexical items and some illustrative sentences was gathered. Some of the new data have formed the basis for a recent paper surveying the global typological features of Tani languages (Sun to appear in 1993b). I intend to continue doing field work on the Tani languages of Tibet after this dissertation, given favorable circumstances.

1.4.2. Diachronic Studies

The dearth of descriptive documentation of the modern Tani languages has hampered the development of diachronic Tani linguistics. In the past, very few linguists tried to study these languages from a historical point of view, let alone attempt full-scale reconstructions of the PT. We are still lucky, however, to be able to cite the following forerunners to this present work:

Georg Morgenstierne

One of the most important contributors on diachronic Tani linguistics also happens to be a non-Tibeto-Burmanist. Georg Morgenstierne, an eminent Iranian specialist, chanced to participate in a linguistic tour to the Adi country in 1949. This unique experience with the various Adi dialects of the Siang Valley, aided by comparative

data from such earlier sources as Hamilton 1900, Bor 1938, and Lorrain 1907, enabled him to put out Morgenstierne 1959, a collection of observations regarding the consonantal correspondences among the Tani languages. Although loosely organized and far from exhaustive, this paper does highlight such important topics of comparative Tani consonantism as PT *h- and *č-, the stop and nasal codas, palatalization processes, and consonant clusters.

The greatest value of this paper lies in its insightful discussions of over a hundred roots, for some of which tentative reconstructions are suggested. Although Morgenstierne's hunches are often on the right track, the actual reconstructions would have benefited much from information on the indispensable Apatani language, which is quite conservative with regard to the PT consonant clusters.

The following remark on the obvious advantage of reconstructed PT for comparative Tibeto-Burman in his concluding section, which has provided inspiration for this dissertation project, is worth quoting (Morgenstierne op. cit.: 307):

> ...it may...be of some advantage to further (TB) research to be able to start, not from eastern Dafla bla, Padam bat, but from ***blat** 'vomit'...not from eastern Dafla yo, Yano Dafla rak, and Padam yok, but from ***lyok** 'iron'...

Robert Shafer

Besides Morgenstierne 1959, the section on Mishingish (i.e. Tani) in Robert Shafer's trail-blazing work (Shafer 1967) represents

the only other important early exploration in historical comparative Tani.

The limited data at his disposal misled Shafer in a number of cases, such as his erroneous supposition that the distinctive manner feature for Tani stops was aspiration, whereas the actual contrast is voicing.[29] In general, however, Shafer's observations are usually perceptive, and this brief article should be studied carefully by anyone who wishes to venture further in comparative Tani.

The most substantial part of the section, a few charts illustrating Tani phonological correspondences with Old Tibetan, Written Burmese, and Kuki, have served as a useful starting point for our own comparative studies on PT and PTB, presented in Chapter IV.

Paul K. Benedict

Benedict, another great pioneer in comparative Tibeto-Burman linguistics, has also dirtied his hands in various early sources on Tani languages, the materials in which have been put to good use in his writings. In the monumental work Benedict 1972 (hereafter **STC**), about fifty Tani forms, chiefly Padam Adi and Mising forms from Lorrain 1907, are used to support various PTB reconstructions. Mising, which preserves PT rhymes relatively well, turns out to be a fortunate choice for the comparative study of PTB rhymes. However, Mising forms alone would not be very informative regarding the Tani

[29]It is hard to comprehend what might have led to this misconception, for Shafer did have access to Lorrain 1907, in which contrastive voicing is accurately transcribed.

initial system, since in this Tani language almost all traces of PT consonant clusters have been obliterated.[30]

All in all, Benedict's manipulation of the Tani data in STC is reasonably cautious, and the majority of his statements concerning Tani in that work are still tenable even in the light of our greatly improved database.

1.5. The Database

Our database, which is still growing, is compiled from a number of primary lexical sources on Tani languages. It now exists in two versions. The primary or condensed version contains only linguistic materials from the choicest sources, including unpublished new fieldwork data. The unabridged version incorporates in addition a number of supplementary sources which for one reason or another seem inadequate to serve as input to the comparative analysis in this dissertation, but may be adduced to corroborate generalizations derived on the basis of the primary data. Lexical data on the following five major Tani languages comprise the primary database: Bokar, Bengni, Mising, Padam, and Apatani. These languages (hereafter **key languages**) are chosen as the basis for comparative Tani reconstruction

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[30]Thus, Benedict reconstructs PTB *p(w)a STC #418 'palm of hand', based in part on the Mising form lak-po; the suggestive Padam Adi form lak-plo, unfortunately, was overlooked. It is now clear that we must reconstruct the Proto-Tani root as ***plo** 'palm, sole' instead, as suggested by the following forms from Tani languages in which the original consonant clusters are better maintained: Apatani S la?-p^{h}rjo, Bokar OY lok-pjo, Damu OY lak-pyo, Milang T lak-pju, Nyisu H la-plu. Furthermore, this PT form together with such Himalayish forms as Gurung jo-pla: and Sunwar 'ta:-pla (Hale 1973: 36-4) make it necessary to also posit a lateral medial for the PTB etymon. For a recent discussion of this root, see Matisoff 1985:447.

on account of both data quality/quantity and representativeness of modern Tani. The five languages of our choice represent four distinct, mutually unintelligible modern Tani languages occupying different corners of the Tani language area: Bengni to the northwest, Bokar to the northeast, Mising and Padam to the south and southeast, and Apatani to the southwest. The criterion of data quality/quantity precludes some other divergent forms of Tani, such as Damu OY and Milang T, as primary input to the phonological reconstruction. However, data from such sources will be cited in moderation in Chapter II to help clarify particular PT phonological issues, and much more extensively in Chapter III in the context of the subgrouping of the Tani languages.

Following are the major sources on the five key languages used in this dissertation:

(1) Bokar

The Bokar data is taken largely from Ouyang 1985 and Anonymous 1991 (henceforth **Bokar OY**). During my stay at Lhasa, Ouyang Jueya's Bokar wordlist was double-checked and supplemented with additional items with the help of a native speaker. These additional Bokar forms, as well as those that disagree with Ouyang Jueya's Bokar data, will be cited in this work with the label **Bokar S**(un). Forms from Megu 1990 (which records a slightly different variety of Bokar spoken in the Monigong area south of the Sino-Indian border, henceforth **Bokar M**) will also be cited where helpful, but will not be used in the comparative reconstruction.

(2) Na Bengni

The Na Bengni data were collected by myself at Rtsedthang County in Tibet. In this dissertation, only forms (henceforth **Bengni S**) provided by my main Na Bengni consultant are cited. This variety of Bengni differs in slight but significant ways from that of Ouyang 1985.

(3) Padam and Mising

Lorrain 1907 (henceforth **Padam-Mising L**) will be our major authority on these two closely related varieties of an important Tani subgroup hereafter to be labelled **Eastern Tani.**[31] Despite its vintage, this is the most extensive source on Eastern Tani currently available and is an indispensable tool for PT reconstruction. To derive the most benefit from this dictionary, some familiarity with Tani languages in general and Lorrain's particular transcription system is essential (see further below).

The Mising data in Lorrain 1907 will be supplemented by a wordlist of Mising (Taid 1993, dialect specified; hereafter to be referred to as Mising T) kindly bestowed on me by Prof. Tabu Taid. This phonetically accurate source is of great value for understanding certain phonological issues on this important language, especially as regards vowel length, which is consistently and clearly transcribed.

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[31]The two main subgroups of Tani languages are Eastern Tani (e.g. Mising and Padam) and Western Tani (e.g. Bengni and Nishi). For a more thorough discussion of the subclassification of Tani, see Chapter III below.

(4) Apatani

The Apatani data in the database are based mainly on Simon 1972 (henceforth **Apatani S**); supplementary forms are culled from Abraham 1978 (henceforth Apatani A) and Weidert 1987 (henceforth Apatani W).

The primary database described above constitutes the basis for the historical comparative analysis presented in Chapter II. This controlled utilization of the available data is methodologically necessary for achieving the objective set for that chapter---a preliminary reconstruction of the PT sound system. The relatively copious and reliable data on these five languages, representing four major subgroups of Tani, seem sufficient for revealing the essentials of PT phonology, while at the same time remaining manageable in scope and amount of detail.[32]

[32]Unrestrained exploitation of all the available data of uneven quality, a method relished by megalo-comparativists, will simply present too many trees for one to see the forest. On the other hand, the feasibility of restoring much of the proto-sound system by means of data from a few well-chosen representative daughter languages has been remarkably demonstrated by Benedict's reconstruction of Proto-Tibeto-Burman in STC but also by Bloomfield's reconstruction of Proto-Algonkian with materials from only four modern languages: Cree, Ojibwa, Menomini, and Fox (Bloomfield 1925). Burling 1959 exemplifies this approach in the reconstruction of Proto-Bodo-Garo (which he calls Proto-Bodo) based also on data from four languages only: Bodo (=Kachari), Garo, Wanang, and Atong.

1.5.1. Data Transcription

The Tani data used in this dissertation are transcribed with a uniform set of phonetic symbols in order to facilitate comparison of forms taken from multiple sources. This system is based on standard IPA symbols, except in the case of (alveolo)palatal consonants, which are represented by č (voiceless affricate), ǰ (voiced affricate) and ñ (nasal). The two central or back unrounded vowels, extremely common in Tani languages, are transcribed as ə and ɯ. The retranscription of data cited from second-hand sources presents no problem in the majority of cases, thanks to the relatively straightforward phonological inventories of most Tani languages. Aside from simple conversion of equivalent notations (e.g. changing **c**, **j**, and **ny** symbols in the Indian sources and **tɕ**, **dʑ**, and **ȵ** in the Chinese sources to our **č**, **ǰ**, and **ñ**), we also reinterpreted forms which seem to contain predictable, non-phonemic detail. We have, for example, retranscribed (orthographic) s- and sh- in Padam-Mising L as s-, because such a distinction seems unrealistic for either Mising (Taid1987b) or Padam Adi (Tayeng 1983, Marrison 1988). Also, the glottal stop onset on all Damu OY forms beginning with a vowel is omitted because its presence also does not appear to have any phonemic significance. Also, what is really the -j- medial in many sources is written as -i- and treated as part of diphthongs. This is why, for instance, Damu OY is claimed to have the following set of such diphthongal rhymes: **-ia**, **-iar**, **-iam**, **-iaŋ**, **-iap**, **-ia?**, **-iər**, **-iəm**, **-iəŋ**, **-iəp**, **-iək**, and **-iuk** (Ouyang 1985:77). There seems to be no reason not to greatly simplify the rhyme system by treating the -i- in

such 'diphthongs' as a -j- medial.[33] Furthermore, the diphthongal rhymes with the y- onglide in Damu OY (-yo, -yuŋ, -yuk, -yəp) are also of dubious phonemic status, since they seem to be conditioned by neighboring labial or rounded segments. We have therefore retranscribed all such onglides in Damu OY as -j- instead. The impressionistic transcriptions used in some older supplementary sources sometimes cause more serious difficulties of interpretation. For a discussion of such problems, please refer to the phonemic inventories of the specific supplementary sources in Appendix IV.

1.5.2. Phonemic Inventories of the Key Languages

(1) Bokar OY

1. Onsets:

p	t	(tʂ)	č	k
b	d		ǰ	g
			š	h
m	n		ñ	ŋ
	l			
	r			
w			j	

2. Cluster Onsets

pj bj mj

[33]The arbitrariness of the -i- analysis becomes obvious when we find the apparently identical cognate forms for 'fly v.' transcribed as bjar in Bokar OY but biar in Damu OY.

Remarks:

(1) Some speakers pronounce /č/ as [ʦ] before vowels other than /i/; /ǰ/ is always a palatal, however.

(2) /š/ is realized as [ɕ] before /i/; elsewhere the pronunciations vary between [ʂ] and [ɕ] with different speakers.

(3) /h/ can be realized as either [ɦ] or [h]; before /i/, /h/ varies freely with /j/.

(4) /tʂ/ occurs only in Tibetan loanwords.

3. Nuclear Vowels:

a	e	i	o	u	ə	ɯ
aː	eː	iː	oː	uː	əː	ɯː

4. Consonantal codas:

p	t	k	m	n	ŋ	r

Remarks:

(1) Vowel length is distinctive only in open syllables.

(2) The codas /-p, -t, -k/ are normally unreleased.

(3) /oŋ/ is realized as [õŋ].

(4) /ɯ/ is fronted (to [i] even for some speakers) in the rhymes /ɯk/ and /ɯŋ/, when preceded by dental initials.

(5) There are systematic gaps in the Bokar rhyme system. Before dental codas /-n/ and /-t/, only front vowels /i/ and /e/ can occur; before labial codas /-m/ and /-p/, the vowels /i/, /ə/, and /ɯ/ do not occur.

5. Tonality: Contrastive tones do not exist in Bokar. Ouyang 1985 reports that certain syllables are associated with conventionalized pitch contours which seem unpredictable. E.g. /ǰa:/ 'tea' carries low rising pitch whereas /ŋo:/ 'I' carries high level pitch. This may be due to influence from tonal dialects of Tibetan (Bokar OY /ǰa:/ 'tea' is a Tibetan loan, cf. Lhasa /cha̲/).

(2) Bengni S

1. Onsets:

p	t	(tʂ)	č	k
b	d		ǰ	g
f			š	h
v				
m	n		ñ	ŋ
	l			
	r			
			j	

2. Cluster onsets:

pj	bj	mj	fj	rj	kj	gj

Remarks:

(1) There is no phonemic distinction between dental and palatal affricates and spirants. Represented in this work uniformly as palatals, /č/, /ǰ/, and /š/ are pronounced as [ts], [dz], and [s] before /ɯ/ and

/ɯː/ (e.g. /ta-čɯr/ 'spittle' -> [ta-tsər]); elsewhere, they are realized as palatals.

(2) /tʂ/ occurs only in loanwords, e.g. kuŋ-tʂin ñiː 'Chinese' (lit. 'communist man', cf. Chinese gòngchǎndǎng 'communist party').

(3) The velar stops /k/ and /g/ are significantly palatalized before the high vowel /i/ (e.g. /ki-poː/ -> [kʲi-poː] 'belly').

3. Nuclear Vowels:

a	i	u		ɯ
aː	iː	uː	oː	ɯː

4. Consonantal codas:

p	t	k	m	n	ŋ	r

Remarks:

(1) Vowel length is contrastive in open syllables. Short vowels carry a final consonant at the phonetic level, which varies between [k], [ʔ], and a fricative. Thus, the word for 'tooth' /fi/ is realized as [fik], [fiʔ], or [fiç]. The high vowels /i/, /u/ and /ɯ/ are devoiced when they are preceded by voiceless onsets in the second syllable of a disyllabic word; the vowel in the first syllable may be optionally lengthened (e.g. /ə-ši/ -> [ə(ː)ʂi̥] 'water').

(2) Na Bengni is characterized by drastic merger of PT rhymes. The seven vowel proto-system has been reduced to four short vowels /a, i, u, ɯ/ and five long vowels /aː, iː. uː, oː, ɯː/. Before labial codas, only /a/ and /u/ can occur; before the dental codas /-n/ and /-t/, only the

nuclear vowel /i/ can occur; before the /-r/ coda, the only permitted nuclear vowels are /i/ and /ɯ/.

(3) The diphthong /ui/ may have originally been bimorphemic (e.g. /ŋui/ < /ŋu-i/ 'fish', cf. /ŋu-čak/ 'species of silvery, slender fish').

5. Tonality: Na Bengni seems to have developed a marginal tone system which has not yet become fully functional in the entire lexicon. This area of Na Bengni phonology requires further research.

(3) Apatani S

1. Onsets:

p	t	č	k
b	d	j	g
	s		h
m	n	ñ	ŋ
	l		
	r		
		j	

2. Cluster onsets:

pʰrj (~prj; pr)	kʰrj (~krj-, kr)
brj	grj (~gj)
mrj	
lj	

Remarks:

(1) Before the medial -rj-, p- and k- are aspirated.

(2) The kʰ- in the sequence kʰrj- may actually represent a voiceless velar spirant x-.

(3) -w- is non-phonemic, occurring only between -u, -o and a following -a vowel.

3. Nuclear Vowels:

a	i	u	e	o	ɯ	ə
ã	ĩ	ũ	ẽ	õ	ɯ̃	
au	ai					

Remarks:

(1). Simon transcribes a high round central vowel as ú (= [ʉ] ?), occurring only after labial initials. This should simply be a positional variant of /ɯ/.

(2). Diphthongs occur very rarely. They seem better analyzed as bimorphemic vowel sequences (e.g. kai (also transcribed as ka-ji) -> /ka-i/ 'big', ui -> /u-i/ 'evil spirit'; the u- here being a prefix).

(3). Simon fails to record vowel length, which from comparative evidence should be phonemic in Apatani.

4. Consonantal codas:

-r, -ʔ (represented by -h)

5. Tonality: Simon mentions the function of level and falling tones in Apatani (p.2-3), but says that only a small number of expressions are distinguished by tone. Tone is otherwise not marked in this source.

(4) Padam-Mising L

Padam and Mising, two closely related varieties of Eastern Tani, are treated together in Lorrain's dictionary. Global phonological differences between the two varieties, though not mentioned by Lorrain, most certainly exist. Separate Padam and Mising forms are provided only when Lorrain detected a linguistic (usually lexical) difference. The following phonological inventory, which seems to be essentially shared by both varieties, is inferred from the inventory of phonetic symbols given in the preface of the book as well as from the data in the dictionary itself.[34]

1. Onsets:

p	t		k
b	d	ǰ {j}	g
	s		
m	n	ñ {ny}	ŋ {ng}
	l		
	r		
		j {y}	

Remarks:

(1) Conspicuous in the shared consonant system of Padam and Mising is the absence of /h/ and /č/.

(2) In Mising L, but not in Padam L, there seems to be a tendency for the original palatal nasal ñ to denasalize to /j/.

[34]The symbols used in Lorrain's original transcription are put in braces.

(3) The only initial clusters in Padam and Mising belong to the Cj- type, the -j- glide being represented as {-i-} (e.g. orthographic {piong} 'steal' is interpreted as /pjoŋ/).

3. Nuclear Vowels:

-a -i -u -e {é} -o -ɯ {ĭ; ui} -ə {e}
-ai, -au

The central (or back) unrounded vowels occur in both varieties and are marked consistently by Lorrain: the phoneme /ɯ/ is represented by {-ui} (phonetically [-wɯ]) after labial initials and by {ĭ} elsewhere; and the phoneme /ə/ is spelled as {e}, to be carefully contrasted with the front unrounded vowel /e/, orthographically {é}. Lorrain also employs the circumflex symbol ^ for marking vowel length, but this distinction is ignored in this work because it does not correspond consistently with quantity distinctions in the phonetically more accurate sources.[35]

4. Consonant codas:

p t k m n ŋ r l

[35]For example, Taid (p.c.) gives the following pair as examples of quantity distinction in closed syllables: /gam/ 'seize with mouth' vs. /ga:m/ 'village chief, headman'; both forms, however, carry the long vowel mark in Padam-Mising L {gâm}. On the other hand, another word for which Taid reports distinctive vowel length /a:m/ 'paddy' is transcribed with the short vowel {am} by Lorrain.

Remarks:

(1) An important phonological characteristic of Padam is the retention of PT *-l, which has fallen together with PT *-r is Mising. For certain entries, the Padam variants with the -l are not provided by Lorrain, unfortunately.

1.6. Organization

Following this introductory chapter, the main body of this dissertation is presented in four chapters. Chapter II explores the PT phonological structure by a comparative reconstruction of the various PT initials and rhymes as reflected in the five key languages. Chapter III, based on the findings from the preceding chapter, tackles the internal classification of a number of better-known Tani languages. Chapter IV offers a comparative account of the Proto-Tibeto-Burman and Proto-Tani phonological systems with a view toward understanding the historical development of the various elements of the PT syllable. Chapter V assesses the phylogenetic position of Tani in the Tibeto-Burman family.

Four appendices follow. Appendix I, a table of 200 core-vocabulary sets consisting of Tani roots in comparison with corresponding forms from seven other Tibeto-Burman languages, constitutes the empirical basis for our views on the external Tibeto-Burman affiliations of Tani expressed in section 5.4.3. of Chapter V. Appendix II contains a succinct reference-list containing essential demographic and linguistic information on the various Tani-speaking tribes on both Chinese and Indian territories. A collection of fifty

characteristic Tani roots are provided in Appendix III. Appendix IV contains the phonemic inventories of the lesser Tani data sources consulted herein.

An index of reconstructed roots, which cross-references the etymological sets discussed in the various chapters, is provided at the end.

Chapter II
Phonological Reconstruction of Proto-Tani

2.0. Introduction

This chapter aims to explore the phonological structure of Proto-Tani (hereafter PT) by examining the various elements of the proto-syllable as reflected in the five representative modern Tani varieties: Apatani S, Bengni S, Bokar OY, Mising L, and Padam L. Phonological equations among these languages will be sought, and an ancestral phonological framework, the most economical system underlying the modern correspondences, will be established. No efforts will be spared, however, to bring in evidence from other Tani languages, in particular Damu OY, Nyisu H, and Yano B, to buttress proposed reconstructions or shed light on proto-distinctions blurred in the key languages.

The comparative study presented below will proceed in terms of **initials** and **rhymes**, the two major divisions of the syllable that behave as inseparable phonological units in 'morphosyllabic' languages like Tani in which morpheme and syllable boundaries coincide in the vast majority of cases.[36] In discussing particular elements of the PT syllable, a table of observed correspondences extracted from cognate sets will be provided where such a table has heuristic value, but not if

36The useful term 'morphosyllable' was introduced in Light 1978. The two PT medials *-r- and *-j- will be discussed in the sections dealing with initial consonant clusters.

the correspondences are straightforward (e.g. when modern reflexes are all identical to the reconstructed entity).

The reconstructions proposed in this chapter have not been established with the same degree of confidence. Sometimes the reconstruction for a certain set remains indeterminate because key cognates happen to be missing from some of the languages compared. Other sets manifest variations that still elude us. In cases of uncertainty, the reconstructions proposed will be tagged with a question mark (?). In certain other cases (particularly at the first morpheme position in compounds, see below), modern reflexes exhibit such an extent of segmental variation that it is impossible even to formulate a reasonable speculation on the proto-vocalism involved. In such circumstances, a **V** will be given to stand for a proto-vowel of indeterminate quality. Moreover, if a highly plausible cognate shows unexpected irregularity with respect to some subpart of the syllable, the form will be cited together with a label which identifies the problematic syllable portion plus an exclamation mark (e.g. initial!, medial!, etc.).

2.1. Methodological Issues

2.1.1. Proto-Variation

The guiding methodological principle herein is the view that variations, both on the phonological and semantic level, must be taken account of in historical reconstruction (Matisoff 1978a). One of the implications of this principle is that not every observed synchronic

correspondence goes back to a uniform proto-entity. For illustration, let me present as a case study the reconstruction of the proto-form for 'tail' in Tani. Modern Tani forms with this meaning can be subsumed under two groups (which we will call Group A and Group B), showing respectively front unrounded and back rounded vocalism:

GROUP A		**GROUP B**		
Apatani S	a-mi	Bengni S	ñu-bjuŋ	
Padam L	(t)a-me	Bokar OY	e-mño	(<-mjo)
Damu OY	me-čuŋ	Bori M	ño-buŋ	
Milang T	ta-mi	Gallong W	¯ ño-bu	
Nyisu H	ta-mi	Hill Miri S	añ-ño	
Yano B	me-uŋ	Mising L	ta-mño	(<-mjo)
Tagen B	a-me	Tagin DG	ña-buŋ	

Let us consider first the forms in Group A. Apatani S -i and Padam-Mising L -e exemplify a regular correspondence pattern, indicating a proto-form *me (cf. Apatani S si-bi, Padam-Mising L si-be, Bokar OY sə-be, Gallong W ˆ ho-be 'monkey' < PT *be:). The forms in Group B, on the other hand, point unanimously to a proto-form *mjo (cf. Bengni S rju:; Bokar OY o-jo; Bori M a-jo; Gallong W ˆ a-jo; Mising L a-jo; Tagin DG rju 'tongue' < PT *rjo). It is clear that the -e and -jo equations constitute two distinct correspondence patterns, each well-supported by many cognate sets. Should we, then, consider this case to be a separate **third** equation and propose for it a distinct PT reconstruction, say a compromise, stuffed proto-form like *mjø? The philosophy behind this approach, the reductionist view that historical reconstruction should always reduce synchronic

variation to earlier invariance (for discussions please see Hock 1986:18.7), is manifest in the following statement by Alfons Weidert (quoted in Matisoff 1982:32, emphasis ours):

> If complex developments exist in several languages...a solution must be found that tries to explain, **through a single reconstructed proto-form** (emphasis original), as many of the different phonetic developments as possible.

However, we think it is much more plausible to allow for variation at the proto-language level, for, to the extent supported by synchronic data, such a proto-language is a more realistic approximation to the linguistic state of the past than a completely dialect-free one. We therefore decide to stop after the two alternating reconstructions have been worked out on the basis of modern forms in Group A and Group B,[37] and claim that there already existed two competing variant proto-forms, *me and *mjo, at the PT stage.

2.1.2. 'Complementary Retention' of Archaism

The most intriguing aspect of comparative Tani phonology is the phenomenon of 'complementary retention' of archaic features of the proto-syllable in different subgroups of Tani. What this means is that while the PT rhymes are better preserved in Eastern Tani (especially Padam), it is in Western Tani that we find more traces of the original

[37]These are by no means to be interpreted as dialect groups. The lexical variation discussed here happens to cut across major dialect boundaries, as can be seen in the forms from the two closely related Eastern Tani languages Padam L (ta-me, a-me < PT *me) and Mising L (ta-mño < PT *mjo).

PT initials.[38] Transitional languages such as Bokar, as may be expected, present compromise situations.[39] Evidence missing from any major subgroups of Tani will significantly decrease the possibility of satisfactorily restoring the original morpheme shapes in question. This situation is exemplified below with two verb roots 'sell' and 'steal'. Since Eastern Tani uses a distinct root for 'sell' (see below), we begin by examining the transitional language Bokar OY. This is what we find:

Gloss	**Bokar OY**
'sell'	**puk**
'steal'	(do:)-**pjoŋ** (i.e. 'eat+steal')

Bokar generally preserves the PT *-uk rhyme well (cf. Bokar OY ta-ruk, Mising L ta-ruk, PT *ruk 'ant'; PTB *g-rwak STC #199) but sometimes merged the PT *-aŋ and *-oŋ rhymes (cf. Bokar OY jup-moŋ, Mising L jup-maŋ, PT *jup-maŋ 'dream', PTB *(r-)maŋ STC #82); we need to look at the Mising L form for -pjoŋ 'steal' to be reassured that the PT rhyme for 'steal' is *-oŋ rather than *-aŋ. The rhymes of these two roots can now be confidently posited as *-uk and *-oŋ. As for the initials, all we can tell from Bokar OY is that some

[38]To be more precise, what this meant is that relatively fewer cases of **merger** (complete loss of proto-contrasts) have occurred in Western Tani initials. On the other hand, Western Tani languages share some phonologically conditioned splits not found in typical Eastern languages (to be discussed in Chapter III).

[39]Contrast this situation with Tibetan, where the more conservative dialects (i.e. Amdo, Western) preserve **all components of the proto-syllable** better than the less conservative dialects (i.e. Khams, Dbus-Gtsang). The Tani scenario reminds one of Loloish, where Northern and Southern Loloish, just like Western and Eastern Tani, are conservative with regards to initials and finals respectively (Prof. Matisoff, p.c.).

distinct labial initial consonants are involved in these two verbs, since the nuclear vowels (-u vs. -o) do not seem likely to have conditioned the different initials (p- vs. pj-). This inference is supported by cognates from Western Tani languages:

Gloss	Gallong DG	Bengni S	Apatani S	Nyisu H
'sell'	pug	pjuk	prju?	pru
'steal'	čo~so	(dw-)čo:	(dw-)prjo	(de)č-čɔ

On the strength of the Nyisu H and Apatani S forms (cf. also Bangni R plok), *pr- is reconstructed for the initial of 'sell'.[5] On the other hand, palatalized initials in 'steal' in all extant Tani languages make it necessary to posit a PT palatalized labial prototype. We assume that this proto-initial was *pj-, which fell together with PT *pr- in Apatani S, yielding prj- (and -pj in Apatani A). In sum, it is only by piecing together the separate clues from Eastern and Western Tani

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[5]The assumption here is that the Bengni S and Apatani S palatalized initials in the root 'sell' are a further development from *pr-. Clearly, this change was chronologically ordered after the Western Tani labial palatalization (and affrication) sound change (an important Western Tani phonological isogloss which turned labial initials to palatals before *-i and *-j in Western Tani, to be discussed in detail in Chapter III), as is shown in the following diachronic scenario for Bengni S:

PT	*pjoŋ	*pruk
Labial Palatalization (Western Tani)	*čoŋ	NA
*pr-> pj-	NA	*pjuk
Other Sound Changes		
Attested Bengni S forms	čo:	pjuk

that the reconstruction of the two proto-roots PT *pruk 'sell' and PT *pjoŋ 'steal' becomes feasible.

It is now evident that the successful restoration of PT initials and rhymes hinges on the availability of lexical data on both Western and Eastern Tani languages. Lorrain 1907 contains copious data on the representative Eastern Tani language Mising (and to a lesser extent on the closely related Adi language Padam), making it an indispensable tool for the reconstruction of PT rhymes. The relatively ample material on Apatani (Simon 1976 and Abraham 1978) coupled with fresh data from Bokar and Bengni, also give us solid footing in our explorations of the PT initial contrasts. However, the dispersed retention of archaic features mentioned above becomes a serious problem when compounded by the distribution of distinct roots in different subgroups of Tani.[41] Consider for example the Eastern Tani root *ko: (?) for 'sell' (cf. Padam T, Mising L, Bori M ko; Damu OY ko:; Milang T: ku), distinct from the other 'sell' root *pruk found in the other Tani groups. Until cognates of this root are uncovered from initial-conservative Western Tani languages, we can never be completely certain whether the proto-initial of this root was a consonant cluster *kr- or just a plain *k-.[42]

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[41]Further discussion of such lexical isoglosses is presented in Chapter III.

[42]This PT root resembles the Proto-Loloish root for 'sell' which Bradley reconstructs as *(k)-rwaŋ (Bradley 1978:350, #604), but the lack of the nasal final in PT makes their cognation improbable. Cf. Ersu nkha[55] 'buy' (Anonymous 1991); Archaic Chinese *kagx 'merchant, do business'.

2.1.3. Lexical Divergence in Modern Tani

The problem of lexical divergence in modern Tani languages requires further discussion. In Tani, even common concepts are frequently expressed by different words in the different subgroups, as illustrated in the following separate roots for 'run':

Apatani S	har	Bokar OY	juk
Bangni R	far	Gallong DG	juk
Nishi C	hər	Hill Miri S	juk
Nyisu H	har	Nishi T	juk
Tagen B	xar	Tagin DG	jok
Yano B	far		
Bengni S	rju:	Damu OY	duk
Nishing DG	ria	Milang T	duk
Nyisu H	jo	Mising T	duk
		Padam T	duk

Languages like Damu OY, Padam L, Mising L, and Milang T use a ***duk** root, which may stand in allofamic relation to the ***juk** root found in Bokar OY, Tagin DG, Nishi T, Hill Miri S, and Gallong DG. The other two distinct roots, ***far** and ***rjo**, are distributed mainly in Apatani and the various varieties of Bengni and Nishi. One possible cause for the observed lexical disparity may be that innovated forms replaced the original PT root in some Tani groups. The other possibility is that the divergent modern forms represent lexical differentiations not exhaustively recorded in each source.[43] For Na Bengni, a Tani

[43]Probably not in this case. In Bokar and Na Bengni at least, no lexical distinctions seem to be made between different manners of running.

language that we had the fortune to study personally, several distinct kinds of actions related to 'jump, leap' are lexically distinguished: **puk** 'jump down or into (e.g. water)';[44] **tuk** 'hop (as a frog)'; **ǰuk** 'jump up or forward'; and **pi-šin-ča:** 'perform high-jump'. When we contrast these distinct Bengni S form-meaning pairs with single forms glossed simply as 'jump' in the secondary sources (e.g. Gallong DG **ǰop**, Bokar OY **pok**) it is extremely difficult to determine whether we are dealing with idiosyncratic innovations on the part of Bengni S, or with inherited lexical distinctions unrecorded in the other sources. These problems seem to be insoluble at the present level of investigation.

2.1.4. Word Structure, Prefixes, and Compounds

A typical word in Tani languages is a disyllabic affixed root or compound (**quadrisyllabic** words involving some reduplicated material also occur). Monosyllabic words are highly unusual and restricted usually to certain grammatical classes, such as pronouns and interjections.

Extensive prefixation is an important morphological trait in this branch of Tibeto-Burman. However, compared to such neighboring languages as Taraon and Kaman, the variety and morphological versatility[45] of prefixes in Tani are highly restricted. Of the common prefixes in the modern languages, the following are widely attested

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[44]Cf. PLB *?pök 'jump' (Matisoff 1972 #55).

[45]Verb roots in Tani rarely take prefixes. This characteristic sets Tani sharply apart from many neighboring Tibeto-Burman groups, such as Taraon-Idu (Digarish), Kaman (Midźuish), and Dhammai-Bangru-Hruso (Hrusish).

and thus can be safely reconstructed to the proto-language: *a-, *sa-, *ta-, and *pa-. The original vocalism in these prefixes, represented tentatively by *-a in this work, is indeterminate on account of the instability of vowel quality in the modern reflexes of such prefixes, which, probably because they are usually weakly articulated, are particularly vulnerable to secondary anticipatory assimilatory processes.[46] As a rule, only **unaffixed roots** are reconstructed in this study; however, cases where reflexes from all modern forms uniformly testify to a certain prefix (e.g. *kar 'star', attested uniformly with the *ta- prefix) will also be duly noted.

Compounds in different Tani languages often employ different component morphemes, making it sometimes impossible to reconstruct proto-compounds in their entirety. Again in such cases, proto-root morphemes instead of proto-words will be reconstructed. Incidentally, it may be noted that morpheme identification in compounds, especially as regards the first component morphemes, is often very tricky. This is because initial syllables in Tani disyllabic words often undergo phonological processes that alter the original morpheme shapes beyond recognition. Consider for instance the modern Tani words for 'kidney' below:

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[46]Consider the profuse allomorphy of the *a- prefix in Bokar OY which runs the whole gamut of the short vowel inventory under the assimilatory influence of the root vocalism: a-ŋa: 'child', i-ki: 'dog', u-puk 'arrow', e-če 'clothes', o-ŋo: 'fish', ə-jək 'pig', and ɯ-lɯŋ 'stone'. We do not imply that diachronic Tani phonology can simply disregard prefixes, however. In some cases, the vocalism of the prefixes still mirror an earlier state of the nuclear vowel in the main root, even after the latter has undergone shift; for example Mising L 'stone' is now ɯ-liŋ (< PT *a-lɯŋ < PTB *r-luŋ), with an altered vocalism -i-, while the original vowel is still preserved in the prefix ɯ-!

Bengni S	ki:-čur
Bokar OY	ka-pir
Padam L	kat-pil

We know from comparative evidence that the second element in this compound is a classifying morpheme which means 'small rounded object' (< PT *pjul), also found in words like 'grain' (e.g. Bokar OY um-pir). This means that the main 'kidney' root is the first element, but how should it be reconstructed? The Padam L form kat- indicates that the proto-form probably contained a similar rhyme *-at[1], but the correspondence pattern i:-a-at for the three source languages is unexpected (the regular equation should be it-et-at). Luckily this time, we have other Tani cognates to compare with, where the main root occurs in the **second syllable**:

Gallong DG	a-kek
Apatani S	a-xrje?

The Gallong DG and Apatani S forms are highly revealing, for not only do they show that the proto-rhyme could indeed be *-at[1] (cf. Gallong W ˆta-pek; Apatani S ta-pe? 'leech (land)' < PT *-pat[1]; Gallong DG rek, Apatani S a-re? 'sharp' < PT *rat[1]), but the Apatani S cluster initial xrj-(for the authenticity of this initial cf. also Apatani A à-xe 'kidney') further suggests that the proto-initial must have been something other than a simple *k-, probably *kr-.[47] We assume,

[47]Cf. also Sunwar cĩ:-kre (SIL). The fact that this PT root contains a checked rhyme makes it hard to associate with PTB *m-kal (STC #12). For other Tibeto-Burman forms with checked rhymes, cf. Dulong tɯ[31] ɤə̆?[55] 'kidney' (< *rjak? LaPolla 1987:25 gives the correspondence PTB *-jak > Dulong *-e?) and perhaps also WB kyok-kap; Xiandao Achang a[31]tat[35].

then, that the PT root for 'kidney' is *krat¹, despite the irregularities in the Bengni S and Bokar OY reflexes. This reconstruction, if correct, shows that as first elements in compounds where they were subject to unpredictable phonological alterations, morphs are often not what they appear to be.

2.2. The Proto-Tani Phonological System: An Overview

2.2.1. Syllable Structure

It seems that the PT syllable canon can be represented in the following formula:

*(C¹)(C²) V (:)/(C³)

That is, PT probably had a simple syllable structure with an onset composed of from zero to two initial consonants (C¹, C²) followed either by an open rhyme containing a short (V) or a long vowel (V:), or a rhyme closed with a final consonant (C³).

2.2.2. Initials

2.2.2.1. Segmental Inventory

Proto-Tani probably had a rather balanced syllable initial system, composed of at least the following members:

---

*p-	*t-	*č-	*k-
*b-	*d-	*j-	*g-
*m-	*n-	*ñ-	*ŋ-
*f-	*s-		*h-
*v-	*z-		*ɦ-
	*l-		
	*r-		
		*j-	

Four supraglottal articulatory places seem to be involved: bilabial, dental/alveolar, palatal, and velar. Aspiration did not have any distinctive function in the PT stop system, since contrastive aspiration is generally absent in modern Tani.[48] Distinctive voicing in the PT stop series can be confidently reconstructed in most cases, although Tani languages sometimes exhibit unpredictable variation in voicing. Consider the cognate set for 'fear/afraid' below, where Bokar OY and Padam-Mising L show a voiceless initial p- corresponding to voiced b- in most other Tani languages:

Apatani S	bu-so
Bengni S	bu-šu:
Gallong DG	bos
Hill Miri S	bos
Nishi C	bos
Nishing DG	bu-su
Nyisu H	bos
Tagen B	bos
Tagin DG	bu-su

[48]The only exception noted so far is Damu OY, an aberrant Tani language heavily influenced by Tibetan. The Damu OY examples with aspirated stops and affricates are apparently all loanwords from Tibetan.

Yano B	bəs-so
Bokar OY	pə-šo:
Padam-Mising L	pə-so~pət-so

What is involved here cannot be a regular sound change, since Bokar OY and Padam-Mising L normally retain PT voiced stops. It is probable that such cases of disparity in voicing may stem from a similar variation in the proto-language itself. Hence PT *bV-so:~*pV-so: are tentatively reconstructed for this set.

Most Tani languages have two palatal affricates (/č/ and /ǰ/) corresponding to the two stop slots in the other articulatory series.[49] An additional set of dental/alveolar affricates are reported in Apatani W, Damu OY, and Mising T[50] which however do not appear to represent original PT distinctions.

As for spirants, most modern Tani languages have only a single supraglottal spirant, represented in the sources as either /s/ or /š/, and a glottal spirant /h/, phonetically often a voiced [ɦ].[51] Some languages further distinguish velar /x/ (as in Damu OY, Nishi C, and Tagen B) or labio-dental spirants /f/ and /v/ (as in Bengni S and Yano B). In order to adequately explain the observed correpondences, more distinctive spirants must be recognized for the original PT system than are actually attested in any modern Tani language. Regarding the articulatory manner of the PT spirants, we need to acknowledge a

[49]In Mising T, PT palatal affricates shifted to dental spirants. E.g. -sik 'diminutive suffix' < PT *čik; -zap 'duck' < PT *ǰap.

[50]In Damu OY at least, such affricates occur only in loanwords.

[51]This glottal spirant has been dropped in Padam-Mising L.

voiced series as well, even although the distinction seems almost completely obscured in the daughter languages except for traces manifested in the different developments of the spirants. Damu OY, however, has preserved a contrast between voiceless x- and voiced ɦ-, both corresponding to h- (or 0-) in the other languages, exemplified in the following cognate sets:

'heart'		'sew'	
Apatani S	a-ha	Apatani S	---
Bengni S	ha:-puk	Bengni S	ham
Bokar OY	hoŋ-puk	Bokar OY	hom
Padam-Mising L	a(ŋ)-puk	Padam-Mising L	om
Damu OY	xa:-puk	Damu OY	hom

Faced with these two correspondences, of course we have the alternative of treating the different **articulatory places** as primary and reconstruct, say, ***x-** and ***h-**. This solution has two problems, however. First, the h- in many modern languages (Bokar OY/S, Bengni S, Damu OY) is phonetically **voiced** ([ɦ]), in other words, the two Damu OY spirants underlying the proposed PT distinction also contrast **in voicing**. Second, if the velarity of x- in Damu OY is primary, why then does it correspond to /h-/ rather than to the same sound /x-/ in those Tani languages (e.g. Nishi C ha:ŋ 'heart', Tagen B ha-pɔk 'heart') that also have both phonemes? In this dissertation, therefore, we take voicing as the original distinctive feature and reconstruct accordingly ***h-** and ***ɦ-** (hence ***haŋ** 'heart'; ***ɦom** 'sew'). Another important consideration that favors contrastive voicing over contrastive articulatory place for the preceding spirant pair is that

distinctive proto-voicing can also accommodate correspondence patterns involving other spirants. Thus, there are also two equations involving the dental/alveolar fricative s- in modern Tani. One of these two shows uniform s- in all languages examined,[52] suggesting PT *s-. The other correspondence has s- occurring in some languages and h- ([ɦ]), j-, or 0- in others. Consider the two cognate sets below:

'water'		'liver'	
Apatani S	ja-si	Apatani S	pa-ĩ
Bengni S	ɯ-ši	Bengni S	šin
Bokar OY	i-ši	Bokar OY	jin
Padam-Mising L	a-si	Mising L	a-sin
Padam L	a-si	Padam L	a-in
Damu OY	a-si	Damu OY	a-jin

If the prototype underlying the correspondence exemplified by 'liver' is posited as a voiced *z-, then the voiceless s- as well as the **voiced** j- reflex can be satisfactorily accounted for.[53] In addition to the four proto-spirants discussed so far, *h-, *ɦ-, *s- and *z-, the PT inventory of spirants probably included an additional labio-dental pair,

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[52]With the exception of some varieties of Gallong (e.g. Gallong W and the so-called Lower dialect of Gallong according to Das Gupta 1963:v), which changed original s- into h-.

[53]Benedict once offered a different solution to these (and other) mysterious spirant equations in Padam-Mising L in terms of two kinds of prefixes *?a- and an unstressed *ă- (supposedly reflected by ə- as in Padam-Mising L ə-siŋ 'wood/tree'), the glottal stop in the former is said to 'drive out' the original s- initial in the main root in cases like 'liver' (cited in Matisoff 1978a:277). This solution seems a bit ad hoc. The variation between Padam-Mising L a- and ə- does not seem to have anything to do with the divergent development of the dental spirant initial (e.g. Lorrain records ə-si for 'urine' and a-sup for 'nest'; cf. Bokar OY i-ši: 'urine'; a-šup 'nest', both going back to PT *s-). The vowel qualities of the weakly pronounced prefixes in Tani seem to be largely determined rather by speech tempo (Ouyang 1985: 11-2) and the vocalism of the main root.

*f- and *v-. These two spirants, although rarely attested in modern Tani languages, enjoy solid phonemic status at least in Bengni S, where they appear to be phonotactically unrestricted. The v- in Bengni S, as in the case of *ɦ-, also seems to correspond to h- in Apatani S and Bokar OY, and to 0- in Padam-Mising L; contrast for example the sets below for 'roast in a pan (without oil)', and 'hang (against wall)':

'roast in a pan (without oil)'		'hang (against wall)'	
Apatani S	ha	Apatani S	a-ha?
Bengni S	vɯ:	Bengni S	hak-pɯ:
Bokar OY	ha:	Bokar OY	hak-pa:
Padam-Mising L	a	Padam-Mising L	---
PT	*va:	PT	*ɦak

The contrast of h- vs. v- **in analogous phonological environments** (i.e. syllable-initially before a- vocalism) in Bengni S can be argued to reflect a similar distinction in the original PT system, which became obscured in the other daughter languages. We therefore propose to reconstruct a *v- given the correspondence pattern shown in the set 'roast in a pan (without oil)'. The postulation of *v- raises the question of whether its voiceless counterpart *f- also existed in PT. Examining the possible origins of the f- phoneme in Bengni S soon turns up a unique correspodence pattern, exemplified as follows with two typical sets, 'thigh/leg' and 'itch':

'thigh/leg'		'itch'	
Apatani S	har-	Apatani S	-ha?
Bengni S	fur-	Bengni S	-fak
Yano B	far-	Yano B	fa?
Bokar OY	---	Bokar OY	ak
Padam-Mising L	ar-	Padam-Mising L	ak
Damu OY	xar-	Damu OY	xak
Tagen B	xar-	Tagen B	xa

The correspondence is similar to that for PT *h- (q.v. the set for 'heart' discussed in the above), except that instead of the glottal spirant h-, the Nishi-Bengni languages show either a velar x- (Tagen B, and Nishi C), or a labiodental f- (Bengni S, Bangni R, Yano B). The Apatani reflexes are more problematic. While Apatani S shows h- in the majority of cases, there are two important examples where we find xrj- instead: ta-xrju? 'head louse' and a-xrji? 'comb n.'.[54] What PT consonant (or consonant cluster) could most likely be the prototype underlying this correspondence? In many instances, comparative Tibeto-Burman evidence points to an origin in a PTB **dental spirant** of some type,[55] but there is very little intra-Tani support for PT *s-, or some consonant cluster thereof. Pending

[54]Simon uses the symbol khrj- to transcribe the initial in these two words. It is highly likely that the actual sound involved is rather a palatalized velar spirant xrj-, and thus more akin to the x- reflex attested in Tagen B and Nishi C. Compare the Apatani form for 'louse' recorded by Weidert ^{2}ta^{2}xu. It is also to be recalled that the -rj- medial in Apatani represents a merger of PT *-r- and *-j-.

[55]For 'itch', cf. Angami ^{2}me^{1}so; Sgaw Karen ^{4}θa? (Weidert 1987:357); Dulong pu^{31}sǎ?^{55}; Taraon ma^{31}so^{53}, Idu ma^{55}so^{55} (Anonymous 1991:1272); Ao me-sak, Mikir iŋ-thak (<*-sak), PTB *m-sak (STC #465). For a possible extra-Tani cognate of PT *far 'thigh/leg', consider Dulong (Dulonghe dialect) sǎ^{155} 'leg'.

further evidence for other kinds of proto-onset, *f- will be tentatively posited where this correspondence pattern occurs. The reconstructed roots for 'thigh/leg' and 'itch' are, therefore, ***far** and ***fak**.

The other members of the PT simplex initial system include four nasals *m-, *n-, ñ-, and *ŋ-, two liquids *r- and *l-, and a palatal glide *j-. They are all well-attested in modern Tani and their status in the PT phonological system seems secure.

2.2.2.2. Palatal Consonants

Most Tani languages have three palatal consonants occurring at the syllable onset position: č-, ǰ-, and ñ-. Comparative research reveals that palatal consonants in many languages are secondarily derived from PT velars and labials before high front vowels, e.g. Bengni S **čin** 'know', **ñi:** 'human' cf. Padam L **ken** 'know', **mi** 'human'. However, even for languages that keep the original consonants in this phonological environment, palatals still need to be recognized in their segmental inventory. The minimal sets with the -i vocalism below clearly shows that palatals in Padam L, a typical Eastern Tani language, are not allophonic variants of consonants involving other articulatory places (labial, dental, or velar):

mi	'human being'
a-ñi	'two'
nin	'near/close'
ŋi-tom	'story'

Thus there is no reason not to recognize the same distinct palatal initials *č-, *ǰ-, and *ñ- for the proto-initial system. However, it seems possible to reduce the PT segmental inventory by analyzing the PT palatals further as underlying **dentals plus the palatal -j glide**; i.e. *č -> *tj-; *ǰ- -> *dj-, and *ñ- -> *nj-. One advantage of this analysis is that it leads to a more balanced system of *Cj- clusters:

*pj	*tj	*kj
*bj	*dj	*gj
*mj	*nj	---

Another advantage of this analysis is that alternations involving dentals and palatals in Tani can be more transparently represented. Consider for example the two variant Tani roots for 'run' discussed in the above, *duk (e.g. Padam-Mising L duk, Milang T duk) and *ǰuk (e.g. Gallong DG and Bokar OY ǰuk) and also, with the same phonological relationship, *dɯŋ (reflected by Mising L dɯŋ, Tagin DG diŋ~deŋ, and Damu OY deŋ) and *ǰɯŋ (reflected by Bengni S ǰɯŋ; Nishing DG ǰeŋ; Nishi C ǰɯ; Nyisu H ǰi; and Yano B ǰeŋ) 'beat/flog'.[56] If ǰ- is treated as underlyingly *dj-, then the nature of the proto-variation *duk ~ *djuk and *dɯŋ ~ *djɯŋ can be captured in terms of the variable presence of the palatal glide.

This analysis, however, is not adopted in this work, because, for one thing, alternations involving palatal and **other** initials are also found. Consider for instance the following alternations in Padam-Mising L: gam 'bite, seize with mouth' vs. ǰam 'chew, bite' (cf. also

[56]Consider also the Apatani S variation mɯ-do 'rain' (< *doŋ), but ǰo-mɯk 'cloud' (< *ǰoŋ).

Gallong DG ñam 'bite'); ə-guk ~ ə-ǰuk 'gourd' (ǰ- ~ g-);[57] lok ~ ǰok 'graze, chip, wound' (ǰ- ~ l-); suk ~ ǰuk 'scoop up, ladle (v.)' (ǰ- ~ s-). The palatal initials in PT, therefore, seem to have come from diverse sources, and it may be more scrupulous not to mechanically analyze all occurrences of PT *ǰ- as *dj- until other possible diachronic origins of PT *ǰ- are better understood.

2.2.2.3. Consonant Clusters

PT seems to have had a series of cluster initials of the *Cr-/*Cl- type. Both the -l- and -r- medials are reported in Nyisu H, but (with three exceptions only: pru 'sell', lu-xlo 'boot', and ča-pra~čo-pla 'chin') they exhibit complementary distribution: -l- after labials and -r- elsewhere.[58] Apatani S, another initial-conservative language, also seems to have only the liquid medial -rj- in consonant clusters (with the variant -r- occurring in certain forms).[59] As far as we know, no Tani languages maintain more than one liquid medial in initial clusters. The available evidence in modern Tani, then, motivates setting up only one single liquid medial for the ancestral system. In this dissertation, *-r- will be chosen arbitrarily to represent this PT

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[57]Cf. WT skyogs 'ladle/scoop'.

[58]Morgenstierne (1959:301) also observed that pr- in Nyisu H could be a variant of pl-.

[59]Interestingly, this palatalized liquid in Apatani is realized syllable-initially as a lateral lj- , phonologically distinct from either l-, r-, or -j. In the Apatani forms recorded in Abraham 1987, there are a number of spurious medial Cr- clusters which seem to come secondarily from metathesis. Consider Apatani A laŋ-gru (< *laŋ-ŋur?), cf. Apatani S la?-ŋur, Padam-Mising L laŋ-ŋar < lak-ŋar 'wrist'; Apatani A ta-dru (< *ta-dur ?), cf. Apatani A dor-gi; Padam-Mising L dor-kaŋ 'worm'; Apatani A a-pru (< *a-pur?), cf. Apatani S a-pur 'gall/bile'.

medial of indeterminate quality. The following Cr- clusters are well-supported by comparative data:

*pr-	*br-	*mr-
*kr-	*gr-	

There is also some limited evidence for *fr-, although this proto-cluster cannot be posited with confidence. One cognate set, however, seems very suggestive. Among the many verbal particles in Tani, which are characteristic of this branch of Tibeto-Burman, there is one which means 'wrong, amiss'. The Bengni S cognate -fjak happens to be among the handful of forms in the entire Bengni S corpus showing the fj- consonant cluster. It seems that fj- in this particular form must go back to some consonant cluster with a liquid medial, which is directly attested in at least three other modern languages, Padam-Mising (-lak), Yano B (-fla) and Tagen B (-x(lj)a).[60] To account for this poorly attested correspondence, therefore, a *fr- cluster is tentatively posited.

Consonant clusters of the *Cj- structure also seem to have existed in PT. First of all, there is ample evidence that PT distinguished a *Cj- cluster composed of a liquid plus the -j- glide, represented here as PT *rj-. Data supporting the other *Cj- clusters (especially *kj- and *gj-) are less abundant . Although the *Cj- **cluster type** certainly requires recognition in the PT initial system, the

[60]Unfortunately, the widespread use of another root with the same meaning (e.g. Bokar OY mur < PT *mul), makes it impossible to examine cognates in many other Tani languages, especially the all-important Nyisu H. Cf., however, the Apatani A reflex -xá.

actual reconstruction of a number of such clusters remain inconclusive at the present stage of our research.

No Tani language attested to date preserves both the *Cj- and *Cr- cluster types intact. As discussed earlier, Apatani S has only one kind of consonant cluster which represents a merger of PT *Cr- and *Cj-. It is therefore a mistake to reconstruct a liquid medial whenever one sees a Crj- cluster in Apatani.[61] The evidence from Nyisu H has more heuristic value in this respect, for Nyisu H seems to maintain the least equivocal traces of both types of PT clusters. Thus, PT roots like 'steal' and 'first (verbal particle)' most probably did not contain a liquid medial despite the Apatani S reflexes dɯ-prjo 'steal'; -prjo 'first', since a liquid medial is not attested in the corresponding Nyisu H forms: deč-čo 'steal', -čo 'first'. The two roots, therefore, are reconstructed with the *pj- cluster: PT *do:-pjoŋ 'steal' and PT *-pjoŋ 'first'.

Furthermore, sporadic **traces** of a third type of consonant cluster *Cw- have been found in a few sets (e.g. 'dog' and 'sweet'), although in such cases the existence of *-w- is not directly attested but must be **inferred** on the basis of irregular correspondences and external comparisons (see below and especially 4.2.5.2.).

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[61]Even though Weidert lists pj- and gj- separately from prj- and grj- in his Apatani phonemic chart, the other root initial consonants occur only with a single kind of medial: brj-, mrj-, xrj-, and lj- (Weidert 1987:217). No minimal pairs showing -j- and -rj- in phonemic contrast are given, however, and examples like ²gjo? 'call' corresponding to Nyisu H gro indicate that -j- and -rj- in Apatani W are probably just variant realizations of the same (merged) medial.

2.2.3. Rhymes

2.2.3.1. Nuclear Vowels

The PT vowel system contained seven nuclear vowels, including the five typologically unmarked ones *a, *i, *u, *e, *o, plus two back (or central) unrounded vowels *ɯ and *ə. In open syllables, *ɯ and *ə seem firmly rooted in the PT vocalic system with transparent PTB origins (in general, PT *-ɯ < PTB *-əw; PT *-ə < PTB *-əy). The status of back unrounded vowels **in closed syllables** is, nevertheless, a different matter. There are signs that back unrounded vowels in such syllables have traversed complicated diachronic paths. The first important fact to observe is that, in modern Tani, back unrounded vowels exhibit striking phonotactic restrictions in closed syllables. In Bokar OY and Bengni S, for instance, they co-occur only with -k, -ŋ, and -r. Even in Padam-Mising L where far more closed rhymes are attested, combinations of back unrounded vowels with **labial** codas are practically non-existent. Second, back unrounded vowels still participate in **synchronic** alternation with corresponding front unrounded vowels. Thus, morphemes containing back unrounded vowels occasionally have synchronic variants with front vocalism (e.g. Padam-Mising L a-lə ~ a-lə 'leg/foot'; nə-sin ~ nə-sin 'plant/grass'; pət-ke ~ pət-ke 'hook/peg').[62] A different type of phonologically conditioned alternation is also reported in Padam-Mising L, where the rhymes -iŋ and -eŋ can also be realized respectively as -ɯ: and -ə:;

[62]This variation pattern is also reported in Nishi C, e.g. li:-čɯ ~ lɯ:-čɯ 'red' < PT *lɯŋ- (Chhangte 1992a:9.

that is, the front nuclear vowels become lengthened and **retracted** when the velar nasal coda -ŋ is dropped (Lorrain 1907:3). The tendency for vowels to become retracted in Tani is epitomized in the sweeping merger of almost all PT r-coda rhymes (PT *-ar, *-ur, *-or, and *-ər) into -ur in Bengni S. These are signs that back unrounded vowels in Tani are in a state of flux, which accounts in part for the complicated correspondences back unrounded vowels exhibit.

2.2.3.2. Diphthongs

As a rule, diphthongs are not very much in evidence in Tani languages. Some vowel sequences described as 'diphthongs' in our sources require further morphological analysis. The best example is the Bokar OY word tei 'flea', on the basis of which Ouyang Jueya posits the phonemic diphthongal rhyme /ei/.[63] But this form obviously needs to be broken down further into two morphs, te- and -i, reflexes of respectively the *ta- nominal prefix and the true 'flea' root *ɬi (cf. Bengni S ta-ɬi; Apatani S ta-xi). Similarly, most of the Apatani A vowel sequences listed in Abraham 1985:16-17 are morphologically non-simplex, e.g. ui 'ghost' -> u- (nominal prefix) + -i (root), from PT *a-ju 'demon/evil spirits'. In Lorrain 1907, in

[63]The other two diphthongal rhymes posited for Bokar OY /iu/ and /əu/ do not reflect original PT diphthongs either. /iu/ is found only in the Tibetan loanword /diu/ 'bullet' (cf. WT mde'u, Lhasa tiu[15]). /əu/ is supported by only two words, /əu na:-šə/ 'parrot' and /təu/ 'a kind of pot'. The na:-šə part of the form for 'parrot' seems to come from Tibetan (cf. WT ne-tso 'parrot'), but the əu- part of this word remains to be figured out. The Bokar OY form for 'pot' should be compared with the Padam-Mising L disyllabic word tɔ̀-(g)u (marked explicitly as a loanword in Lorrain 1907), probably a cultural loan of Indic origin, cf. Assamese dek(a)cī 'pot, saucerpan'.

addition to secondary diphthongs of the preceding kind (e.g. ai 'good' < a- (prefix) + ji (root), cf. Milang a-iit; Padam T a-ji), apparent diphthongs of other types are also listed. First of all to be disregarded are diphthongs that exist only at the sub-phonemic level. For instance, Lorrain uses orthographic ui to consistently transcribe a diphthongal sound [wu], a positional variant of the /u/ phoneme after labial initials.[64] Another symbol used by Lorrain to convey a diphthongal vowel is ó, which according to Lorrain has a phonetic value like o in English pole ([əu] or [ou]). This vowel, apparently distinct from the long o: vowel (which Lorrain transcribes with ô), is said to occur infrequently, for instance as an alternant of the -oŋ rhyme (Lorrain 1907:3). Thus -ó appears to represent a secondarily derived alternant of the original -oŋ rhyme. Other suspicious diphthongs given by Lorrain are often variants of monophthongal roots from which they may have been derived:

mait~ə-mak	'penis'	< PT *mrak
tau~tat	'ask a question'	< PT *tat^2 <*ta-s

The Padam-Mising L variant mait 'penis' offers considerable interest from a historical point of view. There is little doubt that its ultimate source must be the reconstructed PT form *mrak 'penis'. We may assume that the synchronic variants mait and -mak developed from this common etymon via divergent routes of sound change. While -mak is derived simply by dropping the PT *-r- medial (cf.

[64]Morgenstierne, who had a chance to hear Adi spoken, confirms our belief with the following remark: '...I heard a high, mid, flat ĭ corresponding to Lorrain's ui' (Morgenstierne 1959:296).

Padam-Mising L joŋ-mo 'aconite, arrow poison' < PT *mro 'ditto' < PTB *mla 'arrow'), we believe that mait may have come about by first merging *-r- with *-j-, and then transferring the palatality from the medial to the coda position (i.e. *mrak > *mjak[65] > *majk > *mait).[66]

In summary, **mono-morphemic, non-derived** diphthongs have not been attested in any Tani language described so far. Hence the overwhelming evidence from modern Tani strongly suggests that PT, like Old Tibetan and Garo (Burling 1959), probably had a vowel system consisting entirely of non-gliding monophthongal vowels.

2.2.4. Suprasegmentals

2.2.4.1. Vocalic Length

The following modern Tani languages are described (all by trained linguists) as containing phonemic vowel length: Bokar, Bengni, Damu (Ouyang 1985), Nishi (Chhangte 1992a), Gallong (Weidert 1987), Apatani (Weidert 1987; Abraham 1985), and Mising (Taid 1987a). Nevertheless, all Tani languages can also be shown to contain **secondary** sources of vowel length, which must be carefully sifted out. First of all, many forms with long vowels from Bokar OY and Damu OY turn out to be loanwords from Tibetan. For the purposes of comparative Tani, these forms can be safely disregarded. Here are some noteworthy examples from Bokar OY: ša: 'deer' (WT shwa-ba),

[65]This stage is reflected in the Bengni S cognate ñak.

[66]The phenomenon is known as 'feature shuffling', a term (inspired by Matisoff 1972) introduced in Henderson 1985.

lo: 'lungs' (WT glo-ba), re: 'cloth' (WT ras), ŋi: 'silver' (WT dngul), ta:-pə 'rope' (WT thag-pa). Phonemic vowel length also obtains in quite a few native vocabulary items in these languages, some instances of which seem to have arisen in compensation for a dropped coda. Thus, -a:, -u:, -o: and -ɯ: in Bokar OY often correspond respectively to -at, -ut, -ot and -ɯt in Padam-Mising L where PT rhymes are better preserved:

Gloss	Bokar OY	Padam-Mising L
'listen'	ta:	tat
'vomit'	ba:	bat
'sound'	a-tu:	a-dut
'rub'	nu:	not
'punch with fist'	kɯ:	kɯt

The sporadic loss of the *-k coda also accounts for vowel length in such Bokar OY forms as da: 'dwell, stay, exist', cf. Padam-Mising L dak 'stand, stop, exist' < PT *dak.

Other apparent long-vowel forms in Bokar OY are actually of bimorphemic structure, and should be reanalyzed accordingly. A good example is /i:/ (to be reanalyzed as /i-ji/) 'bow (weapon)', the i- here being an allomorph of the prevalent PT *a- prefix (cf. Mishing L i-ji; Apatani S a-lji). Many personal pronouns in Bokar OY also contain long vowels, probably due to some secondary morphological process, e.g. ŋo: 'I', no: 'thou', ko: 's/he', šu: 'oneself', mi: 'others', ši: 'this', a: 'that', hɯ: 'who', etc.[67]

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[67]Note especially the long vowel on the third person singular pronoun ko: (bɯ, from the native lexical stock, is more common in the other Tani languages), in all likelihood a loanword from Tibetan kho 'he', with vowel length added by analogy with other forms in

The compensatory lengthening account can also be extended to many instances of vowel length in Mising T, and a fortiori to coda-dropping languages such as Gallong W, Nishi C, and Apatani W; for example:

Gloss	Mising T	Mising L
'ferry across'	koː	koŋ
'hook'	keː	keŋ
'prepare (curry)'	keː	keŋ
'pull'	kiː	kiŋ
'reach'	pɯː	pɯŋ
'see'	kaː	kaŋ

Gloss	Apatani W	Gallong W	Bokar OY
'cloud'	¹joː-²mɯ	ˋdoː-mə	doŋ-muk
'goiter'	¹giː-²pɯ	ˆgɯː-pə	gɯŋ-pɯ
'granary'	¹neː-²su	ˋnaː-su	nam-šuŋ
'look'	²kaː	ˆkaː	koŋ
'sit'	²duː	¯duː	duŋ
'take'	²laː	¯laː	loŋ

It looks, then, as if a considerable portion of the attested instances of vowel length in Tani languages turn out not to be original. Compensation for elided codas (especially the velar nasal -ŋ) alone will probably account for a large percentage of observed cases of vowel quantity contrast in modern Tani.[68]

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the pronominal paradigm. The same tendency for vowel length to occur on personal pronouns also shows up in the Mising T, cf. ŋoː and noː, variant forms of ŋo 'I' and no 'thou'.

[68]Even in the rhyme-wise conservative language Mising L, the conditioned drop of the -ŋ coda is also a very common synchronic alternation pattern. The -ŋ coda is much more often dropped than not in verb roots, for instance (Lorrain 1907:7-8).

Even though most reliably described varieties of Tani report contrastive vowel length in open syllables only, in Mising T, Hill Miri S, and Nishi C,[69] phonemic long vowels seem to be operative also in **closed** syllables, as evidenced in the following minimal pairs from Mising T:[70]

a:m	'paddy'	ga:m	'chieftain'	ɯ:r	'attractive'
am	'dry by fireside'	gam	'bite'	ɯr	'wash'

These minimal pairs present considerable comparative interest and raise the important diachronic issue: Was there also a quantity distinction in PT closed syllables, as the case seems to be in these modern Tani languages?

The first striking fact about Mising T **CV:C** syllables is their **scarcity**: only around twenty occurrences (i.e. less than one percent) are counted out of a lexicon of 2,100 words. These Mising T forms, which may hold the key to an important diachrionic puzzle, deserve to be exhaustively listed in the following for close inspection:

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[69]The **CV:C** syllables in Nishi C also seem in most cases to be secondary. These varieties of Nishi have more examples of such syllables because of the greater extent of apocope, where vowel length clearly arose in compensation for the lost final vowel. What is puzzling, however, is that compensatory lengthening apparently did not happen in all analogous cases. Consider the following examples, all from the same dialect, identified in Chhangte 1992a as **Source A**: **ta:b** < PT ***ta-bə~*ta-ba** 'bedbug'; **i:s** < PT ***a-si** 'water'; **tə:b** < PT ***ta-bɯ** 'snake' (with compensatory lengthening); but **ab** < PT ***a-bo** 'father'; **ŋul** < PT ***ŋo-lu** 'we'; **pɯp** < PT ***pa-pɯ** 'egg' (no compensatory lengthening). The issues of vowel length and tonality in the various Nishi dialects are clearly in need of further investigation.

[70]These pairs, as well as other forms cited in this work as Mising T(aid), were generously provided by Professor Tabu Taid.

'elder brother's wife'	ma:m ~ mo:m ~ ma:-mo
'mother'	na:n ~na:-nə
'father'	ba:p ~ ba:-bu

These first three forms, all kinship terms of address,[71] are transparently derived via dropping the original final short vowels; this is easily comfirmed by comparing the synchronic variants to which the apocope did not apply.

'tonight'	si:m ~ si-jum	(si- ='this'; cf. si-lo 'today')
'pig'	e:k ~ e-jek	
'move, budge'	u:n ~ə-un	

The three forms in the above, on the other hand, are derived from telescoped disyllables, as clearly indicated by the synchronic variants.

The long vowels in the next batch of CVC forms also appear to originate from original disyllables (prefix + root) via contraction; however, the corroborating evidence in these cases lies in comparative data from other Tani languages rather than Mising-internal alternation.

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[71]Kinship terms of address in Mising T are often formed from corresponding reference terms by means of the following rule of partial reduplication:

C_1V (root) -> $C_1a:-C_1V$

e.g.

Gloss	reference	address
'mother's brother'	a-ku	ka:-ku
'grandmother'	a-jo	ja:-jo
'grandfather'	a-to	ta:-to

'heavy' i:t (< *a-jit); cf. Bokar M a-jit; Apatani S a-i?.
'weed' ɯ:ŋ (< *a-ɯŋ); cf. Damu OY a-həŋ.
'itch' a:k (< *a-ak); cf. Bengni S a-fak; Apatani S a-ha?.
'mind' a:ŋ (< *a-aŋ); cf. Apatani S a-ha (< *a-haŋ).
'thorn' ta:ŋ (< *ta-aŋ); cf. Milang T ta-haŋ.
'wife, woman, female' nə:ŋ (< *nə-əŋ< PT *nə-fəŋ); cf. Mising L ni-eŋ; Nishi C ñɯ-xɯ; Bengni S na-fɯŋ 'wife'.[72]

We now turn to two other interesting Mising T forms, 'paddy (rice plant)' a:m and 'village chief' ga:m, to which secondary lengthening may also be plausibly attributed. Concerning the 'paddy, rice' root, Mising T exhibits length alternation: a:m 'paddy' vs. am-bun 'husked rice (-bun = verbal particle 'off, clean')'. The origin of the vowel length in the 'paddy' form is not absolutely clear, but the possibility of apocope with compensatory lengthening (i.e. *a-mə > a:m) is suggested by the following cognates in other Tani languages: Bokar OY a-mə 'paddy'; um-pir 'rice grain'; Gallong DG a-mo 'paddy'; am-bin '(husked) rice'.[73] The Mising T word for 'village chief' is also highly intriguing. Apparently, this word and related forms in all Tani languages are based on the Assamese word gaobura 'village elder'. What is particularly interesting is that forms from various Tani languages show different degrees of nativization of this loanword:

Bokar M	gaon-bu-ra
Nishing DG	gaon-bu-ra

[72]This root occurs in ko:-nə:ŋ 'girl' and kə-dan-nə:ŋ 'son-in-law or daughter-in-law's mother'.

[73]For extra-Tani cognates of this root, cf. Dulong am^{55}bɯ^{55} 'paddy'; Lepcha tŭr-um-mo 'rice' (tŭr- = plant prefix; the root is -um according to Mainwaring-Grünwedel 1979).

Nishi T	gao-bu-ra
Apatani S	gam-bu-ra
Tagin DG	gam-bu-ra ñi
Bori T	gam-bu-ra~gam
Hill Miri S	gaŋ-bu-ra
Nyisu H	go-ra a-ba
Ramo[74]	gam-bo
Gallong DG	gam
Padam T	gam

Thus, a likely source of vowel length in Mising T ga:m seems to reflect the diphthong -ao- in the Assamese source word.

We are now left with only nine instances of Mising T CV:C syllables listed below. For lack of comparable forms elsewhere in Tani, however, satisfactory explanations for these handful of remaining forms are not yet available.

'goods, things'	at-ta:r
'bird (species)'	rok bi-bi:t
'tidy'	zu:t zo:t
'civet cat'	si:n-pə-ri:~sin-pə-ri:
'move away'	gə:r~gər
'meat or vegetables served with liquor'	ko:r
'children'	ko-ka:ŋ
'son and daughter'	om-ma:ŋ
'gorgeous, attractive'	u:r

Although the attested instances of quantity contrast in Mising T remain to be exhautively accounted for, the accumulated evidence

[74]This form is cited in Dhasmana 1979:282.

clearly tips the scales for Mising-internal innovation, rather than inheritance from the original phonological system.[75]

Even after all factors leading to secondary vowel length are taken into account, nevertheless, there still remain instances of contrastive vowel length which are hard to conceive of as late developments. Consider, for example, the roots below for which cognates from most Tani languages reflect long vowels, e.g.:

Gloss	Apatani W	Mising T	Bokar OY	Bengni S
beans	¹pe:²ruŋ(²)	pe:-ret	pe:-ren	pi:-rwn[76]
tooth	²hi:-	i:-paŋ	ji:-	fi[77]
dog	------	i-ki:	a-ki:	ə-ki:[78]

It is this relatively small set of forms which constitute genuine evidence for pushing a distinctive series of long vowels (*a:, *-i:, *-u:, *-e:, *-o:, *-ɯ:, and *-ə:) back to the ancestral PT vocalic system.[79]

It should be noted, however, that vocalic length does not appear to be a stable phonological feature in Tani. First, long vowels in many

[75]Long medial vowels in Mising T, furthermore, do not correspond to long vowels in PTB as reconstructed in STC. Thus, Mising T reflexes of both PTB *krap 'weep' (STC # 116) and PTB *ga:p 'shoot' (※**a:p?) contained the same short-vowel rhyme: kap 'weep'; ap 'shoot'.

[76]The Bokar OY and Bengni S forms mean 'mung beans'.

[77]Bengni S shows a short vowel in this root.

[78]Cf. also Damu OY a-ke:.

[79]We have to leave open the issue of vowel length in closed syllables in this work because the available comparative evidence is insufficient for a judgement to be made.

Tani languages have undergone neutralization in certain phonological environments. Thus, vocalic length is distinctive only in non-final open syllables in Gallong W and Apatani W (Weidert 1987:215-223), and in the first syllable of polysyllabic words in such Nishi dialects as Sagali, South Aya, and Leli (Chhangte 1992a:13). In Mising T, likewise, vowel length distinction is blurred in word-final position (Taid 1987a:136). These phonotactic restrictions, compounded by secondary vowel lengthening processes not yet fully understood,[80] have caused tremendous difficulty in ferreting out viable correspondences in Tani long vowel rhymes. As a methodological expedient, we will reconstruct a long vowel in this dissertation only if it is warranted by a unique correspondence (as in the case of the *-a: rhyme, see below), or if long vowels which cannot be shown to be secondary developments[81] are found in **at least three** Tani languages where vocalic quantity is reliably transcribed.[82]

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[80]Thus, personal pronouns in some Tani languages contain long vowels that do not seem to be original. Word-final open syllables are normally (but not always) long in Bengni S. This also seems to be an innovative development, comparable perhaps to a similar tendency reported in Mising T for word-final length distinctions to be obliterated.

[81]This proviso is important. In the Tani data at our disposal, Mising L and Padam L are the most indicative of PT rhyme distinctions. Even here, it takes some research before one can be certain whether a given occurrence of vowel length is derived or original. For instance, consider the following forms for 'lungs':

Apatani W	²ha:-¹ru
Gallong W	ˆa:-rə(~o)
Bengni S	ha:-ru
Mising L	a:-puk

The unanimous presence of a long vowel a: in the first elements of these compound forms may tempt us to reconstruct a long *a: vowel in this PT word for 'lungs'. However, we must be reminded that in Mising L the -ŋ coda also tends to drop, especially in word-medial position. True enough, we soon find another Mising L form aŋ, which can stand alone with the meaning 'heart, seat of emotion'. We believe that this morpheme, reconstructible as *haŋ (for evidence of the *h- initial, see below), is exactly what is

2.2.4.2. Tonality

Perhaps no other topic in Tani diachronic phonology is as intriguing as tonality. Although generally speaking the Tani branch is not characterized by pervasive tonality[83], contrastive tones have been reported in quite a few varieties of Tani, such as the Leli dialect of Nishi (Ray 1967), Minyong DG (Das Gupta 1977a), Milang DG (Das Gupta 1980), Tagin DG (Das Gupta 1983), Apatani A (Abraham 1985), Apatani W, and Gallong W (Weidert 1987: 215-259). His (exclusive?) exposure to tonal Tani languages may have led Weidert to make the following sweeping assertion: '...there can be virtually no doubt that the other languages of the North Assam division are amenable to the same comparative TC's (i.e. Tone Categories)...' (Weidert 1987:216).[84] However, this now seems to be an overstatement, because what we do find in modern Tani languages is a **perfect cline of tonality**. On the one hand, many Tani languages, such as Bokar, Padam, and Mising, are definitely atonal, as has been asserted with equal confidence for the following varieties: Mising T (Taid 1987a:137 and p.c. 1992), (Padam?) Adi (Bodman p.c. 1992), Bokar OY, and Damu OY (Ouyang

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attested as the first element in the PT word for 'lungs' (and in some other words denoting internal organs and emotions). Thus the long vowel **a:** observed in the modern forms turns out to be non-original, after all.

[82]Such sources are: Apatani W, Bokar OY/S, Bengni S, Damu OY, Gallong W, Mising T, and Nishi C.

[83]In this regard, Tani resembles Bodo-Garo, Western Himalayish, Qiangish, and Tibetan.

[84]Interestingly, Chhangte (1992a: fn 26) expresses the diametrically opposed view that 'I have my reservations about the existence of tone in any of the Misingish (i.e. Tani) languages and dialects'.

1985).[85] Then, in certain varieties of Bengni, a few word pairs are now distinguished solely by pitch height; the rest of the lexicon, however, does not seem affected by contrastive tone.[86] The next stage of tonal development is represented by Gallong W, where three distinctive tonal contours are found, but the relevant domain of tonal opposition is the phonological word.[87] Finally, we encounter full-fledged, **omnisyllabic** tone languages[88] where each syllable can potentially bear a two way (as in the Modantage dialect of Apatani recorded by Weidert, or Leli Nishi according to Ray 1967) or three-way (Apatani according to Abraham 1985) tonal contrast. Thus, Tani provides an ideal laboratory for examining processes of tonogenesis (or tonoexodus),[89] for, unparalleled anywhere else in Tibeto-Burman, an unusually rich array of tonal stages are actually attested.

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[85]We can also testify from our personal experience with Bokar that it does not have tones of any kind. However, it is also certain that, contrary to Ouyang's view, the variety of Bengni (Na Bengni) reported in Ouyang 1985 has developed a restricted phonemic tone system, which we discovered on a recent linguistic tour to Tibet (Fall 1992).

[86]For instance our main Na Bengni consultant distinguishes the following pair by pitch height: 'ramie' /tā-nu̱ː/ vs. 'snail' /ta̱-nūː/. What is fascinating is that the same pair is distinguished in different ways in the other two varieties of Bengni we worked on. Thus, for the other Na Bengni speaker it is vowel length that distinguishes the pair: 'ramie' /taː-nuː/ vs. 'snail' /ta-nuː/; whereas mu third Bengni consultant contrasts instead different vowels in the final syllables: 'ramie' /ta-noː/ vs. 'snail' /ta-nuː/. Incidentally, this primeval phase of tonogenesis has also been reported in certain dialects of rGyarong (Dai and Yan 1991), Ergong, and Northern Qiang (Sun Hongkai, p.c.).

[87]Other Tibeto-Burman languages with such word-tone systems include (tonal dialects of) Tibetan, Konyak (Weidert 1987:215), Kham (Watters 1985), and the Tamang group of languages (Mazaudon 1976).

[88]This term is suggested by Prof. Matisoff.

[89]The fact that the degree of tonality in Tani is directly correlated with the degree of segmental merger and syllable canon reduction seems to suggest tonogenesis rather than tonoexodus.

In general, the degree of tonal elaboration in Tani seems to correlate with the degree of the attrition of distinctive rhymes. Thus, it does not seem accidental that the non-tonal Bokar, Padam, and Mising are also conservative in terms of PT rhyme distinctions, and Gallong, which has merged more rhymes and dropped more codas, has come to possess a word-tone system, while, further, omnisyllabic tone systems are found in Apatani and Nishi which also have reached the most advanced level of rhyme attrition. Another factor which might also be relevant to the extent of tonality in Gallong and Apatani is that in these languages long vowels can occur **only in non-final open syllables** (Weidert 1987:215-223). One of the diachronic effects of this phonotactic constraint is that vowel lengthening as a compensatory device for elided codas is available only in restricted phonological contexts. Despite the strong correlation between the loss of segmental features and the degree of tonality, the actual comparative study of the tones in these languages is extremely difficult. First of all, we simply do not have sufficient data with accurately transcribed tones. Ray's Leli Nishi is said to contrast rising (marked with the acute accent) and falling (marked with the grave accent) tones, cf. the following examples (Ray 1967:10):[90]

[90]His notation of double tone marks on apparent **monosyllables** in these examples is difficult to interpret unless the **-l** here is to be treated as in a syllabic lateral [l̩].

Gloss	Leli Nishi	Bengni S
'good'	á1´	a-lu:
'day'	à1`	a-lu:
'leg'	á1`	lu-pa:
'over there'	à1´	a-lo:

Ray's paper, however, is of little use for comparative purposes anyway because of the sketchy treatment and the few actual forms cited. Chapter six of Alfons Weidert's monumental volume (Weidert 1987), on the other hand, is to date the most substantial contribution to Tani tonal studies. Even here, fewer than two hundred forms for each of the two languages Apatani and Gallong are provided. The problem of insufficient tonal data is made worse by conflicting analyses given for the same language. Thus, while Weidert establishes a high vs. low **level-tone** contrast (^{1} =low level tone; ^{2} =high level tone) for Apatani, Abraham instead posits three tones, including two **gliding tones** (rising and falling), and a level tone (Abraham 1985:5ff, 1987 passim). It is easy to show that the two tone systems are incompatible with each other. Thus, Weidert's system of binary tonal registers only allows maximally two contrastive tone patterns for monosyllables (H and L) and four for disyllables (HH, HL, LH, and LL). Examples such as the following, culled from Abraham's Apatani dictionary (Abraham 1978), indicate more tonal contrasts for either monosyllabic or disyllabic words:

Apatani A	Tone Pattern	Gloss
či	level	'weave'
čì	falling	'know'
čí	rising	'throw (spear)'
gja	level	'cut (with knife toward inside)'
gjà	falling	'hold in hand'
gjá	rising	'throw (rice, sand, etc.)'
à-ló	falling-rising	'bone'
à-lò	falling-falling	'salt'
à-lo	falling-level	'day'
a-lò	level-falling	'drop v.'
a-ló	level-rising	'skeleton'
á-lò	rising-falling	'dry in sunlight'

Despite the incongruity between these two analyses, which may result from true dialectal differences[91] or different treatment of suprasegmental features,[92] Apatani does seem to have developed a fully functional syllable-tone system. However, the sample comparison

[91]We are informed by Fürer-Haimendorf that of the seven Apatani villages at the time of his visit, Bela, Haja, Duta, Mutang-Tage, and Michi-Bamin use the same dialect, while Hari and Hang each speak a different dialect (Fürer-Haimendorf 1962: 64). Dialect variations in Apatani, however, are not mentioned at all in any of the three more reliable sources on Apatani, Simon 1976, Weidert 1987, and Abraham 1987. While Simon did not specify the origins of his consultants, the Apatani variety he worked on is very similar to that reported by Weidert, whose consultant comes from the Mudan-Tage village. Abraham's Apatani, which is much less conservative phonologically, seems to be based on the speech of two principal consultants respectively from Mudan-Tage and the Reru subdivision of Bela.

[92]Neither vowel length nor glottal stop are recognized by Abraham (both marked as phonemic in Weidert 1987), which make us suspect that some of the supposedly tonal distinctions in his system may involve rather other suprasegmental features.

below between Apatani W and the atonal Tani language Bokar OY shows the magnitude of difficulty in tracing the origins of tone in Apatani W:

1. **HIGH-HIGH**

Gloss	Apatani W	Bokar OY
'day'	²a-²lu	a-lo:
'tongue'	²a-²ljo	a-jo
'elder sister'	²a-²mi	a-me:
'body hair'	²a-²mɯ	a-mɯ

2. **HIGH-LOW**

Gloss	Apatani W	Bokar OY
'mother-in-law'	²a-¹jo	a-jo
'dog'	²a-¹ki	i-ki:
'mother'	²a-¹nɯ	a-nə
'night'	²a-¹jo	a-jo:

3. **LOW-HIGH**

Gloss	Apatani W	Bokar OY
'evening'	¹a-²ljiŋ	a-jum
'language'	¹a-²guŋ	a-gom
'hand'	¹a-²la	a-lak
'eye'	¹a-²mi	a-mik

4. **LOW-LOW**

Gloss	**Apatani W**	**Bokar OY**
'friend'	¹a-¹dziŋ	a-čen
'name'	¹ar-¹mrjaŋ	a-min

The examples, all disyllabic noun roots with the PT *a- prefix, display a four-way tonal contrast with the high vs. low register distinction realized **even on the prefix syllable.** While the prefixal syllable tends to carry the low tone if the noun root is a closed syllable, the tone height of the noun root itself seems impossible to predict from segmental features (voicing and sonorancy of onset consonants, vowel length, etc.) in the atonal Tani language Bokar.[93] In sum, the origin of tone in Tani seems to be one of the most challenging areas in comparative Tani but, until more tonal Tani languages are properly documented, the question whether PT was a tone language may have to remain unanswered.

[93]Weidert's attempt to establish correspondences between the high and low tones of these Apatani noun roots (in smooth syllables) to his 'Tibeto-Burman (phonation-based) Tone Categories' I and II are not too successful either, considering the host of exceptions to his suggested correspondences, even in the glosses hand-picked by himself. Weidert's 'Tonal Categories' are, moreover, problematic entities themselves; Bradley, for instance, has pointed out that the Burmese reflexes of the Weidertian TC II (i.e. *-ʔ) show **breathy** phonation, exactly the wrong phonation type according to Weidert's theory (Bradley 1983:119).

2.3. Phonological Reconstruction

2.3.1. Proto-Tani Initials

2.3.1.1. Stop/Affricate Initials

PT had the following stops and affricates in its system of syllable initials:

*p	*t	*č	*k
*b	*d	*j	*g

PT *p-:

This voiceless labial stop consonant is generally preserved intact in the key languages except Bengni S, where PT *p- before *-i became č-.

Supporting sets

jump

PT	*pok
Apatani S	po?
Bengni S	puk
Bokar OY	pok
Padam-Mising L	pok

The Bengni S form means 'jump down or into (e.g. water)'.

pangolin

PT	*pit
Apatani S	si-pi
Bengni S	ši-čit lo-po:
Bokar OY	---
Padam-Mising L	si-pit

This word takes the *sa- prefix. Cf, also Bori M si-pit.

uncle (paternal)

PT	*paŋ
Apatani S	---
Bengni S	a-pa:
Bokar OY	a-paŋ
Mising L	(b)a-bu
Padam L	pa-

Cf. also Damu OY pa:-ji; Padam T a-paŋ.

egg

PT	*pɯ
Apatani S	pa-pu
Bengni S	pɯ-pɯ
Bokar OY	pɯ-pɯ
Padam-Mising L	a-pɯ

This word usually takes the bird prefix *pa-. The root itself actually has a more general meaning of 'small rounded object', and occurs also in such words as 'ball', 'fruit', and 'uvula'.

cut (e.g. with machete)

PT	*pa
Apatani S	pa
Bengni S	pa
Bokar OY	pa
Padam-Mising L	pa

banana

PT	*ko-pak
Apatani S	(kɯ-pa) ko-pa
Bengni S	ku-pak
Bokar OY	---
Padam-Mising L	ko-pak

Cf. also Bokar M ko-pak pa:puk 'banana pith'.

kiss

PT	*pup~puk	
Apatani S	---	
Bengni S	mu:-pup	
Bokar OY	a-pup	
Padam-Mising L	mam-puk	rhyme!

moon

PT	*po-lo
Apatani S	pɯ-lo
Bengni S	po:-lu
Bokar OY	poŋ-lo
Padam-Mising L	po-lo

Cf. Mising T po:-lo. The -ŋ coda in the Bokar OY form seems to be an innovation (by analogy with doŋ-ñi 'sun').

snow

PT	*pam
Apatani S	tɯ-pĩ~ta-pĩ
Bengni S	ta-pam
Bokar OY	ta-pam
Padam-Mising L	ta-pam

This word usually takes the *ta- prefix.

gall

PT	*pɯ
Apatani S	---
Bengni S	pi
Bokar OY	a-pɯ
Nising L	pɯ-iŋ
Padam L	a-pi

The Apatani S form a-pɯr with the -r coda is puzzling; cf. also Apatani A a-prɯ.

PT *t-:

Reflexes of this well-attested initial remain t- in most Tani languages (Damu OY and Tagin DG seems to have changed *t- to č- before *-i, q.v. 'sweet').

Supporting sets

sweet

PT	*ti:
Apatani S	ti?
Bengni S	ti-təŋ
Bokar OY	ti:-po
Mising L	ti:
Padam L	tɯ

Cf. also Damu OY či:; Tagin DG či-pu; Mising T ti:.

bird

PT	*taŋ
Apatani S	pɯ-ta
Bengni S	pɯ-ta:
Bokar OY	pə-taŋ
Padam-Mising L	pət-taŋ

This word usually takes the bird prefix *pa-.

classifier for group (of animals)

PT	*tɯŋ
Apatani S	---
Bengni S	tɯŋ
Bokar OY	a-tɯŋ
Padam-Mising L	---

Cf. also Damu OY a-təŋ.

wipe

PT	*tit
Apatani S	ti?-pa
Bengni S	tit-kak
Bokar OY	tit-kak
Padam-Mising L	tit

Cf. PLB *sit~ *sut 'wipe/sweep' (Matisoff 1972: #120).

listen

PT	*tat^{2}
Apatani S	ta
Bengni S	tə:
Bokar OY	ta:
Padam-Mising L	tat

comb (v.)

PT	*tuk~tup
Apatani S	dĩ tu dĩ = 'head'
Bengni S	tuk
Bokar OY	tup
Padam-Mising L	tup

Cf. also Mising T, Gallong DG tup; Nyisu H tu. Apatani S tu came from *tuk (*-up would give Apatani *-i?).

PT *č-:

This consonant is retained in Western Tani; in Eastern Tani and Gallong, *č- usually merged with s-. Some dialects of Gallong further weakened s- to h-.

Correspondence:

PT	*č-
Apatani S	č-
Bengni S	č-
Bokar OY	č-
Padam-Mising L	s-

Supporting sets

weave

PT	*čum
Apatani S	čĩ
Bengni S	čum
Bokar OY	u-čum čum
Padam-Mising L	sum

ascend

PT	*čaŋ
Apatani S	go-ča
Bengni S	ča:
Bokar OY	čaŋ
Padam T	saŋ

tens (e.g. twenty)

PT	*čam
Apatani S	---
Bengni S	čam-ñi
Bokar OY	---
Padam-Mising L	---

This is mainly a Western Tani root. Cf. also Nishing DG, Gallong DG, and Tagin DG čam-. Cf. also Lushai shom; Puiron som 'ten'.

PT *k-:

Bengni S and Bokar OY changed *k- to č- before *-i and *-e. In Gallong DG, such instances of č-, along with those from PT *č-, shifted further to s-.

Supporting sets

uncle (maternal)

PT	*kɯ
Apatani S	a-kɯ
Bengni S	a-kɯ
Bokar OY	a-kɯ
Padam-Mising L	a-kɯ; ka-kɯ

This word usually takes the *a- prefix.

horse

PT	*kɯ
Apatani S	---
Bengni S	ši-ki:
Bokar OY	šə-kɯ
Padam-Mising L	---

Cf. also Bori M su-ke. In many Tani languages the words for 'horse' are loaned either from Assamese ghõrā or from Tibetan rta. This PT root may be compared with Jingpo kum^{31}ga^{33} (< *ku-mraŋ) and Dulong (Dulonghe dialect) mɯ^{31}gɯ^{53}; Mosang Tangsa gimrang (< gi-mrang); Tangkhul si-gui 'horse'. The ultimate Indic origin of this root cannot at present be denied.

star

PT	*kar
Apatani S	ta-kɯr
Bengni S	ta-kar
Bokar OY	ta-kar
Padam-Mising L	ta-kar

dog

PT	*kwi:
Apatani S	a-ki
Bengni S	ə-ki
Bokar OY	i-ki:
Padam-Mising L	e-ki

This word usually takes the *a- prefix. For vowel length, cf. also Damu OY a-ke:, Mising T i-ki:~ə-ki:. The absence of palatalization

in the Bengni S form indicates that there was a medial (*-w-) after the *k- initial (cf. PTB *kwəy; see Chapter IV for more discussion).

beautiful/good-looking

PT	*kaŋ-pro	
Apatani S	ka-prjo	
Bengni S	ka:-pu:	
Bokar OY	koŋ-po	
Padam L	kam-po	< kaŋ-po

This compound is structurally 'look' + 'good'.

cucumber

PT	*kuŋ
Apatani S	ta-ku?
Bengni S	---
Bokar OY	---
Padam-L	ma-kuŋ

Cf. also Apatani W ^{1}ta^{2}ku$^{(1)}$; Gallong W ` mə:-ku; Tagin DG mə-kuŋ; Nishi C mu-ku.

ill

PT	*ki
Apatani S	a-či
Bengni S	a-či
Bokar OY	a-či
Padam-Mising L	ki

The root also means 'painful/hurt'.

crab

PT	*ke~*kjo
Apatani S	---
Bengni S	ta-či: kə-ri:
Bokar OY	ta-če paŋ-tur
Padam-Mising L	ta-ke

Cf. Gallong W` ta-so (< *ta-čo < *ta-kjo). For Gallong s- < PT *č-, cf. PT čum; Gallong DG sum 'weave'; PT čaŋ, Gallong DG sa 'ascend'. Cf. also PT *ki, Gallong DG si 'sick, hurt'.

know

PT	*ken
Apatani S	čin
Bengni S	čin
Bokar OY	čen
Padam-Mising L	ken

PT *b-:

This voiced labial stop initial became j- in Western Tani before *-i. It remains b- otherwise.

Supporting sets

give

PT	*bi
Apatani S	bi
Bengni S	ji
Bokar OY	bi:
Padam-Mising L	bi

Cf. also Apatani W ²bi²do; Gallong W ˆji.

monkey

PT	*be:
Apatani S	si-bi
Bengni S	ši-bi:
Bokar OY	šə-be
Padam-Mising L	si-be

This word usually takes the *sa- prefix. WT spre (< s-pre) seems a likely cognate. Cf. Khaling tam-be, Chamling tung-bhu 'big, white monkey'.

beak

PT	*fi-bun
Apatani S	hi-bu
Bengni S	fi-bun
Bokar OY	ji-bun
Padam-Mising L	---

The first morpheme is 'tooth'; the second morpheme can be identified with the classifer for long slender objects, PT *bun (cf. also the sets for 'quiver (n.)', 'tail', 'rat', and 'beak').

snake

PT	*bu
Apatani S	ta-bu
Bengni S	ta-bu
Bokar OY	ta-bu
Padam-Mising L	ta-bu

This word usually takes the *ta- prefix.

smallpox

PT	*bum
Apatani S	ta-bũ
Bengni S	ta-bum
Bokar OY	ta-bum
Padam-Mising L	ta-bum

This word usually takes the *ta- prefix.

flow

PT	*but
Apatani S	bi
Bengni S	bi
Bokar OY	bit
Mising L	bit
Padam L	but

The *-ut rhyme is not allowed in either Bengni S or Bokar OY, suggesting a merger of the *-ut rhyme in these languages. The lack of palatalization of the Bengni S initial further shows that the original nuclear vowel could not be *-i. Weidert records a long vowel in Apatani W: ²bi:-²do (Weidert 1987:217).

knee

PT	*lə-bun
Apatani S	lu-bã
Bengni S	lu-bun
Bokar OY	lu-bun
Padam-Mising L	le-bun

The first element means 'leg/foot'; the second element also occurs in another 'joint' word: 'shoulder' (q.v.).

takin (Budorcas taxicolor)

PT	*ben~bren
Apatani S	su-bĩ
Bengni S	ši-bin
Bokar OY	šə-ben
Padam-Mising L	so-ben

This word usually takes the *sa- prefix. The liquid medial *-r- survives in Nyisu H blem-bü, but is not represented in the Apatani cognate. Cf. the obvious Dhammai (Hrusish) cognate ʃu-pʰrin 'goat'. Many sources just give the gloss 'goat'; the Bokar OY form is glossed 'a yellow-haired wild bovine animal'; according to our Bengni S consultants, /ši-bin/ refers to a 'wild animal with curved horns'; whereas the real word for domestic goats is /ja-ru:/ (cf. Bokar OY /šə-rə/ 'goat'). The animal in question here seems to be none other than takin (alias gnee goat), a hairy ruminating mammal

of eastern Tibet.(probably equivalent to Tibetan skyin, the ultimately source of the English loanword takin).

PT *d-:

This voiced dental stop initial is maintained in all key languages.

Supporting sets

barking deer

PT	*dum
Apatani S	su-dĩ
Bengni S	šu-dum
Bokar OY	šu-dum
Padam-Mising L	si-dum

This word usually takes the *sa- prefix.

heel

PT	*lə-du
Apatani S	lu-du
Bengni S	lu-du
Bokar S	li-du
Padam-Mising L	le-du

The first element means 'leg/foot'.

mountain/hill

PT	*di	
Apatani S	---	
Bengni S	ño:-di	
Bokar OY	a-ti:	initial!
Mising L	a-di	
Padam L	di-te	

Cf. also Mising T a-di:; Mori M a-di; Nishi C ñod; Yano B mlo-di (< *mloŋ-di). Vowel length is reported in Mising T and Bokar OY, but is absent in Bengni S. Note that this is the origin of Adi, the current autonym of the Abors.

skin/flay

PT	*du
Apatani S	---
Bengni S	di
Bokar OY	du
Padam-Mising L	du

plant (v.t., e.g. ~ tree)

PT	*di:~*diŋ
Apatani S	---
Bengni S	---
Bokar OY	di:
Padam-Mising L	diŋ

Cf. also Hill Miri S, Nyisu H di; Apatani A dì; Mising T di: 'erect (post)'. The open-syllable proto-variant is based on the form di: in Bokar OY, which normally preserves the *-iŋ rhyme.

PT *j-:

Most Tani languages have the j- phoneme. Some instances of j are found in loanwords (cf. Bokar OY ja: 'tea'), or can be shown to develop from earlier *b- before the vowel *-i (in Western Tani). After suck instances are discounted, there still remain a number of sets with the j- initial in all of the key languages (Mising T, however, changed *j- to z-). This is where PT *j- must be posited.

Supporting sets

lift

PT	*joŋ
Apatani S	jo
Bengni S	jo:
Bokar OY	joŋ
Padam-Mising L	joŋ

flat

PT	*jep~*rjap?
Apatani S	---
Bengni S	a-jap
Bokar OY	a-jap
Padam-Mising L	a-jep

Cf. Apatani S a-lje? 'flatten' < *rjap (PT *-ap > Apatani -e? is regular)..

fat (not thin)

PT	*jwŋ
Apatani S	jan-tu
Bengni S	jin-twŋ
Bokar OY	---
Mising L	jwŋ

Cf. also Nishing DG jw-po; Bori M ji-ru; Mising T zi:~zw: 'fat (of fruits)'.

friend

PT	*jon	
Apatani S	a-jĭ	
Bengni S	a-jin	
Bokar OY	a-čen	initial!
Padam-Mising L	a-jon	

duck

PT	*jap
Apatani S	pa-je?
Bengni S	pw-jap
Bokar OY	---
Padam-Mising L	pə-jap

This word usually takes the bird prefix *pa-.

melt

PT	*jit ~ jet
Apatani S	ji-ja-nə-ku
Bengni S	jit
Bokar OY	jit
Padam L	jit~jet

Cf. also Mising T zet; Nyisu H, Damu OY ji. The *-et variant is attested only in Mising.

wet

PT	*ju-jaŋ
Apatani S	ju-ja
Bengni S	ji-ja:
Bokar OY	ju-jaŋ
Padam-Mising L	ju-jaŋ

Cf. also Gallong W ¯ju-ja; Gallong DG ju:-ja; Nyisu H ju-ja; Hill Miri S and Tagin DG ji-ja.

beat/flog

PT	*duŋ~juŋ
Apatani S	dã̃
Bengni S	jiŋ
Bokar OY	---
Padam-Mising L	duŋ

While some Tani languages show a simple d- initial (e.g. also Damu OY doŋ; Tagin DG diŋ), the palatalized alternant j- is also common (e.g. also Nyisu H, Nishi C ji-; Nishing DG jaŋ). Cf. WT rdung.

PT *g-:

This proto-voiced velar stop usually remains g- in the key languages. Before *-i and *-e, *g- gave j- in Bengni S (and other Western Tani languages).

Supporting sets

language/speech

PT	*gom
Apatani S	a-gũ
Bengni S	gam
Bokar OY	(a-) gom
Padam-Mising L	a-gom

Cf. also Gallong W ˆagom.

carry on back/pregnant

PT	*gə:
Apatani S	ə-ŋa gɯ
Bengni S	ku: gɯ:
Bokar OY	a-ñə gə:
Padam-Mising L	a-o gə; ko gə

The Tani expression for 'be pregnant' is literally 'carry child/baby on back'. The root *gə: actually means 'carry on back'. Cf. also Damu OY a-tuŋ ga:.

jew's harp

PT	*guŋ-gaŋ
Apatani S	gaŋ-gu
Bengni S	guŋ-ga:
Bokar OY	goŋ-gaŋ
Mising L	guŋ-gaŋ
Padam L	goŋ-gaŋ~koŋ-gaŋ

Note the flipflop of the two morphemes in Apatani S.

scratch (with claws)

PT	*gaŋ
Apatani S	---
Bengni S	ga:
Bokar OY	---
Padam-Mising L	gaŋ

thunder

PT	*gum	
Apatani S	ja-pũ gẽ	rhyme!
Bengni S	do:-gum	
Bokar OY	doŋ-gum	
Padam-Mising L	---	

This word usually takes the 'weather' formative *doŋ-. Apatani S rhyme is unexpected (*-um usually gives -ĩ in Apatani S). Eastern Tani uses a different root *doŋ-mur.

hold/seize

PT	*gak
Apatani S	---
Bengni S	gak-
Bokar OY	gok-
Padam-Mising L	gak

clothes

PT	*ge?	
Apatani S	---	
Bengni S	ɯ-ǰi:	
Bokar OY	e-čɐ	initial!
Padam L	ɐ-gɐ	
Mising L	e-gɐ	

Cf. also Damu OY a-gja; Nishi C ij~ej; Gallong DG e-ǰɐ.

2.3.1.2. Spirant Initials

PT apparently had more distinctive spirants than any modern language. Evidence presented by the comparative data motivates positing the following PT spirant initials:

*f- *s- *h-

*v- *z- *ɦ-

PT *f-:

This proto-initial, directly preserved in Bengni S (and also Bangni R, and Yano B)[94] shows an intriguing correspondence pattern in modern Tani. The Apatani S reflexes vary between h- and xrj-.

Correspondence:

PT	*f-
Apatani S	h-/xrj-
Bengni S	f-
Bokar OY	h-/j-
Padam-Mising L	0-

Supporting sets

ax

PT	*fa:?
Apatani S	ja-hɯ
Bengni S	ɯ-fɯ:
Bokar OY	ja:
Mising L	ɯ-gɯŋ

For the j- reflex see also Tagin DG ja-gaŋ; for the h- reflex see also Bori M hə-gɯŋ, Nishing DG e-he; for the the 0- reflex see also Gallong W ¯ə-gɯ; for the f- reflex see also Yano B ef-fe; for the x- reflex see also Damu OY xə:-gɯŋ, Nyisu H ax and Tagen B e-xe.

wife

PT	*ni-fVn?
Apatani S	ni-hi
Bengni S	ni-fɯn
Bokar OY	ne-jan
Mising L	ni-en

---

[94]Some instances of f- in Yano B have descended from PT *p- before front vocalism as well as from PT *kr-, however. E.g. Yano B a-fi 'fatigue' cf. Bengni S a-pi: 'tired/rest' < PT *pe; Yano B se-fi 'porcupine' cf. Bengni S ši-kit; Apatani S su-xrju, < PT *sa-kret; Yano B se-fi, cf. Bengni S ta-kjɯ:, Apatani S ta-xrɯ < PT *krə 'squirrel'.

The first element seems to be 'man (homo)'. The Bengni S reflex ni- is irregular.

thigh/leg

PT	*far-
Apatani S	<u>har</u>-lã
Bengni S	<u>fur</u>-po:
Bokar OY	---
Padam-Mising L	<u>ar</u>-bjaŋ

Damu OY xar-ba; cf. also Hill Miri S, Bori M har-, Gallong DG ar-. In Bengni S, fur mean 'leg'. Cf. Dulong sǎ^{55} 'leg'.

angry

PT	*fak
Apatani S	---
Bengni S	ha:-<u>fak</u>
Bokar OY	---
Padam-Mising L	ak

Cf. also Nyisi T ha-<u>ha</u>; Nishing DG ha-<u>hak</u>; Yano B ho-<u>fak</u>; Bangni R fak; Tagen B ha-<u>xa</u>. The first morpheme in compounds is usually *haŋ- 'heart'. Bokar OY and Apatani S use different roots for the second morpheme (Bokar OY -či; Apatani S -dɯ).

boil (v.i.)

PT	*fu	
Apatani S	<u>hu</u>-grja?	
Bengni S	fu	
Bokar OY	wu	=ɦu
Padam-Mising L	<u>u</u>-saŋ	

sinew/vein

PT	*fo
Apatani S	---
Bengni S	a-<u>fu:</u>
Bokar OY	---
Padam-Mising L	ɯ-<u>ioŋ</u>

Cf. also Bokar M ho; Nishi C a<u>x</u> am (note the apocope of the main root vowel), Tagin DG a-<u>u</u>; Yano B ho-<u>fo</u>; Tagen B a-<u>xü</u> 'vein'. Both the Bengni S and Bokar M forms point to -o rather than -oŋ; the -ŋ coda in the Padam-Mising L form may be secondary (cf. the set for 'day').

fat (meat)/greasy

PT	*fu
Apatani S	hu-
Bengni S	a-fu
Bokar OY	hu:
Padam-Mising L	u

Cf. Apatani S hu-lji? 'fat/grease'.

flea

PT	*fi
Apatani S	ta-xi
Bengni S	ta-fi
Bokar OY	te-i
Padam-Mising L	i-po

Cf. also Damu OY te-i; Nishi C təx tab.

dry something near fire

PT	*fam
Apatani S	---
Bengni S	fam-šin
Bokar OY	ham-pw
Padam-Mising L	am-pw

itch

PT	*fak
Apatani S	a-ha?
Bengni S	a-fak
Bokar OY	ak
Padam-Mising L	ak

Cf. also Damu OY xak.

write

PT	*fat[1]
Apatani S	---
Bengni S	fit
Bokar OY	---
Padam-Mising L	at

Cf. also Nyisu H he; Nishi C xe?; Milang T, Mising T at; Hill Miri S het.

louse (head louse)

PT	*fwk
Apatani S	ta-xrjw?
Bengni S	ta-fwk
Bokar OY	ta-jwk
Padam-Mising L	ta-ik

Cf. also Damu OY ta-jək; Gallong DG ta-jʉk; Nishi C ta(~ə)-xʉ?.

tooth

PT	*fi:
Apatani S	a-hi
Bengni S	fi
Bokar OY	ji:-čuŋ
Padam-Mising L	i-paŋ

Cf. Nishing DG i-hi; Nyisu H e-hi, Damu OY xe-pa, Tagen B e-xe, Nishi C e-xi; Tagin DG i-joŋ, Gallong W ˆi:-ju; Milang T či-pa; Yano B fi. Padam-Mising L has a form a-je, which seems to reflect a different root, cf. the Mising T doublet a-jə; i:-paŋ. This root could be related to PTB *m-ćway 'tusk/tooth' (Prof. Matisoff, p.c.); the problem is that PT *-i(:) normally reflects PTB *-əy rather than *-ay.

comb (n.)

PT	*fi
Apatani S	a-xrji?
Bengni S	ta-fi
Bokar OY	---
Padam-Mising L	---

Bokar OY uses a Tibetan loanword tgase: (< WT skra-shad); Padam-Mising L ta-bap is not cognate. Cf. also Tagen B te-xi; Yano B ta-fi.

PT *v-:

Correspondence:

PT	*v-
Apatani S	h-/0-
Bengni S	v-
Bokar OY	h-/0-
Padam-Mising L	0-

Supporting sets

oast in a pan (without adding oil)

PT	*va:
Apatani S	---
Bengni S	vʉ:
Bokar OY	ha:
Padam-Mising L	a

throw/cast

PT	*vor?
Apatani S	---
Bengni S	vʉr
Bokar OY	or
Padam-Mising L	---

Cf. also Tagin DG or; Nyisu H hur; Gallong DG, Mising T ər.

blood

PT	*vi:
Apatani S	a-ji
Bengni S	u:-yi
Bokar OY	u-ji:
Padam-Mising L	i-ji

This word usually takes the *a- prefix. The widely attested rounding in this prefix may have been caused by the labial initial *v-. For more evidence of rounding here, see also Nishing DG, Nyisu H u-i, Hill Miri S u-i~u:-i, Tagin DG o:-i; Nishi C u-ie. This word is extremely variable in Tani. The forms given by our three Bengni consultants are all slightly different: u:-yi (from our main consultant of Na Bengni); uk-ji: (the other variety of Na Bengni); and u-yi: (a Bengni dialect of the upper Khlu (i.e. Kulung) River area).

twist/turn

PT	*vet	
Apatani S	hi?	
Bengni S	vit	
Bokar S	it-jum	< et
Mising L	et	

Cf. Lahu vè? 'screw'.

set (sun)

PT	*vaŋ
Apatani S	ha~a
Bengni S	va:
Bokar OY	oŋ
Padam-Mising L	o-aŋ

Cf. also Apatani A, Nyisu H, Gallong DG, Bori M a '(sun)set'. This is also the PT 'come/enter' root. Cf. Milang T, Tagen B ha; Damu OY, a:; Gallong W ˆa:; Bokar OY oŋ; Padam-Mising L gi-aŋ 'come'; Mising T a: 'come/enter'. For the labial initial cf. Yano B wa 'come'. Note that Bengni S now uses the different forms šo: for 'come'; and so: 'come' or wŋ 'go' plus -luk (= verbal particle 'into') for 'enter'. Bor records both wa~ha (< PT *vaŋ) and uŋ~eŋ (cognate with Bengni S wŋ) for the meaning 'come'.

PT *s-:

This voiceless dental spirant is maintained in all key languages (and in most other Tani languages except Gallong W, and sometimes also Milang T, where *s- shifted to h-). It should be noted that there is no contrast between s- and š- in any Tani language known to us, š- has been chosen to represent this phoneme in Bengni S and Bokar OY, because of the parallel phonological behavior of š-, č-, and j- in these languages (see 1.5.2. for more details).

Supporting sets

wood/tree

PT	*swŋ
Apatani S	ja-sã̄
Bengni S	u-šwŋ
Bokar OY	u-šwŋ
Padam-Mising L	ə-siŋ

This is also the root for 'tree'. Cf. the interesting Bengni S form šwŋ-nu: (lit.: wood-mother) 'tree'!

water

PT	*si
Apatani S	ja-si
Bengni S	u-ši
Bokar OY	i-ši
Padam-Mising L	a-si

breathe/breath

*PWT	*sak
Apatani S	sa?
Bengni S	šak
Bokar OY	šak
Padam-Mising L	---

Padam-Mising L uses a different root ŋa.

rattan/cane

PT	*soŋ
Apatani S	ja-so
Bengni S	u-šo:
Bokar OY	kər-ku o-šoŋ
Padam-Mising L	ə-soŋ

bladder

PT	*sur
Apatani S	---
Bengni S	šur-pi
Bokar OY	šer-pum
Padam-Mising L	pum-sur

nest/lair

PT	*sup
Apatani S	a-si?
Bengni S	ta:-šup
Bokar OY	a-šup
Padam-Mising L	a-sup

net

PT	*sap
Apatani S	---
Bengni S	a-šap
Bokar OY	---
Padam-Mising L	ə-sap

play

PT	*soŋ-man
Apatani S	so-mĩ so-ĩ
Bengni S	šo:-min
Bokar OY	šoŋ-men
Padam-Mising L	so-man

die

PT	*si	
Apatani S	su	rhyme!
Bengni S	ši	
Bokar OY	ši:	
Padam-Mising L	si	

Cf. also Damu OY si-; Gallong W ˆhi.

classifier for long, slender objects

PT	*soŋ	
Apatani S	so	
Bengni S	šo:	
Bokar OY	a-hoŋ	initial!
Padam-Mising L	soŋ	

This classifier could have come from *soŋ, the 'rattan, cane' root. The Bokar OY initial may be a secondary development.

PT *z-:

A distinct correspondence pattern motivates the reconstruction of this PT initial. The voiced j- reflexes in Apatani S, Bokar OY, and Padam L indicate that the original PT consonant involved could also be a voiced sound, probably *z-.[95]

Correspondence:

PT	*z-
Apatani S	j-
Bengni S	š-
Bokar OY	j-
Mising L	s-
Padam L	j-

Supporting sets

nail (body part)

PT	*lak-zin	
Apatani S	la?-ĩ	
Bengni S	lak-šin	
Bokar OY	lu-gin	< lok+jin
Mising L	lak-sin	
Padam L	lag-jin	

Cf. also Gallong W ^lak-sin; Damu OY la?-jin; Milang T la-han.

[95]This sound change would be paralleled by PLB *z- > Lahu y- (Prof. Matisoff, p.c.).

beat[2]

PT	*zit
Apatani S	---
Bengni S	---
Bokar OY	jit
Mising L	sit
Padam L	it

Cf. also Hill Miri S sit.

fruit

PT	*ze
Apatani S	a-ii
Bengni S	šiŋ-ši:
Bokar OY	---
Padam-Mising L	a-je

Cf. also Bori M a-pw a-je; Gallong W ` a-se. The Yano B form fe is from a different root *pw (*p- > f- in Yano B, cf. Bengni S a-pi:, Yano B a-fi < PT *pe 'tired/rest'), cf. Bokar OY a-pw (perhaps also Nishi C a-xi, Tagen ax) The distinctness of the two roots can be seen in the Bori M word, where both of them occur side by side.

liver

PT	*zin
Apatani S	pa-ĩ
Bengni S	šin
Bokar OY	jin
Mising L	a-sin
Padam L	a-in

Cf. also Damu OY a-jin, Gallong DG ` a-sin; Milang T a-han.

PT *ɦ-:

A voiced glottal spirant is posited where modern Tani languages reflect an h- (phonetically a voiced glottal fricative [ɦ] in Bokar OY/S, Bengni S, and Damu OY), or zero initial in Padam-Mising L and

sometimes also Bengni S. The contrast between ɦ- and j- is blurred before high vowels in Bokar OY, and the resultant sound is often transcribed with the glide j-.

Correpondence:

PT	*ɦ-
Apatani S	h-
Bengni S	h-/0-
Bokar OY	h-/j-
Padam-Mising L	0-

Supporting sets

scratch (to stop an itch)

PT	*ɦok
Apatani S	ho?
Bengni S	uk
Bokar S	hok
Padam-Mising L	ok

Cf. also Damu OY hak.

branch

PT	*ɦak
Apatani S	san a-ha
Bengni S	---
Bokar OY	a-hak
Mising L	ak-leŋ
Padam L	ak

child (offspring)

PT	*ɦo
Apatani S	o-ho
Bengni S	---
Bokar S	a-ho
Mising L	a-o
Padam L	o

three

PT	*ɦum
Apatani S	hĩ
Bengni S	w-um
Bokar OY	a-hum
Padam L	a-ŋum
Mising L	a-um

The ŋ- in the Padam form is secondarily epenthesized.

warm oneself near fire

PT	*ɦi:
Apatani S	---
Bengni S	hi
Bokar OY	ji:
Padam-Mising L	i-pam

Cf. also Apatani A hi; Damu OY a-mə ji: (=ñi:).

heavy

PT	*ñit	
Apatani S	a-i?	< *a-hi?
Bengni S	---	
Bokar OY	ə-i	
Padam-Mising L	---	

Cf. also Damu OY a-iy:; Gallong DG, Tagin DG, Yano B a-i; Mising T i:t (< *a-jit); Bokar M a-jit. For *ñ-, cf. Apatani A a-hi~a-ji.

wake up

PT	*ñut[2]
Apatani S	i-mi a-hu
Bengni S	hu-rap
Bokar OY	hu-ru
Padam-Mising L	ut

Cf. also Damu OY iy:-rəp.

hang (against wall)

PT	*ñak
Apatani S	a-ha?
Bengni S	hak-pu:
Bokar OY	hak-pa:
Padam-Mising L	---

The second morphemes in the Bengni S and Bokar OY forms reflect the *pa: '1 put' root.

sew/patch

PT	*ñom
Apatani S	---
Bengni S	ham
Bokar OY	hom
Padam-Mising L	om

Cf. also Damu OY, Milang T hom.

PT *h-:

Damu OY maintains a unique correspondence pattern where both x- and ñ- correpond to h- (or zero initial) in the other languages. It seems reasonable to suppose that the Damu contrast reflects a

similar distinction at the PT stage. For sets like these where Damu OY shows a x- initial, we also posit a voiceless *h- for PT.

Correspondence:

PT	***h-**
Apatani S	h-
Bengni S	h-
Bokar OY	h-
Damu OY	x-
Padam-Mising L	0-

Supporting sets

rain (v.)/fall from a height

PT	*ho
Apatani S	hu
Bengni S	hu:
Bokar OY	ho:
Padam-Mising L	o

Cf. Damu OY -xo~ho; Mising T o; Gallong W ˆo-lo.

cold (water)

PT	*han
Apatani S	---
Bengni S	ha-rjik
Bokar OY	hen-jik
Padam-Mising L	an(-siŋ)

Cf. Damu OY xan-čiŋ; Milang T an-siŋ-gam.

heart[96]

PT	*haŋ (-puk)	
Apatani S	a-ha	
Bengni S	ha:-puk	
Bokar OY	hoŋ-puk	
Mising L	a-puk	< aŋ-puk

Cf. Damu OY xa:-puk; Nishi C haŋ.

---

[96]Incidentally, this root also appears in the Adi name for the Dihang river (i.e. the Yarlung Gtsangpo after it turns southward and enters Arunachal Pradesh) Siang, which is very aptly 'heart (ang < PT *haŋ) river (si < PT *si 'water, river')'!

shy/ashamed

PT	*han(?)-ñiŋ
Apatani S	hu-ña
Bengni S	ha-ñiŋ
Bokar S	hen-ñiŋ
Padam-Mising L	a-ñiŋ

Cf. also Damu OY xa(n)-ñiŋ. The first element in this proto-compound does not seem to be from the root *haŋ 'heart' root despite the alluring semantic compatibility because the modern reflexes (especially the Bokar OY and Damu OY ones with the -n coda) point to a different proto-form. The second element may be the *ñiŋ 'uncomfortable' root (cf. Padam-Mising L ñiŋ 'unpleasant, uncomfortable').

chest

PT	*haŋ-braŋ/*haŋ-kwŋ
Apatani S	ha-brjã
BengniS	ha:-kwŋ
Bokar OY	hoŋ-boŋ
Padam-Mising L	aŋ-kəŋ

This word also involves the *haŋ 'heart' root; cf. also Nyisu H ha-bla 'breast'.

distribute

PT	*hor
Apatani S	---
Bengni S	hur
Bokar OY	---
Padam-Mising L	or

Cf. Damu OY xor-pan; Gallong DG or-si; Hill Miri hor-mi-si.

wash

PT	*hur
Apatani S	har-su
Bengni S	hur
Bokar OY	hur-šu:
Mising L	ur
Padam L	ur~ar

Cf. Mising T ur; Damu OY xər. The Apatani S form means 'bathe'. The Bokar OY form appears in hur-šu: 'wash (one's own) face'. In Bengni S, hur- refers to washing anything other than faces (mo:-mit) and hands (lə-šuk < lak-šuk).

2.3.1.3. Nasal Initials

The following PT nasal initials are recognized, all of which seem to be fully contrastive, even before the high front vowel *-i:

*m- *n- *ñ- *ŋ-

PT *m-:

This labial nasal initial usually survives as m-, except in Western Tani languages where *m- before *-i regularly changed to ñ-.

Supporting sets

man (homo)

PT	*mi:	
Apatani S	mju	< /mi-ju/
Bengni S	ñi:	
Bokar OY	mi:	
Padam-Mising L	a-mi	

The key to the apparently irregular Apatani S form is provided by the disyllabic Apatani A form mi-ju. For vowel length see also Mising T mi:; but cf. Damu OY a-mi; Nishi C ñi.

swallow

PT	*met
Apatani S	---
Bengni S	du:-mit
Bokar OY	jom-met
Padam-Mising L	met

Apatani S ar-nw is not cognate.

negator

PT	*maŋ
Apatani S	ma
Bengni S	ma:
Bokar OY	moŋ
Padam-Mising L	maŋ

dead body

PT	*si-maŋ
Apatani S	sɯ-ma
Bengni S	ši-ma:
Bokar OY	šo-moŋ~ši-moŋ
Padam-Mising L	si-maŋ

The first morpheme is the 'die' root.

cheat/lie

PT	*mə:
Apatani S	a-mu-pa lu
Bengni S	mɯ:
Bokar OY	mə:-no:
Padam-Mising L	mə-nam lu

think

PT	*mɯŋ
Apatani S	---
Bengni S	mɯŋ
Bokar OY	mɯŋ
Padam-Mising L	mɯŋ

Cf. Milang ñaŋ, mjaŋ.

PT *n-:

This dental nasal initial is maintained in all key languages.

Supporting sets

mother

PT	*nə
Apatani S	a-nə
Bengni S	a-nɯ:
Bokar	a-nə
Mising L	a-nə, na-nə
Padam L	an-nə

Benedict 1972 lists the Mising a-nă as a reflex of PTB *(m-)na. The correct Mising L form should rather be a-nə. Matisoff 1991 posits another PTB etymon *nu 'mother, elder female relative'. Since the regiular PT reflex of PTB *-a and *-u are respectively *-o and *-u, PT *nə 'mother' does not fit exactly with either of these PTB 'mother' etyma. The Padam L form can also mean 'grandmother'.

cooked

PT	*nu
Apatani S	---
Bokar OY	nu:~nu
Bengni S	nu
Padam-Mising L	nu

Cf. Nishi C nu:-pa; Damu OY; Mising T nu.

brother (younger)

PT	*nɯ
Apatani S	a-nɯ
Bengni S	---
Bokar OY	nɯ-ro
Padam-Mising L	---

Cf. also Padam T, Bori M a-nɯ. Cf. also Padam-Mising L a-nɯ 'fresh, young'; a-nɯ jaŋ 'younger, youngest'. Bengni S bu-ru: and Padam-Mising L a-ŋɐ are unrelated.

stab

PT	*nɯk
Apatani S	nɯ?
Bengni S	nɯk
Bokar OY	nɯk
Padam-Mising L	nik

thou

PT	*no:
Apatani S	no
Bengni S	nu:
Bokar OY	no:
Padam-Mising L	no

Cf. also Nishi C no:.

snot

PT	*nap
Apatani S	---
Bengni S	nap-li
Bokar OY	ta-nap
Padam-Mising L	---

The Apatani S form ta-no?, which also means 'phlegm', looks like a cognate but has the wrong rhyme (*-ne? expected). Cf. also Padam L ta-ñop, and Mising L ñop-si, which contain unexpected palatalized initial (perhaps a secondary development by analogy with Padam-Mising L ño-pum 'nose'). Taid (p.c.) reports the following Mising variants: nap-si; nop-si; ta-ñop.

PT *ñ-:

This PT nasal initial denasalized to j- in Apatani S and sometimes also in Mising L. It is otherwise retained in modern Tani.

Supporting sets

ear

PT	*ña-ruŋ
Apatani S	ja-ru
Bengni S	ña-ruŋ
Bokar OY	ña-ruŋ
Mising L	je-ruŋ~ñe-ruŋ
Padam L	ño-ruŋ

squeeze with fingers

PT	*ñum
Apatani s	---
Bengni S	ñum
Bokar OY	---
Padam-Mising L	ñum

sun

PT	*ñi
Apatani S	da-ñi
Bengni S	do:-ñi
Bokar OY	duŋ-ñi
Padam-Mising L	do-ñi

This word usually carries the 'weather' formative doŋ-.

PT *ŋ-:

This velar nasal initial is quite common in Tani. Before PT *-i, most languages seem to have shifted ŋ- to ñ- as for example in 'laugh', or to n-, e.g. Padam L ŋi-tom, Mising T ni:-tom 'story, song'.

Supporting sets

laugh

PT	*ŋil	
Apatani S	ŋar	
Bengni S	ñir	
Bokar OY	ñir	
Mising L	jir	< ñir
Padam L	ŋil	

Cf. also Milang T ŋal.

I

PT	*ŋo:
Apatani S	ŋo
Bengni S	ŋu:
Bokar OY	ŋo:
Padam-Mising L	ŋo

Cf. also Damu OY ŋo:.

leftover (food)

PT	*do-ŋoŋ?
Apatani S	---
Bengni S	du-ŋo:
Bokar OY	---
Padam-Mising L	do-ŋoŋ

The first morpheme do- 'eat' also appears in some other words related to food and eating, and seems to be in the process of developing into a 'food' prefix in Tani.

fish

PT	*ŋo	
Apatani S	ŋu-i	rhyme!
Bengni S	ŋu-i	
Bokar OY	o-ŋo:	
Mising L	o-ŋo	
Padam L	ə-ŋo	

2.3.1.4. Other Sonorant Initials

In addition to the four nasals presented above, three more PT sonorant initials, two liquids *r- and *l- and a palatal glide *j-, are posited.

PT *r-:

The PT *r- initial is reflected by r- in all key languages.

Supporting sets

mosquito

PT	*ruŋ
Apatani S	ta-ru
Bokar OY	---
Bengni S	ta-ruŋ gam-buŋ
Padam-Mising L	ta-ru suŋ-gu

This word usually takes the prefix ta-.

fir/pitch-pine

PT	*ru
Apatani S	---
Bengni S	ta-ru
Bokar OY	ta-ru
Padam-Mising L	---

Cf. Padam-Mising L mə-ru 'torch' (< 'fire' + 'fir'); torches are often made of branches of this resinous conifer (which our Bengni consultants refer to in Chinese as yǒu-shù, i.e. 'oily tree', referring to the resin it produces); cf. also Bengni S ru-la: 'resin', and the Chinese word for torch, sōng-míng, i.e. 'fir-light'.

otter

PT	*ram
Apatani S	su-rī
Bengni S	šu-ram
Bokar OY	šə-ram
Padam-Mising L	si-ram

This word usually takes the animal prefix *sa-.

spider

PT	*rum
Apatani S	ri-mi < rim-bi
Bokar OY	ta-rum
Bengni S	---
Padam L	ta-rum
Mising L	ta-rum bu-ti

Cf. also Bori M ta-rum; Gallong DG tak-tum be-rum; Apatani A rím-bi.

morning

PT	*ro
Apatani S	a-ro
Bengni S	a-ru:
Bokar OY	a-ro
Padam-Mising L	ro

The Padam-Mising L form means 'early morning'. Cf. also Mising T ro:.

hole/dent

PT	*ruŋ
Apatani S	-ru as in ja-ru 'ear'
Bengni S	uŋ-ruŋ 'dent'
Bokar OY	a-ruŋ
Padam-Mising L	a-ruŋ

Cf. also Apatani A rù-kó 'hole'; Damu OY a-ruŋ. A different (related?) root *uŋ occurs in Western Tani, cf. Bengni S, Nishi C uŋ. Both roots occur in Bengni S: uŋ-ko: 'hole' vs. uŋ-ruŋ 'dent, hollow'.

PT *l-:

This is a common initial in Tani. The modern reflexes are l- in all key languages.

Supporting sets

leg

PT	*lə~le?
Apatani S	a-li
Bengni S	lw-pa:
Bokar OY	a-lə
Padam-Mising L	a-lə; a-le

hand/arm

PT	*lak
Apatani S	a-la?
Bengni S	lak
Bokar OY	a-lok
Padam-Mising L	a-lak

soup

PT	*laŋ
Apatani S	a-la
Bengni S	a-la:
Bokar OY	a-laŋ
Padam-Mising L	a-laŋ

While the cited forms all mean 'soup', this PT root has a more general meaning 'thick liquid' and appears also in such words as 'honey', 'tears', 'resin', and 'mucus'. Cf. Mikir a-lang 'juice'. Cf. PTB *laŋ 'water, river, valley' (Prof. Matisoff, p.c.).

day

PT	*lo
Apatani S	a-lo
Bengni S	a-lu:
Bokar OY	lo:
Padam-Mising L	si-lo 'today'

The Mising L form for 'day' loŋ may contain a secondary -ŋ coda. Cf. Padam T lo-ŋə. Neither Bengni S (*-oŋ in Bengni S > -o:, not -u:) nor Bokar OY (where the *-oŋ rhyme is normally kept) shows this coda.

wing

PT	*lap
Apatani S	a-le
Bengni S	lap
Bokar OY	a-lap
Padam-Mising L	a-lap

exit (v.)

PT	*len
Apatani S	---
Bengni S	lin
Bokar OY	len
Padam-Mising L	len

Cf. Apatani A xu-lin 'knock out (content in vessels)'.

hundred

PT	*lɯŋ
Apatani S	lan-e
Bengni S	lɯŋ
Bokar OY	lɯŋ
Padam-Mising L	lɯŋ

Cf. Dhammai bu-lon; Hruso phu-yu (< ru); Bangru ləŋ[53].

PT *j-:

PT *j- yields j- in all key languages.

Supporting sets

night

PT	*jo:
Apatani S	a-jo
Bengni S	a-ju:
Bokar OY	a-jo:
Padam-Mising L	jo; jo-ə

Cf. also Mising T jo:.

millet (fox-tail)

PT	*jak
Apatani S	---
Bokar OY	ta-jak
Damu OY	ta-jak
Padam-Mising L	a-jak

prohibitive marker

PT	*jo
Apatani S	jo
Bengni S	---
Bokar OY	jo
Padam-Mising L	jo

grandmother

PT	*jo
Apatani S	a-jo
Bengni S	a-ju:
Bokar OY	a-jo
Mising L	(j)a-jo
Padam L	an-nə (ə-jo)

Padam L uses mainly the *nə 'mother' root.

mushroom

PT	*jin	
Apatani S	ta-jĩ	='fungus'
Bengni S	ta-jin	
Bokar OY	ta-jin	
Padam-Mising L	---	

This word usually takes the *ta- prefix.

rot/rotten

PT	*jaŋ
Apatani S	ja-
Bengni S	ja:
Bokar OY	jaŋ
Padam-Mising L	jaŋ

Cf. Apatani W ²ja:-; cf. also Lahu yɔ̂ 'rust, rot'.

sleep

PT	*jup
Apatani S	i-mi
Bengni S	jup~jip
Bokar OY	jup
Mising L	jup
Padam L	ip

The Apatani form comes from i (< i? < *jup)+ mi; for the second morpheme see under 'sleep'.

more (verbal particle of comparison)

PT	*jaŋ
Apatani S	-ja
Bengni S	-ja:
Bokar OY	-joŋ
Padam-Mising L	-jaŋ

2.3.1.5. Consonant Clusters

2.3.1.5.1. Clusters With the *-r- Medial

The following *Cr- clusters must be recognized for PT:

*pr- *kr-
*br- *gr-
*mr-

PT *pr-:

This cluster initial was simplified to p- or č- in many Tani languages. Nyisu H preserves the liquid medial in the form of pl-. Apatani S shows prj-, which is a merger of *pr- and *pj- (see below). Bengni S consistently maintains the medial as -j- (except before -i vocalism). The Nyisu evidence seems the most suggestive (PT *pr- > Nyisu H pl-; PT *pj- > Nyisu H č-).

Correspondence:

PT	*pr-
Apatani S	p(ʰ)rj-
Bengni S	pj-
Bokar OY	p(j)-
Mising L	p-
Nyisu H	pl-
Padam L	p(j)-

Supporting sets

chin

PT	*čok-praŋ
Apatani S	---
Bengni S	čuk-pja:
Bokar OY	---
Padam-Mising L	---

Cf. Nyisu H ča-pra~čo-pla 'chin/jaw'; Tagin DG čok-pja 'chin'. The Padam-Mising L forms employ sok- (< *čok), but not the element in question.

shin/shank

PT	*praŋ
Apatani S	lw-pʰrja (a-lo)
Bengni S	---
Bokar OY	lə-paŋ
Padam-Mising L	---

Cf. also Nyisu H le-pla 'shin'; Damu OY lə-pja 'shank'. Cf. WT brla 'thigh'.

plait

PT	*prat²
Apatani S	prja-sɯ
Bengni S	pjɯ:
Bokar OY	---
Padam-Mising L	pet <*pjat<*prat

cf. also Nyisu H pla-s 'plait n.'; Damu OY ta-pət 'plait (n.)'.

twin

PT	*prem
Apatani S	---
Bengni S	bɯŋ pjam-bu
Bokar OY	---
Padam-Mising L	o-pem-su-nam

Cf. Nyisu H pləm; Mising T o-pem.

four

PT	*pri
Apatani S	pɯ-lje initial!
Bengni S	a-pi
Bokar OY	a-pi:
Padam-Mising L	a-pi

Cf. also Mising T ap-pi:; Apatani W ²pɯ-²ljɯ; Nyisu H a-pl; Bangni R a-pli. Note that the -r- medial, itself lost, blocked the *p-> *č- sound change in Bengni S. The Apatani disyllabic forms seem to suggest that the *p- initial was once a free syllable *pV-; the second element, however, is mysterious.

undress

PT	*prɯt
Apatani S	prjɯ
Bengni S	pi
Bokar OY	pi
Padam-Mising L	pɯt

Cf. Damu OY pʰit; Nyisu H pla.

orphan*(see 'forget')

PT	*ɦo-pran
Apatani S	---
Bengni S	hu-pin
Bokar OY	---
Padam-Mising L	o-pan

Cf. Nyisu H ho-plin; Yano B ho-pin. Literally 'child' + 'forget', i.e. 'forgotten child'.[97]

palm (of hand)

PT	*lak-pro
Apatani S	la?-pʰrjo
Bengni S	lak-čuː
Bokar OY	lok-pjo
Mising L	lak-po
Padam L	lak-pjo

Cf. Nyisu H lo-plu 'hand' (as opposed to 'arm'); Damu OY lak-pjo; Milang T lak-pju. The *pro root also occurs in 'sole (n.)'.

sell

PT	*pruk
Apatani S	prju(?)
Bengni S	pjuk
Bokar OY	puk
Padam-Mising L	---

Cf. Bangni R plok; Nyisu H pruː; Tagin DG pjok.

eight

PT	*pri-ñi
Apatani S	p(rj)ɯ?-ñi
Bengni S	piː-ni
Bokar OY	piː-ñi
Mising L	pi-ñi
Padam L	pɯ-ñi

This word is structurally a compound 'four-two'. Cf. also Nyisu H plin; Yano B plə-ne; Tagen B plə-nə.

The -r- medial in the sets below is not directly attested (since the Nyisu H cognates are not available) but inferred from the correspondence.

[97]The connection between 'orphan' and 'forget' was pointed out by Prof. Matisoff.

board/plank

PT	*swŋ-praŋ?
Apatani S	---
Bengni S	šiŋ-pja:
Bokar OY	šwŋ-paŋ
Padam-Mising L	sw-paŋ

The first morpheme is the 'wood' root.

flute

PT	*pruŋ
Apatani S	---
Bengni S	pjuŋ-ri
Bokar OY	ta-puŋ
Padam-Mising L	ta-puŋ

Cf. Kaman $mu^{31}plun^{53}$; Tshangla nam-bu-luŋ.

soak

PT	*pom~prom?
Apatani S	põ-je?
Bengni S	pjam-pu:
Bokar OY	---
Padam-Mising L	pom~pjom

Cf. also Nyisu H pom; Milang T pjom. The Bokar OY and Damu OY form baŋ seems to be loaned from Tibetan sbong/sbang.

good (verbal particle)

PT	*-pro?
Apatani S	-prjo
Bengni S	-pu:
Bokar OY	-po
Padam-Mising L	-po

spread out (e.g. bedding)

PT	*pru?
Apatani S	---
Bengni S	pju
Bokar OY	pu:
Padam-Mising L	pu

Cf. also Apatani A à-pì (the front vocalism may be caused by the palatal glide. Cf. Apatani S u-i vs. other Tani -iu < PT *ju 'demon/evil spirit').

PT *br-:

This proto-cluster survives as Nyisu H bl- and Apatani S brj-; in some contexts (e.g. before the -uŋ rhyme), Bengni S and Bokar OY also maintain the medial as -j-. Apatani S seems to lose this medial before the vowel -i. In other Tani languages, the cluster fell together with the simple b- initial.

Correspondence:

PT	*br-
Apatani S	b(rj)-/br-
Bengni S	b(j)-
Bokar OY	b(j)-
Nyisu H	bl-
Padam-Mising L	b

Supporting sets

grave

PT	*bruŋ
Apatani S	bru
Bengni S	ñi-bjuŋ
Bokar OY	---
Padam-Mising L	---

Padam-Mising L a-go and Bokar OY go-lək are unrelated. Cf. also Apatani W ¹brju-²u; Nyisu H ñu-blu:; Milang T a-bjuŋ; Tagin DG ñi-buŋ. Cf. Garo bru-a 'bury, cover with earth'.

right (hand)

PT	*lak-brwk
Apatani S	la?-bi
Bengni S	lak-bik
Bokar OY	lok-bik
Padam-Mising L	lak-bwk

Cf. also Nyisu H la-blü; Damu OY la?-bjuk. The loss of the r-medial (*br- > *bj- > *b-?) may also have caused the shift of the *u- vocalism to -i in Apatani S, Bengni S, and Bokar OY.

singe/roast in fire

PT	*braŋ
Apatani S	---
Bengni S	ba:
Bokar OY	---
Padam-Mising L	baŋ

Cf. also Apatani A bja; Nyisu H ble- 'singe'.

ladder

PT	*braŋ
Apatani S	a-bria
Bengni S	ba:-fjak
Bokar OY	ə-paŋ initial!
Mising L	ko-baŋ
Padam L	lə-baŋ; ə-baŋ

Cf. Nyisu H e-bla; Yano B, Tagen B so-bla.

full (not empty)

PT	*brɯŋ
Apatani S	---
Bengni S	biŋ
Bokar OY	biŋ
Mising L	biŋ
Padam L	bɯŋ

Cf. also Nyisu H blü-sar; Damu OY bjeŋ-tuk, Apatani A rá-pjaŋ 'full'; cf. also Apatani S prã 'swell'. The effect of the -r- medial can also be seen in the absence of labial palatalization before -i in Bengni S, as well as in the fronting of the original -ɯ vowel in Bengni S, Bokar OY, and Mising L.

eggplant

PT	*braŋ-jom
Apatani S	---
Bengni S	bja-jam
Bokar OY	baŋ-jum
Padam-Mising L	ba-jom

Cf. also Bokar M, Milang T, Gallong DG ba-jom; Bori M ba-jon; Tagin DG ba-jam; Nyisu H bla-jam. This is marked as a loanword in Lorrain 1907 (but cf. the quite dissimilar Assamese bengenā, Hindi bāĭgān).

suck

PT	*bruŋ	
Apatani S	brju	
Bengni S	bjuŋ	
Bokar OY	bjuŋ	
Padam L	bu	rhyme!

Cf. Apatani W ²bryu: (²); Nyisu H blu.

sheath

PT	*bruk
Apatani S	hu-brju
Bengni S	---
Bokar OY	ču-buk
Padam-Mising L	so-buk

Cf. also Nyisu H blu-d.

move (v.i.)

PT	*brɯ
Apatani S	a(r)-brju a-te
Bengni S	bi
Bokar OY	bɯ:
Padam L	bə-ləŋ

Cf. also Nyisu H ebl.

cane hat

PT	*broŋ-pa?
Apatani S	brjo-pa
Bengni S	bo:-pa
Bokar OY	---
Padam-Mising L	---

The *-oŋ rhyme is inferred from the correspondence. Cf. also Nyisu H blop-pa.

vomit

PT	*b(r)at²
Apatani S	ba
Bengni S	bɯ:
Bokar OY	ba:
Padam-Mising L	bat

The only evidence of the *-r- medial is the Nyisu H form bla. The Apatani S, Bengni S, and Bokar OY point to a plain *b- initial. This suggests variation at the PT stage.

serow (goat antelope)

PT	*brɯ
Apatani S	sɯ-briɯ
Bengni S	ši-bi
Bokar OY	šɯ-bɯ
Padam-Mising L	si-bɯ

Cf. also Nyisu H si-blü 'wild goat'; Yano B sib-bi 'serow'. This word usually takes the *sa- prefix.

PT *mr-:

Apatani S has mr(j)-; Nyisu H, Yano B, and Tagen B usually maintain the liquid medial in the form of ml-, which sometimes underwent further secondary nasal assimilation and became mn-. Bengni S reflects *mr- as mj- or ñ-. The liquid medial in *mr- is lost without a trace in Bokar OY and Padam-Mising L.

Correspondence:

PT	*mr-
Apatani S	mrj-
Bengni S	ñ-/mj-
Bokar OY	m-
Nyisu H	ml-
Padam-Mising L	m-

Supporting sets

arrow poison (aconite)

PT	*mro
Apatani S	ɯ-mrio
Bengni S	u-miu:
Bokar OY	o-mo:
Mising L	joŋ-mo
Padam L	ə-mo

Cf. also Nyisu H oml; Hill Miri S o-mle; Yano B u-mno; Tagen B u-mnie.

penis

PT	*mrak
Apatani S	---
Bengni S	ñak
Bokar OY	---
Padam-Mising L	ə-mak

Cf. also Apatani A à-mja; Apatani W ^{1}a^{2}mrja; Bokar M mok; Yano B mlak; Tagen B a-mlak.

world/land/earth

PT	*mroŋ
Apatani S	mro-~mrjo-
Bengni S	ño:-
Bokar OY	moŋ-
Padam-Mising L	a-moŋ

As in Apatani S mrjo-brju, Bokar OY moŋ-bu: 'earthquake' (lit. = 'earth' + 'move'); Bengni S ño:-di 'mountain'. Cf. also Tagen B, Yano B mla-di; Bangni R mlo-di 'hill', Nyisu H mno-bl 'earthquake'.

name

PT	*mun~*mruŋ
Apatani S	ar-mrjã
Bengni S	pi-min
Bokar OY	a-min
Padam L	mun
Mising L	min

The majority of modern Tani forms reflect the *mun variant; cf. also Yano B muŋ-min; Tagen B e-min; Nyisu H e-min-a. The lack of labial palatalization in Bengni S (contrast Bengni S ñin < *min 'ripe') and the Padam L form are evidence for PT *-un rather than *-in. The -rj- medial and the -ã rhyme in Apatani S suggest a different variant *mruŋ.

PT *kr-:

Only Nyisu H and Apatani S maintain the proto-medial as a liquid. *kr- sometimes gives Bengni S and Bokar OY (as well as Damu OY) kj-. The medial is dropped altogether in Padam-Mising L. The symbol k^{h}rj- used in Apatani S may actually represent xrj- (cf. Apatani S k^{h}rju, Apatani W ^{2}xrju^{2}u, Apatani A xu 'six').

Correspondence:

PT	*kr-
Apatani S	xrj-
Bengni S	k(j)-
Bokar OY	k(j)-
Nyisu H	xr-/kr-
Padam-Mising L	k-

Supporting sets

weep

PT	*krap	
Apatani S	xrje?	
Bengni S	kap	
Bokar OY	kap	
Padam-Mising L	kap	

Cf. also Nyisu H xrap.

outer covering

PT	*kruk	
Apatani S	pa-xrju	'shell'
Bengni S	ka-kuk	'dried bark'
Bokar OY	---	
Padam-Mising L	---	

Cf. also Nishi C su:-ku?; Gallong DG a-kuk; Milang T kjak; Nyisu H o-kr 'bark, peel', ko-kru 'rind'; cf. PTB *r-kwak (STC #342).

six

PT	*krə
Apatani S	xrjɯ
Bengni S	a-kjɯ:
Bokar OY	a-kɯ
Mising L	a-kəŋ
Padam L	a-kə

Only Mising L shows an -ŋ coda, which may be a secondary. Cf. also Nishi C ax; Nyisu H a-kr. Cf. also Gallong W ˆak-kə. This PT root seems to be an irregular reflex of PTB *d-ruk (STC #411).

winnow

PT	*krap
Apatani S	---
Bengni S	kjap-
Bokar OY	---
Padam-Mising L	kap-

Cf. Nyisu H xrap-; Apatani A xé-pa.

crow (v.)

PT	*krok
Apatani S	xrjo
Bengni S	kuk
Bokar OY	---
Padam-Mising L	kok

Cf. also Apatani W ²xrjo? (²); Gallong W ˆkog-; the same reconstruction *krok is proposed in Weidert 1987:281.

sour

PT	*kruŋ
Apatani S	xru-ji?
Bengni S	kjuŋ-šuk
Bokar OY	kuː-čup
Padam-Mising L	kǫ-saŋ rhyme!

Cf. also Apatani A xù-ji; Nyisu H xru-; Mising T kuː; Damu OY kjoŋ; Tagin DG koŋ-; Nishing DG kuŋ-.

intestines#(see 'belly')

PT	*kri
Apatani S	xriɯ-jã(~ro) rhyme!
Bengni S	a-ki
Bokar OY	a-kiː
Padam-Mising L	a-ki

Cf. also Nishi C a-xi a-je?; Tagen B e-xe.

squirrel (generic)

PT	*krə
Apatani S	ta-xrjɯ
Bengni S	ta-kjɯː
Bokar OY	ta-kə
Padam-Mising L	---

Cf. also Gallong W ˆta-kə; Nyisu H ta-kr. A form with the variant -a is reported in Mising T ta-ka. For extra-Tani cognates, cf. Taungthu Karen ¹khə²ləi; Meche lo-kra. Cf. also PTB *sre-ŋ.

take aim

PT	*krɯ
Apatani S	xrju
Bengni S	ki
Bokar OY	---
Padam-Mising L	---

Cf. Nyisu H xrü.

count/calculate

PT	*krɯ	
Apatani S	xrje	rhyme!
Bengni S	ki	
Bokar OY	kɯ:	
Padam-Mising L	kɯ(-ki)	

Cf. Apatani W ^{2}xe:; Nyisu H kri-ka:. Consider also Nusu xrɯ^{31}.

shoe

PT	*lə-kram
Apatani S	---
Bengni S	lɯ-kjam
Bokar OY	lə-kam
Padam-Mising L	---

Cf. also Damu OY lə-kjam; Nyisu H lux~lu-xlo. The second element could mean 'fence'; cf. Lahu ko 'enclose with a fence' < PLB *?gram 'fence' (Prof. Matisoff, p.c.).

resultative particle (=off, away)

PT	*krak
Apatani S	-xrja
Bengni S	-kjak
Bokar OY	-kak
Padam-Mising L	-kak

Cf. also Nyisu H -xra:; Tagen B -xak.

The *kr- reconstruction in the following sets is inferred from the correspondence.

kidney

PT	*krat^{1}-pjul
Apatani S	a-xrje?
Bengni S	ki:-čur
Bokar OY	ka-pir
Padam-Mising L	kat-pil

For PT *-at > Apatani -e? cf. ta-pe? 'leech'. Cf. also Dulong tɯ^{31} xə̆?^{55}.

porcupine

PT	*kret
Apatani S	sw-xriw
Bengni S	ši-kit
Bokar OY	šə-ket
Padam-Mising L	---

This word usually takes the *sa- prefix. Cf. also Apatani W ^{2}sw^{2}xw. The medial *-r- is also supported by the absence of velar palatalization in the Bengni S reflex.

PT *gr-:

This cluster is maintained as such in Nyisu H. Apatani S turned this cluster to grj-. Other Tani languages simplified *gr- to g-; *gr- is reflected sometimes by gj- in Bengni S.

Correpondence:

PT	*gr-
Apatani S	grj-
Bengni S	g(j)-
Bokar OY	g-
Nyisu H	gr-
Padam-Mising L	g-

Supporting sets

hornbill

PT	*graŋ
Apatani S	pə-grja
Bengni S	---
Bokar S	---
Padam-Mising L	pə-gaŋ

Cf. Nyisu H pa-gra. This word usually takes the bird prefix *pa-. This may be a loanword from Mon-Khmer, cf. Lawa khraŋ 'hornbill' (Mitani 1972).

lean against

PT	*grəŋ
Apatani S	---
Bengni S	-gjwŋ
Bokar OY	-gəŋ
Padam-Mising L	gəŋ

Cf. also Nyisu H -gru.

throat

PT	*gruŋ?
Apatani S	grui-griu-ro
Bengni S	lɯŋ-guŋ
Bokar OY	lɯŋ-guŋ
Padam L	lɯŋ-guŋ
Mising L	---

Cf. also Milang T kjuŋ-. Most languages use the *gruŋ 'throat' root in construction with other morphemes (usually the 'neck' root *lɯŋ, for a similar collocation cf. Prakaa ³alaŋ-kuŋ). The Mishing compound lɯŋ-poŋ with the obscure morpheme -poŋ means 'neck' in other Tani languages.

crazy/mad[1]

PT	*grak
Apatani S	---
Bengni S	ru-gak
Bokar OY	---
Padam-Mising L	---

In Bengni S, ru-gak-bu: (-bu: = nominalizer) refers more specifically to 'lunatic on the loose'; contrast generic šu-ru-bu: 'lunatic'. Cf. also Nyisu H ru-g(r)a; Hill Miri S, Nishing DG ru-gak; Nishi C ru-ga?. For the first element ru- see 'crazy/mad[2]'.

call/shout

PT	*grok
Apatani S	grjo? (-tu)
Bengni S	guk
Bokar OY	gok
Padam-Mising L	gok

The Bokar OY reflex means 'roar/crow (v.)'; Cf. also Nyisu H gro; Milang T gjok.

lie down

PT	*grət~*krət
Apatani S	griɯ-a
Bengni S	git-pu:
Bokar OY	---
Padam-Mising L	kət

Cf. also Nyisu H xre-.

2.3.1.5.2. Clusters With the *-j- Medial

The following *Cj- clusters are recognized:

*pj- *bj- *mj-

Two other *Cj- clusters, *kj- and *gj-, might also have existed but are poorly supported by the available data.

PT *pj-:

Bokar OY and sometimes Padam-Mising L maintain this cluster initial. It became the palatal affricate č- in Bengni S. Apatani S merged *pr- and *pj-, turning both to *prj-

Correspondence:

PT	*pj-
Apatani S	prj-
Bengni S	č-
Bokar OY	pj-
Padam-Mising L	p(j)-

Supporting sets

wild dog

PT	*pjaŋ
Apatani S	---
Bengni S	ši-ča:
Bokar OY	---
Padam-Mising L	si-pjaŋ

Cf. also Yano seč-ča 'wild dog'; Apatani A su-pja (glossed probably mistakenly as 'wolf'); Bokar M so-pjaŋ 'jackal'. This root is certainly cognate with WT spyang-ku 'wolf' (< *s-pjaŋ, Tibetan s- = animal prefix, as in Tani, Lushai, Dulong, Jingpo, etc.), though the actual animal referred to seems to be what the Tibetans call 'phar-ba.

steal

PT	*pjoŋ
Apatani S	dw-pʰrjo
Bengni S	dw-čo:
Bokar OY	do-pjoŋ
Padam-Mising L	do-pjoŋ

Cf. Nyisu H deč-čo. This word in Tani is usually a compound where the first element seems to come from *do 'eat'.

first (adverbial verbal particle)

PT	*pjoŋ
Apatani S	prjo
Bengni S	čo:
Bokar OY	pjoŋ
Padam-Mising L	poŋ

Cf. Nyisu H -čo; Damu OY pjo.

wool

PT	*pjak
Apatani S	---
Bengni S	tw-čak
Bokar OY	ta-pjak
Padam-Mising L	---

Cf. Damu OY ta-pja?; Padam-Mising L si-pjak 'cotton as it comes from the pod'.

hold on both palms

PT	*pjum
Apatani S	---
Bengni S	čum
Bokar OY	a-pjum
Padam-Mising L	---

Cf. Mising T pum 'scoop up with cupped hands'.

PT *bj-:

The PT *bj- initial is directly attested only in Bokar OY. In Bengni S, *bj- changed into j-; in Padam-Mising L, the -j- glide was lost (affecting vowel quality in words like 'fly v.'). The reflex of PT *bj- in Apatani S is brj-, the same as that of *br-.

Correspondence:

PT	*bj-
Apatani S	brj-
Bengni S	j-
Bokar OY	bj-
Padam-Mising L	b-

Supporting sets

swim

PT	*bjaŋ
Apatani S	---
Bengni S	ja:
Bokar OY	bjoŋ
Padam-Mising L	baŋ

This root also means 'drift', 'hover', and 'float' in Bengni S.

fly (v.)

#PT	*bjar
Apatani S	---
Bengni S	jur
Bokar OY	bjar
Padam-Mising L	ber

For *-ja giving -e in Padam-Mising L, see also 'flat'. Cf. also Apatani A jar 'fly off'; Damu OY bjar; Hill Miri S jar.

thick (e.g. book)

PT	*bjuŋ
Apatani S	brjã-ku-ru
Bengni S	jun-kur
Bokar OY	biŋ-čam
Padam-Mising L	bi-sam

hit (target)

PT	*bjək
Apatani S	---
Bengni S	juk
Bokar OY	---
Mising L	bək
Padam L	bek

PT *bj- is suggested by Bengni S juk. Cf. also WT 'phog; Lepcha jăk.

PT *mj-:

The difference between PT *mr- and *mj- lies in distinct modern Tani equations. The liquid medial in *mr- is preserved in some languages (e.g. Yano B and Tagen B), whereas *mj- always yields a plain m-, or a palatal(ized) nasal (ñ-, mñ-, or mj-). The Apatani reflex is still uncertain.

Correspondence:

PT	***mj-**
Apatani S	?-
Bengni S	ñ-
Bokar OY	mj-/ñ-
Padam-Mising L	m-/-mñ-

Supporting sets

woman

PT	*mji-mə:
Apatani S	ñi-mũ
Bengni S	ñi-mu:
Bokar OY	ñe-mə:
Mising L	---
Padam L	mi-mə

Cf. Bori M, Nishing DG ñi-mə; Nishi C ñəm. The palatal nasal initial in Apatani S and Bokar OY indicates that the first element of the PT etymon could not be *mi- (q.v. the set for *mi 'man (homo)'). The second element *-mə is probably unrelated to PTB *mow 'woman' (STC #297), cf. Lushai hmei chhia 'woman'; Lahu yâ-mî-ma 'woman'.

soft

PT	*mjak
Apatani S	---
Bengni S	ñi-ñak
Bokar S	rə:-ñak
Padam-Mising L	re-mak

Cf. also Milang T ra-mak; Tagin DG ña-ñak. The Apatani S form bu-lie? (< *ljap?) is not cognate.

busy

PT	*mjoŋ-maŋ
Apatani S	---
Bengni S	ño-ma:
Bokar OY	---
Padam-Mising L	moŋ-maŋ

This is a compound word of the structure 'leisure' + 'NEG'.

tiger

PT	*mjo
Apatani S	---
Bengni S	---
Bokar OY	šo-mjo
Mising L	ši-mjo
Padam L	si-mño~ño-nə

Cf. also Yano B se-ño; Tagen B so-ñi; Damu OY si-mjo.

tail

PT	*me~*mjo
Apatani S	a-mi
Bengni S	ñu-bjuŋ
Bokar OY	e-mño
Mising L	ta-mño
Padam L	ta-me~a-me

The modern reflexes suggest proto-variation. Yano B me-uŋ and Tagen B a-me indicate that the PT initial could have have been *mr-. Ouyang Jueya gives the transcription -mjo in the Bokar OY word ku-mjo 'horse tail', which shows that Bokar OY mñ- is just a variant realization of /mj-/.

PT *kj- and *gj-:

These initial clusters are meagerly attested. In two cases, 'old' and 'hot/warm', Apatani S shows **palatalized** initials as against plain velar stops elsewhere, possibly indicating variant proto-forms with the *-j- medial; the possibility of this medial being -r- is precluded by negative evidence provided by the Nyisu H cognates.

Supporting forms

old (not new)

PT	*ku ~*kju?
Apatani S	xrju
Bengni S	a-ku
Bokar OY	---
Padam-Mising L	a-ku

Cf. Nyisu H kuč-ču; Hill Miri S ku-čuk; Bokar M a-ku na-go; Mising T a-ku 'old, worn out'.

hot/warm

PT	*gu ~*gju?	
Apatani S	grju-bu?	
Bengni S	a-wu	<*a-gu
Bokar OY	a-gu	
Padam-Mising L	gu	

Cf. Nyisu H og.

bite

PT	*gam (~*gjam?)
Apatani S	---
Bengni S	gam
Bokar OY	gam
Padam-Mising L	gam~jam

Apatani S a-sw is not cognate. Cf. also Bori M gon (< gam); Padam-Mising L gam means 'seize in the mouth' but jam means 'bite, chew'. Other Tani forms with a palatalized initial include Damu OY gjam.

PT *rj-:

The PT cluster *rj- have reflexes distinct from those of either *r- or *j-. An *rj- is reconstructed where the modern reflexes alternate between liquid and palatal glide initials. Padam L and Mising L sometimes dropped the j- < *rj- altogether. Note that modern Tani reflexes support the distinction between PT *li- and *rji- (which stands for a palatalized liquid, the distinction between r- and l- is neutralized here), as evidenced in the sets for 'wind n.', 'bow n.' below vs. 'seed' (q.v.), but not between *ri- and *rji-.

Correspondence:

PT	***rj-**
Apatani S	**lj-**
Bengni S	**rj-**
Bokar OY	**j-**
Padam-Mising L	**(j)-**

Supporting sets

door

PT	***rjap**
Apatani S	**a-lie(?)**
Bengni S	**a-rjap**
Bokar OY	**jap-go**
Padam-Mising L	**ə-(j)ap**

For extra-Tani cognates, cf. Tamang 'mrap; Sunwar lap-co (TBT).

do

PT	***rjɯ**
Apatani S	**---**
Bengni S	**rji**
Bokar OY	**i**
Padam-Mising L	**i**

Cf. Nishing DG, Hill Miri S ri; Gallong DG, Nishi T rɯ; Bori M i.

bow (weapon)

PT	***rji**	
Apatani S	**a-li**	**initial!**
Bengni S	**ə-rji**	
Bokar OY	**i:**	**=/i-ji/**
Padam-Mising L	**i-ji**	

Cf. Apatani A a-lji. The first morpheme in some Eastern languages contain a mysterious coda -t; Bori M i-če (< it-je); Milang T at-ji, showing that it may be something else than the *a- prefix.

fathom

PT	***rjam**
Apatani S	**---**
Bengni S	**rjam**
Bokar OY	**jam**
Padam-Mising L	**bom-jam**

Cf. Apatani A lje-.

evening

PT	*rjum
Apatani S	a-ljĩ
Bengni S	a-rjum
Bokar OY	a-jum
Padam-Mising L	jum-ə

Cf. also Nyisu H -ljuːm.

ten

PT	*rjɯŋ
Apatani S	ljã
Bengni S	ɯ-rjɯŋ
Bokar OY	ɯ-jɯŋ
Padam-Mising L	ə-jiŋ

Cf. also Nishing DG e-rin~e-rian; Nyisu H il-lii. Cf. also Hruso rɯ; Dhammai lin; Bangru rəŋ[53]; Taraon xa[55]lɯŋ[55], Idu hɪoŋ[55]; the Idu form is used in the tens other than 'ten' itself).

tongue

PT	*rjo
Apatani S	a-ljo
Bengni S	rjuː
Bokar OY	a-jo
Padam-Mising L	a-jo

shady side of mountain

PT	*mloŋ-rji
Apatani S	mrjo-lji
Bengni S	ñoː-rji
Bokar OY	---
Padam-Mising L	---

Cf. also Bori M, Milang T mo-ji.

wind (n.)

PT	*rji
Apatani S	a-lji
Bengni S	doː-ri
Bokar OY	---
Padam-Mising L	---

The root is restricted to Western Tani languages. . Cf. also Nishing DG, Tagin DG do-ri; Bori M do-ji; Nishi C doː-i; Gallong W ˆdo-i.

skin (n.)

PT	*rjo
Apatani S	a-<u>ljo</u>
Bokar OY	---
Bengni S	---
Padam T	a-<u>jo</u>

Cf. also Bori M a-<u>jo</u>. The distribution of this root is quite limited; the more common 'skin' roots are *pin and *sik.

2.3.1.6. Zero Initial

Syllables with no consonantal initials are not very common in Tani. The various allomorphic reflexes of the PT prefix *a- alone account for a large percentage of the attested vowel-initial syllables in modern Tani. Languages like Padam and Mising have innovated many such syllables by dropping some original onsets, such as PT *h- and *ɦ-. For zero-initial syllables in Damu OY Ouyang Jueya records a glottal stop, omitted in this work as a subphonemic detail.

Supporting sets

shoot (v.)

PT	*ap	
Apatani S	e?	
Bengni S	ap	
Bokar OY	op	rhyme!
Padam-Mising L	ap	

crow (bird)

PT	*ak
Apatani S	pu-<u>wa?</u>
Bengni S	pu-<u>wak</u>
Bokar OY	po-<u>ak</u>
Padam-Mising L	pu-<u>ak</u>
Damu OY	<u>?ak</u>-ka:

This word usually takes the *pa- prefix. Direct evidence of (phonemically) zero onset in this root is provided by the Damu OY form ?<u>ak</u>-ka:. The w- in the Apatani S and Bengni S forms are

clearly secondary. In some languages, the word contracted into a monosyllable; e.g. Gallong W `pa:k (< `pa:-kə); Bangni R pak.

body

PT	*ɯ
Apatani S	a-ɯ
Bengni S	---
Bokar OY	a-ɯ
Padam-Mising L	---

Cf. also Bori Megu a-ə; Gallong W ˆa-ɯ, and Nishi C ə:. Bengni S a-jak (cf. Padam-Mising L a-jak 'flesh on body'), and Mising L a-mur, Padam L a-mul are not cognate.

excrement

PT	*e:
Apatani S	i-pa?
Bengni S	i:
Bokar OY	e:
Padam-Mising L	ta-ie

For the vowel length see also Nishi C e:, Damu OY e:-pa, Gallong W `e:; Tagin DG i:.

pinch (with fingernail)

PT	*in
Apatani S	---
Bengni S	in
Bokar OY	---
Padam-Mising L	in

Cf. Gallong DG lak-če ŋin (ŋ- seems to be a secondary development).

go

PT	*in
Apatani S	ĩ
Bengni S	---
Bokar OY	in
Padam-Mising L	---

Cf. also Damu OY, Hill Miri S in; Gallong AW ˆ in. Bengni S wŋ and Padam-Mising L gi~gɯ are unrelated.

2.3.2. Proto-Tani Rhymes

2.3.2.1. Open Rhymes

The following open rhymes are reconstructed (rhymes marked with double asterisks are rarely attested):

**-a	*-i	*-u	*-e	*-o	*-ə	*-ɯ
*-a:	**-i:	**-u:	*-e:	*-o:	*-ə:	**-ɯ:

PT *-a:

Although maintained by all key languages, this PT rhyme happens to be among the rarest in PT; true cognates bearing this rhyme are difficult to find. This has to do with an important PT sound shift which turned PTB *-a to *-o (q.v. Chapter IV). The origin of most cases of PT *-a is not yet known.

Correpondence:

PT	*-a
Apatani S	-a
Bengni S	-a
Bokar OY	-a
Padam-Mising L	-a

Supporting sets

cut (e.g. with machete)

PT	*pa
Apatani S	pa
Bengni S	pa
Bokar OY	pa
Padam-Mising L	pa

wild boar

PT	*ra
Apatani S	sɯ-re ra-nɯ
Bengni S	ši-rɯ: ra-nɯ:
Bokar OY	---
Padam-Mising L	si-ra

Cf. also Damu OY si-ra. The reflexes of the root occurring after the *sa- prefix show variations we cannot explain yet (cf. Apatani S, Bokar M -re; Bengni S -rɯ:; Gallong W -rə; Padam-Mising L -ra).

tread/trample

PT	*ča
Apatani S	ča-je
Bengni S	ča-jap
Bokar OY	---
Padam-Mising L	sa-tan

The second elements in Apatani S and Bengni S forms mean 'flatten'; -tan in Padam-Mising L is a verbal particle indicating contact (somewhat like 'on' in English).

In a few roots Tani languages exhibit variation between *-e and *-a:

search, look for

PT	*ma~*me
Apatani S	me
Bengni S	mi:
Bokar OY	ma
Padam-Mising L	ma

Cf. also Mising T, Gallong DG ma, Milang T ma-pu; Hill Miri S me-ka; Nyisu H me-gra; Yano B me.

dead (resultative verbal particle)

PT	*-ka~ *-ke
Apatani S	---
Bengni S	-ki:
Bokar OY	-ke:
Mising L	-ke
Padam L	-ka

For usage cf. Mising T mo-ke 'kill'. cf. also Hill Miri S, Tagin DG, Nishing DG -ki; Mising T -ke.

PT *-a:

This rhyme is slightly more common than its short counterpart. Bengni S characteristically turned *-a: into -ɯ:.

Correspondence:

PT	*-a:
Apatani S	-a
Bengni S	-ɯ:
Bokar OY	-a:
Padam-Mising L	-a

Supporting sets

put

PT	*pa:
Apatani S	---
Bengni S	pɯ:
Bokar OY	pa:
Padam-Mising L	---

Cf. also Damu OY a-pa:.

baby

PT	*ŋa:
Apatani S	---
Bengni S	a-ŋɯ:
Bokar OY	a-ŋa:
Padam-Mising L	---

Cf. also Damu OY a-ŋa:; Milang T ŋa-ŋa.

roast in a pan (without adding oil)/parch

PT	*va:
Apatani S	ha
Bengni S	vɯ:
Bokar OY	ha:
Padam-Mising L	a

bitter

PT	*ko~ka:
Apatani S	ko-či?
Bengni S	kɯ:-čak
Bokar OY	ka:-čak
Padam-Mising L	ko-saŋ

This set involves proto-variation. The Apatani S and Padam-Mising L forms came from PT *-o (< PTB *-a), whereas Bengni S and Bokar OY

reflect PT *-a:. Prof. Matisoff suggests that this variation may be traced to a labialized velar initial *kwa.

that (demonstrative)

PT	*a: (?)
Apatani S	---
Bengni S	ɯ:
Bokar s	a:
Padam-Mising L	---

Apatani S hɯ and Padam-Mising L -də are not cognate.

PT *-i:

Most key languages preserve the PT *-i rhyme. However, Apatani S appears to have turned *-i sporadically to -ɯ.

Correspondence:

PT	*-i
Apatani S	-i/-ɯ
Bengni S	-i(:)
Bokar OY	-i(:)
Padam-Mising L	-i

Supporting sets

this

PT	*si
Apatani S	si
Bengni S	ši:
Bokar OY	ši:
Padam-Mising L	si

Cf. also Mising T si; sə.

seed

PT	*li
Apatani S	---
Bengni S	a-li
Bokar OY	um-li:
Padam L	a-li~am-li

Cf. also Gallong W ˆ a-li; Nishi T ə-li; Apatani A à-lí. Possibly related to PTB *mrəw 'grain, seed, lineage', but the rhyme is wrong (PTB *-əw > PT *-ɯ is expected). Note that, at least in Padam and Mising, this root also means 'tribe, clan, breed, kind, etc.'.

navel

PT	*kri-ni
Apatani S	xrjɯ-nɯ
Bengni S	ki-ni
Bokar OY	ki:-ni:
Padam-Mising L	ki-ni

urine

PT	*si
Apatani S	si?
Bengni S	---
Bokar OY	i-ši:
Padam-Mising L	je-si

Cf. also Bori M ə-si; Gallong DG, Mising T je-si; Damu OY si-pa. The various ways this word is distinguished from the homophonous PT root *si 'water' could all be secondary euphemistic developments (vowel length in Bokar OY, final glottal stop in Apatani S, a different prefix je- in Padam-Mising L).

brain

PT	*pVk-ni?
Apatani S	pu-ñu rhyme!
Bengni S	puk-ni
Bokar OY	pɯ-ni:
Mising L	pun-ni
Padam L	pin-ño rhyme!

For the -k in the first morpheme, cf. Nishi C pu?-ñi; Tagin DG pok-ñi; Yano B pok-nie; Padam T pit-ŋo. Apatani S pu-ñu and Padam L pin-ño, with back rounded vocalism in the main root, are irregular.

tick

PT	*pi
Apatani S	---
Bengni S	pi-rjap
Bokar OY	šə-rə ta-pi:
Padam-Mising L	ta-pi

Both the Bengni S and Bokar OY forms refer to 'tick found on bovine animals'; the Padam-Mising form means rather 'woodtick'.

sleepy

PT	*mi
Apatani S	i-mi nan
Bengni S	jip-mi: jip-ma:
Bokar OY	---
Mising L	jup-mi (aŋ)
Padam L	im-mi (aŋ)

Cf. also Mising T jup-mi:; Yano B je-mi jep-təp.

bury

PT	*rji~*rju
Apatani S	a-li
Bengni S	ri
Bokar OY	ji:
Padam-Mising L	ju

Cf. Yano B, Tagen B li; for reflexes of *-u see also Gallong DG ru.

PT *-i:

PT *-i: is posited only where vowel length is recorded in at least three languages. The reflexes are otherwise the same as for short *-i.

Correspondence:

PT	*-i:
Apatani S	-i
Bengni S	-i(:)
Bokar OY	-i:
Padam-Mising L	-i

Supporting sets

blood

PT	*vi:
Apatani S	a-ji
Bengni S	u:-yi
Bokar OY	u-ji:
Padam-Mising L	i-ji

For more evidence of vowel length consider Mising T i:; Gallong W i:; Damu OY a-ji:.

sweet

PT	*ti:	
Apatani S	ti?	
Bengni S	ti-təŋ	
Bokar OY	ti:-po	
Mising L	ti	
Padam L	tɯ	rhyme!

Cf. also Damu OY či:; Tagin DG či-pu; Mising T ti:.

PT *-u:

This proto-rhyme is maintained in all key languages.

Supporting sets

wrap up in a bundle

PT	*pu
Apatani S	---
Bokar OY	pu
Bengni S	pu
Padam-Mising L	pu

dig

PT	*du	
Apatani S	---	
Bengni S	du	
Bokar OY	du	'dig (well)'
Padam-Mising L	du	

Cf. also Apatani A dù.

torch

PT	*mə-ru
Apatani S	---
Bengni S	mu-ru
Bokar OY	mə-ru
Padam-Mising L	mə-ru

The compound is derived from 'fire' + 'pitch-pine'.

crazy/mad[2]

PT	*ru
Apatani S	ru-nu
Bengni S	šu-ru; ru-gak
Bokar OY	---
Padam-Mising L	---

This is a Western Tani root. Cf. also Nishing DG, Hill Miri S ru-gak; Nyisu H ru-g(r)a; Nishi C ru-ga?; Tagin DG si-ru; Yano B ru-pa, ru-ne. Padam-Mising L si-mat; mi-de; mon-baŋ and Bokar OY lur-na are not cognate. For extra-Tani cognates, cf. WB rû 'mad, insane', and perhaps Lushai rui 'drunk'; Jingpo ʒu?^{55} 'fierce, naughty', ʒu^{31}pam^{31} 'boistererous drunkard'.

reflexive marker

PT	*-su
Apatani S	-su
Bengni S	-šu
Bokar OY	-šu:
Padam-Mising L	-su

pick (flower, fruit)

PT	*pu
Apatani S	---
Bengni S	pu
Bokar OY	pu
Padam-Mising L	pu

elbow

PT	*du
Apatani S	la?-du mi-ru
Bengni S	lak-du
Bokar OY	lok-du
Padam-Mising L	lag-du

The first element in this compound is 'hand/arm'.

demon/evil spirit

PT	*ju
Apatani S	u-i
Bokar OY	u-ju
Bengni S	u-ju
Padam-Mising L	u-ju

This word usually takes the *a- prefix. Apatani S form is glossed 'god' by Simon. In Apatani S, PT *-u seems to have become -i after *j-. The word refers to deities which are malevolent; cf. Jingpo tsu^{31} 'ghost'.

priest/shaman

PT	*mji-bu
Apatani S	ñi-bu
Bengni S	ñu-bu
Bokar OY	ñu-bu:
Padam-Mising L	---

Padam-Mising L mi-ru is unrelated. Cf. also Mising T mi-bu; Tagin DG, Gallong DG, Bori M ñi-bu; Nyisu H, Nishi C ñub.

lungs

PT	*haŋ-ru?
Apatani S	---
Bengni S	ha:-ru
Bokar OY	---
Padam-Mising L	---

Apatani S pa-hĩ; Padam-Mising L a-rop do not seem to be cognate (VSTB: 116-7 assigns -rop to PTB *p-rwap; however, PTB *-wa- normally gave PT *-u-, e.g. PTB *g-rwak 'ant' > PT *ruk; PTB *d-wam > PT *tum 'bear n.'). Cf. also Apatani A há-ru; Gallong W `a:-ro; Bokar M hoŋ-ru.

back (n.)

PT	*lam-ku	
Apatani S	ku-lĩ	rhyme!
Bengni S	lam-ku	
Bokar OY	lam-ko	rhyme!
Padam-Mising L	lam-ku	

The Bokar OY and Apatani S rhymes are unexpected. Note the flip-flop of the component morphemes in Apatani S (-lĩ < *-lam).

burn (v.i.)

PT	*gu
Apatani S	---
Bengni S	gu:
Bokar OY	gu:
Padam-Mising L	gu

This root is not found with this meaning in Apatani S (but cf. u-gu 'fireplace'). Note the length distinction in the Bokar OY pair: a-gu 'hot' and gu: 'burn'.

PT *-e:

Modern reflexes of this proto-rhyme is always a front unrounded vowel. Bengni S has merged *-e and *-i. Apatani S has two reflexes, -e and -i; the conditions for this alternation are still unclear.

Correspondence:

PT	*-e
Apatani S	-i/e
Bengni S	-i(:)
Bokar OY	-e(:)
Padam-Mising L	-e

Supporting sets

left (-hand)

PT	*lak-ke
Apatani S	la?-či
Bengni S	lak-či
Bokar OY	lak-če
Padam-Mising L	lak-ke

tired/rest

PT	*pe
Apatani S	---
Bengni S	a-pi:
Bokar OY	a-pe:
Padam-Mising L	a-pe

Cf. Yano B a-fi; Tagen B ex.

raw (uncooked)

PT	*le
Apatani S	---
Bengni S	-li:
Bokar OY	le(-jək)
Mising L	le

Cf. Mising T le:.

sister (elder)

PT	*me
Apatani S	a-mi
Bengni S	a-ñi:
Bokar OY	a-me:
Padam-Mising L	bur-me

The Padam-Mising form is a general word for 'sister'.

curse (v.)

PT	*be
Apatani S	be
Bengni S	bi:
Bokar OY	be:
Padam L	be

fruit

PT	*ze
Apatani S	a-ji
Bengni S	šiŋ-si:
Bokar OY	---
Padam-Mising L	a-je

Cf. also Bori M, Bokar M a-pw a-je; Gallong W `a-sə; Nishi C a-xi.

half

PT	*ke
Apatani S	pa-če
Bengni S	pa-či:
Bokar OY	pa-če:
Padam L	a-ke

PT *-e:

Correspondence:

PT	*-e:
Apatani S	-i/e
Bengni S	-i:
Bokar OY	-e:
Padam-Mising L	-e

Supporting sets

monkey

PT	*be:
Apatani S	si-bi
Bengni S	ši-bi:
Bokar OY	šə-be
Padam-Mising L	si-be

This word usually takes the *sa- prefix. For vowel length cf. also Damu OY sy-bø:; Mising T si-be:.

beans

PT	*pe:
Apatani S	pe-rũ
Bengni S	ta-pi:
Bokar OY	ta-pe:
Mising L	pe-ret
Padam L	pe-ron

Cf. also Gallong W ˆpe:-ren; Apatani W ¹pe:-²ruŋ.

cut/slice

PT	*pe:
Apatani S	pi
Bengni S	pi:
Bokar OY	pe:
Padam-Mising L	pe

Cf. Mising T pe:.

excrement

PT	*e:
Apatani S	i-pa?
Bengni S	i:
Bokar OY	e:
Padam-Mising L	ta-ie

Cf. Gallong W `e:; Damu OY e:-pa; Nishi C e:.

ginger

PT	*kre: ?
Apatani S	ta-ki
Bengni S	ta-ki:
Bokar OY	ta-ke:
Padam-Mising L	ta-ke

For vowel length cf. also Damu OY, Mising T ta-ke:. The *-r- is not directly attested. The lack of palatalization in the Bengni S form suggests a medial after the *k- initial. The Nyisu H form ta-xi is also suggestive.

PT *-o:

This rhyme stays as -o in most Tani languages. It went to -u (sometimes also to -u:) in Bengni S.

Correspondence:

PT	*-o
Apatani S	-o
Bengni S	-u(:)
Bokar OY	-o
Padam-Mising L	-o

Supporting sets

husband

PT	*mi-lo
Apatani S	mi-lo
Bengni S	ñu-lu:
Bokar OY	me-lo
Padam T	mi-lo

The (unrelated?) Mising L form mil-boŋ shows a medial -lb- cluster. Cf. the Minyong form nir-boŋ 'man' recorded by Morgenstierne (Morgenstierne 1959:297).

fish

PT	*ŋo	
Apatani S	ŋu-i	rhyme!
Bengni S	ŋu-i	
Bokar OY	o-ŋo:	
Mising L	o-ŋo	
Padam L	e-ŋo	

Cf. also Damu OY a(:)-ŋo. The diphthongs in Apatani S and Western Tani are probably bimorphemic. Cf. some fish names in Bengni S: ŋu-tak 'catfish'; ŋu-pik 'eel'; ŋu-riŋ 'carp'. It is also probable that this attached morpheme -i may have altered the original -o vocalism. Compare Nishi C ŋui 'fish' vs. ŋo-gi 'a species of fish'.

father-in-law

PT	*to
Apatani S	a-to
Bengni S	a-tu
Bokar OY	a-to
Padam-Mising L	a-to

This word also means 'grandfather', and 'master/lord (vs. 'serf, slave').

open (verbal particle)

PT	*-ko
Apatani S	-ko
Bengni S	-ku
Boakr OY	-ko
Padam-Mising L	-ko

For usage, cf. Bengni S kup-ku 'open (eyes)'; mu-ku 'open (lid)'; vit-ku 'open (lid by turning lid)'; čik-ku 'open (door inward)'.

soul

PT	*ja-lo
Apatani S	ja-lo
Bengni S	ja-lu
Bokar OY	ja-lo
Mising L	ja-lo

wild cat

PT	*so
Apatani s	so-me
Bengni S	---
Bokar OY	ta-šo
Padam-Mising L	ta-so

This word usually takes the *ta- prefix.

copulate

PT	*jo
Apatani S	---
Bengni S	ju
Bokar OY	jo
Padam-Mising L	jo

Cf, also Damu OY jo:.

five

PT	*ŋo
Apatani S	ja-ŋo
Bengni S	u-ŋu
Bokar OY	o-ŋo
Padam-Mising L	a-ŋo

eat

PT	*do
Apatani S	du
Bengni S	du, du:
Bokar OY	do:
Padam-Mising L	do

Cf. also Mising T, Bori M do; Gallong W ˆdo.

palm (of hand)

PT	*pro
Apatani S	la?-pʰrjo
Bengni S	lak-ču:
Bokar OY	lok-pjo
Padam L	lak-pjo
Mising L	lak-po

Cf. Nyisu H lo-plu 'hand' (as opposed to 'arm').

guest/outsider

PT	*mji-bo
Apatani S	ñi-bo
Bengni S	---
Bokar OY	ño-bo
Padam-Mising L	mi-bo

Bengni S ñi-in is unrelated. Padam-Mising L mi-bo is glossed 'stranger/visiter'; there being no entry for 'guest'.

far

PT	*do	
Apatani S	a-do	
Bengni S	a-du:	
Bokar OY	a-to	initial!
Padam L	mo-do	

Cf. also Damu OY a-do.

salt

PT	*lo
Apatani S	a-lo
Bengni S	a-lu:
Bokar OY	o-lo
Padam-Mising L	a-lo

father

PT	*bo
Apatani S	---
Bengni S	a-bu:
Bokar OY	a-bo
Padam-Mising L	a-bu~ab-bo

Interestingly, this is also the marker of the masculine gender in animal names; e.g. Bengni S rok- 'chicken/fowl' + bu: 'masculine gender' -> rok-bu: 'rooster'.

beg/request

PT	*ko	
Apatani S	ku	rhyme!
Bengni S	du-ku	
Bokar OY	dok-ko	
Padam-Mising L	lak-ko	

snail

PT	*no~ño
Apatani S	ta-no gor-go
Bengni S	ta-nu:
Bokar OY	---
Padam-Mising L	ta-ño

This word usually takes the *ta- prefix. Cf. Bokar M ta-no gor-tak; Mising T no-bu-lwŋ 'species of snail'.

dig (hole)

PT	*ko~kjo	
Apatani S	---	
Bengni S	ko:	rhyme!
Bokar OY	ko:	
Padam L	ko	

Cf. also Apatani S he-ko; Bori M ko; Milang T, Damu OY kjo. Cf. WT rko.

PT *-o:

Correspondence:

PT	*-o:
Apatani S	-o/u
Bengni S	-u:
Bokar OY	-o:
Padam-Mising L	-o

Supporting sets

face/cheek

PT	*-mo:	
Apatani S	ñi?-mo	
Bengni S	ñik-mu:	
Bokar OY	mi-mo	
Padam-Mising L	miŋ-mo	< mik-mo

This set is glossed 'face', but the root *mo: also occurs in 'cheek'. For vowel length see Apatani W ¹mo:²ruŋ (¹); Gallong W ` mo:-rə 'cheek'.

child

PT	*ko:
Apatani S	---
Bengni S	ku:
Bokar OY	---
Padam-Mising L	ko

Cf. also Mising T ko:, Nishi C ko:.

night

PT	*jo:
Apatani S	a-jo
Bengni S	a-ju:
Bokar OY	a-jo:
Padam-Mising L	jo; jo-ə

Cf. also Mising T a-jo:.

vegetable/curry

PT	*ɦoː	
Apatani S	ha-mã	rhyme!
Bengni S	uː	
Bokar OY	---	
Padam-Mising L	o-jiŋ	

Cf. also Damu OY a-hoː; Nishi C oː, Tagin DG uː.

PT *-ə:

The rhyme is consistently reflected by back unrounded vocalism in Bengni S and Bokar OY. Both Apatani S and Padam-Mising L show a tendency to turn *-ə into other vowels. The regular Apatani reflex of *-ə is -u after labial initials. In two sets assembled so far ('leg/foot' and 'price'), Apatani S shows unexpected -i. This may suggest proto-variation (e.g. PT *lə~*li 'leg/foot'). the other possibility may be that Apatani S underwent a conditioned split; i.e. PT *-ə > Apatani S -i after liquid initials.

Correspondence:

PT	*-ə
Apatani S	-ɯ/-u (after labial initials)
Bengni S	-ɯ(ː)
Bokar OY	-ə(ː)
Padam-Mising L	-ə

Supporting sets

leaf

PT	*nə
Apatani S	(j)a-nɯ
Bengni S	na-nɯː
Bokar OY	(ɯ-šɯŋ) a-nə
Padam-Mising L	an-nə; na-nə

mother

PT	*nə
Apatani S	a-nɯ
Bengni S	a-nɯ:
Bokar	a-nə
Padam L	a-nə; na-nə

This word usually takes the *a- prefix. Cf. also Apatani W ²a¹nɯ. This is also the marker of the feminine gender in animal names; e.g. Bengni S rok- 'chicken/fowl' + nɯ: 'feminine gender' -> rok-nɯ: 'hen', cf. 'father' (q.v.).

fire

PT	*mə
Apatani S	ja-mu
Bengni S	ɯ-mɯ:
Bokar OY	ə-mə
Mising L	ɯ-mɯ rhyme!
Padam L	ə-mə

Cf. also Apatani W ¹ja¹mu; Gallong W ` ə-mə.

squirrel (generic)

PT	*krə
Apatani S	ta-xriɯ
Bengni S	ta-kjɯ:
Bokar OY	ta-kə
Padam-Mising L	---

This word usually takes the *ta- prefix.

price

PT	*rə (~*re?)
Apatani S	a-ri rhyme!
Bengni S	a-rɯ:
Bokar OY	a-rə:
Padam-Mising L	a-rə

This word usually takes the *a- prefix.

leg

PT	*lə(~*le?)
Apatani S	a-li rhyme!
Bengni S	lɯ-pa:
Bokar OY	a-lə
Mising L	a-lə
Padam L	a-lə

bedbug

PT	*bə~ba
Apatani S	ta-bu
Bengni S	ta-bɯ:
Bokar OY	---
Padam-Mising L	tab-bə

This word usually takes the *ta- prefix. Cf. the Padam-Mising L variant ta-ba; Bori M, Bokar M ta-ba; Gallong W ˆ ta-ba. Cf. also Tshangla le^{13}ba^{13}; Nusu pɑ^{35}; Taraon xa^{31}ba^{53}; Idu ka^{55}ba^{55} (ZMYYC).

big

PT	*tə~ta
Apatani S	---
Bengni S	-tɯ:
Bokar OY	tə:-bə
Padam-Mising L	bot-tə~bot-ta

Reflexes of this root occur mainly in compounds and classifier constructions, even in languages where distinct roots are used in the regular words for 'big' (e.g. Bengni S ka-ji 'big', but ɯ-ki ki-tɯ:-gu 'a big dog').

PT *-ə:

Correspondence:

PT	*-ə:
Apatani S	-ɯ
Bengni S	-ɯ:
Bokar OY	-ə:
Padam-Mising L	-ə

Supporting sets

carry on back/pregnant

PT	*gə:
Apatani S	ə-ŋa gɯ
Bengni S	ku: gɯ:
Bokar OY	a-ɦo gə:
Padam-Mising L	a-o gə; ko gə

The Tani expression for 'be pregnant' is literally: 'carry child/baby on back'. The root *gə: actually means 'carry on back'. Cf. also Damu OY a-tuŋ gə:.

buy

PT	*rəː	
Apatani S	rɯ	
Bengni S	rɯː	
Bokar OY	rəː	
Padam-Mising L	re	rhyme!

Cf. also Damu OY rəː; Gallong W ˆrə.

bamboo (large species)

PT	*ɦəː	
Apatani S	---	
Bengni S	ɯː	
Bokar OY	---	
Mising L	---	
Padam L	eŋ	

Cf. Nishi C əː; Damu OY a-həː; Nishing e-hə; Gallong DG eː; Milang T a-hu.

fart (n.)

PT	*pəː~pɯ	
Apatani S	---	
Bengni S	ɯ-pɯː	
Bokar OY	ə-pəː	
Padam-Mising L	je-pə	

Cf. Apatani A pɯ-di~pu-di; Damu OY eː-pəː~eː-pɯ.

PT *-ɯ:

This proto-rhyme *-ɯ gave Apatani -u. In Bengni S, *-ɯ went to -i after dental onsets.

Correspondence:

PT	*-ɯ
Apatani S	-u
Bengni S	-ɯ/-i
Bokar OY	-ɯ(ː)
Padam-Mising L	-ɯ

Supporting sets

drip

PT	*dɯ
Apatani S	---
Bengni S	toː-di
Bokar OY	dɯ
Padam-Mising L	dɯ

Bengni S toː-di means 'leak'.

grind (sharpen)

PT	*pɯ	
Apatani S	a-pi	rhyme!
Bengni S	pɯ-rit	
Bokar OY	pɯ	
Padam-Mising L	pɯ-rat	

nit

PT	*rɯ
Apatani S	---
Bengni S	fɯk-ri
Bokar S	hɯk-rɯː
Padam-Mising L	ɯk-rɯ

The first morpheme means 'louse'. cf. also Damu OY jək-rɯ.

move (v.i.)

PT	*brɯ
Apatani S	a-briu (a-te)
Bengni S	bi
Bokar OY	bɯː
Padam L	bə-ləŋ

Cf. Nyisu H ebl.

boat

PT	*si-pɯ
Apatani S	---
Bengni S	ši-pɯ
Bokar OY	šɯ-pɯ
Padam-Mising L	---

First morpheme means 'water'. Cf. also Bori M si-pi; Tagin DG si-pɯ. Mising L et-luŋ; Padam L et-kuŋ; Yano B ho-luŋ are unrelated. Some Tani languages use loanwords from Assamese nāo.

eagle/hawk

PT	*mɯ
Apatani S	pa-mɯ
Bengni S	pɯ-mɯ
Bokar OY	pa-mɯ
Padam-Mising L	pə-mɯ

This word usually takes the *pa- prefix. Apatani S pa-mɯ is glossed 'kite'.

smoke

PT	*mə-kɯ
Apatani S	mu-ku
Bengni S	mɯ-kɯ
Bokar OY	mɯ-kɯ
Mising L	mik-ki
Padam L	mɯk-kɯ

The first morpheme means 'fire'. Cf. also Mru khɯ, WB khui, Lushai khu 'smoke'.

dove/pigeon

PT	*kɯ
Apatani S	pa-ku
Bengni S	pɯ-kɯ
Bokar OY	taŋ-kɯ
Padam-Mising L	pə-kɯ

This word usually takes the bird prefix *pa-. The Bokar OY form is glossed 'turtledove', cf. Bokar M taŋ-kɯ 'pigeon'. Cf. also Nyisu puk-kɯ; Yano B pɯk-kɯ ja-bər, Nishi C pɯk ja-bor; Gallong W ˋta:-kə.

pick up

PT	*tɯ
Apatani S	jo-tu
Bengni S	ka-ti
Bokar OY	tɯ:
Padam-Mising L	tɯ

vulva/vagina

PT	*tɯ
Apatani S	---
Bengni S	ti:
Bokar OY	---
Padam-Mising L	ut-tɯ

Cf. also Mising T it-tɯ, Damu OY ut-tɯ; Gallong W ˆut-tə; Apatani A a-tú.

PT *-ɯ:

This rhyme is poorly attested.

Correspondence:

PT	*-ɯ:
Apatani S	-u
Bengni S	-?
Bokar OY	-ɯ:
Padam-Mising L	-ɯ

Supporting sets

odor/smell

PT	*rɯ:
Apatani S	na-ru
Bengni S	---
Bokar OY	a-rɯ:
Padam-Mising L	a-rɯ

Cf. also Damu OY a-ri:.

2.3.2.2. Nasal-Coda Rhymes

Not all theoretically possible nasal-coda rhymes are supported by modern reflexes, which means that there might be gaps in the original system. It is not clear whether these gaps result from true phonotactic constraints at the proto-language level or are simply rare rhymes[98] which may become attested when additional data is examined. The following nasal-coda rhymes seem motivated by modern Tani correspondences (rarely attested rhymes are prefaced by double asterisks; unattested rhymes are enclosed in parentheses):

[98]Consider the rare Madarin Chinese rhyme -yai which occurs in one single word in the entire language: yái 'cliff' (which most speakers pronounce as ái anyway).

*-am	*-an	*-aŋ
**-im	*-in	**-iŋ
*-um	**-un	*-uŋ
**-em	*-en	**-eŋ
*-om	*-on	*-oŋ
(*-əm)	(*-ən)	*-əŋ
(*-um)	*-un	*-uŋ

PT ***-am**:

This common PT rhyme is maintained in most key languages. The shift of the *a vocalism to a high front vowel in Apatani S is noteworthy. For reasons still unknown, Apatani reflexes of this rhyme show variation between -ẽ and -ĩ.

Correspondence:

PT	***-am**
Apatani S	-ẽ/-ĩ
Bengni S	-am
Bokar OY	-am
Padam-Mising L	-am

Supporting sets

road

PT	*lam
Apatani S	**len**-da
Bengni S	**lam**-tu:
Bokar OY	**lam**-tə
Padam-Mising L	**lam**-tə; **lam**-bə

placenta

PT	*nam
Apatani S	---
Bengni S	nu-**nam**
Bokar OY	nə-**nam**
Mising L	---
Padam L	a-**nam**

In Bengni S at least, the same word also means 'fontanel'. Cf. Bahing wam; WB wâm.

smell (v.)

PT	*nam
Apatani S	neŋ-ka
Bengni S	nam
Bokar OY	nam
Padam-Mising L	nam

snow

PT	*pam
Apatani S	ta-pĩ
Bengni S	ta-pam
Bokar OY	ta-pam
Padam-Mising L	ta-pam

This word usually takes the *ta- prefix. Cf. also Tangkhul p^{h}am; Kanauri pom; Tshangla p^{h}om

otter

PT	*ram
Apatani S	sw-rĩ
Bengni S	šw-ram
Bokar OY	šə-ram
Padam-Mising L	si-ram

This word usually takes the *sa- prefix. Cf. also Apatani W ^{i}sw^{2}riŋ $(^{2})$.

PT *-im:

This rhyme is extremely rare. It is represented only in Padam L (and Milang T). The other languages have merged it with *-in.

Correspondence:

PT	*-im
Apatani S	-ĩ
Bengni S	-in
Bokar OY	-?
Mising L	-in
Padam L	-im

Supporting sets

rice (cooked)

PT	*pim
Apatani S	a-pĩ
Bengni S	a-čin
Bokar OY	---
Mising L	a-pin
Padam L	a-pim

This word usually takes the *a- prefix. Cf. also Milang T a-pim. There is no reason not to regard -im as original here. Consider the Padam L minimal pair pin 'pinch, pick up with fingers' vs. -pim 'cooked rice'.

PT *-um:

This is a common rhyme in Tani. All key languages except Apatani S (where *-um changed to -ĩ) preserve *-um intact.

Correspondence:

PT	*-um
Apatani S	-ĩ
Bengni S	-um
Bokar OY	-um
Padam-Mising L	-um

Supporting sets

urine

PT	*sum
Apatani S	---
Bengni S	u-šum
Bokar OY	---
Padam-Mising L	---

This is a Western Tani root. Cf. Nishing DG, Hill Miri S u-sum; Nishi C i(~u)-sum; Tagen B si-sum. Cf. Tamang 'cyam; Thakali kum; Nocte ²sa(?); Tangsa ¹šaŋ; Kaike jyam.

weave

PT	*čum
Apatani S	čĩ
Bengni S	čum
Bokar OY	čum
Padam-Mising L	sum

smallpox

PT	*bum	
Apatani S	ta-bũ	rhyme!
Bengni S	ta-bum	
Bokar OY	ta-bum	
Padam-Mising L	ta-bum	

This word usually takes the *ta- prefix. The Apatani S rhyme is irregular. Cf. also Apatani A ta-bun; Nyisu H to-bum.

worm/insect

PT	*pum
Apatani S	---
Bengni S	ta-pum
Bokar OY	ta-pum
Padam-Mising L	ta-pum

This word usually takes the *ta- prefix. The Padam-Mising L form means 'grub'.

bear (animal)

PT	*tum
Apatani S	si-tĩ
Bengni S	šu-tum
Bokar OY	šu-tum
Padam-Mising L	si-tum

This word usually takes the *sa- prefix.

round (globular)

PT	*lum
Apatani S	---
Bengni S	a-lum
Bokar OY	---
Padam-Mising L	a-lum

three

PT	*ɦum
Apatani S	hĩ
Bengni S	u-um
Bokar OY	a-hum
Padam L	a-ŋum
Mising L	a-um

This word usually takes the *a- prefix.

hold on both palms

PT	*pjum
Apatani S	---
Bengni S	čum
Bokar OY	a-pjum
Padam-Mising L	---

head

PT	*dum
Apatani S	a-dĩ
Bengni S	dum-po:
Bokar OY	dum-pur
Mising L	---
Padam L	dum-poŋ

Mising L uses mit-tuk, which means 'forehead' in Bengni S and Bokar OY.

drunk

PT	*krum
Apatani S	---
Bengni S	(tuŋ)-kjum
Bokar OY	(tuŋ)-kum
Padam-Mising L	---

This is a Western Tani root. Cf. also Nyisu H xrum; Hill Miri S tu-kum. The tuŋ- in Bengni S, Bokar OY and the tu- in Hill Miri S mean 'drink'.

PT *-em:

This rhyme is highly uncommon. In Bengni S at least, the development of *-em parallels that of the checked rhyme *-ep (see below) in that the vocalism *-e- went to -a- before a labial coda. The Apatani S and Bokar OY reflexes are uncertain.

Correspondence:

PT	*-em
Apatani S	-ũ
Bengni S	-am
Bokar OY	-?
Padam-Mising L	-em

Supporting sets

satiated/tired of

PT	*jem?
Apatani S	---
Bengni S	---
Bokar OY	la-jen
Padam-Mising L	jem~em

python

PT	*bu-rem
Apatani S	bu-rũ
Bengni S	bu-ram
Bokar OY	---
Padam-Mising L	bu-rem

Cf. also Nishi C bu-rum. *bu- is 'snake'.

twin

PT	*prem
Apatani S	---
Bengni S	buŋ pjam-bu
Bokar OY	---
Padam-Mising L	o-pem-su-nam

Cf. Nyisu H pləm.

PT *-om:

A common PT rhyme. Bengni S collapsed this rhyme with *-am. The other key languages retain the *-o vocalism.

Correspondence:

PT	*-om
Apatani S	-o/õ
Bengni S	-am
Bokar OY	-om
Padam-Mising L	-om

Supporting sets

early morning

PT	*kom
Apatani S	a-ro kon-či
Bengni S	a-ru: kam-či
Bokar OY	a-ro kum-či
Padam-Mising L	ro kom-pə

Vowel assimilation is responsible for altering the original *-om rhyme to -um in Bokar OY (cf. lugin 'fingernail' < lok 'hand' + jin 'nail'; juk-čik 'dagger' < jok 'knife' + -čik 'diminutive suffix?').

sew/patch

PT	*ɦom
Apatani S	---
Bengni S	ham
Bokar OY	hom
Padam-Mising L	om

Cf. also Bori M, Damu OY, Milang T hom; Gallong DG om; Tagin DG am. Cf. WT tshem.

fireplace/hearth

PT	*ram~rom
Apatani S	---
Bokar OY	mə-rom
Bengni S	---
Padam L	mə-rom
Mising L	mə-ram

This word is usually a compound with the first morpheme 'fire'. Modern reflexes point to proto-variation between *-am (supported by Mising L) and *-om (supported by Bokar OY and Padam L). Bori M -on, a regular reflex from PT *-am, also suggests *-am.

ghost (ancestral)

PT	*rom
Apatani S	---
Bengni S	a-ram
Bokar OY	o-rom
Padam-Mising L	u-rom

This word usually takes the *a- prefix in Tani.

burn/roast over fire

PT	*rom
Apatani S	rõ
Bengni S	ram
Bokar OY	---
Padam-Mising L	rom

grasshopper

PT	*kom
Apatani S	ko-wa?
Bengni S	ta-kam
Bokar OY	ta-kom
Padam-Mising L	ta-kom

This root also refers to similar hopping insects, such as 'cricket'. Cf. also Bori M, Damu OY, Milang T ta-kom; Gallong W ˆta-kom.

language/speech

PT	*gom	
Apatani S	a-gũ	rhyme!
Bengni S	gam	
Bokar OY	(a-) gom	
Padam-Mising L	a-gom	

Cf. also Gallong W ˆagom. In Western Tani, this root also means 'mouth'. Cf. Lushai kam 'mouth'.

startle (verbal particle)

PT	*lom
Apatani S	---
Bengni S	gok-lam
Bokar OY	ben-lom
Padam-Mising L	-lom

The Bokar OY form, structurally ben 'speak/say' + lom 'startle', means 'startle by saying something'.

PT *-an:

The *a vocalism in this rhyme raised to -e- in Apatani S and Bokar OY and to -i- in Bengni S. Padam L and Mising L (and Damu OY) retain this proto-rhyme.

Correspondence:

PT	*-an
Apatani S	-ẽ/-e
Bengni S	-in
Bokar OY	-en
Padam-Mising L	-an

Supporting sets

kill

PT	*man
Apatani S	mẽ
Bengni S	min
Bokar OY	men
Padam-Mising L	---

Cf. also Damu OY man.

say/speak

PT	*ban~*man
Apatani S	---
Bokar OY	ben
Bengni S	bin
Padam-Mising L	ban

This is a Western Tani root; the Padam-Mising L cognate means 'exaggerate'. The allofam *man is supported by the following forms: Gallong DG, Hill Miri S men; Tagin DG min.

forget#(see 'orphan')

PT	*mit-pran
Apatani S	---
Bengni S	---
Bokar OY	mit-pen
Padam-Mising L	mit-pan

The Bengni S expression is muŋ-paː-maː, i.e. 'not remember'. Cf. also Damu OY mit-pan; for the -r- medial, cf. the set for 'orphan' PT *ño-pran, literally 'forgotten child' (Prof. Matisoff, p.c.).

separate (verbal particle)

PT	*pan
Apatani S	-pe
Bengni S	-pin
Bokar OY	-pen
Padam-Mising L	-pan

wither/dry

PT	*san
Apatani s	sẽ
Bengni S	šin
Bokar OY	šen
Padam-Mising L	san

Cf. Tshangla saŋ; Dulong sɔŋ[55].

shake

PT	*dan
Apatani S	---
Bengni S	din
Bokar OY	den
Padam-Mising L	dan

Bokar OY tuk-den 'shake dust off'; Bengni S dum-din 'shake head', duk-din 'shudder'.

feel (v.t.)

PT	*ɦan
Apatani S	hẽ
Bengni S	hin-ka:
Bokar OY	---
Padam-Mising L	an

PT *-in:

Most key languages retain this rhyme. Apatani shows drop of -n and nasalization of the preceding vowel.

Correspondence:

PT	*-in
Apatani S	ĩ
Bengni S	in
Bokar OY	in
Padam-Mising L	in

Supporting sets

ripe

PT	*min
Apatani S	ar-mĩ
Bengni S	ñin
Bokar OY	min
Padam-Mising L	min

liver

PT	*zin
Apatani S	pa-ĩ
Bengni S	šin
Bokar OY	jin
Mising L	a-sin
Padam L	a-in

go

PT	*in
Apatani S	ĩ
Bengni S	---
Bokar OY	in
Padam-Mising L	---

Cf. also Gallong W ˆin; Hill Miri S, Damu OY in.

marrow

PT	*loŋ-kin	
Apatani S	lo-čũ	rhyme!
Bengni S	lo:-čin	
Bokar OY	---	
Padam-Mising L	loŋ-kin	

The first element means 'bone'. Cf. also Yano B la-čin. The unrelated Bokar OY loŋ-poŋ pш-ni: and Gallong DG lo-ni.(lit. 'bone-brain') reflect the 'brain' root *-ni (q.v.).

PT *-un:

This is a rare rhyme. Apatani S dropped the -n coda with no compensatory nasalization. Both Bengni S and Bokar OY, in which the sequence -un is disallowed, appear to have changed original *-un to -uŋ. Languages in which *-un is maintained include Bori M and Milang T (both Eastern Tani languages).

Correspondence:

PT	*-un
Apatani S	-u
Bengni S	-uŋ
Bokar OY	-uŋ
Padam-Mising L	-un~uŋ?

Supporting sets

flower

PT	*pun	
Apatani S	a-pu (la-lu)	
Bengni S	a-pjuŋ	initial!
Bokar OY	puŋ-pin	
Padam-Mising L	ap-pun	

Cf. also Bori M a-pun; Milang T ap-pun; Nyisu H op-pu. Bengni S -pjuŋ suggests a *pr- variant (*pj- normally gave č- in Bengni S); this, of course, could also be a secondary development.

wound (n.)

PT	*un
Apatani S	u-ne
Bengni S	uŋ-nu:
Bokar OY	---
Padam-Mising L	---

Cf. also Hill Miri S, Nyisu H un; Gallong W ˆuː-nə. Bokar OY, Bori M, and Padam-Mising L ta-rə~ta-ru (which STC p.62 misinterprets as ta-ri) is not cognate.

white

PT	*pun~*puŋ
Apatani S	pu-lu
Bengni S	puŋ-tuŋ
Bokar OY	puŋ-lu
Mising L	---
Padam L	pun; puŋ

Cf. the unrelated Mising L (and Mising T) form kam-po. For absence of -r- medial, cf. Nyisu H pul-lu.

PT *-en:

This rhyme is maintained in Bokar OY and Padam-Mising L. Bengni S and Apatani S raised the nuclear vowel to -i-.

Correspondence:

PT	*-en
Apatani S	-ĩ
Bengni S	-in
Bokar OY	-en
Padam-Mising L	-en

Supporting sets

takin

PT	*bren
Apatani S	su-bĩ
Bengni S	ši-bin
Bokar OY	šə-ben
Padam-Mising L	so-ben

This word usually takes the *sa- prefix. For the liquid medial consider Nyisu H blem-bü

out (verbal particle)

PT	*len
Apatani S	---
Bengni S	lin
Bokar OY	len
Padam-Mising L	len

Cf. Damu OY len; Apatani A xu-lin 'knock out (content in vessels)'.

know

PT	*ken
Apatani S	čĩ
Bengni S	čin
Bokar OY	čen
Padam-Mising L	ken

Cf. also Damu OY ken, Gallong W ¯hen (< *čen < *ken).

repair

PT	*ten
Apatani S	---
Bengni S	mu-tin
Bokar OY	mo:-ten
Padam-Mising L	mo-ten

The mo- in Bokar OY and Padam-Mising L as well as the mu- in Bengni S are causative prefixes.

PT *-on:

A rare rhyme in PT, *-on is maintained in Padam-Mising L (and Damu OY). In Bokar OY and Bengni S, *-on developed respectively into -en and -in; the Apatani S reflexes of *-on is yet unclear but seem to vary between -ũ and -õ.

Correspondence:

PT	*-on
Apatani S	-õ/-ũ
Bengni S	-in
Bokar OY	-en
Padam-Mising L	-on

Supporting sets

bat/flying fox

PT	*pon	
Apatani S	---	
Bengni S	pin-tɕi	
Bokar OY	ta-pen	
Padam-Mising L	pon-sik	

Cf, also Apatani W ¹ta-²pun 'bat', Damu OY pon-dɯ 'flying fox'. Cf. also Takhali pha-pan; Tamang ʾpha:-pan; ati-ʾpã:-pã: (different dialects, Weidert 1987:223, 278).

one

PT	*kon	
Apatani S	kũ~kõ	
Bengni S	a-kin	
Bokar OY	a-ken	
Padam-Mising L	a-kon	

Cf. also Bori M, Damu OY a-kon. The Padam-Mising L word means 'the one' (vs. 'the other').

stretch oneself

PT	*jon	
Apatani S	---	
Bengni S	gu-jin	
Bokar OY	---	
Padam-Mising L	gə-jon	

loincloth

PT	*gon	
Apatani S	---	
Bengni S	ha-gin	
Bokar S	ho-ken	initial!
Padam-Mising L	u-gon	

Cf. also Mising T, Bori M u-gon; Bokar OY ho-gen.

friend

PT	*jon~jen	
Apatani S	a-jĩ	rhyme!
Bengni S	a-jin	
Bokar OY	a-čen	initial!
Padam-Mising L	a-jon	

The word usually takes the *a- prefix. The Apatani form is irregular. Cf. also Apatani W ¹a ²dziŋ(¹) and Gallong W ˋa-jen.

chase

PT	*mon
Apatani S	mõ
Bengni S	---
Bokar OY	men
Padam L	mon

The Bokar OY reflex is attested only in the compound ki:-men 'hunting dog' (i.e. 'dog' + 'chase'). Cf. also Gallong DG miŋ. Bengni S ruk; Nishi C ru?-, Yano B rək-, Tagen ru-; and Bokar OY kər are not cognate.

PT *-un:

This rhyme has fallen together with *-in in most modern Tani languages. The reconstruction of *-un is based on reflexes from Padam which seems to preserve this proto-rhyme (Lorrain's Padam-Mising L forms show variation). Whether Bengni S reflexes underwent palatalization or not is another useful criterion for determining if the proto-rhyme was *-un or *-in.

Correspondence:

PT	*-un
Apatani S	-ĩ
Bengni S	-in
Bokar OY	-in
Padam-Mising L	-un

Supporting sets

rice (uncooked)

PT	*am-bun
Apatani S	em-bĩ
Bengni S	am-bin
Bokar OY	---
Padam-Mising L	am-bun

Note the unpalatalized Bengni S reflex (contrast Bengni S ji 'give' < PT *bi).

meat

PT	*dɯn
Apatani S	---
Bengni S	a-din
Bokar OY	i-din
Padam-Mising L	a-din

Cf. Padam K, Padam T a-dɯn. This word usually takes the *a- prefix.

skin (n.)

PT	*pɯn
Apatani S	---
Bengni S	a-pin
Bokar OY	a-pin
Padam-Mising L	---

This word usually takes the *a- prefix. The proto-rhyme could not be -in, for the Bengni S reflex did not undergo labial palatalization. Cf. also Tagin DG a-pin~a-pɯn.

gold

PT	*ɯn
Apatani S	a-jĩ
Bengni S	in
Bokar OY	---
Mising L	a-ɯn
Padam L	a-ŋɯn

Bokar OY ser is a Tibetan loan. Cf. also Mising T a-ɯn; Gallong DG a-jin; Tagin DG a-ñi a-jin.

PT *-aŋ:

This rhyme is kept as such only in Padam-Mising L (even here -aŋ is in synchronic alternation with -a:); In Apatani S and Bengni S, the -ŋ was lost, causing compensatory lengthening of the nuclear vowel (vowels length is faithfully recorded only in Apatani W, see for example under the set 'come' below). Bokar OY keeps the velar nasal final but occasionally shifted *-aŋ to -oŋ.

Correspondence:

PT	*-aŋ
Apatani S	-a
Bengni S	-a:
Bokar OY	-oŋ/-aŋ
Padam-Mising L	-aŋ

Supporting sets

nine

PT	*kV-(n)aŋ
Apatani S	ko-wa
Bengni S	kju-a:
Bokar OY	ko-noŋ
Padam-Mising L	ko-naŋ

In most Western Tani languages, the second morpheme seems to have lost the n- initial; cf. also Nyisu H kja: 'nine'.

wait for

PT	*rjaŋ
Apatani S	da?-lja; ka-lja
Bengni S	ka:-ja: initial!
Bokar OY	kə-jaŋ
Mising L	to-jaŋ
Padam L	ka-jaŋ

The Bengni S suggesting *j- is irregular. Cf. Nyisu H, Tagen B ka-lja.

singe/roast in fire

PT	*braŋ
Apatani S	---
Bengni S	ba:
Bokar OY	---
Padam-Mising L	baŋ

Cf. also Apatani A bja; Nyisu H ble- 'singe'.

take

PT	*laŋ
Apatani S	la-
Bengni S	la:
Bokar OY	loŋ
Padam-Mising L	laŋ

empty

PT	*raŋ ~ *roŋ
Apatani S	a-ra
Bengni S	hi-ro:
Bokar OY	a-roŋ
Mising L	aŋ a-raŋ
Padam L	a-raŋ

Cf. also Apatani W ^{1}a^{2}ra$^{(1)}$; Gallong W ` a-ra 'empty'. The *roŋ variant is reflected by Bengni S, Bokar OY, Hill Miri S a-ro 'empty', as well as Tagin DG mo-ro 'empty v.'.

look

PT	*kaŋ
Apatani S	ka
Bengni S	ka:
Bokar OY	koŋ
Padam-Mising L	kaŋ

Cf. Sunwar ko:; Bahing koŋ; Kulung khoŋ-u; Chamling khang-u; Bantawa khaŋ; Proto-Kiranti *koŋ (CK); Dolakha Newari khoŋ (Genetti 1990); Taraon xueŋ^{53}.

hornet

PT	*gaŋ
Apatani S	---
Bengni S	ta-ga:
Bokar OY	ta-ga:
Padam-Mising L	ta-gaŋ

This word usually takes the *ta- prefix. It is possible that the basic meaning of this root is 'bold, fierce'. Cf. Padam-Mising L mi-gaŋ 'fearless, ferocious'.

can/able to (verbal particle)

PT	*laŋ
Apatani S	-la
Bengni S	---
Bokar OY	---
Padam-Mising L	laŋ

Cf. also Bori M, Bokar M, Gallong DG, Nishing DG, Tagin DG, -la. Bokar OY -ño: and Bengni S -ñu: are unrelated.

PT *-iŋ:

This proto-rhyme seems to be distinct from *-ɯŋ (q.v.). Although many modern languages tend to shift *-ɯŋ to -iŋ after palatal/palatalized initials, the contrast is maintained in others. Cf. Bokar OY ñiŋ < PT *ñiŋ 'year' vs. ɯ-jɯŋ < PT *-rjɯŋ 'ten'. Apatani S merged both proto-rhymes, yielding *-ã. In the set for 'year', the Apatani S form is recorded without the nasalization, but other sources clearly indicate a nasalized vowel (see below).

Correspondence:

PT	*-iŋ
Apatani S	-ã
Bengni S	-iŋ
Bokar OY	-iŋ
Mising L	-iŋ
Padam L	-iŋ/-ɯŋ

Supporting sets

year

PT	*ñiŋ
Apatani S	a-ñã
Bengni S	a-ñiŋ
Bokar OY	ñiŋ
Padam-Mising L	-ñiŋ

Cf. also Apatani A à-ñaŋ; Apatani W ^{1}a^{2}ñaŋ. In Padam-Mising L, -ñiŋ occurs in compounds only.

fly (n.)

PT	*jiŋ
Apatani S	---
Bengni S	ta-jiŋ
Bokar OY	ta-jiŋ
Padam-Mising L	ta-iŋ

This word usually takes the *ta- prefix.

pot (generic)

PT	*pV-kiŋ	
Apatani S	pɯ-čã	
Bengni S	pɯ-čiŋ	
Bokar OY	---	
Padam-Mising L	pə-ki	< *pə-kiŋ

Cf. also Padam T pə-kuŋ; Nishing DG po-čiŋ; Tagin DG pi-čiŋ; Nishi C pu-čɯ. The proto-rhyme here could not be *-uŋ, otherwise the widespread palatalized initial (č- < *k-) would be unexplained.

PT *-uŋ:

This proto-rhyme can be established with certainty. All key languages maintain the -u- nuclear vowel. Apatani S dropped the -ŋ coda without compensation.

Correspondence:

PT	*-uŋ
Apatani S	-u
Bengni S	-uŋ
Bokar OY	-uŋ
Padam-Mising L	-uŋ

Supporting sets

rat (generic)

PT	*ku-buŋ
Apatani S	ku-bu~bu-ku
Bengni S	ku-buŋ
Bokar OY	ku-buŋ
Padam-Mising L	kə-buŋ

This compound seems to be composed of 'rat' *ku- + *buŋ 'classifier for long slender objects'. Furthermore, *ku- may be compared with PLB *k-r-wak^{H} 'rat/rodent'(Matisoff 1972: #188); Chepang rok-yu 'rat' (STC *rwak 'rat' pp. 2, 107). Note that *-wa- > PT *-u- is regular. The irregular open (as against expected checked rhyme) is probably due to the vulnerability of this root as the first element in compounds.

mosquito

PT	*ruŋ
Apatani S	ta-ru
Bengni S	ta-ruŋ gam-buŋ
Bokar OY	---
Padam-Mising L	ta-ru suŋ-gu

This word usually takes the *ta- prefix.

angle

PT	*čuŋ
Apatani S	---
Bengni S	---
Bokar OY	čuŋ-dum
Padam-Mising L	suŋ-ken

The Padam-Mising L form means 'inner angle or inner corner'; cf. also Yano B čəŋ-kit; Tagen B ču-kit; Nyisu H ču-ki.

ear

PT	*ña-ruŋ
Apatani S	ja-ru
Bengni S	ñu-ruŋ
Bokar OY	ña-ruŋ
Mising L	je-ruŋ~ñe-ruŋ
Padam L	ño-ruŋ

This may be the 'hole/dent' root *ruŋ (q.v.).

sit

PT	*duŋ	
Apatani S	du-(mo)	
Bengni S	do:	rhyme!
Bokar OY	duŋ	
Padam-Mising L	duŋ	

The Bengni S rhyme is irregular (expected reflex being *-uŋ).

PT *-əŋ:

This rare rhyme is of uncertain status.

Correspondence:

PT	*-əŋ
Apatani S	-?
Bengni S	-iŋ
Bokar OY	-əŋ
Padam-Mising L	-əŋ

Supporting sets

finger

PT	*lak-ken
Apatani S	---
Bengni S	lak-čin
Bokar OY	lok-čen
Padam-Mising L	lak-ke

Cf. also Damu OY -kjɛ:; Padam T lak-ken; Bori M lok-čen.

PT *-oŋ:

This is among the best attested rhymes in Tani. The -o vocalism stays unchanged in all key languages. The nasal coda -ŋ is lost without a trace in Apatani S.

Correspondence:

PT	*-oŋ
Apatani S	-o
Bengni S	-o:
Bokar OY	-oŋ
Padam-Mishing L	-oŋ

Supporting sets

rain (n.)

PT	*mV-doŋ~*pV-doŋ
Apatani S	mu-do
Bengni S	ñi-do:
Bokar OY	me-doŋ
Padam-Mishing L	pe-doŋ

This root also appears in many words referring to heavenly objects and meteorological phenomena.

bone

PT	*loŋ
Apatani S	a-lo
Bengni S	a-lo:
Bokar OY	loŋ-poŋ
Padam-Mising L	a-loŋ

hungry

PT	*kV-<u>noŋ</u>
Apatani S	---
Bengni S	ka-<u>no:</u>
Bokar OY	ki-<u>noŋ</u>
Padam-Mising L	kə-<u>noŋ</u>

The first morpheme resembles *kri, the 'belly/intestines' root. But cf. the different roots in Lepcha <u>krít</u>-nóm 'hungry' vs. ta-<u>klí</u> 'bowels'; cf. also WT bkres; Gurung -kre 'hunger'. To the extent that -noŋ may mean 'call' (cf. Padam-Mising L noŋ 'call (of any animal)', it seems plausible that the obscure first syllable kV- is indeed from the 'belly/intestines' root.

liquor

PT	*poŋ?	
Apatani S	o	
Bengni S	u-<u>po:</u>	
Bokar OY	o:	rhyme!
Padam-Mising L	a-<u>poŋ</u>	

We assume that the Bokar OY and Apatani S forms are contracted from earlier *a-<u>poŋ</u>.

PT *-əŋ:

PT *-əŋ is posited if all key languages show back unrounded vocalism, and if Bokar OY and Padam-Mising L (which maintain a contrast between ɯ and ə) show -əŋ.

Correspondence:

PT	*-əŋ
Apatani S	-ɯ
Bengni S	-ɯŋ
Bokar OY	-əŋ
Padam-Mising L	-əŋ

Supporting sets

horn

PT	*rəŋ
Apatani S	a-rɯ
Bengni S	rɯŋ
Bokar OY	a-rəŋ
Padam-Mising L	a-rəŋ

boil (e.g. meat)

PT	*krəŋ
Apatani S	xrjɯ
Bengni S	kɯŋ
Bokar OY	kəŋ
Padam-Mising L	kəŋ

Cf. Nyisu H xrü.

short

PT	*təŋ~*dəŋ
Apatani S	tu-dɯ
Bengni S	ha:-tɯŋ
Bokar OY	a-təŋ
Padam-Mising L	an-dəŋ

Cf. also Tagin DG a-dəŋ; Damu OY an-də; WT thung-thung; Anong tɕi^{55}ʈhɯŋ^{55}; Taraon kɯ^{31}ʈioŋ^{53}.

slanting

PT	*ləŋ~rjəŋ
Apatani S	---
Bengni S	pa:-rjɯŋ
Bokar OY	pa-jəŋ
Padam-Mising L	ləŋ

lean against

PT	*grəŋ
Apatani S	---
Bengni S	-gjɯŋ
Bokar OY	-gəŋ
Padam-Mising L	gəŋ

Cf. also Nyisu H -gru. Cf. also rGyarong kɐ-nə-ŋgrə; Ergong ŋgʐɯ; Kaman khiaŋ^{53}; Taraon a^{31}khəŋ^{35}.

PT *-ɯŋ:

This is a very common rhyme in Tani. We reconstruct *-ɯŋ if Apatani S shows -ɛ̃ corresponding to -ɯŋ in all other key languages (except for Mising L where -ɯŋ shifted to -iŋ after palatal initials).

Correspondence:

PT	*-ɯŋ
Apatani S	-ɛ̃
Bengni S	-ɯŋ
Bokar OY	-ɯŋ
Padam-Mising L	-ɯŋ

Supporting sets

grow (v.i.)

PT	*sɯŋ
Apatani S	sɛ̃
Bengni S	šɯŋ
Bokar OY	šɯŋ
Padam-Mising L	sɯŋ

think

PT	*mɯŋ
Apatani S	---
Bengni S	mɯŋ
Bokar OY	mɯŋ
Padam-Mising L	mɯŋ

Cf. Milang T ñaŋ~mjaŋ. This root appears in many other compounds related to mental activities.

brother (elder)

PT	*bɯŋ	
Apatani S	a-wɛ̃	initial!
Bengni S	a-bɯŋ	
Bokar OY	a-bɯŋ	
Padam-Mising L	---	

Apatani S a-wɛ̃ may be a phonetic variant of a-bɛ̃, cf. Apatani A a-baŋ. Cf. also Padam T, Bori M a-bɯŋ; Nishing DG a-baŋ; Nishi C a-bɯ. Cf. also Padam-Mising L a-bɯ 'be elder or older'.

drink

PT	*twŋ
Apatani S	tã
Bengni S	twŋ
Bokar OY	twŋ
Padam-Mising L	twŋ

deep

PT	*rwŋ
Apatani S	u-rã
Bengni S	a-rwŋ
Bokar OY	a-rwŋ
Mising L	o-rwŋ
Padam L	ə-rwŋ~a-rwŋ

Cf. WT ring-po 'long'.

ten

PT	*rjwŋ
Apatani S	ljã
Bengni S	u-rjwŋ
Bokar OY	u-jwŋ
Padam-Mising L	ə-jiŋ <*-wŋ

Cf. also Padam T u-jiŋ; Nishing DG e-riŋ~e-rjaŋ; Nyisu H il-lji.

stone

PT	*lwŋ	
Apatani S	ja-lã	
Bengni S	u-lwŋ	
Bokar OY	u-lwŋ	
Mising L	u-liŋ	rhyme!
Padam L	ə-lwŋ	

Cf. Mising T u-lwŋ~ə-lwŋ.

neck

PT	*lwŋ
Apatani S	lã-gu
Bengni S	lwŋ-po:
Bokar OY	lwŋ-poŋ
Padam L	a-lwŋ

According to Lorrain, Padam L a-lwŋ can sometimes occur with the meaning 'throat'.

red

PT	*lwŋ
Apatani S	lan-čã
Bengni S	lwŋ-čiŋ
Bokar OY	lwŋ-kaŋ
Mising L	lwŋ
Padam L	ja-lwŋ

firm

PT	*dwŋ
Apatani S	---
Bengni S	a-dwŋ
Bokar OY	a-dwŋ
Padam L	ə-dwŋ

2.3.2.3. Checked Rhymes

The following checked rhymes are recognized for PT (rhymes within parentheses are not attested; rare rhymes are marked by double asterisks):

*-ap	*-at^1/*-at^2	*-ak
(*-ip)	*-it	**-ik
*-up	*-ut^1/*-ut^2	*-uk
**-ep	*-et	**-ek
*-op	**-ot^1/*-ot^2	*-ok
(*-ɐp)	(*-ɐt)	*-ɐk
(*-ɯp)	**-ɯt	*-ɯk

PT *-ap

One of the best attested PT rhymes, *-ap is preserved in most modern languages. Apatani S changed *-ap regularly to -e(?).

Correspondence:

PT	*-ap
Apatani	-e(?)
Bengni S	-ap
Bokar OY	-ap
Padam-Mising L	-ap

Supporting sets

wild green onion

PT	*lap
Apatani S	ta-le
Bokar OY	---
Padam-Mising L	ta-lap
Bengni S	ta-lap

This word usually takes the *ta- prefix. Most sources gloss this item as 'onion', but according to our Bengni consultants the plant referred to should actually be a kind of wild green onion.

slippery

PT	*lap
Apatani S	bo-le?
Bengni S	ha-lap
Bokar OY	a-lap
Padam-Mising L	be-lap

The Bokar OY form means 'glossy, smooth'.

fireplace shelf

PT	*rap
Apatani S	re?-ke?
Bengni S	rap-ki:
Bokar OY	---
Padam-Mising L	pe-rap

The Apatani S form is glossed (perhaps mistakenly) as 'ceiling, loft'.

weep

PT	*krap
Apatani S	xrje?
Bengni S	kap
Bokar OY	kap
Padam-Mising L	kap

fan

PT	*jap
Apatani S	mu-ie
Bengni S	mu-iap
Bokar OY	ma-iap
Padam-Mising L	mə-iap

This word is usually a compound with the morpheme mV- of uncertain meaning.

snot

PT	*nap~*nop	
Apatani S	ta-no?	
Bengni S	nap-li	
Bokar OY	ta-nap	
Mising L	ñop-si	initial!
Padam L	ta-ñop	initial!

The Apatani S form, which also means 'phlegm', is derived from the *-nop variant. Cf. also Nishi C ta-nap and the Mising T variant forms nap-si; nop-si; ta-ñop.

PT *-ip:

Like *-im, the status of *-ip in PT is problematic. Bokar OY does not permit such a rhyme at all. It is also a marginal rhyme in Bengni S, occurring only in one form jip 'sleep', which for the same speaker varies with jup. In Lorrain's Padam-Mising dictionary, only the following three forms with this rhyme occur: ip 'sleep' (Padam L only), kip-kap əm 'fit' (cf. kap 'of the right size') and lip-lip əm-la ki 'throb in pain', the latter two forms seem to result from reduplication and sound symbolism, respectively.

PT *-up:

This rhyme usually remains as such in languages which maintain stop codas. The more dramatic vowel shift from -u to -i (cf. PT *-um

> Apatani -ĩ) may be observed in the Apatani S forms for 'nest/lair' and 'sleep'.

Correspondence:

PT	*-up
Apatani S	-i(?)
Bengni S	-up
Bokar OY	-up
Padam-Mising L	-up

Supporting sets

nest/lair

PT	*sup
Apatani S	a-si?
Bengni S	ta:-šup
Bokar OY	a-šup
Padam-Mising L	a-sup

gadfly

PT	*jup
Apatani S	---
Bengni S	ta-jup
Bokar OY	---
Padam-Mising L	ta-jup

This word usually takes the *ta- prefix.

sit on eggs/hatch

PT	*gup
Apatani S	---
Bengni S	gup
Bokar S	gup
Padam-Mising L	gup

Cf. also Gallong DG, Milang T gup

grope

PT	*hup
Apatani s	---
Bengni S	hup-ka:
Bokar OY	hup
Padam-Mising L	up-ki

strike

PT	*tup
Apatani S	---
Bengni S	tup
Bokar OY	tup
Padam-Mising L	tup

The Bengni S form means 'smash'.

PT *-ep:

This rare rhyme seems to be kept only in Padam-Mising L. Bengni S and Bokar OY changed the main vowel to -a-. The Apatani S reflex is uncertain.

Correspondence:

PT	*-ep
Apatani S	-?
Bengni S	-ap
Bokar OY	-ap
Padam-Mising L	-ep

Supporting sets

flat

PT	*jep
Apatani S	---
Bengni S	a-jap
Bokar OY	a-jap
Padam-Mising L	a-jep

For evidence of the primacy of the -ep rhyme in Padam-Mising L, cf. the near-minimal pair provided by pə-jap 'duck'. Cf. also Milang T a-jep; Apatani S lje? 'flatten'.

hold/nip (e.g. with tweezers, chopsticks)

PT	*sep
Apatani S	---
Bengni S	šap
Bokar OY	šap
Padam-Mising L	sep

PT *-op:

PT *-op is maintained in Bokar OY and Padam-Mising L. It is reflected by -ap in Bengni S, paralleling the merger of *-om to *-am (q.v.) in this language.

Correspondence:

PT	*-op
Apatani S	-o?
Bengni S	-ap
Bokar OY	-op
Padam-Mising L	-op

Supporting sets

yeast

PT	*pop	
Apatani S	i-po?	
Bengni S	a-pap	
Bokar OY	o:-pop	
Padam-Mising L	ə-pop	

Bokar OY first morpheme means 'wine'; cf. also WT phabs.

stand up/get up

PT	*rop	
Apatani S	---	
Bengni S	dag-rap	
Bokar OY	rop	
Mising L	da-rop	< dak-rop
Padam L	dag-rep	rhyme!

In many languages, this root does not by itself mean 'stand up', but functions as an adverbial verbal particle 'up'. The Padam L variant rep is also attested in Mising T da-rop~da-rep 'get up'.

handspan

PT	*gop
Apatani S	---
Bengni S	gap
Bokar OY	gop
Padam-Mising L	pin-gop

tortoise

PT	*raŋ-kop
Apatani S	sa-mĩ ra-ko?
Bengni S	---
Bokar OY	---
Padam-Mising L	raŋ-kop

Cf. also Gallong W ˆ ra:-kop; Bori H raŋ-kot (< *-op); Nyisu H ra-kap.

PT *-at:

Modern Tani languages exhibit two different equations corresponding to -at in Mising and Padam. This indicates that the -at rhyme in Padam-Mising L has two distinct origins in PT. In the absence of Tani-internal evidence for a more precise distinction, two kinds of -at rhymes are tentatively posited for PT, -at¹ and -at².

Correspondence:

PT	*-at¹
Apatani S	-e?
Bengni S	-it
Bokar OY	-et
Padam-Mising L	-at

Supporting sets

sharp(-edged)

PT	*rat¹
Apatani S	a-re?
Bengni S	a-rit
Bokar OY	ret-po
Padam-Mising L	rat

Cf. also Milang T pi-rat; Gallong DG pe-rek 'sharpen'.

twist (strands of rope)

PT	*rjat¹
Apatani S	---
Bengni S	rit
Bokar OY	jet
Padam-Mising L	jat

Cf. also Apatani A ré-xa; Damu OY jet.

leech (land)

PT	*pat¹
Apatani S	ta-pe?
Bengni S	ta-pit
Bokar OY	ta-pet
Padam-Mising L	ta-pat

This word usually takes the *ta- prefix. Cf. also Milang T ta-pat; Bori M ta-pet; Gallong DG ta-pek.

quiver (for arrows)

PT	*gat¹-
Apatani S	a-pu a-ge
Bengni S	a-git
Bokar OY	git-buŋ
Padam-Mising L	gat-buŋ

Apatani S a-pu = 'arrow'. The Bokar OY vowel -i- (expected reflex: -et-) is most likely due to vowel assimilation. The morpheme -buŋ in Bokar OY and Padam-Mising L seems to be the classifier for long slender objects, PT *-buŋ.

write

PT	*fat¹
Apatani S	---
Bengni S	fit
Bokar OY	---
Padam-Mising L	at

Cf. also Nishi C xe?; Milang T, Mising T at; Hill Miri S het (for extra-Tani connections cf. Lepcha vót 'carve').

millet (job's tear)

PT	ñat¹
Apatani S	---
Bengni S	ta-ñit
Bokar OY	---
Padam-Mising L	a-ñat

PT *-at²:

Correspondence:

PT	*-at²
Apatani S	-a
Bengni S	-ɯ:
Bokar OY	-a:
Padam-Mising L	-at

Supporting sets

listen/hear

PT	*tat²
Apatani S	ta
Bengni S	tw:
Bokar OY	ta:
Padam-Mising L	tat

plait

PT	*prat²
Apatani S	prja-sw
Bengni S	pjw:
Bokar OY	---
Padam-Mising L	pet <*pjat<*prat

cf. also Damu OY ta-pat 'plait (n.)'; Nyisu H pla-s 'plait n.'.

vomit

PT	*b(r)at²
Apatani S	ba
Bengni S	bw:
Bokar OY	ba:
Padam-Mising L	bat

Cf, also Nyisu H bla, Milang T bot.

sprinkle/water (plant)

PT	*krat² (?)
Apatani S	---
Bengni S	tu-kjw:
Bokar OY	---
Padam-Mising L	tik-kat

cut (as in reaping crops)

PT	*gjat²
Apatani S	---
Bengni S	---
Bokar OY	ga:
Padam-Mising L	gat

Cf. also Apatani A gja.

PT *-it:

This rhyme is well maintained in the key languages. In Apatani S, -t is reduced to -?.

Correspondence:

PT	*-it
Apatani	-i(?)
Bengni S	-it
Bokar	-it
Padam-Mising	-it

Supporting sets

extinguished

PT	*mit
Apatani S	mi?
Bengni S	ñit
Bokar OY	mit
Padam-Mising L	mit

melt

PT	*jit ~ jet
Apatani S	ji-ja-nə-ku
Bengni S	jit
Bokar OY	jit
Padam L	jit~jet

Cf. also Mising T zet; Nyisu H, Damu OY ji. The *-et variant is attested only in Padam and Mising.

gnat

PT	*mit
Apatani S	ta-mi?
Bengni S	ta-ñit
Bokar OY	ta-mit
Padam-Mising L	ta-mik rhyme!

Cf. also Mising T ta-mit~ta-mik 'mosquito'; Bori M ta-mit 'fly n.'. The actual insect referred to should be 'gnat', according to the descriptions provided by our Bengni consultants.

pangolin

PT	*pit
Apatani S	si-pi
Bengni S	ši-čit lo-po:
Bokar OY	---
Padam-Mising L	si-pit

This word takes the *sa- prefix. Cf, also Bori M si-pit.

leprosy

PT	*jit	
Apatani S	---	
Bengni S	ta-jit	
Bokar OY	ta-it	
Padam-Mising L	tut	<ta-it?

Cf. also Nishi C ta-i? 'leper'; Gallong DG ta-ik (< *-it).

numb (in the feet)

PT	*le-pit
Apatani S	---
Bengni S	lu-čit
Bokar OY	---
Padam-Mising L	le-pit

The first morpheme is the 'leg/foot' root. Cf. also Apatani A lu-pi; Damu OY lə-pit.

grind (crush into powder)

PT	*rit
Apatani S	ri-mũ
Bengni S	rit
Bokar OY	---
Padam-Mising L	---

Cf. also Hill Miri S, Yano B rit. Bokar OY uses a Tibetan loan tak; Padam-Mising L ner-muk is not related.

wipe

PT	*tit
Apatani S	ti?-pa
Bengni S	tit-kak
Bokar OY	tit-kak
Padam-Mising L	tit

PT *-ut:

As in the case of the -at rhyme, Modern Tani languages also exhibit two distinct equations corresponding to -ut in Padam-Mising L. Likewise, two -ut rhymes, -ut^{1} and -ut^{2}, are tentatively posited:

PT *-ut¹:

This rhyme is maintained in Padam-Mising L. In Bengni S and Bokar OY, *-ut gives -it. The Apatani S reflexes seem to be -i? after palatal initials and -u? elsewhere. In the sets 'blow with mouth' and 'foam', it is unlikely for the -ut in Padam-Mising L to come from *-it under assimilatory influence of the labial initial, because -it and -ut are phonologically distinct even after labial consonants (cf. Padam-Mising L mut 'blow with mouth' vs. mit 'extinguished'; bit 'flow' vs. but 'sink').

Correspondence:

PT	*-ut¹
Apatani S	-u?/-i?
Bengni S	-it
Bokar OY	-it
Padam-Mising L	-ut

Supporting sets

cast (spear)

PT	*čut¹
Apatani S	či?
Bengni S	čit
Bokar OY	---
Padam-Mising L	sut

blow (with mouth)

PT	*mut¹
Apatani S	mu?(-ka)
Bengni S	mit
Bokar OY	mit
Padam-Mising L	mut

The fact that m- stays as m- before -i in Bengni S makes it clear that the PT vocalism could not have been *-i. Cf. also Milang T mut.

slip (v.)

PT	*lut¹
Apatani S	---
Bengni S	pa:-lit
Bokar OY	---
Padam-Mising L	lut

The Bengni S word means '(foot) slip; fall down face-upward'.

foam

PT	*put¹
Apatani S	---
Bengni S	ši-pit
Bokar OY	ha-pit
Padam-Mising L	a-put; su-put

abscess

PT	*čut¹
Apatani S	---
Bengni S	---
Bokar OY	ta-čit
Padam-Mising L	ta-sut

PT *-ut²:

The -ut² correspondence differs from that of -ut¹ in the presence of -u vocalism in all key languages. Further, as in the case of -at², only Padam-Mising L (and other typical Eastern Tani languages) shows the dental-stop coda -t.

Correpondence:

PT	*-ut²
Apatani S	-u
Bengni S	-u
Bokar OY	-u
Padam-Mising L	-ut

Supporting sets

sound

PT	*dut²	
Apatani S	a-du	
Bengni S	(šu) du-bu	
Bokar OY	a-tu	initial!
Padam-Mising L	a-dut	

Cf. also Bori M, Milang T a-dut. The Apatani S form is glossed 'noise'. The Bokar form means 'make a sound' and shows a voiceless onset t-.

wake up

PT	*ɦut²
Apatani S	i-mi a-hu
Bengni S	hu-rap
Bokar OY	hu-ru
Padam-Mising L	ut

honey bee

PT	*ŋut²
Apatani S	ta-ŋu
Bengni S	ŋu-ña:
Bokar OY	tu-ŋu
Padam-Mising L	ta-ŋut

The Apatani S form is glossed 'wild bee'. Cf. also Bori M ta-ŋut.

PT *-et:

This proto-rhyme is rather uncommon, but can be securely reconstructed. The Apatani S reflexes are not yet certain.

Correspondence:

PT	*-et
Apatani S	-i/-u(?)?
Bengni S	-it
Bokar OY	-et
Padam-Mising L	-et

Supporting sets

swallow (v.)

PT	*met
Apatani S	---
Bengni S	dɯ:-mit
Bokar OY	jom-met
Padam-Mising L	met

Apatani S ar-nɯ is not cognate. Cf. WT mid 'swallow v.'.

force into (a crack)

PT	*pet
Apatani S	---
Bengni S	-pit
Bokar OY	-pet
Padam-Mising L	pet

Cf. Bengni S fi-pit 'food particles stuck between teeth'.

twist/turn

PT	*vet
Apatani S	hi?-khrjɯ
Bengni S	vit
Bokar OY	jet
Padam-Mising L	et

Cf. Damu OY xət; Milang T jet.

porcupine

PT	*kret
Apatani S	sɯ-xrjɯ
Bengni S	ši-kit
Bokar OY	šə-ket
Padam-Mising L	---

Cf. also Apatani A sɯ-xɯ.

escape/flee

PT	*kat^{1}
Apatani S	---
Bengni S	kit
Bokar OY	ket
Padam-Mising L	---

Cf. also Gallong DG ken-nam (-nam =verb nominalizer) < ket-. This seems irregular as the normal Gallong DG reflex for -at^{1} is -ek. Cf. Proto-Boro *kat 'run' (Burling 1959); PLB *kyat^{H} 'run' (Matisoff 1972: #18). PTB **k(y)at 'run/escape'.

PT *-ot:

The -ot rhyme in Padam-Mising L also exhibits two equations with other Tani languages. Similarly, two PT rhymes -ot¹ and -ot² are set up accordingly. Apparently, Bengni S and Bokar OY merged *-ot¹ with *-et; however, *-ot¹ is extremely shaky since only one cognate set is available so far.

Correspondences:

PT	*-ot¹
Apatani S	-o (?)
Bengni S	-it
Bokar OY	-et
Padam-Mising L	-ot

PT	*-ot²
Apatani s	-o?
Bengni S	-u(:)
Bokar OY	-u:/o
Padam-Mising L	-ot

Supporting sets

body dirt

PT	*kot¹
Apatani s	---
Bengni S	ta-kit
Bokar OY	ta-ket
Padam-Mising L	ta-kot

This word usually takes the *ta- prefix. Cf. also Apatani A ta-ko.

rub (skin)

PT	*not²
Apatani S	---
Bengni S	nu
Bokar OY	nu:
Padam-Mising L	not

Cf. also Apatani A né.

tall/high

PT	*ñot^{2}
Apatani S	o-ho
Bengni S	a-wu:
Bokar OY	---
Padam-Mising L	ot

kindle

PT	*-not^{2}~ñot^{2}
Apatani S	---
Bengni S	pur-nu:
Bokar OY	pa-no
Mising L	par-not
Padam L	pa(r)-ñot

The first morpheme is the 'make fire' root. Cf. also Milang T čak-ñot.

PT *-ut:

The -t coda is attested in Padam-Mising L. No -ut rhyme is permitted in either Bengni S or Bokar OY. Apatani S reflexes vary between -u and -u.

Correspondence:

PT	*-ut
Apatani S	-u/-u
Bengni S	-u
Bokar OY	-u(:)
Padam-Mising L	-ut/-it (after dental onset?)

Supporting sets

undress

PT	*prut
Apatani S	prju
Bengni S	pi
Bokar OY	pi
Padam-Mising L	put

Cf. Damu OY phit; Nyisu H pla. The lost r- medial (*br- > *bj- > *b-) may have to do with the shift of the *u- vocalism to -i in Bengni S, Bokar OY. Cf. WT 'phud 'undress'.

punch (downward) with fist

PT	*kut
Apatani S	ku
Bengni S	ku
Bokar OY	ku:
Padam-Mising L	kut

hair (of body)

PT	*mut
Apatani S	a-mu
Bengni S	a-mu
Bokar OY	a-mu
Padam-Mising L	a-mut

Cf. also Bori M -mut.

seven

PT	*kV-nut
Apatani S	ka-nu
Bengni S	ka-ni
Bokar OY	ku-nu
Padam-Mising L	ki-nit

Cf. also Padam T, Mising T ku-nut; Bori M ki-nit; Minyong DG kə-nit; Damu OY ka-ne:.

PT *-ak:

This proto-rhyme gives -a? in Apatani S, and remains -ak in the other languages. Bokar OY sometimes merged this rhyme with -ok.

Correspondence:

PT	*-ak
Apatani S	-a?
Bengni S	-ak
Bokar OY	-ok/-ak
Padam-Mising L	-ak

Supporting sets

son-in-law

PT	*mak-bo	
Apatani S	ma?-bo	
Bengni S	mak-bu:	
Bokar OY	ma:-bo	rhyme!
Padam-Mising L	mak-bo	

flesh (human)

PT	*jak
Apatani S	a-ja?
Bengni S	a-jak
Bokar OY	---
Padam-Mising L	a-jak

Cf. also Bori M a-jak. In Bengni S, a-jak means rather 'body'; cf. also Nishing DG a-ja 'body'. This root might be related to Proto-Karen *hńak and Archaic Chinese ńi̯ôk (STC: 190), but the difficulty here is that.the PT initial was *j- instead of *ñ-.

carry on back

PT	*bak
Apatani S	ba?
Bengni S	bak
Bokar OY	---
Padam-Mising L	---

Cf. also Apatani W ²ba? (²); Tagin DG, Nishing DG bak; Nishi C ba?g. In Bengni S at least, this verb means specifically 'carry people on back'.

wide

PT	*tak
Apatani S	ta?(-ro)
Bengni S	tak-tu:
Bokar OY	tak-tə
Padam-Mising L	a-tak

classifier for thin, flat objects (e.g. pieces of cloth)

PT	*tak
Apatani S	ta?
Bengni S	tak
Bokar OY	tak
Padam-Mising L	tak

stand (posture)

PT	*dak
Apatani S	---
Bengni S	dak
Bokar OY	---
Padam-Mising L	dak

Cf. also Apatani W ²da?. The Bokar OY existential verb da: 'exist, stay' may be an grammaticalized form of this root.

phlegm

PT	*kak
Apatani S	---
Bengni S	ta-kak
Bokar OY	ta-kak
Mising L	ta-kak

This word usually takes the *ta- prefix. Apatani W ^{1}ar-^{2}x(rj)u looks like a possible cognate but the rhyme is unexpected. Cf. also Damu OY ta-kja? (< PT *krak?); Nishi C ta-ka?.

PT *-ik:

This rhyme is generally preserved intact, except in Apatani S where the -k coda is reduced to -?.

Correspondence:

PT	*-ik
Apatani S	-i?
Bengni S	-ik
Bokar OY	-ik
Padam-Mising L	-ik

Supporting sets

dagger

PT	*rjok-čik
Apatani S	---
Bengni S	rjuk-čik
Bokar OY	jok-čik
Padam-Mising L	jok-sik

This word is made up of *rjok 'knife' + *čik 'diminutive suffix?'.

eye

PT	*mik
Apatani S	a-mi?
Bengni S	ñik
Bokar OY	mik
Padam-Mising L	a-mik

PT *-uk:

Modern reflexes of *-uk maintain the -u vocalism throughout.

Correspondence:

PT	*-uk
Apatani S	-u(?)
Bengni S	-uk
Bokar OY	-uk
Padam-Mising L	-uk

Supporting sets

arrow

PT	*puk
Apatani S	a-pu
Bengni S	u-puk
Bokar OY	u-puk
Padam-Mising L	ə-puk

ant

PT	*ruk~*rup
Apatani S	ta-ru?
Bengni S	ta-rup
Bokar OY	ta-ruk
Padam L	ta-ruk

This word usually takes the *ta- prefix. Modern Tani cognates exhibit variation between -up and -uk. The -up forms occur in the various dialects of Bengni, Nishi and Tagin. Both variants seem to be preserved in Yano B: ruk-di 'white ant', but a-mo-li ta-rup 'red ant'. Since the rhymes *-up and *-uk are normally kept apart in modern Tani, the alternation must be attributed to proto-variation.

scoop/ladle (v.)

PT	*suk~ǰuk
Apatani S	---
Bengni S	šuk
Bokar OY	šuk
Padam-Mising L	ǰuk

heart

PT	*puk
Apatani S	---
Bengni S	ha:-puk
Bokar OY	hoŋ-puk
Mising L	a-puk
Padam L	puk-pu

Both component morphemes in the compound words for 'heart' in Bengni S and Bokar OY have the 'heart' meaning. While the *haŋ root

has a more abstract 'seat of emotion' meaning (and thus can occur in words describing emotions and personal traits, such as 'angry', 'stingy', and 'truculent'), the *puk root refers to the physical organ itself.

PT *-ek:

Like its counterpart with the velar nasal coda *-eŋ, *-ek is poorly attested.

Correspondence:

PT	*-ek
Apatani S	-i? (?)
Bengni S	-ɯk-
Bokar OY	-ɘk-
Padam-Mising L	-ek

Supporting sets:

pig

PT	*rjek
Apatani S	a-<u>ɟii?</u>
Bengni S	ɘ-<u>rjɯk</u>
Bokar OY	ɘ-<u>jɘk</u>
Padam-Mising L	e-<u>ek</u>; jek

This root cannot possibly be related to the predominant PTB 'pig' root *pwak (STC #43). Rather, it is probably a loanword from Mon-Khmer. Cf. Proto-Waic *lik (Diffloth 1980:120); Lamet lik (Lindell et al. 1978: 17); Danaw kă-<u>lék</u>^{3}; Mon cl<u>i</u>k (Luce 1965:108) 'pig'.

PT *-ok:

One of the best attested rhymes in Tani, *-ok gives -o? in Apatani, -uk in Bengni S, and stays as -ok elsewhere.

Correpondence:

PT	*-ok
Apatani S	-o(?)
Bengni S	-uk
Bokar OY	-ok
Padam-Mising L	-ok

Supporting sets

machete/dao

PT	*rjok
Apatani S	i-ljo
Bengni S	u-rjuk
Bokar OY	o-rjok
Padam L	ə-jok

This word usually takes the *a- prefix.

scratch (to stop an itch)

PT	*ñok
Apatani S	ho?
Bengni S	uk
Bokar S	hok
Padam-Mising L	ok

Cf. also Damu OY hak.

jump

PT	*pok
Apatani S	po?
Bengni S	puk
Bokar OY	pok
Padam-Mising L	pok

The Bengni S form means 'jump down or into (e.g. water)'.

chicken

PT	*rok
Apatani S	pa-ro (pa-ču)
Bengni S	pu-ruk
Bokar OY	po-rok
Mising L	po-rok
Padam L	pə-rok

This word usually takes the bird prefix *pa-.

lose (v.t.)

PT	*ñok
Apatani S	---
Bengni S	---
Bokar OY	ñe:-ñok
Padam-Mising L	ñok

Cf. also Milang T, Damu OY ñok.

PT *-ək:

This rhyme is reconstructed when Apatani S -ɯ(?) corresponds to Bokar OY and Padam-Mising L -ək. Padam-Mising L *-ək became -ek after dental and palatal initials (including palatal glide, see 'hit (target)').

Correspondence:

PT	*-ək
Apatani S	-ɯ?
Bengni S	-ɯk
Bokar OY	-ək
Padam-Mising L	-ek/-ək

Supporting sets

sweep

PT	*pək
Apatani S	ɯ-pɯ?
Bengni S	pɯk
Bokar OY	pək
Padam-Mising L	pək

knot

PT	*jək
Apatani S	---
Bengni S	jɯk-tup
Bokar OY	jək-tup
Padam-Mising L	jek-tum-nam

Cf. also Padam K so-jek.

hit (target)

PT	*bjək
Apatani S	---
Bengni S	jɯk
Bokar OY	---
Padam-Mising L	bek

Bengni S jɯk suggests an original *bj- initial.

cut up/mince

PT	*tək
Apatani S	---
Bengni S	tuk-muk
Bokar OY	tək-mak
Padam-Mising L	tek

Cf. Jingpo tǫk[55] 'cut (meat) into large pieces'; PLB *?tök 'cut by a blow'; Lushai tuk 'cut/chop'(Matisoff 1972: #101).

cloud

PT	*mək~*muk
Apatani S	jo-mu?~ŋo-mu?
Bengni S	do:-muk
Bokar OY	doŋ-muk
Padam-Mising L	do-muk

Cf. Mising T muk-kaŋ 'cloud'; Bokar M do-muk. Many Tani languages use the same root for both 'cloud' and 'fog'. This word usually takes the 'weather' formative *doŋ-. The Apatani S and Bengni S forms suggest rather *-ək.

PT *-uk:

This rhyme is kept in most key languages. Padam-Mising L turned it into -ik after dental and palatal initials (Padam L shows variations between -ik and -uk according to Lorrain 1907; Padam T, however, seems to preserve the -uk rhyme).

Correspondence:

PT	*-uk
Apatani S	-u(?)
Bengni S	-uk
Bokar OY	-uk
Padam-Mising L	-uk/-ik

Supporting sets

stab

PT	*nuk
Apatani S	nu?
Bengni S	nuk
Bokar OY	nuk
Padam-Mising L	nik

poison (generic)

PT	*duk
Apatani S	---
Bengni S	du-duk
Bokar OY	duk
Padam-Mising L	dik

Cf. also Hill Miri S čum-duk; Tagin DG čom-dik.

hot (spicy)

PT	*tuk~duk
Apatani S	u-du?
Bengni S	u-tuk
Bokar OY	a-tuk
Padam-Mising L	dik

swidden

PT	*ruk
Apatani S	---
Bengni S	ruk-pa:
Bokar OY	a-ruk
Padam-Mising L	a-rik

Cf. Padam T a-ruk.

pour

PT	*luk
Apatani S	ti-lu
Bengni S	pu-luk
Bokar OY	luk
Padam-Mising L	lik

Cf. Padam T -luk. The Padam-Mising L form is glossed 'put in (pot, bottle, hole, etc.)'. *-luk is used as a verbal particle in Bengni S and Apatani S. Cf. extra-Tani cognate: Nocte lok (TBT).

exchange

PT	*luk
Apatani S	---
Bengni S	luk mu-šu
Bokar OY	luk-ra:
Padam-Mising L	lik-su

Cf. also Apatani A lu-su; Adi (Bodman 1988) luk.

frog

PT	*tɯk
Apatani S	ta-tɯ?
Bengni S	ta-tɯk
Bokar OY	ta-tɯk
Padam-Mising L	ta-tɯk~tik

This word usually takes the prefix *ta-.

louse (head)

PT	*ɟɯk
Apatani S	ta-xɾiɯ?
Bengni S	ta-ɟɯk
Bokar OY	ta-iɯk
Mising L	ta-ik
Padam L	tɯk < ta-ɯk

This word usually takes the prefix *ta-.

powder

PT	*mɯk
Apatani S	pa-mɯ?
Bengni S	a-mɯk
Bokar OY	a-mɯk
Padam-Mising L	pe-mɯk

cave

PT	*pɯk
Apatani S	ja-lã̄ lum-pɯ
Bengni S	lɯŋ-pɯk
Bokar OY	lɯŋ-pɯk
Padam-Mising L	sap-pɯk

The Bengni S word really means 'place along mountain path shaded by overhanging cliff'.

right (hand)

PT	*lak-bɾɯk
Apatani S	la?-bi
Bengni S	lak-bik
Bokar OY	lok-bik
Padam-Mising L	lak-bɯk

For direct evidence of the *br- cluster see also Nyisu H la-blɯ; Damu OY la?-bjuk. The lost r- medial (*br- > *bj- > *b-?) may have also caused the shift of the *ɯ- vocalism to -i in Apatani S, Bengni S, and Bokar OY.

2.3.2.4. Rhymes with the *-r Coda

The -r coda is present in all known varieties of modern Tani and is solidly reconstructible to PT. The observed modern Tani reflexes suggest the following PT -r rhymes (the unattested rhyme *-ir is enclosed in parentheses; the rare rhyme **-er is marked by double asterisks).

-ar (-ir) *-ur **-er *-or **-ər *-ur

PT *-ar:

This rhyme survived in Bokar OY and Padam-Mising L. Bengni S, and in certain cases Apatani S also, turned *-ar to -ur.

Correspondence:

PT	*-ar
Apatani S	-ur/-ar
Bengni S	-ur
Bokar OY	-ar
Padam-Mising L	-ar

Supporting sets

star

PT	*kar
Apatani S	ta-kur
Bengni S	ta-kur
Bokar OY	ta-kar
Padam-Midsing L	ta-kar

thigh/leg

PT	*far
Apatani S	har-lã
Bengni S	fur-po:
Bokar OY	---
Padam-Mising L	ar-bjaŋ

Damu OY xar-ba; cf. also Hill Miri S, Bori M har-, Gallong DG ar-. In Bengni S, fur mean 'leg'.

borrow/lend

PT	*nar
Apatani S	nar
Bengni S	nur
Bokar OY	nar
Padam-Mising L	nar

Cf. Takhali ŋyar^{fi}-; Takpa ɲar^{13}.

mortar

PT	*par
Apatani S	ja-pur
Bengni S	čiŋ-pur
Bokar OY	ta-par
Padam-Mising L	ki-par

This could be a Mon-Khmer loan, cf. Proto-Wa-Lawa (Palaungic) *pɒr/l 'mortar' (Diffloth 1980:152).

edge (of knife)

PT	*ɦar
Apatani S	---
Bengni S	(rjuk-)hur
Bokar OY	ar
Padam-Mising L	ar

Cf. also Damu OY jok-har; Apatani À hár 'cut (animals after killing them)'.

ignite

PT	*par
Apatani S	---
Bengni S	pur
Bokar OY	---
Padam-Mising L	par

Cf. Bengni S u-mu: pur 'make a fire'; Cf. also Nyisu H par.

PT *-ur:

The vocalism -u- is kept in all key languages except Bengni S, where *-ur went to -ur.

Correspondence:

PT	*-ur
Apatani S	-ur
Bengni S	-ur
Bokar OY	-ur
Padam-Mising L	-ur

Supporting sets

alive

PT	*tur
Apatani S	tur
Bengni S	a-tur
Bokar OY	tur
Padam-Mising L	tur

back (adv.)

PT	*kur
Apatani S	kur
Bengni S	kur
Bokar OY	kur
Padam-Mising L	---

Padam-Mising L uses a different root -lat. Cf. also WT 'khor 'go back'; Lushai kîr 'ditto'.

PT *-er:

This rhyme is poorly attested.

Correspondence:

PT	*-er
Apatani S	-ur
Bengni S	-ir
Bokar OY	-?
Padam-Mising L	-er

spark

PT	*me-jer?
Apatani S	mu-jur
Bengni S	mu-jir
Bokar OY	---
Padam-Mising L	me-jer

Cf. Lahu à-mī=jɨ?.

PT *-or:

The -o- vocalism is maintained in all key languages except Bengni S, where *-or became -ur.

Correspondence:

PT	*-or
Apatani S	-or
Bengni S	-ur
Bokar OY	-or
Padam-Mising L	-or

Supporting sets

take a step

PT	*kor
Apatani S	---
Bengni S	kur
Bokar OY	kor
Padam-Mising L	kor

Cf. also Gallong DG kor.

distribute

PT	*hor
Apatani S	---
Bengni S	hur
Bokar OY	---
Padam-Mising L	or

Cf. Damu OY xor-pan; Gallong DG or-si; Hill Miri hor-mi-si.

shallow/thin (paper)

PT	*bV-čor
Apatani S	---
Bengni S	bu-čur
Bokar OY	be-čor
Padam-Mising L	be-šor

The Padam-Mising word now means only 'thin'.

shoulder

PT	*gor
Apatani S	gor-bã
Bengni S	gur-buŋ
Bokar OY	gur-buŋ
Padam-Mising L	gor-duŋ

Cf. also Milang T keŋ-gor; Tagin DG gor-biŋ; Bori M gor-bwŋ. Tani languages differ in the component morphemes of this compound word. The morpheme *gor- is predominant, usually occupying the first position. The other component is usually *-bwŋ, a morpheme of uncertain meaning but occurring also in words for 'knee' (q.v.). An educated guess is that *bwŋ means 'joint', but it is not used in such other joints of the body as 'knuckle' and 'elbow' (q.v.).

panji (pointed spike)

PT	*ñor
Apatani S	---
Bengni S	u-hwr
Bokar OY	---
Padam-Mising L	or

classifier for flat, thin objects

PT	*bor
Apatani S	---
Bengni S	---
Bokar OY	bor
Padam-Mising L	bor

Cf. also Nyisu H -bor.

PT *-ər:

This rare rhyme is tentatively posited if Apatani S shows -ur corresponding to Bokar OY and Padam-Mising L -ur/-ər.

Correspondence:

PT	*-ər
Apatani S	-ur
Bengni S	-ur
Bokar OY	-ər/ur
Padam-Mising L	-ər/ur

Supporting sets

crooked

PT	*gər
Apatani S	lu-gur ba-gur
Bengni S	---
Bokar OY	pa-gur
Padam L	gər; (in compounds)-gur

Cf. also Damu OY gar-gər; Gallong W ˆku:-gər.

wrist

PT	*lak-ŋər?	
Apatani S	la?-ŋur	
Bengni S	---	
Bokar OY	lok-ŋər	
Padam-Mising L	lak-ŋar	rhyme!

PT *-ur:

This rhyme is posited where Apatani S shows -ar corresponding to -ur in the other key languages.

Correspondence:

PT	*-ur
Apatani S	-ar
Bengni S	-ur
Bokar OY	-ur
Padam-Mising L	-ur

Supporting sets

poisonous snake/viper

PT	*bur-taŋ
Apatani S	---
Bokar OY	bur-toŋ
Bengni S	bur-ta:
Padam-Mising L	---

sister (younger)

PT	*bur-mə:
Apatani S	bar-mu
Bengni S	bur-mə:
Bokar OY	bur-mə:
Padam-Mising L	bur-mə

wash

PT	*hur
Apatani S	har
Bengni S	hur
Bokar OY	hur
Mising L	ur
Padam L	ur~ar

Cf. Mising T ur; Damu OY xər. The Apatani S form means 'bathe'. The Bokar OY form appears in hur-šu: 'wash (one's own) face'. In Bengni

S, hur- refers to washing anything other than faces (mo:-mit) and hands (lə-šuk < lak-šuk).

break (st. stiff with hand)

PT	*tur~dur
Apatani S	dar~tar
Bengni S	tur
Bokar OY	dur
Padam-Mising L	dir~tir

At least in Padam-Mising L, voicing seems to be conditioned by transitivity: dir '(of something stiff) be broken' vs. tir 'break (something stiff)'. This may also be true of the Apatani S alternants. If so, this would constitute one of the rare simplex-causative pairs attested in this branch of Tibeto-Burman.

root

PT	*pur?
Apatani S	---
Bengni S	---
Bokar OY	pa-pur
Padam-Mising L	a-pur; le-pur

Cf. also Bori M ap-pur.

2.3.2.5. Rhymes With the *-l Coda

The *-l coda survives only in such Eastern Tani languages like Padam L and Milang T; elsewhere, -l rhymes collapsed with corresponding ones ending in -r. Probing the history of these rhymes is not an easy task, since internal lexical divergence makes pan-Tani cognates extremely hard to find. The supporting examples that have already been uncovered, nevertheless, leave little room for doubt that at least the following -l rhymes must be part of the system of PT rhymes (the unattested rhyme *-əl is enclosed in parentheses; the rare rhyme **-ul is marked by double asterisks)):

*-al *-il *-ul *-el *-ol (*-əl) **-ul

PT *-al:

This PT rhyme is maintained in Milang T and Padam L. Elsewhere it seems to have fallen together with *-ar. The Apatani S and Bokar OY reflexes are still unknown.

Correspondence:

PT	*-al
Apatani S	-?
Bengni S	-ur
Bokar OY	-?
Mising L	-ar
Padam L	-al

Supporting sets

callus

PT	*tal
Apatani S	---
Bengni S	-tur
Bokar OY	---
Padam-Mising L	-tal

Bokar S a-šur is not cognate. Cf. also Lahu dā (Prof. Matisoff, p.c.).

classifier for round flat objects (e.g. coins)

PT	*bal
Apatani S	bar
Bengni S	---
Bokar OY	---
Mising L	bar
Padam L	bal

Cf. Milang T bal. Cf. Milang a-bal 'money'; Mising L a-bar 'a rupee'. Is this a loanword? If so, wherefrom? (These forms are not marked as loans from Indic languages in the Indian publications)?

PT *-il:

This PT rhyme is maintained in Padam L. Milang T changed the vocalism to -a-. Elsewhere *-il merged with *-ir.

Correspondence:

PT	*-il
Apatani S	-ar
Bengni S	-ir
Bokar OY	-ir
Mising L	-ir
Padam L	-il

Supporting sets

laugh

PT	*ŋil
Apatani S	ŋar
Bengni S	ñir
Bokar OY	ñir
Mising L	jir
Padam L	ŋil

Cf. also Milang T ŋal.

fold (v.t.)

PT	*pil
Apatani S	pu-lje per rhyme!
Bengni S	---
Bokar OY	---
Mising L	pir

Cf. also Milang T čal; Nyisu H čir-kur; Bodman 1987:10 cites an (Padam?) Adi form pil. Cf. Garo bi?l 'roll up' (Burling 1992:4).

boil (water)

PT	*kil
Apatani S	čar-grju
Bengni S	---
Bokar S	---
Mising L	kir-gu
Padam T	kil

Cf. also Damu OY kir; Nyisu H čir; Tagin DG čar; Milang T kal. Bokar OY ke: and Bengni S ku: do not seem to be cognate. Cf. WT skol 'boil (water)' Sunwar 'khir 'boil (food)'.

PT *-ul:

This rhyme survives in Milang T and Padam L. Elsewhere it has fallen together with *-ur. The Apatani S reflex is unclear.

Correspondence:

PT	*-ul
Apatani S	-ur (?)
Bengni S	-ur
Bokar OY	-ur
Mising L	-ur
Padam L	-ul

Supporting sets

help (v.t.)

PT	*gul
Apatani S	---
Bokar OY	---
Bengni S	---
Padam DG	-gul

The concept of 'help' is expressed in Tani via a verbal particle placed after the verb root. This root, unfortunately, seems to be an Eastern Tani root unattested in either Apatani, Bokar, or Bengni. Cf. also Gallong DG -gur; Milang T -gul.

amiss (verbal particle)

PT	*mul
Apatani S	---
Bengni S	---
Bokar OY	-mur
Mising L	-mur
Padam L	-mul

This root does not appear in Western Tani. Cf. also Gallong DG i-mur 'make mistake'.

seedling

PT	*čul
Apatani S	---
Bengni S	---
Bokar OY	---
Mising L	mu-sur

Cf. also Padam T am-sul 'rice plant'; Milang pim-sul; Damu OY, Bori M a-čur.

spittle

PT	*kjul?
Apatani S	či-kur
Bengni S	ta-čur
Bokar OY	ta-čur
Mising L	ta-kir
Padam L	ta-kil

Forms like the Bokar OY -čur suggest original rounded vocalism. Cf. also Gallong DG ta-čur; Hill Miri S tu-čur; Gallong W ˆ ta-sur; Tagin DG ta-čor. The presence of the palatal glide, necessary to explain the Bengni S and Bokar OY palatalized onsets and directly attested in Damu OY ta-kjer, may have been responsible for the unrounded vowels in the other Tani forms.

PT *-el:

This rhyme is also maintained in Milang T and Padam L; elsewhere it merged with *-er. The Apatani S and Bokar OY reflexes are not yet available.

Correspondence:

PT	*-el
Apatani S	-?
Bengni S	-ur
Bokar OY	-?
Mising L	-er
Padam T	-el

Supporting sets

lip

PT	*bel
Apatani S	---
Bengni S	a-kuŋ gam-bur
Bokar OY	---
Mising L	nab-ber
Padam T	nap-bel

Cf. also Bori M nop-ber; Milang T ñuk-pak nap-bel. Cf. Matisoff 1976:270.

one

PET	*tel
Apatani S	---
Bengni S	---
Bokar OY	---
Mising L	a-ter
Padam L	a-tel

This is an Eastern Tani root. Cf. also Milang T a-tel.

PT *-ol:

This PT rhyme survived only in Milang T and Padam L. The Apatani S reflex is still uncertain.

Correspondence:

PT	*-ol
Apatani S	-?
Bengni S	-ur
Bokar OY	-or
Mising L	-or
Padam L	-ol

Supporting sets

strong

PT	*tol
Apatani S	---
Bengni S	a-tur
Bokar OY	tor
Mising L	tor
Padam L	tol

The Apatani S form ta?-mo is not cognate. Cf. also Milang T tol.

enemy

PT	*rol
Apatani S	---
Bengni S	---
Bokar OY	---
Padam T	mi-rol

Apatani S a-ha ba-nu mju, Bengni S ñi: muŋ-ru-bu:, and Bokar OY guŋ-ñiŋ are not cognate. Cf. also Milang T ma-rol. Note the interesting Bori M form mi-lor; with apparent metathesis of the original initial and final consonants.

earthworm

PT	*tol~ *dol
Apatani S	dor-gi
Bengni S	ta-twr
Bokar OY	ta-tor
Padam-Mising L	dor-kaŋ

Note the variable initial voicing. Cf. also Bokar M dor-kaŋ. The -l is preserved in the fascinating Padam-Mising L variant doŋ-kal (< *dol-kaŋ) with the two codas metathesized, and -l instead of -r. Cf. Rawang ber-dal, Dulong (Dulonghe dialect) pɯ^{31}dǎl^{53} 'earthworm'; Maring tal, Manipuri til 'worm'.

PT *-wl:

This is a shaky rhyme, the reconstruction of which is motivated mainly by the Apatani reflex -wr. The expected Apatani S reflex of *-il is *-ar.

classifier for small round objects

PT	*pjwl
Apatani S	pwr
Bengni S	čwr
Bokar OY	a-pir
Mising L	pir
Padam L	pil

The element occurs as the second syllable of the following forms meaning 'kidney': Bengni S ki:-čwr, Bokar OY ka-pir, Padam-Mising L kat-pil.

2.4. Summary of Correspondences

2.4.1. Initial Correspondences

PT	Apatani S	Bengni S	Bokar OY	Padam L	Mising L
*p-	p-	p-	p-	p-	p-
*b-	b-	b-	b-	b-	b-
*m-	m-	m-	m-	m-	m-
*f-	h-/x(rj)-	f-	h-/j-	0-	0-
*v-	h-	v-	h-/0-	0-	0-
*t-	t-	t-	t-	t-	t-
*d-	d-	d-	d-	d-	d-
*n-	n-	n-	n-	n-	n-
*s-	s-	š-	š-	s-	s-
*z-	j-	s-	j-	s-/j-	j-
*r-	r-	r-	r-	r-	r-
*l-	l-	l-	l-	l-	l-
*č-	č-	č-	č-	s-	s-
*j-	j-	j-	j-	j-	j-
*ñ-	ñ-	ñ-	ñ-	ñ-	ñ/j-
*j-	j-	j-	j-	j-	j-
*k-	k-	k-	k-	k-	k-
*g-	g-	g-	g-	g-	g-
*ŋ-	ŋ-	ŋ-	ŋ-	ŋ-	ŋ-
*h	h-	h-	h-	0-	0-
*ɦ	h-	h-/0-	h-/j-	0-	0-
*0-	0-	0-	0-	0-	0-

PT	Apatani S	Bengni S	Bokar OY	Mising L	Padam L
*pr-	p(ʰ)rj-	pj-	p(j)-	p(j)-	p-
*br-	b(rj)-/br-	b(j)-	b(j)-	b-	b-
*mr-	mrj-	mj-/ñ-	m-	m-	m-
*kr-	xrj-	k(j)-	k(j)-	k-	k-
*gr-	grj-	g(j)-	g-	g-	g-
*pj-	prj-	č-	pj-	p(j)-	p(j)-
*bj-	brj-	ǰ-	bj-	b-	b-
*mj-	?-	ñ-	mj-/ñ-	m-/-(m)ñ-	m-/-mj-
*rj-	lj-	rj-	j-	j-/0-	j-/0-

2.4.2. Rhyme Correspondences

*-a	-a	-a	-a	-a	-a
*-a:	-a	-ɯ:	-a:	-a	-a
*-i	-i	-i	-i	-i	-i
**-i:	-i	-i:	-i:	-i	-i
*-u	-u	-u	-u	-u	-u
**-u:	?	-u:	-u:	-u	-u
*-e	-i/-e	-i(:)	-e(:)	-e	-e
*-e:	-i/-e	-i:	-e:	-e	-e
*-o	-o	-u(:)	-o	-o	-o
*-o:	-o	-u:	-o:	-o	-o
*-ə	-ɯ/-u	-ɯ(:)	-ə(:)	-ə	-ə
*-ə:	-ɯ	-ɯ:	-ə:	-ə	-ə
*-ɯ	-u	-ɯ/-i	-ɯ(:)	-ɯ	-ɯ
*-ɯ:	-u	?	-ɯ:	-ɯ	-ɯ

PT	Apatani S	Bengni S	Bokar OY	Mising L	Padam L
*-am	-ẽ/-ĩ	-am	-am	-am	-am
**-im	-ĩ	-in	-?	-in	-im
*-um	-ĩ	-um	-um	-um	-um
**-em	-ũ(?)	-am	-?	-em	-em
*-om	-õ/-o	-am	-om	-om	-om
*-an	-ẽ	-in	-en	-an	-an
*-in	-ĩ	-in	-in	-in	-in
*-un	-u	-uŋ	-uŋ	-un	-un
*-en	-ĩ	-in	-en	-en	-en
*-on	-õ/-ũ	-in	-en	-on	-on
*-ɯn	-ĩ	-in	-in	-in	-ɯn
*-aŋ	-ã	-a:	-oŋ/-aŋ	-aŋ	-aŋ
*-iŋ	-ã	-iŋ	-iŋ	-iŋ	-iŋ
*-uŋ	-u	-uŋ	-uŋ	-uŋ	-uŋ
**-eŋ	-?	-iŋ	-əŋ	-eŋ	-eŋ
*-oŋ	-o	-o:	-oŋ	-oŋ	-oŋ
*-əŋ	-ɯ	-ɯŋ	-əŋ	-əŋ	-əŋ
*-ɯŋ	-ã	-ɯŋ	-ɯŋ	-ɯŋ	-ɯŋ
*-ap	-e?/-i?	-ap	-ap	-ap	-ap
*-up	-i?	-up	-up	-up	-up
**-ep	-?	-ap	-ap	-ep	-ep
*-op	-o?	-ap	-op	-op	-op
*-at[1]	-e?	-it	-et	-at	-at
*-at[2]	-a	-ɯ:	-a:	-at	-at
*-it	-i?	-it	-it	-it	-it
*-ut[1]	-u?/-i?	-it	-it	-ut	-ut
*-ut[2]	-u	-u	-u	-ut	-ut
*-et	-?	-it	-et	-et	-et
**-ot[1]	-o (?)	-it	-et	-ot	-ot
*-ot[2]	-o (?)	-u(:)	-u:/-o	-ot	-ot
*-ɯt	-ɯ/-u	-ɯ	-ɯ(:)	-ɯt	-ɯt
*-ak	-a	-ak	-ak/-ok	-ak	-ak

PT	Apatani S	Bengni S	Bokar OY	Mising L	Padam L
**-ik	-i?	-ik	-ik	-ik	-ik
*-uk	-u?	-uk	-uk	-uk	-uk
**-ek	-i?	-ɯk	-ək	-ek	-ek
*-ok	-o?	-uk	-ok	-ok	-ok
*-ək	-ɯ?	-ɯk	-ək	-ek/-ək	-ek/-ək
*-ɯk	-ɯ?	-ɯk	-ɯk	-ik/-ɯk	-ɯk?
*-ar	-ɯ̃r/-ar	-ɯr	-ar	-ar	-ar
*-ur	-ur	-ɯr	-ur	-ur	-ur
**-er	-ɯr	-ɯr	-?	-er	-er
*-or	-or	-ɯr	-or	-or	-or
**-ər	-ɯr	-ɯr	-ər/-ɯr	-ər/-ɯr	-ər/-ɯr
*-ɯr	-ar	-ɯr	-ɯr	-ɯr	-ɯr
*-al	-?	-ɯr	-?	-ar	-al
*-il	-ar	-ɯr	-ir	-ir	-il
*-ul	-ɯr (?)	-ɯr	-ur	-ur	-ul
*-el	-?	-ɯ	-?	-er	-el
*-ol	-?	-ɯr	-or	-or	-ol
**-ɯl	-ɯr	-ɯr	-ir	-ir	-il

Chapter III

Internal Relations Among Tani Languages

3.0. Introduction

The subrelations of languages in the Tani branch have never been exhaustively explored. As stated, this task has been hampered, first of all, by the unfeasibility of a systematic dialect survey of the Tani-speaking area. The dearth of descriptive data is compounded by the familiar problem of the dialect continuum. As pointed out earlier, the Tani language area, barring a few deviant outliers, seems to consist of chains of mutually intelligible village dialects spread over an extensive territory. However, the linguistic material accumulated over the decades allows at least a **rudimentary** subclassification to be made. In fact, some concrete classificatory suggestions have already been put forward in the literature (e.g. Nishida 1979:77; Marrison 1988:206), although the factual basis underlying these proposals has never been made explicit. Some of these subgrouping proposals will be briefly examined in section 3.1. In section 3.2, a selected number of Tani languages are explored, resulting in the discovery of a number of important phonological and lexical isoglosses. These isoglosses constitute the empirical basis for the broad subgrouping of Tani languages proposed in section 3.4. The more problematic languages, Apatani S, Damu OY, and Bokar OY, are also discussed in this section. Section 3.4 is devoted entirely to the characterization of the strikingly

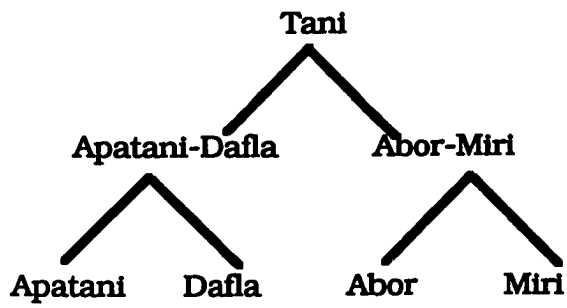
deviant Milang language with the aim of assessing its position on the Tani family tree. Section 3.5 concludes this chapter with a provisonal stammbaum which summarizes the presently understood subrelations among the Tani languages included for consideration.

In addition to the five key languages on which the reconstruction of PT is based, the following nine varieties of modern Tani are also taken into account: Bori M, Damu OY, Gallong DG, Hill Miri S, Milang T, Nishing DG, Nyisu H, Tagin DG, and Yano B.

3.1. Existing Proposals

There has been consensus since the beginning of research on these languages that Abor, Miri, and Dafla, the three best-known Tani 'languages', Abor and Miri are more closely related to each other than either is to Dafla (Brown 1837;[99] Konow 1909a; Shafer 1955; Morgenstierne 1959). Hamilton, author of one of our earliest sources on Dafla, further pointed out that Dafla is closest to Apa Tanang (i.e. Apatani). On this view, the interrelationship of Tani languages can be roughly depicted as follows:

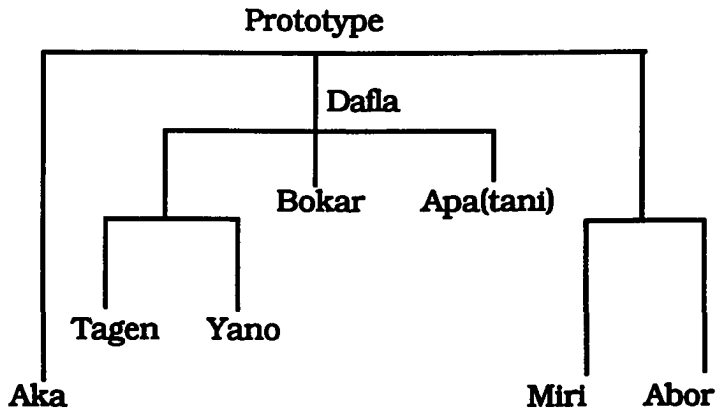
[99]In this paper (which is probably the oldest source on Tani languages), Brown compares two varieties of Tani, Abor and 'Aka'. The latter emphatically does not refer to Hruso (Non-Tani), but a variety of Bengni very close to Yano B and Robinson 1851's Bangni (note the characteristic ***sa-** prefix in such body part words as **sa-la** 'bone' and **sa-pen** 'skin' cf. Yano B **so-lo** 'bone', **su-pin** 'skin').



A similar view is expressed in Marrison 1988:206:

> ...these (i.e. Tani) languages show fairly close similarities one to another, the main division being between the Dafla languages, together with Apatani in the west, and the Adi languages of the hills of Siang, together with the Miris of the Brahmaputra plain.

Nishida 1984 contains a tentative classification of Tani, which incorporates Bokar Adi (his 'Luoba'):



The inclusion of Aka (i.e. Hruso) as a **coordinate** to the Abor-Miri and Dafla subgroups in Nishida's framework is unwarrantable, since Aka seems to belong to a separate group of Tibeto-Burman with rather distant affinity to Tani proper, as we will show later in the dissertation.[100] Nishida's decision to group Bokar with Dafla rather than with Abor-Miri, despite the fact that Bokar is considered a northern Adi tribe, is insightful but unexplained. None of these subgrouping proposals is fully adequate, however. First, many recorded varieties of Tani, such as Milang T, Hill Miri S, and Tagin DG, do not figure at all in these classifications, despite previously existing sources (Simon 1976, Das Gupta 1983, etc.). More importantly, they remain suggestive but unsubstantiated claims since no empirical criteria for the proposed groupings are explicitly given.

3.2. Methodological Perspectives

A rigorous subclassification of related languages is normally established through uncovering in a purported subgroup **exclusively shared innovations** of replacement or addition. These innovations in turn imply a period of common prehistory exclusively shared by the languages in this subgroup (Hoenigswald 1966, Hock 1986:15.3). Under ideal conditions, boundaries between distinct subgroups will be demarcated by bundles of isoglosses each of which is defined by a shared innovative linguistic feature.[101] In practice, however, criss-

[100]As fully demonstrated more than forty years ago in Shafer 1947. This fact is also clear to the authors of the various handbooks of Arunachal Pradesh languages.

[101]In theory, isoglosses may comprise shared features from any linguistic component; for various reasons, though, lexical features have not always gone hand in hand with

crossing of isoglosses are the rule rather than the exception, and clear-cut dialect boundaries are rarely found, especially in compact language groups like Tani, which is roughly comparable to Germanic in time depth and internal diversification, and sharing with it problems of dialect continuua and dialect mixture owing to prolonged mutual contact. We believe that, at least at the present stage of our comparative research, it may be more realistic to adopt a prototype approach to tackling Tani dialect affiliations.[102] That is, selected linguistic (in this work, phonological and lexical) isoglosses are used to define broad subgroups within Tani, each one with prototypical or central members where the characteristic features of the group are fully represented, as well as less typical or peripheral members where the defining features are only partially present. Put differently, we make provision for dialect subgroups with fuzzy edges and even borderline cases between major subgroups.[103]

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phonological ones in subclassifying Tibeto-Burman languages. Thus, the subgrouping of Loloish has been done solely on the basis of phonological isoglosses (Matisoff 1972 and Bradley 1978). On the other hand, the subclassification of Bodo-Garo (Burling 1959), Northern Naga (French 1983), and southern Chin (So-Hartman 1988) was based exclusively on lexicostatistics (cognacy count only, no actual lexical isoglosses provided).

[102]While this approach is an expedient for representing what we know so far in our ongoing investigation of the internal relations of Tani, it may turn out to be a realistic way of looking at subrelations among compact language groups in general, which, on account of complex criss-crossing of isoglosses and dialect continua, do not yield non-arbitrary, clear-cut tree-diagrams.

[103]Borderline cases or fence-straddlers are by no means uncommon in Tibeto-Burman, the best example being Jingpo (Kachin), which shows affinities with many Tibeto-Burman groups, especially Lolo-Burmese (Matisoff 1974) and Baric (Benedict 1976; French 1983: 5.2.3; Weidert 1987:fn.22). Nishida has proposed to refer to such transitional Tibeto-Burman members as **'link languages'** (Nishida 1979a).

3.2.1. Phonological Isoglosses

In searching for diagnostic phonological innovations, we obviously have in mind sound changes that are relatively widespread in order to formulate broad groupings. However, some widely observed sound changes in Tani may exemplify **parallel developments** and hence are of no use for subgrouping. For example, all modern Tani languages seem prone to drop the velar nasal coda -ŋ, a tendency which might have been latent in the proto-language itself. Also, all known Tani languages except Padam and Milang have participated in the shift of PT *-l to -r. The shared retention of this relic feature in Padam and Milang in itself is no proof that these two languages show a particularly close relationship. Other sound changes are restricted to individual languages and are equally useless for global subclassification. Consider for instance the shift from PT *-ap to -ot in Bori M (e.g. Bori M a-lot < PT *lap 'wing'), or the development of the same PT rhyme into -e? in Apatani S (e.g. Apatani S a-le? 'wing').

At the present stage of comparative Tani linguistics, we do not have sufficient data for fully recognizing the sound laws operating in all recorded Tani varieties. Yet, we have turned up at least the four important sound changes discussed below, which show promise as diagnostic phonological isoglosses in Tani.

Comparative evidence reveals that some varieties of Tani, turned the original velar initials into palatals before high front vowels and the palatal medial -j. This sound change, which will be referred to as **velar palatalization**, yields the first important phonological isogloss. Consider the following sets:

'ill' (< PT *ki):

Apatani S	a-či	Bori M	ki
Bengni S	a-či	Damu OY	kji
Bokar OY	a-či	Milang T	a-ki
Gallong DG	a-č(~s)i	Mising L	ki
Hill Miri S	e-či	Padam T	ki
Nishing DG	i-či		
Nyisu H	ač		
Tagin DG	či		
Yano B	a-či		

'know' (< PT *ken):

Apatani S	čin	Bori M	kin
Bengni S	čin	Damu OY	ken
Bokar OY	čen	Milang T	---[104]
Gallong DG	čen	Mising L	kin
Hill Miri S	čin	Padam T	ken
Nishing DG	čiŋ		
Nyisu H	čen		
Tagin DG	čin		
Yano B	čin		

This isogloss yields the following grouping:

A. **Innovating languages**: Apatani S, Bengni S, Bokar OY, (Damu OY),[105] Gallong DG, Hill Miri S, Nishing DG, Nyisu H, Tagin DG, Yano B.

---

[104]The Milang T form hu is unrelated.

[105]Damu OY seems to participate in this sound change to a lesser extent than the other innovating languages. For one thing, velar palatalization seems to apply only before vowel *-i (before *-e, *k- remains unaltered, cf. /ken/ 'to know'); moreover, the output of the palatalization rule is the **palatalized stop** /kj/ (phonetically [c]), rather than a **palatal affricate** as in the other languages. Interestingly, Damu OY seems to have developed a phonemic contrast between the palatalized stop /kj/ (< PT *k-) and the velar stop /k/ (< PT *kr-) **before the vowel -i**. Contrast Damu OY /kji/ 'ill' and /a-ki:/ 'intestines' < PT *kri. This state of affairs could have resulted from two

B. **Other**: Bori M, Milang T, Mising L, Padam T.

Another type of palatalization process attested in a subset of the languages compared affected the original labial initials before the high front vowel *-i or the palatal medial -j. The effect of this sound change, referred to hereafter as **labial palatalization**, can be observed in the following sets:

'eye' (< PT *mik):

Bengni S	ñik	Apatani S	a-mi?
Gallong DG	a-ñik	Bokar OY	mik
Hill Miri S	e-ñik	Bori M	a-mik
Nishing DG	i-ñik~a-ñik	Damu OY	a-mik
Nyisu H	a-ñi	Milang T	a-mik
Tagin DG	ñik	Mising L	a-mik
Yano B	ñek	Padam T	a-mik

'man (homo)' (< PT *mi):

Bengni S	ñi:	Apatani S	mju < /mi-ju/
Gallong DG	ñi	Bokar OY	mi:
Hill Miri S	ñi	Bori M	a-mi
Nishing DG		ñi Damu OY	a-mi
Nyisu H	ñi:	Milang T	mi
Tagin DG	ñi	Mising L	a-mi
Yano B	(baŋ-ni)[106]	Padam T	a-mi

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chronologically ordered sound changes in Damu OY: (1) PT *k- > Damu kj- /___*-i; (2) PT *kr- > Damu k-.

[106]This is both the self-designation of the Yano Bengnis and the general word for 'man, person'. The second syllable -ni does not seem to come from the PT 'man, person' root *mi, because it contains a dental, rather than a palatal, nasal initial. Cf. also the Bengni S cognate buŋ-ni:. We now believe that this is the same morpheme as the second syllable of Tani (phonetically [ta-ni:]), the name of the legendary common ancestor Abo Tani of the Tani people.

This time, a slightly different grouping is derived:

A. **Innovating languages**: Bengni S, Gallong DG, Hill Miri S, Nishing DG, Nyisu H, Tagin DG, and Yano B.

B. **Other**: Apatani S, Bokar OY, Bori M, Damu OY, Milang T, Mising L, and Padam T.

Another significant sound shift in which only some Tani languages participated is the reduction of the PT consonant cluster *rj- to j-/0-. This sound change, termed henceforth **deliquidation**, is exemplified by the following sets:

'bow (weapon)' (< PT *rji):

Bokar OY	i: (/i-ji/)	Apatani S	a-li
Bori M	i-če (/it-je/)	Bengni S	ə-rii
Milang T	at-ji	Damu OY	a-li
Mising L	i-ji	Gallong DG	i-re
Padam T	i-ji	Hill Miri S	i-ri
		Nishing DG	i-ri
		Nyisu H	il-lii:
		Yano B	u-ri

'pig' (< PT *rjek):

Bokar OY	ə-jək	Apatani S	a-lii?
Bori M	ə-jək	Bengni S	ɯ-rɯk
Damu OY	a-jek	Gallong DG	e-rek~e-jek
Milang T	a-jek	Hill Miri S	e-rek
Mising L	e-ek~e-jek	Nishing DG	e-rek~i-rik
Padam T	ek	Nyisu H	il-lii
		Tagin DG	a-rɯk
		Yano B	e-rek

Thus, depending on whether the PT liquid initial in the cluster *rj- is retained or not, modern Tani languages fall into two subgroups:[107]

A. **Innovating languages**: Bokar OY, Bori M, Milang T, Mising L, Padam T.

B. **Other**: Apatani S, Bengni S, Gallong DG, Hill Miri S, Nishing DG, Nyisu H, Tagin DG, and Yano B.

While the isoglosses presented above are all related to phonological developments of PT initials, the next important phonological isogloss to be addressed deals rather with an intriguing PT consonantal coda. As discussed in Chapter II, rhymes containing the -t coda in Padam-Mising L display two distinct correspondences. In one pattern, Padam-Mising L -t rhymes correspond also to **checked rhymes** in the other languages (e.g. 'leech': Padam-Mising L ta-pat; Bori M ta-pet; Bengni S ta-pit; Bokar OY ta-pet, Gallong DG ta-pek; Apatani S ta-pe?; Nishi C ta-pə?~ta-pi?). Other instances of Padam-Mising L -t rhymes, however, correspond to -t rhymes in some languages, and open rhymes (often with distinctive vowel length and a different vowel quality than in the other pattern) in many others. The best example showing this correspondence is the set for 'listen': Padam-Mising L tat, Bori M tet; but Bengni S tu:,

[107]Damu again seems to be a borderline case. Apparently, the deliquidation process only affected some roots containing the PT palatalized *rj- initial (e.g. PT *rjak > Damu jak 'lick') but not others (e.g. PT *rjo > a-lo 'tongue'). Note that Gallong DG also shows variation between liquid r- and j- reflexes. According to Das Gupta, the use of j- instead of r- (< PT *rj-, we may add) is one of the characteristics of the Lower dialect of Gallong, which the variety recorded by Weidert (Gallong W) seems to exemplify.

Bokar OY ta:, Damu OY te:, Gallong DG, Apatani S ta). The different modern Tani equations obviously go back to a distinction in the PT system of rhymes. The available intra-Tani evidence is insufficient for revealing the exact phonetic nature of the distinction, but a good guess can be made by looking at comparative data from other Tibeto-Burman languages. It is clear now that the first -t correspondence, reconstructible to PT *-∇t¹, reflects an identical dental stop coda at the PTB stage (e.g. PTB *r-pat '(land) leech'), whereas at least some of the sets exemplifying the other equation, on the basis of which PT *-∇t² is tentatively reconstructed, originated from PTB spirant coda *-s (e.g. PT *tat² 'listen/hear'; Kanauri thas 'listen/hear', WT thos 'hear', Hayu thas 'listen' < PTB *ta-s).[108] Thus, modern Tani languages fall into two groups depending on whether the original consonantal coda was lost in the development of the PT *-t² rhymes:

'listen/hear' (< PT *tat²):

Apatani S	ta	Bori M	tet
Bengni S	tu:	Milang T	---[109]
Bokar OY	ta:	Mising L	tat
Damu OY	te:	Padam T	tat
Gallong DG	ta		
Hill Miri S	ta		
Nishing DG	tə		
Nyisu H	ta		
Tagin DG	tə		
Yano B	ta		

[108]For further discussion of the PT s-coda rhymes, see 4.3.2.3.

[109]Milang T shows an unrelated form ču.

'vomit' (< PT *b(r)at²):

Apatani S	ba	Bori M	a-bet bet
Bengni S	bɯ:	Milang T	a-bot bot
Bokar OY	ba:	Mising L	bat
Damu OY	bø	Padam T	a-bat bat
Gallong DG	ba		
Hill Miri S	ba		
Nishing DG	ba		
Nyisu H	bla		
Tagin DG	bə		
Yano B	ba		

A. **Innovating languages**: Apatani S, Bengni S, Bokar OY, Damu OY, Gallong DG, Hill Miri S, Nishing DG, Nyisu H, Tagin DG, and Yano B.

B. **Other**: Bori M, Milang T, Mising L, Padam T.

The distributions of the four diachronic phonological features are summarized in Table 3.1 below (presence of a given feature is denoted by a '+', absence by '-'; the '+/-' mark denotes variation with respect to a given feature in the sources consulted):

	Velar Palataliza-tion	Labial Palatalization	Retention of liquid in PT Cluster *rj-	*-t² Drop
Milang T	-	-	-	-
Mising L	-	-	-	-
Padam L	-	-	-	-
Bori M	-	-	-	-
Bokar OY	+	-	-	+
Damu OY	-	-	+/-	+
Apatani S	+	-	+	+
Gallong DG	+	+	+/-	+
Bengni S	+	+	+	+
Hill Miri S	+	+	+	+
Nishing DG	+	+	+	+
Nyisu H	+	+	+	+
Tagin DG	+	+	+	+
Yano B	+	+	+	+

Table 3.1: Distribution of Selected Phonological Traits Among Tani Languages

The diagnostic isoglosses presented in the above identify at least two subgroups among the languages compared on the basis of shared phonological developments. The languages that share the phonological characteristics discussed in the above constitute one group, consisting of Bengni S, Hill Miri S, Nishing DG, Nyisu H, Tagin

DG, and Yano B. Gallong DG should also be placed under this group on phonological criteria, although dialects of Gallong differ with respect to the deliquidation sound change.[110] The languages in which the phonological traits are absent form another group, including all recorded varieties of Padam and Mising, as well as Milang T and Bori M. Among the remaining languages, Apatani S clearly leans toward the first group, although the absence of labial palatalization and various other unique linguistic features set it apart. Damu OY and Bokar OY present interesting examples of fence-straddling transition types between the two major groups. Both languages participated in the sound change which led to the drop of PT *-t²; furthermore, both share one additional phonological trait with the first group, velar palatalization in the case of Bokar OY, and, to a lesser extent, retention of the liquid initial in PT *rj- in the case of Damu OY.

A judgment on the subclassification of modern Tani languages will be deferred until additional evidence presented by the lexical component is taken into account in the following section.

3.2.2. Lexical Isoglosses

It has become increasingly clear that the core lexicon is the most reliable linguistic component for determining genetic affinities among languages of the Sino-Tibetan area.[111] However, lexical

[110]According to Das Gupta (1963: v), the more conservative Upper dialect, among other things, retains the liquid in the PT cluster *rj- (realized as r-), which is changed to j- in the Lower dialect.

[111]This point is thoroughly demonstrated in Matisoff 1978a, the gist of it was succinctly expressed in the title of section 1.2 in Matisoff 1976: **Where to look for linguistic relationship: 'core vocabulary'**. Burling has also shown that while in phonology and

isoglosses have seldom been utilized in historical linguistics for subgrouping purposes, probably on account of the highly idiosyncratic nature of vocabulary items (hence the dictum: **every word has its own history**), and their relative proneness to cross-linguistic borrowing. However, lexical innovations should still provide useful clues for setting up genetic subrelations among languages, especially if they are based on basic vocabulary.[112] The hunt for lexical isoglosses in Tani shows good promise, since members of this close-knit linguistic branch seem to manifest some distinct lexical types in addition to a deep layer of shared lexical core.[113] In practice, however, the task of identifying shared lexical features in these languages is very tricky owing to many potentially misleading extraneous factors. For one thing, cognate identification currently is often uncertain (particularly as regards data sources which pose more serious problems of misrecording and typographical errors) for want of satisfactory understanding of Tani sound correspondences beyond the five key Tani languages on which this work has been based. Furthermore, apparently distinct forms given for the same gloss in some of the sources do not always provide reliable isoglosses; rather, they may

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kinship terms Maru (autonym Langsu, one of the four Burmish languages spoken by the multilingual 'Kachin' tribes) has become remarkably similar to Jingpo as a result of extended intimate contact with the dominant Jingpo language, it is in the distinctively **Burmish** basic vocabulary that the true root of Maru is revealed (Burling 1971).

[112]Thus, such uniquely shared lexical replacements as *drink- 'drink (cf. PIE *pō/pī-), *geb- 'give' (cf. PIE *dō/də), and *kuningaz 'king' (cf. PIE *rēk'-s) help set the Germanic languages apart from the other branches of the Indo-European family (Hock 1986: 579).

[113]The percentages of shared vocabulary among the three Tani varieties worked out by Ouyang Jueya are all **lower than 50%**: Bokar-Bengni: 45.5%; Bokar-Damu: 41.4%, Bengni-Damu: 32% (Ouyang 1985:89-91).

simply be the results of overlooked subtle lexical distinctions.[114] For instance, Tani languages usually have two or three words for 'poison', such as the following forms from Bengni S: **ta-mu** 'fish poison', **u-mju:** 'aconite, poison applied to arrowheads', and **du-duk** 'poison (generic)'. Many of our sources, unfortunately, list only a single word for the undifferentiated gloss 'poison'. Suppose some of these forms actually meant 'fish poison' and others 'arrow poison', the resultant 'isogloss' would be highly misleading.[115] Although no trouble has been spared to avoid these pitfalls in the selection of lexical isoglosses, errors obviously cannot be averted in all cases, and the proposals made in this study may be subject to revision pending access to further data.

In the following, twenty-five selected data sets, which are among the most probable Tani-internal lexical isoglosses discovered to date, will be discussed. For ease of exposition, the different groupings of languages displaying distinct lexical features for each gloss will be referred to vaguely as Group A and Group B, whose membership may differ from one set to the next.

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[114]Such is the case with some apparently heterogeneous sets in the comparative vocabulary appendixed to Marrison 1988. Thus the seemingly deviant Miri (Mising) form **dum-siŋ** in the set for 'deer' (more precisely: 'barking deer') actually means 'hog deer' (there is also a typo, the correct form should be **dum-suŋ**); the true Mising word for 'barking deer' is **si-dum**, perfectly cognate to the other forms in the set.

[115]This is a hypothetical example. Actually, the forms cited in most sources are those for 'arrow poison' (< PT ***mro** < PTB ***mla** 'arrow'), apparently the prototypical poison for the Tani-speakers. The danger is real, though. That is why, for instance, we have been able to reconstruct only one PT 'bamboo' root (i.e. ***fiə:** 'bamboo (large species)') out of the bewildering multitude of 'bamboo' words recorded in the various sources.

(1) 'urine':

Group A:		**Group B:**	
Bengni S	u-šum	Apatani S	si?
Hill Miri S	u-sum	Bokar OY	i-ši:
Nishing DG	u-sum	Bori M	ə-si
Tagin DG	si-čum	Damu OY	si-pa
Yano B	si-sim	Gallong DG	je-si
		Padam-Mising L	je-si

Other:

Milang T	a-te

For this gloss, Group A forms go back to PT *sum 'urine',[116] distinct from the 'urine' root *si found in the other group; in Tagin DG and Yano B (and also Tagen B) the two roots co-occur. The *si root, although formally identical to the 'water' root, may well be derived from PTB *tśi 'urinate', whereas PT *si 'water' seems to reflect PTB *ti/*təy (see 4.2.1.1. below). Extra-Tani cognates of *sum are to be found in Himalayish and perhaps also Northern Naga, cf. Tamang 'cyām; Thakali kum; Kaike jyam (Hale 1973); Nocte ^{2}sa$^{(?)}$ (< *^{2}saŋ$^{(?)}$); Tangsa ^{1}šaŋ $^{(?)}$ (Weidert 1987).

(2) 'blind':[117]

Group A:		**Group B:**	
Apatani S	mi?-ča	Bokar OY	mik-maŋ
Bengni S	ñik-čiŋ	Bori M	mi:-maŋ

[116]Cf. also Nishi C i-sum~u-sum.

[117]Other unrelated roots are Milang T mik-čar; mik-jak; mik-buk; and Mising L mik-lu. Prof. Matisoff informs me that the Mising L form mik-lu may be compared with Lahu lù 'be ruined'.

Hill Miri S	ñik-če	Damu OY	nik-na:
Nishing DG	nik-čeŋ	Gallong DG	ñik-na
Nyisu H	ñi-ča	Padam-Mising L	niŋ-naŋ
Tagin DG	nik-čiŋ		

Other:

Milang T	nik-sar
Padam-Mising L	nik-lu
Yano B	ñeg-əp

All Tani forms are compounds sharing an identical first element (< PT *nik 'eye'). As for the second component morphemes, the Group A forms reflect a distinct root, PT *čiŋ. In Group B, we find instead reflexes of what is probably the common Tani negator morpheme < PT *naŋ.[118]

(3) 'mouth':

Group A:		**Group B:**	
Apatani S	a-gũ	Bokar OY	nap-paŋ
Bengni S	gam	Bori M	nop-paŋ
Damu OY	a-gom	Gallong DG	nap-pa
Hill Miri S	a-gom	Milang T	čaŋ-či
Nishing DG	(a)-gam	Padam-Mising L	nap-paŋ
Tagin DG	gam		
Yano B	gam		

Other:

Nyisu H	a

[118]The resemblance of this root to Chinese máng 'blind' is probably too good to be real, for this morpheme occurs also in the semantically related word 'mute' in some Tani languages, cf. Bokar OY gom-naŋ (lit. 'speech-NEG').

The distinct root PT *gam (cf. PTB *gam~gəm 'put into mouth' STC #491) is attested in Group A languages.[119] This root does occur in some languages from the other group, but apparently only with the meaning 'bite, seize with mouth'. The Group B words can be traced to a PT compound *nap-paŋ (For external connections of the second element, consider Lepcha a-bon; Lotha Naga o-paŋ; Thulung phrôŋ; Pa-O Karen phrôŋ; Tsangla no-waŋ). The first syllable of the Milang T form čaŋ-či may also come from PT *paŋ via an unusual sound change.

(4) 'nose':[120]

Group A:		**Group B:**	
Apatani S	ja-pĩ	Bori M	ño-buŋ
Bokar OY	ña-pum	Damu OY	ɲi-buŋ
Gallong DG	ñə-pum	Padam-Mising L	ñe-buŋ
Hill Miri S	ñi-pum		
Nishing DG	ño-pum		
Yano B	ñe-pəm		

[119]The root *nap is also sporadically attested in Western Tani. Bengni S, for example, uses this root in the word a-ja: nap-bur 'upper lip'; interestingly, for 'lower lip', the other 'mouth' root *gam must be used: a-kuŋ gam-bur (the same distribution is also attested in Tagin DG: nap-ču 'upper lip'; gam-bur 'lower lip'). Hill Miri S has another 'mouth' word, nep-tu, also containing the *nap root.

[120]Cf. also (Western Tani) Bangni R ño-pum; Nishi C ñip-pum~ñup-pum; (Eastern Tani) Tangam ñe-buŋ (Bhattacharjee 1975: 94).

Other:[121]

Bengni S	na-fɯŋ
Milang T	nu-kuŋ
Nyisu H	tu-rɯ
Tagin DG	naŋ

Words for 'nose' in most Tani languages are compounds with a common first element ñV- (< PT *ña- < PTB *s-na 'nose' (STC #101)). The two groups of Tani languages differ in their use of separate morphemes to encode the second compound element, respectively *-pum and *-buŋ (both with uncertain meanings).[122]

(5) 'wind (n.)':[123]

Group A:		**Group B:**	
Apatani S	a-lii	Bori M	e-sar[124]
Bengni S	do:-ri	Milang T	a-sar

[121]The Bengni S, Milang T, and Tagin DG forms indicate a non-palatalized variant 'nose' root PT *nV-. Bengni S -fɯŋ is unlikely to reflect the Group B root -buŋ, because both the initial and the final are wrong (Bengni S f- does not normally correspond to labial stops in other Tani languages, nor does Bengni S -ɯŋ reflect *-uŋ). For the -kuŋ element in Milang T, cf. WB hna-không; Queyu ɳa^{35}ko^{53}; Guiqiong ɲo^{55}kũ^{53}; Shixing ɳa^{33}qũ^{33}; Nusu ɳ^{55}kã^{35} (Anonymous 1991); Proto-Loloish s-na^{1}koŋ^{2}; Bangru ni^{33} kõ^{53}; Rongmei nû-kûaŋ; Liangmei nai-nu-kuaŋ 'nose' (Weidert 1987); Northern Naga *na-gu:ŋ ('nostril' > 'nose' according to Benedict, French 1983:527).

[122]For external cognates to Eastern Tani *buŋ, cf. Sangtam ^{2}na^{1}buŋ; Yimchunger ^{1}nu^{2}buŋ (Weidert 1987); Chamling na-di-puŋ; Bantawa na-bu; Limbu nɛ-bo. It is much harder to find parallels to western Tani *pum, cf. Taraon xa^{31}nia^{53}pum^{55} (Sun et al. 1980), Sherdukpen nu-phung (PTB *-a > Sherdukpen -u; for -uŋ < *-um, cf. stung 'bear'; uŋ 'three') (Dondrup 1988); Bugun e-phung (Dondrup 1990).

[123]In most, but not all, of these languages, the word also means 'air'.

[124]The Western Tani form do-ji also exists as a variant in Bori M.

Damu OY	do:-ju	Mising L	ə-sar
Gallong DG	do-re	Padam L	a-sar
Hill Miri S	du-ri		
Nishing DG	do-ri		
Nyisu H	do-ili		
Tagin DG	di-ro		
Yano B	dɔ-ri		

Other:

Bokar OY	ñu-luŋ

The Group A forms are composed of the 'weather' formative *doŋ- plus the PT root *rji 'wind' (< PTB *g-ley, STC #454). Forms attested in the other group, on the other hand, reflect PT *sar 'wind, blow (as wind)'. The unrelated Bokar OY form ñu-luŋ have parallels in Bodish, cf. WT rlung; Kaike lan; Takpa røn[13].

(6) 'rain':

Group A:		**Group B:**	
Apatani S	mu-do	Bori M	pe-doŋ
Bengni S	ñi-do:	Milang T	ba-jo; jo-per[125]
Bokar OY	me-doŋ	Padam-Mising L	pə-doŋ
Damu OY	ma-do:		
Gallong DG	ñi-do		
Hill Miri S	ñi-do		
Nishing DG	ni-do		
Nyisu H	ña-daŋ; po-doŋ		
Tagin DG	ni-do		
Yano B	ñe-dɔ		

[125]Milang -jo seems to reflect PT *doŋ, with unexpected palatalization of the original *d- initial, see also 3.4.1. below.

For this gloss, the same basic root is found across Tani, PT *-doŋ 'rain' (cf. Mising L do-laŋ < *doŋ-laŋ 'rain-water').[126] Languages in the two groups differ in the choice of the first component morphemes, respectively Group A *mV- vs. Group B *pV- (Nyisu H shows variation of the two alternants).

(7) 'thunder':

Group A:		**Group B:**	
Apatani S	ja-pũ gẽ	Bori M	do-mir
Bengni S	do:-gum	Damu OY	do-mər
Bokar OY	doŋ-gum	Milang T	jo-mar
Gallong DG	do-gum	Padam-Mising L	do-mur
Hill Miri S	du-gum		
Nyisu H	do-gum		
Tagin DG	do-gum		
Yano B	do-gum		

Except for the Apatani S form (ja-pũ 'sky' plus the verbal root gẽ, which is cognate with -gum in other Group A languages), this meaning is expressed by disyllabic compounds in Tani languages, the first component being the familiar 'weather' formative (< PT *doŋ). Again, the two groups differ with respect to which proto-root encodes the other half of the compound. The Group A root *gum may be

[126]This has become grammaticalized into a general 'weather' formative, appearing in many words related to heavenly bodies and natural phenomena, such as 'sun', 'wind', 'fog', 'thunder', etc. Similar 'meteorological classifiers' are also reported in many other Tibeto-Burman languages; e.g. Lepcha so- (basic meaning= 'rain'), Garo bal- (basic meaning= 'air', Burling 1984:24), Northern Naga *roŋ- (French 1983), (Mawo) Qiang mu- (Sun 1981), Ao ¹tɔɯŋ- (Weidert 1987:464); Lahu mû- (Prof. Matisoff, p.c.) (basic meaning all = 'sky').

compared with Mising L gum 'be stormy'.[127] The root (< PT *mur) occurring in the other group seems to have a similar semantic origin, cf. Milang T mar-ma 'storm'.

(8) 'lightning':

Group A:		**Group B:**	
Apatani S	do-lja?	Bori M	jo-ri
Bengni S	do:-rjak	Padam-Mising L	ja-ri
Bokar OY	doŋ-jak		
Gallong DG	do-rak		
Hill Miri S	do-rak		
Nyisu H	do-lja:		
Tagin DG	do-rjak		
Yano B	do-rak		

Other:

Nishing DG	ta-rjam[128]
Milang T	mar-liŋ-ka-pen

The Group A words for 'lightning' are analyzable into a *rjak (formally identical to 'lick')[129] root plus the 'weather' formative doŋ-. The opaque form ja-ri: (for vowel length, cf. Mising T ja-ri:) is used in the other group instead.

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[127]Likely external cognates include Langsu (Maru) kum (ZMYYC); Nruangmei ting-kim (Marrison 1967); Zemei ^{4}tiŋ^{2}ɑim (tiŋ- = meteorological classifier, Weidert 1987) 'thunder'.

[128]Cf. Meche mo-plam; Boro mv-plám? 'lightning' (Weidert 1987).

[129]This root cannot be a direct reflex of the widespread PTB root *(s-)lyap (STC #213), because *-ak and *-ap rhymes are clearly distinguished in Tani. For extra-Tani parallels of the -ak rhyme, cf. WB hlyap prak, Achang tshă^{31}pzək^{55} pzək^{55} '(lightning) flash' (ZMYYC); Thulung bleak-ci~bloak-ci; Khulung baks; Hayu pha:-ra (< *blak-ci); Mikir ka-bir-lak (Marrison 1967) 'lightning'. Similar forms can be found also in Mon-Khmer, cf. Umphai Lawa pluk plak 'lightning' (Mitani 1972).

(9) 'fish':

Group A:		**Group B:**	
Apatani S	ŋu-i	Bori M	ə-ŋo
Bengni S	ŋu-i	Bokar OY	o-ŋo:
Gallong DG	ŋo-i	Damu OY	a(:)-ŋo
Hill Miri S	ŋu-i	Milang T	a-ŋu
Nishing DG	ŋu-i	Mising L	o-ŋo
Nyisu H	ŋo-i	Padam L	ə-ŋo
Tagin DG	ŋu-i		
Yano B	ŋa-i		

All Tani forms for 'fish' go back to PT *ŋo (< PTB **ŋa, unpalatalized allofam of PTB *ŋya STC #189). The isogloss in question involves the supplementary lexical material employed to buttress this basic root. Unlike the Group B languages, in which the PT *a- prefix occurs, Group A languages use a **postposed** element *-i of obscure meaning and function.[130] The proof that the -i is not part of the preceding root comes from specific fish names, where the bare, unsuffixed root appears; e.g. Nyisu H ŋo-i 'fish', ŋo-re 'shark'; Apatani A ŋi (< *ŋu-i) 'fish', ŋu-me, ŋu-ra, ŋu-ljaŋ (all unidentified fish species); Bengni S ŋu-i 'fish', ŋu-riŋ 'maheer (small)', ŋu-tak 'catfish (species)').

(10) 'tiger':

Group A:		**Group B:**	
Apatani S	pat(?)	Bokar OY	šo-mjo
Bengni S	pa-tu:	Bori M	si-ño

[130]Prof. Matisoff suggests (p.c.) that this could be a palatal suffix of diminutive function, cf. Matisoff 1989.

Hill Miri S	a-pa	Damu OY	si-ɲjo
Milang T	pa-tu	Gallong DG	ho-ño
Nishing DG	pa-te	Mising L	si-ɲjo
Nyisu H	pa:t[131]	Padam L	si-ɲño; ño-nə
Tagin DG	a-biŋ a-pa	Yano B	se-ño

Reflexes of the original PT root *ɲjo (or *ɲro?)[132] (plus *sa-, the large animal prefix) are attested in Group B, while the unrelated Group A forms seem to originate from an euphemistic expression PT *paŋ(-ta) 'big uncle' (paternal uncle + big).[133] The Tagin DG form with the additional element a-biŋ 'elder brother', is a further elaboration. Consider similar expressions in the neighboring (non-Tani) languages Sulung $a^{21}vua t^{53}$ bua^{21} (lit. 'big younger paternal uncle'), and Bangru (Hrusish) $a^{21}lo^{55}$ dua^{21} (lit. 'big grandfather') for an animal of which hunters the world over stand in great awe.

(11) 'root':

Group A:		**Group B:**	
Apatani S	lu-ma	Bokar OY	pa-ɒɯr
Nishing DG	a-ɲja	Bori M	ap-ɒɯr
Nyisu H	ɲem	Damu OY	a-ɒər
Tagin DG	ɲja-mi	Gallong DG	a-ɒir
Yano B	ma-mi	Milang T	ta-ɒir
		Padam-Mising L	a-ɒɯr

[131]An alternative expression se-min is reported in Nyisu H, which actually means 'wild animal'; cf. Mising L si-mun 'wild animal'.

[132]Cf. Idu $jɑ^{55}ɲɹɑ^{55}$.

[133]The idea of 'big' is also present in the alternative Gallong DG form ño-tə (ño < PT *ɲjo; -tə ='big').

Other:

Bengni S	ɯ-šɯŋ a-fu:
Hill Miri S	rɯ-ga

The distinct Tani roots involved in this set are respectively *pɯr and *m(j)a. Extra-Tani parallels to both roots are hard to come by.[134] The Bengni S phrasal form, which is literally 'tree vein', refers specifically to 'rootage'.[135]

(12) 'old man':

Group A:		**Group B:**	
Bengni S	ñi:-kam	Bori M	mi-jiŋ
Bokar OY	me-kam	Damu OY	(a-mi) mut-čiŋ
Hill Miri S	ñi-kam	Gallong DG	ñi-ji
Nyisu H	ñe-kɔm	Milang T	a-be ma-jaŋ
Tagin DG	ni-kam~ñi-kam	Padam-Mising L	mɯ-jiŋ
Yano B	ña-kum		

Other:

Apatani S	a-ba a-kʰrja
Nishing DG	pu-ku ñi-lo

[134]The Eastern Tani root *pɯr is unlikely to reflect PTB *bul~pul (STC pp. 166, 173), because we would expect Milang and Padam to show -l in this case. The *m(j)a root resembles WB a-mrac; Achang a^{31}m^{J}a t^{55} (< PLB *m-lik), but the cognacy here is also dubious.

[135]For parallels of the semantic connection between 'vein' and 'root', cf. also WT rtsa 'vein; root'.

All Tani forms[136] contain a shared element, the proto-form of which should contain an *n- initial and *-i vocalism (to explain the observed palatal nasal initials), thus could probably be identified with the PT *ni 'man, person' root. It is in the second slot of the compound that the two Tani groups diverge from each other. Group B manifest forms which may go back to PT *jiŋ, the semantics of which is unclear. Group A words suggest a different root *-kam, which is also of indeterminate meaning.

(13) 'village':

Group A:		**Group B:**	
Bengni S	nam-pam	Bokar OY	duŋ-luŋ
Hill Miri S	nam-pum	Bori M	do-luŋ
Nishing DG	nam-pam	Gallong DG	do-lu
Tagin DG	nam-pom	Padam-Mising L	do-luŋ
Yano B	nam-pəm		

Other:[137]

Damu OY	a-kom
Milang T	jim-bu
Nyisu H	na-ŋa
Apatani S	lẽ-ba

For this gloss, several distinct words are used in different Tani languages. The Group B compounds are composed of, sensibly, the

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[136]Except the Apatani S form a-ba a-kʰrja < lit. 'father' + 'old (of people)'. Cf. Dhammai vu-kʰrjan 'old (people)'; Bangru vɯ[33]kɹɔ̃[53] 'old (woman)' (Dhammai and Bangru are closely related Hrusish languages).

[137]The Damu OY and Milang T forms are obscure. The first syllable of the Apatani word lẽ- has a rhyme that regularly corresponds to PT *-am; its cognation to *nam is uncertain since the lateral initial is irregular.

roots for 'sit/stay/dwell' (< PT *duŋ) and 'place' (< PT *luŋ). The Group A forms are less transparent, but the first element is clearly the 'house' root (< PT *nam). The semantics of the second element (< PT *pom) is unknown; *pom, however, is the normal classifier for counting villages in Padam-Mising L.

(14) 'granary':

Group A:		**Group B:**	
Apatani S	ne-su	Bori M	kun-čuŋ
Bokar OY	nam-šuŋ	Damu OY	kjem-suŋ
Bengni S	na:-šuŋ	Mising L	kem-suŋ
Gallong DG	na-su	Padam L	kum-suŋ
Hill Miri S	no-su		
Nishing DG	na-soŋ		
Nyisu H	nɔ-su nam		
Tagin DG	nə-sum		
Yano B	um na-suŋ		

Other:

Milang T	a-jul

While all Tani languages seem to share the second morpheme in this compound word (< PT *suŋ 'granary?'), the two groups of forms differ in the first components, which could represent the 'house' roots in the respective languages (cf. Mising L e-kum; Gallong DG nam 'house'). The Group B root for 'house' can be tentatively reconstructed as PT *kjum, which directly reflects the prevalent PTB root *kjim~kjum (STC #53).[138] The other 'house' root (< PT *nam) and perhaps the 'granary' root itself (< PT *suŋ) also, can be related

[138]The *-j medial accounts for the front vocalism in the Mising and Damu forms.

to forms from Hrusish languages;[139] e.g. Dhammai nen; Hruso nẽ, Bangru nɛ:[55] 'house'; Dhammai čuŋ; Hruso nẽ-chi, Bangru tɕu[53] 'granary'. The internal lexical split in Tani and the use of a different root in Tani languages geographically more distant from Hrusish may be evidence that the direction of borrowing was from Hrusish to Tani. The element um- in the Yano B word is from the 'paddy' root. Interestingly, the word for 'house' nam is repeated in the Nyisu H word, owing perhaps to the fact that sound change has rendered opaque the morpheme identity of the no- component, which itself came from *nam- 'house' root. The Milang form a-jul is an isolate.

(15) 'year':

Group A:		**Group B:**	
Apatani S	a-ña	Milang T	ta-ra
Bengni S	a-ñiŋ	Padam-Mising L	du-tak
Bokar OY	ñiŋ		
Bori M	ñiŋ		
Damu OY	ñiŋ		
Gallong DG	a-ñi		
Hill Miri S	e-ñi~ə-ñu		
Nisihing DG	a-ñaŋ~niŋ		
Nyisu H	a-ñi		
Tagin DG	a-niŋ		
Yano B	ñeŋ		

The Group A forms for 'year' all come from PT *ñiŋ (< PTB *niŋ ~ *s-niŋ STC #368). For the same meaning, a separate root *tak exists in the other group, where the occurrence of the *ñiŋ root

[139]This 'house' root is also attested in some Tibeto-Burman languages of Nepal; e.g. Bhramu nam; Thami nem; Thulung nem 'house' (Shafer 1967:204); cf. also Tamang 'nām-sā; Kaike nām 'village' (Hale 1973).

is restricted to compounds, e.g. Padam-Mising L si-ñiŋ 'this year'; nen-ñiŋ 'last year', etc.[140]

(16) 'sell':

Group A:		**Group B:**	
Apatani S	prju(?)	Bori M	ko
Bengni S	pjuk	Damu OY	rəː; koː-reː mo
Bokar OY	puk	Milang T	ku
Gallong DG	puk	Mising L	ko
Hill Miri S	puk	Padam L	ko; rə
Nishing DG	puk		
Nyisu H	pru		
Tagin DG	pjok		
Yano B	pok		

Padam T and Damu OY use the 'buy' root (< PT *rəː) also for the meaning 'sell'. The other Group B forms point to a proto-form with the *k- initial and a back rounded vowel (PT *ko?). Group A languages have forms that go back rather to PT *pruk. Both roots are highly uncommon in Tibeto-Burman.

(17) 'breath':

Group A:		**Group B:**	
Apatani S	sa?	Bori M	ŋa[141]
Bengni S	šak	Damu OY	ŋa?
Gallong DG	hak~sak	Milang T	ŋa

[140]Cf. also Tangam di-tak (Bhattacharjee 1975); the Milang T form -ra is a cognate; for the unique shift of intervocalic *-d-/*-t- to -r- in this language, see below. This highly obscure root seems comparable with Sulung a^{33}tɯ?^{53}, Bugun daw (Dondrup 1990) 'year'.

[141]A variant form sa 'breathe' (< PT *sak) is also reported in Bori M; Bokar M uses a native (and Group A) root a-muk sak.

Hill Miri S	sak	Padam-Mising L	ŋa
Nishing DG	sak		
Nyisu H	sa		
Tagin DG	sak		

Other:

Bokar OY a-muk

The Group A forms go back to PT *sak, reflecting a common Tibeto-Burman root *sak (STC #485). In languages like Padam and Mising (which belong to Group B), reflexes of the *sak root also occur but usually with a shifted meaning 'cough, pant'. The meaning 'breath' is now conveyed by *ŋa, the provenance of which is still unclear.[142] The Bokar OY word for 'breath' a-muk is unrelated.[143]

(18) 'ferry/cross (river)':

Group A:		**Group B:**	
Apatani S	re?-bo	Damu OY	ko
Bengni S	rap-pit	Milang T	ko
Bokar OY	rap	Padam-Mising L	swŋ-koŋ
Nyisu H	rap		
Yano B	rap		

Group A languages[144] make use of a root *rap apparently unrepresented in the other group, where what occurs is the root *koŋ 'cross v.i.'. The Padam-Mising L swŋ- element means 'wade'.

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[142]The WT root rngam 'breathe' shows formal resemblance to ŋa, but the rhymes are incompatible.

[143]Note that 'breathe' is expressed by a-muk taŋ, which seems to be a loan-blend from Central Tibetan, cf. Lhasa dbugs btang.

[144]Cf. also Tagen B rap. For extra-Tani cognates, cf. Jingpo ʒap[55] 'cross (river)' (ZMYYC); Rawang rap 'cross (river)' (Barnard 1934).

(19) 'arrive':

Group A:		**Group B:**	
Apatani S	-či	Bokar OY	pɯŋ
Bengni S	-či	Damu OY	pəŋ
Nishing DG	-či	Gallong DG	pɯ
Nyisu H	-č	Milang T	pa-na <*pɯŋ
Yano B	-či	Padam-Mising L	pɯŋ

Other:

Hill Miri S	ar-le

For this gloss, Group B languages reflect a special verbal root *pɯŋ not attested in languages of the other group, where the same meaning is conveyed by the verbal particle -či (< *ki?)[145] in combination with verbs of motion in the latter group.

(20) 'say/speak':

Group A:		**Group B:**	
Bengni S	bin	Apatani S	lu
Bokar OY	ben	Bori M	lu
Gallong DG	men	Mising L	lu
Hill Miri S	men		
Nishing DG	biŋ		
Nyisu H	ben		
Tagin DG	min		
Yano B	bin		

[145]Cf. Taraon khi[55]; Idu khi[55] 'arrive'.

Other:

Bengni S	gjo:
Damu OY	gə:
Milang T	a-ru raŋ
Padam L	po[146]

This is a complicated set. Group A languages exhibit forms that go back to two variant proto-roots ***ban~man**. The other major root PT ***lu** is shared by Group B languages. Bengni S has a variant form gjo:,[147] which appears related to Damu OY gə: and Apatani A go. Of the two major 'speak' roots, only *lu has good external parallels, cf. Lepcha li; Mawo Qiang ɹu; rGyarong tə-ɹio ka-pa (lit. 'utterance do'); Naxi ʐuo[33]; WB prô; Tujia li[21]; Taraon ma[31]ɹo[55]; Sulung luʇ[53]; Miji (Dhammai) lau, Chang lau (all mean 'speak, say'); Bahing lo; Sunwar lo:; Thulung loa 'speech'; Chamling la 'language'; Bantawa lo 'tell'.

(21) 'rich':

Group A:		**Group B:**	
Bengni S	ñi-tu:	Milang T	ma-rem
Bokar OY	me-tə	Padam-Mising L	mi-rem
Bori M	mi-tə		
Damu OY	mi-tə		
Gallong DG	ñi-tə		
Hill Miri S	ni-tə		
Nishing DG	ñi-te; ñe-te		
Nyisu H	ñet-tu		

[146]Cf. Bwe Karen á-pù; Angami [5]pu; Chakru [2]džu[4]po; Khezha [2]se[1]pu; Mao [1]šu[3]pei (< Southern Naga *paw) 'speak' (Weidert 1987: 350-1); Mikir pu; Liangmei mpou. In Padam, the root *lu is still used in the sense 'talk', cf. Padam T lu-po-su.

[147]In this language, gjo: seems largely interchangeable with bin except in the set phrase gam gjo: 'speak, talk' where the use of gjo: is normal.

Tagin DG	ñi-tə

Other:

Apatani S	mi-ŋo
Yano B	go-ra ña-ga

The words in this set not only mean 'rich, wealthy', but also refer to the highest social caste in many Tani tribal societies. Although all of these forms contain the component 'person, man' (< PT *mi), distinct morphemes are employed in the other half of the compounds in the different groups. The Milang T and Padam-Mising L forms contain the obscure root *-rem; the other languages make use of the 'big' root (< PT *ta~*to).

(22) 'soft':

Group A:		**Group B:**	
Bengni S	ñi-ñak	Bokar S	rə:-ñak[148]
Hill Miri S	ñe-ñak pa-jak	Gallong DG	ru-bup, rə-map
Nyisu H	ñe-ña	Milang T	ra-mak
Tagin DG	ña-ñak kjak	Padam-Mising L	re-mak

Other:

Apatani S	bu-lje?
Yano B	ñeŋ-na (< ñek-na; na= adjectival suffix)

For this gloss, most modern Tani languages manifest forms that contain the PT root *mjak 'soft'. As in many previous cases, different

[148]This form was provided by our Bokar consultant. The Bokar form recorded by Oyang Jueya, rə:-bak, is not the general word for this meaning but has a narrower sense of 'soft (as of human body)'.

elements are chosen to pair with the same basic root in the two groups, *ñi- in Group A and *rə- in Group B.[149] The unrelated Apatani S form bu-lie? (< *ljap) may be linked rather to PT *lap 'slippery/smooth'.[150]

(23) 'drunk':

Group A:		**Group B:**	
Bengni S	tuŋ-kium	Damu OY	ə-po: dok
Bokar OY	tuŋ-kum	Milang T	čaŋ-duk
Gallong DG	tu-kum	Padam-Mising L	tuŋ-ur-su
Hill Miri S	tu-kum		
Nyisu H	tu:-xrum		
Yano B	teŋ-kum		

Other:

Apatani S o tã gu (lit. 'liquor-drink-drunk')

The modern Tani words are composed of 'drink' (< PT *tuŋ) plus a resultative verbal particle. The particle in question is expressed in Western Tani languages by reflexes of PT *krum, a root of uncertain origin.[151] Group B languages, however, seem to employ distinct forms

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[149]Cf. also Tagen B ni-~nak.

[150]It is not unheard-of in Tibeto-Burman to find the same words signifying both 'smooth' and 'soft'. Cf. Tshangla dʑam-po 'soft; smooth'; Lepcha yel-lă yel-lă, nŭp-pă nŭp-pă 'soft; smooth'. The interactions between 'slip v.', 'slippery', and 'smooth' are well-attested in Tani (and elsewhere); consider Gallong DG rə-lap, Bengni OY ha-lap; Bokar OY ə-lap 'smooth'; Apatani S tu-le? (< *-lap), Padam-Mising L jut-lap-su 'slip'; Apatani S bo-le? (< -lap), Nyisu H ə-lap, Hill Miri S ə-lap, Padam-Mising L be-lap 'slippery'.

[151]Apatani S uses the same construction with a different 'drunk' root: o tã gu ('liquor + drink + drunk').

for 'drunk': Damu OY -dok, Milang T -duk (< *dok?);[152] and Padam-Mising L -ur-su.[153]

(24) 'back (verbal particle)'

Group A:		**Group B:**	
Apatani S	-kur	Damu OY	-la
Bengni S	-kur	Milang T	-lat
Bokar OY	-kur	Padam-Mising L	-lat
Bori M	-kur		
Gallong DG	-kur		
Hill Miri S	-kur		
Nishing DG	-kar~-kur		
Nyisu H	-kur		
Yano B	-ker		

Different verbal particles are used in languages of Group A (< PT *-kur) and B (< PT *-lat²) to express the idea of 'back (adverb)'. While *-kur is obviously related to WT 'khor and Lushai kir 'return, come back', good parallels of *lat² (< **las) are to be found mainly in Himalayish languages; cf. Lepcha lôt 'return v.i.'; Sunwar let; Magar lhes 'return v.i.' (Hale 1973), Hayu lɪt 'return v.i.'; Bahing let 'go back'; Khaling latt 'turn over (page)'; Bantawa las 'return v.i.'.[154]

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[152]This root is also attested in Kiranti: Sunwar 'duːk-syo (Hale 1973); Bantawa dukt 'drunk'. Note that this root is distinct from PT *duk 'poison(ous)'.

[153]Formally identical to the Padam-Mising L expression ur-su 'bathe, take bath, wash oneself' (-su is a reflexive verbal particle).

[154]Interestingly, Lushai also has a form lêt 'come back/return', a likely cognate to PT *lat²!

(25) 'ten' (in multiples of ten):

Group A:		**Group B:**	
Bengni S	čam-	Bokar OY	ɯ-jɯŋ[155]
Gallong DG	čam-	Bori M	e-jiŋ
Hill Miri S	čam-[156]	Padam-Mising L	ə-jiŋ
Nishing DG	čam-		
Nyisu H	čam-		
Tagin DG	čam-		
Yano B	čam-		

Other:

Apatani S	kʰrã
Damu OY	pət
Milang T	haŋ-tak

In Group A languages, the words for the tens (excluding 'ten' itself, which in most Tani languages is expressed by reflexes of PT *rjɯŋ) are compounds composed of a unique form of 'ten' (< PT *čam) followed by roots of the units (e.g. Bengni S čam-ñi 'twenty'; čam-pi 'forty'). This construction does not exisit in languages in Group B.[157] What is surprising is that external parallels to the *čam- root seem to come exclusively from Kuki-Chin, cf. Lushai shom (with

[155]But čam- is reported in Bokar M; e.g. čam-ñi 'twenty'.

[156]This root displays considerable morphophonemic alternation in Nyisu H and Hill Miri S; the forms cited are the presumed underlying base (e.g. Hill Miri S čaŋ-ŋo 'fifty' < *čam-ŋo; čem-piŋ 'eighty' < *cam-pi:-ñi; čom-oum 'thirty' < *čam-hum).

[157]In the Bokar OY numeral system, the multiples of ten (except ke: 'twenty' and pi:-ñi ɯ-jɯŋ 'eighty') are compounds of a similar structure, except that the root for 'ten' -jɯŋ must occur after the numeral roots (e.g. hum-jɯŋ 'thirty'; ŋo-jɯŋ 'fifty'). This is also true of Apatani S, where the tens (except 'forty', 'fifty' and 'sixty') are expressed by putting the units before yet another distinct morpheme for 'ten' -kʰrã (e.g. ñi-kʰrã 'twenty'; hĩ-kʰrã 'thirty').

identical morpheme order, e.g. **shom**-hni? 'twenty'); Puiron **som**, Maring **som**- (as in **som**-ŋa 'twenty'), Tiddim **sawm**.

The results obtained from examining the foregoing lexical test-sets are summarized in Table 3.2. below:

Gloss	Group A Forms	Group B Forms
'urine'	*sum	*si
'blind'	*mik-čiŋ	*mik-maŋ
'mouth'	*gam	*nap-paŋ
'nose'	*ñV-pum	*ñV-buŋ
'wind (n.)'	*rji	*sar
'rain (n.)'	*mV-doŋ	*pV-doŋ
'thunder'	*doŋ-gum	*doŋ-mur
'lightning'	*doŋ-rjak	*ja-ri
'fish'	*ŋo-i	*a-ŋo
'tiger'	*paŋ-tə	*mjo/mro
'root'	*m(j)a	*pur
'old man'	*mi-kam	*mi-jiŋ
'village'	*nam-pom	*duŋ-luŋ
'granary'	*nam-suŋ	*kjum-suŋ
'year'	*ñiŋ	*tak
'sell'	*pruk	*ko
'breath'	*sak	*ŋa
'ferry/cross'	*rap	*koŋ
'arrive'	*-ki	*puŋ

Gloss	Group A Forms	Group B Forms
'say/speak'	*ban~man	*lu
'rich'	*mi-tə~mi-ta	*mi-rem
'soft'	*ñi-mjak	*rə-mjak
'drunk'	*kjum	OTHER
'back (adv.)'	*-kur	*lat^{2}
'ten'	*čam	*rjuŋ

Table 3.2. Selected Lexical Isoglosses in Tani

Table 3.3., on the other hand, plots the occurrence of these characteristic roots in each of the languages compared ('+' and '-' denote presence of respectively Group-A and Group-B lexical features).[158] The degree to which a given language manifests lexical affiliation with either of the two characteristic groups is determined by calculating the percentages of '-' and '+' in this language. Absence of either root owing to the use of unrelated forms is denoted by '0'. The frequency of occurrence of '0' will be registered in the calculation, as this correlates significantly with the general lexical deviance of the language in question. Accidental gaps in the sources, represented by 'X', are deducted from the total in the percentage count (e.g. given two occurrences of 'X', the denominator will be 23 instead of 25).

[158]The following abbreviated languages names are used: Ap=Apatani S; Bk=Bokar OY; Bn=Bengni S; Br=Bori M; Dm=Damu OY; Gl=Gallong DG; HM=Hill Miri S; Ml=Milang T; Ms=Misng L; Ns=Nishing DG; Ny=Nyisu H; Pd=Padam L; Tg=Tagin DG; Yn=Yano B.

Table 3.3. Percentages of Major Lexical Types in Selected Tani Languages

	Ap	Bk	Bn	Br	Dm	Gl	HM	Ml	Ms	Ns	Ny	Pd	Tg	Yn
'urine'	-	-	+	-	-	-	+	0	-	+	X	-	+	+
'blind'	+	-	+	-	-	-	+	0	-	+	+	-	+	0
'mouth'	+	-	+	-	+	-	+	-	-	+	0	-	+	+
'nose'	+	+	0	-	-	+	+	0	-	+	0	-	0	+
'wind (n.)'	+	0	+	+/-	+	+	+	-	-	+	+	-	+	+
'rain (n.)'	+	+	+	-	+	+	+	-	-	+	+	-	+	+
'thunder'	+	+	+	-	-	+	+	-	-	X	+	-	+	+
'lightning'	+	+	+	-	X	+	+	0	-	X	+	-	+	+
'fish'	+	-	+	-	-	+	+	-	-	+	+	-	+	+
'tiger'	+	-	+	-	-	-	+	+	-	+	+	-	+	-
'root'	+	-	0	-	-	-	X	-	-	+	+	-	+	+
'old man'	0	+	+	-	-	-	+	-	-	0	+	-	+	+
'village'	0	-	+	-	0	-	+	0	-	+	0	-	+	+
'granary'	+	+	+	-	-	+	+	0	-	+	+	-	+	+
'year'	+	+	+	+	+	+	+	-	-	+	+	-	+	+
'sell'	+	+	+	-	-	+	+	-	-	+	+	-	+	+
'breath'	+	+	+	+/-	-	+	+	-	-	+	+	-	+	+
'ferry/ cross'	+	+	+	X	-	X	X	-	-	X	+	-	X	+

	Ap	Bk	Bn	Br	Dm	Gl	HM	Ml	Ms	Ns	Ny	Pd	Tg	Yn
'arrive'	+	-	+	X	-	-	0	-	-	+	+	-	X	+
'say/speak'	-	+	+	-	0	+	+	0	-	+	+	0	+	+
'rich'	0	+	+	+	+	+	+	-	-	+	+	-	+	0
'soft'	0	-	+	X	X	-	+	-	-	X	+	-	+	0
'drunk'	0	+	+	X	-	+	+	-	-	X	+	-	X	+
'back (adv.)'	+	+	+	+	-	+	+	-	-	+	+	-	X	+
'ten'	0	+/-	+	-	0	+	+	0	-	+	+	-	+	+
number of available forms	25	25	25	21	23	24	23	25	25	20	24	25	21	25
number of '+'	17	15	23	5	5	15	22	1	0	19	21	0	20	21
percentage	68	60	92	24	22	63	96	4	0	95	88	0	95	84
number of '-'	2	10	0	18	15	9	0	16	25	0	0	23	0	1
percentage	8	40	0	86	65	38	0	64	100	0	0	92	0	4
number of distinct roots	6	1	2	0	3	0	1	8	0	1	3	2	1	3
percentage	24	4	8	0	13	0	4	32	0	5	13	8	5	12

3.3. A Subgrouping Proposal

It is evident from Table 3.3. that Bengni S, Hill Miri S, Nishing DG, Nyisu H, Tagin DG, and Yano B adhere together from the lexical point of view, with full representation of Group-A features (84%-95%) and general absence of the Group-B ones (0%-4%). This alignment matches almost perfectly with one of the groupings derived in section 3.2.1 on the basis of shared phonological innovations. These six languages can thus be solidly established as a distinct Tani subgroup, which on account of its geographical distribution can be labeled **Western Tani.**[159] It is to be recalled that these languages share not only considerable distinctive vocabulary (including the so-called Group-A or typical Western Tani forms in the twenty-five sets discussed above) but also all three phonological innovations termed Velar Palatalization, Labial Palatalization and *-t^2 Drop. In addition, none of these Western Tani members underwent the innovation we have called deliquidation (i.e. PT *rj- > j-). On the other hand, Mising L and Padam L are sharply opposed to Western Tani on both phonological and lexical grounds. Phonologically, these languages are conservative vis-à-vis Western Tani in that they did not undergo any of the three typically western sound changes; and yet, they have (among other things) jointly participated in the deliquidation sound change. Likewise, they display exclusive Group-B or typical Eastern Tani lexical features. It is clear that they are prototypical members of another

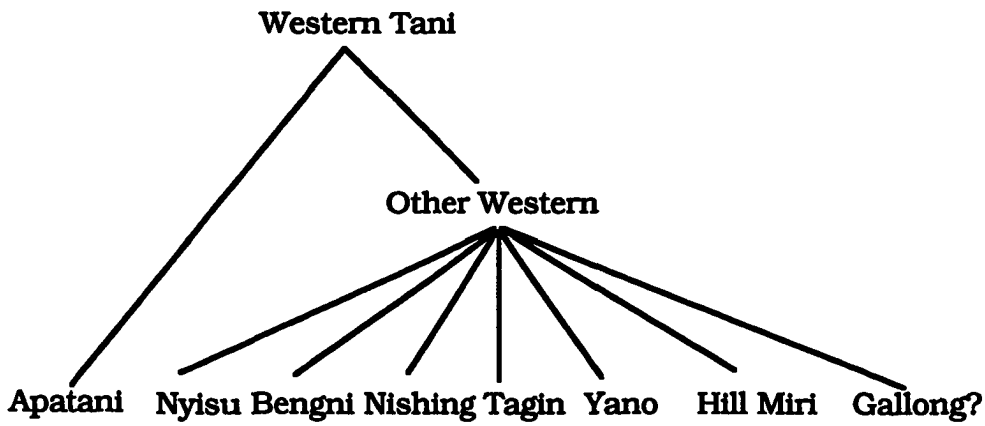
[159]To this group may be added Nishi C, Tagen B, and probably other Tani dialects spoken by the Nishi, Bengni, Tagin, and Hill Miri tribes.

major Tani subgroup, to be termed hereafter **Eastern Tani.**[160] Against the backdrop of these two major Tani subgroups, which comprise eight relatively unequivocal component members, the classificatory status of the other Tani languages can now be considered. Three of the remaining languages also show affinities to Western Tani. One of these is Gallong DG, which shares all three typical western sound changes and 63% Group-A (or typical Western Tani) lexical features. On the other hand, Gallong DG also shows considerable agreement (38%) with Eastern Tani in the twenty-five diagnostic vocabulary items. Moreover, some dialects of Gallong DG also took part in the deliquidation sound change. Since the western traits seem clearly dominant in Gallong DG, this language can be tentatively classified as a peripheral member of Western Tani.[161] Apatani S, the next language to be discussed, agrees with Western Tani in three out of four phonological isoglosses. Like Eastern Tani, however, this language did not take part in Labial Palatalization, which suggests that the sound change in question was an innovation particular to Gallong DG and the six central Western Tani members. In terms of lexical isoglosses, the percentage of typical Western Tani elements is relatively low (68%); however, this is mainly due to the presence of sizable number of unique vocabulary items (6 out of 25 cases, or 24%) in Apatani S. In fact, despite its obvious affinities to Western Tani languages (by which the Apatani Valley is practically surrounded), Apatani S has

[160]To this group might also belong speech forms of such Adi tribes as Minyong, Simong, Karko, Panggi, and Pasi.

[161]This conclusion is in agreement with the observation made long ago by D-S Dunbar: 'There is a closer resemblance between the Dafla and Galong languages than there is between Galong and Abor' (1916:10).

accumulated enough linguistic idiosyncrasies, such as the drastic reduction of PT codas, considerable merger of PT rhymes, and an omnisyllabic tone system, to render it incomprehensible even to the Nishi-speakers living in immediately adjacent villages.[162] It appears, then, that Apatani S represents a subbranch which split off quite early from mainstream Western Tani and, through centuries of relative isolation, has evolved into one of the most divergent languages of the Tani branch. The subrelations of these western languages are shown in the following tree-diagram:



Among the rest of the languages examined, Bori M and Milang T are more closely akin to Eastern Tani. With exclusive eastern phonological characteristics and predominant (86%) eastern lexical

[162]Our Sulung consultant, who is a fluent speaker of Bengni, reported that he had once travelled on foot along the Khru river all the way down to the Apatani Valley. He could converse with ease with the Nishis, Bengnis, and Hill Miris met on the way until he ran across the first Apatani speaker, whose words he could not make out at all.

features, Bori M clearly belong under this subgroup. The situation of Milang T in Eastern Tani seems to parallel that of Apatani S in Western Tani. Milang agrees with Eastern Tani with respect to all of the four phonological isoglosses; in terms of the lexicon, however, Milang T exhibits only 64% typical Eastern lexical features. This again has to do with its remarkably idiosyncratic vocabulary rather than with an admixture of typical Western items, which are almost completely absent in this language. We will have more to say about the nature and classification of this eccentric language in the subsequent section.

The classificatory status of the remaining two languages, Damu OY and Bokar OY, presents interesting problems. In both languages the Eastern and Western phonological features seem to be equally represented; lexically, both languages also exhibit fence-straddling situations with the Eastern lexical type prevailing in Damu OY (65% Eastern vs. 22% Western) and the Western one dominating in Bokar OY (60% Western vs. 40% Eastern). At this juncture, it may be noted that the exact nature of Damu OY is still shrouded in mystery. This is supposedly the language spoken by the Lhoba people of the Damu area, to the northeast of Methog County in southern Tibet. The whole area is rugged, mountainous country with only two small villages, Damu and Kabu. The villagers are ethnically mixed, containing six families of Tibetans, five families of (Tshangla) Monbas, in addition to the twenty Lhoba (Tibetan exonym: 'Miguba') families. The Damu Lhobas are clearly remnants of the ousted indigenes of the area; while their total population is only eighty-two, they come from as many as five different branches (Anonymous C 1987:131-2). Of the five branches, the

Misinbas have already given up their original (Tani) speech and now speak only Khams Tibetan (Sun et al. 1980:114). It remains to be ascertained whether the other branches have adopted a uniform variety of Tani; or, if not, which branch speech is represented by Ouyang Jueya's Damu data. In any event, it would not be surprising, given the heterogeneous ethnic composition of the Damu communities, if Damu OY turns out to be a mixed language of sorts, as the high proportion of non-Tani elements in Damu OY seems to suggest.[163] A sociolinguistic account also seems to be available for the observed linguistic mixture in the case of Bokar OY. The Bokar society used to be stratified into four rigid social castes, to the lowest of which belonged the 'Nyepaks' or slaves, most of whom were bought or captured from the neighboring Tagin (Western Tani) tribe (Anonymous 1987: 52). Although the linguistic interactions of the different social classes in the Bokar society are unclear, the prolonged close contact of the two (mutually unintelligible) languages brought about by the large number of Tagin-speaking slaves[164] sharing the same hearths as their Bokar masters presumably must have exerted considerable impact on the development of the Bokar language. In sum, the positions of Damu

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[163]The heaviest influence comes from Tibetan. In addition to the new phonemic contrasts introduced from Tibetan, Tibetan loanwords permeate every semantic field in Damu OY and have replaced some native core vocabulary, as shown in the following body-part terms: **tʂhu-pa** 'gall' (WT mkhris-pa); **dyn-šo:** 'incisor (WT mdun-so); **ǰu-nə** 'large intestines'; **ǰu-ŋar** 'small intestines' (WT rgyu) 'intestines'; **ndze** 'leprosy' (WT mdze); **lo:** 'lungs' (WT glo-ba); **ša-kaŋ** 'marrow, brain' (WT rkang 'marrow'); **tʂhak-ša** 'blood vessel, pulse' (WT khrag-rtsa); **ñər-ma** 'wrinkle' (WT gnyer-ma). In a lexicostatistic count based on a sample of 180 basic vocabulary items, Damu OY shows surprisingly low cognacy with all other Tani languages (ranging from 64% with Bori M to 40% with Milang T).

[164]It is estimated that the Nyepaks used to constitute about 14% of the Bokar population (Anonymous 1987:52).

OY and Bokar OY on the stammbaum, on account of their complex origins and marked degree of mixed linguistic features, must remain indeterminate at the moment.

3.4. Linguistic Position of Milang

The linguistic aberrancy of the Milang tribe has bewildered many a writer on the Adi (Abor) tribes of the Siang region. Dunbar (1915:10-11), after giving a list of peculiar Milang vocabulary, states (mistakenly) that some of these words 'more nearly resemble their equivalents in Memba (i.e. Tshangla) and Bhotia (i.e. Tibetan) than in Abor'. There is even a belief among some Indian authors that Milang is a kind of code-language used during times of war to confound the enemies (Padun 1971:86; Tayeng 1976). It is not clear what lies at the root of this myth, but it seems false to the extent that this language, rather than a restricted wartime-code, seems to be the normal tool of verbal communication among the Milang tribesmen themselves. More importantly, the usual characteristics of intentionally distorted speech forms do not appear to apply to Milang. Unlike most language games, there are no straightforward rules of disguise that can be 'undone' to change Milang back to a less aberrant form of Tani. Also unlike such restricted speech forms as the 'mother-in-law languages' of Australia, Milang does not exhibit structural reduction or vocabulary impoverishment. Rather, Milang seems to be simply a highly divergent Tani language more closely affiliated with the Eastern Tani subgroup (especially Padam); if this fact is not immediately evident, it is apparently not because of man-

made distortions in this language, but rather because of the presence of a significant amount of unique sound changes and distinctive vocabulary.

In what follows, some of the peculiar phonological and lexical features of Milang will be discussed. However, the imperfect quality of the data in Tayeng 1976, which unfortunately is still the major source of information on this language, has exacerbated the difficulties in cognate detection. Further, many of the sound changes observed below appear to be irregular; this could be largely due to the problems inherent in the data source, or to phonological conditions not yet fully understood.

3.4.1. Peculiar Phonological Developments

A number of unusual sound changes have occurred in Milang, which are partially responsible for the peculiar appearance of words in this language. First of all, original dental/alveolar stops and nasal initials turned into palatals before high vowels, e.g.:

'break (st. stiff)'	čar	PT *tur
'drink'	čaŋ	PT *tuŋ
'elbow'	lak-ju	PT *du
'father-in-law'	a-ču	PT *to
'fold v.'	čal	PT *pil
'pick (up)'	či	PT *tu
'sit/stay'	juŋ	PT *duŋ
'stab'	ñak	PT *nuk

In another unique but sporadic sound change, word-medial dental stops shifted to -r-, e.g.:

'earth/clay'	kar (< ka-dV)	Mising L ke-de
'sun'	me-roŋ (< me-doŋ)	PT *doŋ-ñi
'year'	ta-rak	Padam-Mising L dw-tak

Sometimes PT *s- went to č- (which seems to vary with s-), e.g.:

'die'	či~si	PT *si
'mithun'	a-ču~a-su	Padam-Mising L -so
'net'	čap-puŋ	PT *sap
'reflexive particle'	-ču	PT *-su

The correspondences involving Milang rhymes are even less well understood. The sound changes below, however, seem to be uncommon elsewhere in Tani.

Some instances of PT *-e(:) changed to -a, e.g.:

'ginger'	ta-ka	PT *kre:
'beans'	pa-ron	PT *pe:
'tired, rest'	ap-pa	PT *pe

PT mid vowels *-o and *-e raised respectively to -u and -i (sometimes PT *-ə also raised to -i); this rare sound change is however shared (partially) at least by the Western Tani language Bengni S, e.g.:

'eat'	tu	PT *do
'fish'	a-ŋu	PT *ŋo
'five'	pa-ŋu	PT *ŋo
'guest'	ma-bu	PT *mi-bo
'man; husband'	ma-lu	PT *mi-lo
'moon'	po-lu	PT *po-lo
'night'	a-ju	PT *jo
'palm'	lak-pju	PT *lak-pro
'sell'	ku	PT *ko?
'adverbial marker'	-pi	PT *-pe
'cooked rice'	du-ki	Padam L dot-ke
'envy'	ni	Padam-Mising L ne
'many, much'	bu-ji	Padam-Mising L *bo-je
'price'	a-ri	PT *re
'put'	mi	Padam-Mising L me
'tail'	ta-mi	PT *me
'tiger'	pa-ti	PT *paŋ-te
'woman; wife'	ma-mi	Padam L *mi-me

In closed rhymes, Milang also underwent a few peculiar shifts, the most notable being the unique change of *-i- or *-u- to -a- in dental-coda rhymes, e.g.:

'skin'	a-pan	PT *pin
'liver'	a-han	PT *zin
'fingernail'	la-han	PT *lak-zin
'ripe'	man	PT *min
'fly (insect)'	a-mat	PT *mit
'hot (temporature)'	a-kal	Padam L si-kil 'hot water'
'fold v.'	čal	PT *pil
'break (st. stiff)'	čar	PT *tur

Another unusual (sporadic) shift, from PT *-um/-up to -am/-ap, also seems to be unparalleled in Tani, e.g.:

'three'	ham	PT *fium
'spider'	po-pu ta-ram	PT *rum
'nest'	ap	PT *sup

3.4.2. Lexical Idiosyncrasies

The large portion of distinctive vocabulary in Milang is probably the main reason why outsiders (apparently including other speakers of Eastern Tani) tend to regard this language as a 'secret code'. Some of these peculiar lexical items are listed below together with their more common Tani equivalents.

'ant'	paŋ-ker	Other Tani < PT *ruk~rup
'ask; beg'	ru	Other Tani < PT *ko
'bird'	ta-pju[165]	Other Tani < PT *taŋ
'bite'	ŋot	Other Tani < PT *gam; *rek
'buy'[166]	jak	Other Tani usually < PT *rə:
'chicken; fowl'	ču	Other Tani < PT *rok
'cooked'	ham	Other Tani < PT *nu
'day'	a-nə	Other Tani < PT *lo:~loŋ
'do, make'	lu[167]	Other Tani usually < PT *mo; *rju
'door'	lam-ge	Other Tani < PT *rjap

[165]The root -pju reflects a good Tibeto-Burman root *bja~bra (STC #147) not attested in any other Tani language (except that the pervasive bird prefix *pa- in Tani could also be a phonologically reduced reflex of the same root according to Shafer 1966-73:192).

[166]This Milang T form is also glossed 'take, get'. Cf. Lepcha răk 'receive into the hand'.

[167]Despite superficial similarities, Milang lu could not have come from PT *rju; for one thing, the expected reflex of *rj- in Milang is not l- but j-.

'early morning'	a-nap[168]	Other Tani < PT *ro
'field'	a-pu	Other Tani < PT *ruk
'fist'	kar-jin	Other Tani < PT *lak-puŋ; *lak-tam
'ghost'	a-čok	Other Tani < PT *rom
'give'	ran[169]	Other Tani < PT *bi
'go'	ji[170]	Other Tani usually < PT *gu; *in
'half'	a-rot	Other Tani < PT *ke:
'hear'	ču	Other Tani < PT *tat[2]
'honey'	a-hal	Other Tani < PT *ŋut-laŋ ('bee' + 'juice')
'honeybee'	ta-bjon	Other Tani < PT *ŋut
'hot (spicy)'	a-mar	Other Tani < PT *duk (='posonous')
'house'	a-ñuk	Other Tani < PT *nam; *kjum
'hungry'	ba-nu	Other Tani < PT *kV-noŋ
'know'	hu	Other Tani < PT *ken
'leg'	a-bjaŋ[171]	Other Tani < PT *lə~le
'liquor'	a-ju[172]	Other Tani usually < PT *poŋ
'melt'	to	Other Tani < PT *jet
'mother'	a-ji[173]	Other Tani < PT *nə
'right-hand'	-daŋ	Other Tani < PT *bruk
'rot, putrid'	kaŋ	Other Tani < PT *jaŋ
'seize'	tam	Other Tani < PT *gak

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[168]Cf. PLB *nak; Jingpo mă[31]nap[31]; Ao Naga tə-nap; Mikir mə-nap~ pə-nap 'early morning' (Matisoff 1972:57).

[169]Cf. Kanauri ran 'give'.

[170]Probably related to Lahu e 'verb particle indicating motion away from the center of interest'; Lisu ye[4]; Mpi je[5] 'go'; Bunan e 'go' < PTB *ay 'go; motion away' (Prof. Matisoff, p.c.).

[171]This root occurs in the Padam-Mising L compound for 'thigh' ar-bjaŋ.

[172]This seems to be an areal word found mainly in TB languages of or near Assam. Cf. Tshangla ju, Taraon ju[53], Idu ju[55]ña[55]ɹa[55] 'liquor' (Anonymous 1991); Tamlu Konyak jú; Wakching Konyak jú; Kuki-Naga-Chin *yu (Weidert 1987); Thebor yu; Dhimal yu; Garo tšu < PTB *yu(w) (STC #94).

[173]Perhaps related to Lahu ɔ-e 'mother' < PTB *yay.

'sharp-edged'	ha	Other Tani < PT *rat
'sour'	a-har	Other Tani < PT *kroŋ
'speak, say'	raŋ	Other Tani usually < PT *lu; *ban
'squirrel'	ga-jok	Other Tani < PT *krə
'suck'	jim	Other Tani < PT *bruŋ
'swallow v.'	bit	Other Tani < PT *met
'this'	a-gu	Other Tani < PT *si
'tongue'	či-dal	Other Tani < PT *rju
'urine'	a-te	Other Tani < PT *čum; *si
'village'	jim-bu[174]	Other Tani < PT *duŋ-luŋ; *nam-pom
'weep'	hu	Other Tani < PT *krap
'wing'	ta-ka[175]	Other Tani < PT *lap

The Milang numerals beyond five are also highly deviant, parallels to which are difficult to find in the entire Tibeto-Burman family:[176]

'six'	sap	Other Tani < PT *krə
'seven'	ra-ŋal	Other Tani < PT *kV-nut
'eight'	ra-jeŋ	Other Tani < PT *pri-ñi ('four'+ 'two')
'nine'	ka-ñem	Other Tani < PT *kV-(n)aŋ
'ten'	haŋ-tak	Other Tani < PT *rjuŋ

There are some remarkable differences between Milang and other Tani languages in kinship terminology, another important core

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[174]The first element jim- seems to reflect PTB *kyim~kyum 'house' (STC #53).

[175]For some TB look-alikes, consider Lepcha pă-ku (pă- = nominal prefix), Yacham-Tengsa ta-ka (Marrison 1967).

[176]For a look-alike of Milang sap 'six', cf. Bugun rap. The numerals for 'seven' and 'eight' in Sulung (lie[33] and la[33]), and Bugun (mi-lie and mla) are similar to the Milang equivalents in containing syllables with liquid initials. Likewise, the first syllable in Milang haŋ-tak 'ten' can be compared with Bugun sũã; Sherdukpen sõ (h- in Milang often comes from s-; cf. ham 'three' < PTB *g-sum).

semantic area. One peculiarity of Milang kinship terms is the use of distinct forms for 'grand-parents' and 'parents-in-law', which in other Tani language are expressed by the same roots:

'grandfather'	a-be be-ku	Other Tani < PT *to
'father-in-law'	a-ču a-be	Other Tani < PT *to
'grandmother'	a-ji ji-ku	Other Tani < PT *jo
'mother-in-law'	a-ju a-ji	Other Tani < PT *jo

The Milang words for 'grandfather' and 'grandmother' are built on words for 'father' (a-be) and 'mother' (a-ji) plus the morpheme -ku, which seems cognate with PT *kju 'old' (though in other Tani languages the root does not apply to human beings). Cognates with PT *to 'grandfather; father-in-law; lord' and *jo 'grandmother; mother-in-law' occur only in the Milang terms for 'parent-in-law'.

The lexical deviance of Milang is not limited to content words; there are also a good number of unique grammatical morphemes. For instance, in all other recorded Tani varieties, the plural forms of personal pronouns are derived from the singular by suffixation; in Milang, however, the second person pronouns involve vowel alternation: ñi 'thou'; ña 'you'. Further, Milang contrasts exclusive (ŋa-ji) vs. inclusive (ŋa)[177] first person plural pronouns, a distinction otherwise totally alien to Tani.[178] The following are some more examples of distinct functional words in Milang:

[177]This form is distinguished from ŋa 'I' by tonal alternation, according to Das Gupta 1980:15). This again exemplifies stem-modification which is rare in languages of the Tani branch.

[178]This contrast is also quite uncommon in Tibeto-Burman languages of Arunachal; to the best of our knowledge it has been reported only in Singpho and Northern Naga languages of Tirap, and Takpa (=Northern Monpa) of Kameng.

'causative prefix'[179]	lu-	Other Tani < PT *no (='make')
'feminine gender suffix'	-ji	Other Tani < PT -ne
'future tense marker'	-kal	Other Tani < PT *-rje
'negator'	-ŋe	Other Tani < PT *maŋ
'nominalizer'	-ma	Other Tani usually < PT *-nam
'plural pronominal suffix'	-ji	Other Tani < PT *lu~nu
'prohibitive marker'	-ŋe-luŋ	Other Tani usually < PT -jo

It is clear by now that the abnormality of Milang surpasses by far that of Apatani, making it the most aberrant of all known varieties of Tani. This brings up the issue of the nature of the Milang language. Could it be that Milang represents a direct descendant of proto-Tani from which it broke off at a relatively early date, and that the aberrant features we find in this language are the accumulated changes since its early separation from the other members of this branch? The problem with this view is that it fails to account for the presence of considerable typical Eastern Tani features in Milang, such as the innovative deliquidation sound change. Alternatively, is it also possible that the Milang tribe once used a different language which was replaced by (Eastern) Tani? If this is true, the alien elements in Milang would then be attributable to substratum interference from an unknown non-Tani language spoken by the ancestors of the present-day Milangs before the language shift (Thomason and Kaufman 1988).[180] Plausible as the scenario is given what we know about the

[179]Both of these morphemes mean 'do/make'. Cf. Milang lu-ba≥; Mising L bi-mo 'fill'; < PT *brwŋ-mo, ='make-full'. The causative element -lu seems to occur only before the main verb root in Milang, unlike in other Tani languages where the causative morpheme has both prefixing and suffixing uses.

[180]In this connection, we may cite Dunbar (1915:17) regarding his views on the possible origin of the Milangs:

migrations of the Tani-speaking tribes and the relatively recent spread of Tani languages in Arunachal Pradesh, this remains only a hypothesis until the substrate language can be positively identified.

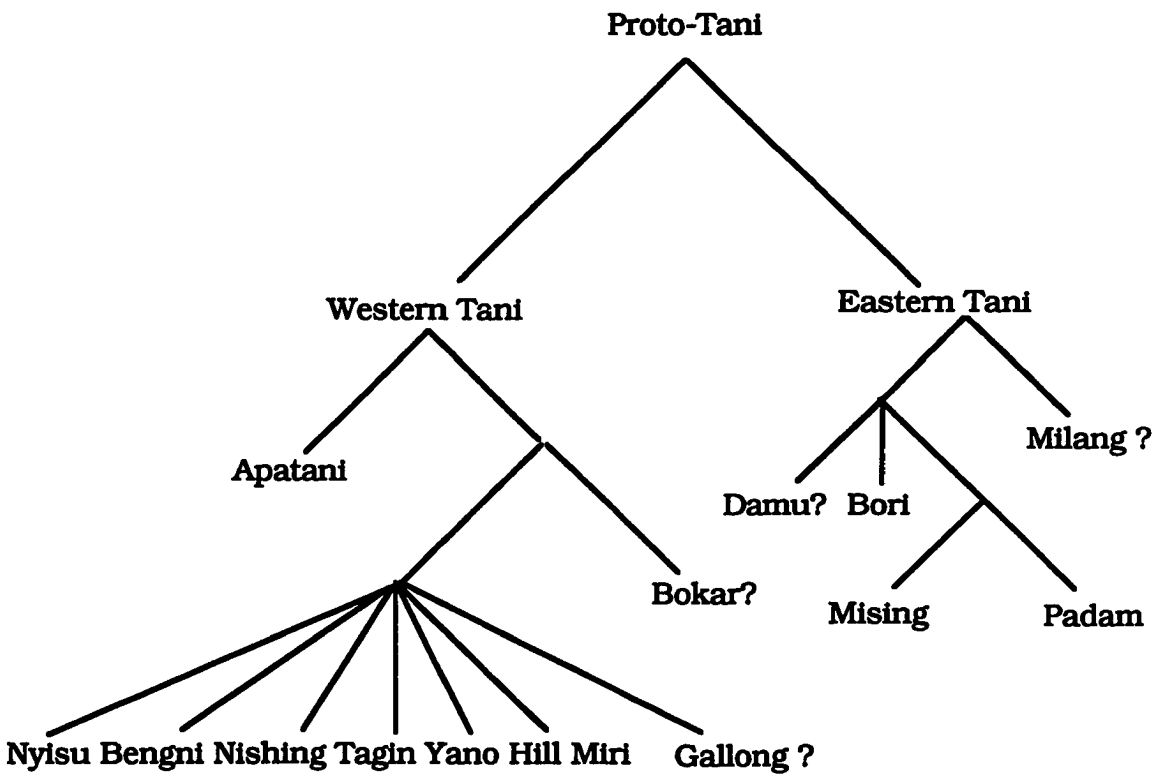
In any event, the overall linguistic structure of Milang, judging from the limited morphosyntactic data in Tayeng 1976 and Das Gupta 1980, does not deviate in fundamental ways from the Tani norm; despite the differences highlighted in this section, Milang is without doubt far more closely related to Tani (more specifically, Eastern Tani) than to any other language in the Tibeto-Burman family. If the linguistic features which Milang shares with Eastern Tani are given precedence and taken to be results of common development, then one possible way to subclassify Milang is to treat it tentatively as a sister language to the ancestor of all other Eastern Tani languages (see tree-diagram below).

> The people of Milang, who speak a language entirely different to that of the clans that surround them, are quite possibly the sole survivors of a race that flourished, before the coming of the Abors, in the valley of the Dihang (i.e. Siang), and the tongue that they speak may be a faint far-off rumour of ancient wars.

We have shown, however, that it is an exaggeration to say that Milang is 'entirely different' from the neighboring Adi dialects.

3.5. Conclusion

In this chapter, we have reviewed some empirical evidence for a broad classification of fourteen varieties of modern Tani. The tentative conclusions we have reached regarding the subrelations of these languages can be summarized in the following stammbaum:



The subclassification presented in the above, although more comprehensive and realistic than its predecessors, is admittedly only a rough approximation. The lack of good comparative data on many of these languages has thwarted further analysis, especially as regards the subrelations of the western languages. Hopefully, however, the

provisional subgrouping suggested here can serve as a useful working basis for further diachronic research on the internal relations of the various Tani languages and dialects as more data becomes accessible.

Chapter IV

Proto-Tibeto-Burman Sources of the Proto-Tani Phonological System

4.0. Introduction

In this chapter, selected PT roots proposed in Chapter II of this dissertation are compared with their probable PTB etyma,[181] in order to establish phonological correspondences between the PT mesolanguage and PTB and thereby explain, to the extent allowed by the available evidence, the phonological development of the various elements of the PT syllable in terms of the PTB ancestral system.

Beyond the most fundamental core vocabulary, the peculiarity of the Tani lexicon becomes painfully apparent, making it extremely difficult to track down reliable extra-Tani cognates of the PT roots proposed in this dissertation. This means that exhaustively tracing the PT initial and rhyme distinctions back to plausible PTB sources is presently quite impossible. Furthermore, intra-Tani lexical divergence often precludes uniform PT prototypes, even for such commonplace meanings as 'run', 'descend', and 'speak'. Under such circumstances, PT roots reconstructed on the evidence limited to certain Tani subgroups are provided (and identified as such). In case

[181]The PTB roots cited here are based on those proposed in Benedict 1972 (henceforth **STC**), as well as more recent revisions and addenda found in Benedict 1976 (henceforth **STAL**), French 1983, Matisoff 1978a (hereafter **VSTB**), and Matisoff 1985b (hereafter **GSTC**).

no currently recognized PTB etyma are available, tentative PTB reconstructions (marked with double asterisks **) supported by the PT roots as well as other Tibeto-Burman parallels are ventured. The recognition of PT-PTB cognates is facilitated immensely by earlier suggestions in such works as Shafer 1967, STC, VSTB, GSTC, and Weidert 1987; the new evidence from comparative Tani, however, allows us to see some of their etymological associations in a new light, and to reconsider the appropriateness of some others.

Comparative data from other Tibeto-Burman languages[182] and mesolanguages[183] will also be provided in the cognate sets below,[184] partly to reinforce etymological connections between the PT and PTB roots, and partly to indicate the distributional pattern of TB parallels of the PT forms in question. For this purpose a wide variety of sources have been consulted, but the heaviest reliance is on the following compilations: Weidert 1987 (hereafter **TBT**), Anonymous 1991 (hereafter **ZMYYC**), Marrison 1967 (hereafter **CNL**, for Classification of the Naga languages of Northeast India), Hale 1973 (hereafter **SIL**).

4.1. Prefixes in PTB and PT

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[182]The following sources on individual Tibeto-Burman languages are consulted: Mainwaring-Grünwedel 1979 for Lepcha, Bailey 1910-11 for Kanauri; Xu et al 1983 for Jingpo; Barnard 1934 for Rawang.

[183]Mesolanguage data cited are based on the following sources: Matisoff 1972 (hereafter **TSR**) for Proto-Lolo-Burmese (PLB); Bradley 1978 for Proto-Loloish (PL); Weidert 1987 for Proto-Kuki-Naga-Chin (PKNC); French 1983 for Proto-Northern Naga (PNN).

[184]In the interest of saving space, supporting TB forms will be cited only at the first occurrence of the cognate sets; subsequently only the PT root and the PTB etymon will be given. Glosses of supporting TB forms identical to that of the head word of the set are also omitted.

In the majority of cases, prefixes in modern Tani languages are **separate syllables**. Unlike such TB branches as Lolo-Burmese (and perhaps Qiangish also) where fused forms of the original PTB prefixes have caused tremendous perturbations in the development of initials and tones, few old PTB prefixes seem to have survived in any form in modern Tani languages. Many widespread PTB prefixes, including the causative *s- prefix (STC:105), are not evidenced at all in this TB group. Of the basic numerals that have solid PTB comparisons, PT *ñi (< PTB *g-nis) 'two', PT *ñum (< PTB *g-sum) 'three', PT *pri (< PTB *b-ləy) 'four', *(p-l-)ŋo (< PTB *l-ŋa ~ *b-ŋa) 'five', and *kY-(n)aŋ (< *d-kəw) 'nine', only *pri 'four' clearly retains the archaic PTB prefix *b-. The PT form for 'five' is intriguing. While no traces whatsoever of the PTB prefixes *l- ~ *b- are found in Western Tani (where PT consonant clusters are generally better preserved) forms for 'five', some Eastern Tani words preserve **both** of these variant PTB prefixes (e.g. Padam T pil-ŋo; Shimong and Karko pi-ri-ŋo, Morgenstierne 1959:297).[185] Occasionally, however, peculiar initial developments in PT seem to be attributable to fused old prefixes. Contrast for example PTB *sak > PT *sak (Western Tani) 'breath(e)', while PTB *m-sak > *PT fak 'itch'. Consider also PT *fi 'flea' and its PTB etymon *s-ləy, where the PT initial *f- reflects PTB *sl- rather than the bare root initial *l-. However, the preservation of such prefixes seems rather exceptional,[186] as shown by such other PT

[185]This interesting example of prefix preservation is noted in Shafer 1967:193.

[186]It is possible that some instances of older PTB prefixes may survive as part of the unique prefix ar- in Apatani (reminiscent of the ar- prefix in Mikir!). Cf. Apatani S ar-mrjã 'name' < PTB *r-miŋ; ar-mĩ 'ripe' < PTB *s-min. However, since these two examples are probably the only good ones to be found, we do not have enough

etyma as *lum (< PTB *z-lum) 'round', *lo (< PTB *s-gla) 'moon', and *ja-lo (< PTB *(s-) (g-)la, Benedict's revision of STC #475, cited in French 1983:555) 'soul/spirit'), where the original prefixed material, if any, has disappeared without a trace. Moreover, most of the few (chiefly nominal) prefixes that do occur in Tani have relatively transparent semantic associations (e.g. the 'bird prefix' PT *pa- and the '(higher) animal prefix' PT *sa-), indicating that at the PT stage the original PTB prefixes had largely been replaced, and the currently attested prefixes are secondary developments.[187]

4.2. Initials

4.2.1. Stops and Affricates

Proto-Tani has a simple system of initial stops, which, like the PTB system proposed in STC, shows only a two-way manner distinction: plain voiceless and plain voiced. PT also parallells the PTB system in having four contrastive articulatory places (bilabial, dental/alveolar, palatal, and velar) for stops and affricates.

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evidence to claim that the -r here was definitely original (for a counter-example, cf. a-mi < PTB *r-may 'tail').

[187]On the fate of the PTB prefixes in Abor-Miri-Dafla, Benedict says: "Prefixes occasionally preserved here, but replacement by tə- < *d- is common. Aspiration or unvoicing of initial by prefixed *s- is found both in Digaro and Dhimal. Digaro tends to preserve prefixes dropped elsewhere in this group" (STC: 104). It is true that more traces of the original PTB prefixes are attested in Digaro (Taraon), including the PTB *s- (which became xa^{31}-, cf. $xa^{31}ɹuŋ^{35}$ 'otter'; xa^{31}- 'causative prefix'). The affiliation of the Dhimal-Ṭoṭo group to Tani seems questionable, however (see 5.2.3. below).

4.2.1.1. Stops

In general, good etymologies can be established between PT and PTB stops, which exhibit an almost perfect one-to-one match; the exception being PTB *g-, for which only one good PT-PTB parallel has been identified so far.

PTB *p- > PT *p- ('leech (land)', 'sweep', 'spindle', 'ignite')

'leech (land)' PT *pat[1]; PTB *r-pat (STC #45); WT pad-pa; Tshangla pat-pa; Dulong mɯ[31]pǎt[55]; Taraon kɑ[31]pe[53]; Idu ka[31]pi[53]; Sulung kə[33]vat[53] (ZMYYC); PLB *k-r-wat (TSR #167); Lepcha fot.

'sweep' PT *pək; PTB *py(w)ak (STC #174); WT 'phyag; Lushai hmun-phiat; Chepang phek; Mikir ar-phek 'broom' (STC); Tshangla phak; Taraon a[31]paɯ[53] 'sweep' (ZMYYC); Gurung phyoq; Thakali phyā; Sunwar 'phi:k 'sweep' (SIL).

'spindle' PT *poŋ; PTB *p(w)aŋ (STC #48); WT (')phang; Thebor phaŋ; WB waŋ-rûi (STC).

'ignite' PT *par; PTB *bwâr~*pwâr 'burn, fire' (STC #220, fn. 78); WT 'bar- 'burn, catch fire'; Kanauri par 'burn tr.'; Moshang var (STC); WT spar; Takpa par[13]; Nusu pɹɑ[31]; Idu a[55]bɹa[55] 'ignite' (ZMYYC).

PTB *b- > PT *b-('snake', 'give', 'smallpox', 'carry on back')

'snake' PT *bɯ; PTB *bəw 'worm, insect' (STC #27); cf. Bahing bu-sa; Kadu kə-phu; Garo tśi-pu 'snake' (STC); Tshangla bu-tɕhi-la; Dulong bɯ[55]; Taraon ta[31]bu[55]; Idu ja[55]bu[55]; Sulung pɯh[53]; Xide Yi bu[33]ʂ1[33] 'snake' (ZMYYC).

'give' PT *bi; PTB *bəy (STC #427); WB pê; WT sbyin; Dhimal pi (STC); Khaling bi; Newari bi (SIL); Proto-

Karen *phe' (VI); Chepang bəi?; Limbu pi?-ma; Lushai pè; Manipuri pì (TBT).

'smallpox' PT *bum; No matching PTB reconstruction in STC. The PT form and other TB cognates suggest PTB *N-brum~*bum (cf. LaPolla 1987:180): WT 'brum-nad; Tshangla brum-ne?; rGyarong tɐ-mbrɐm (both loanwords from Tibetan?); Mawo Qiang bu^{1}; Qinghua Primi bʐõ^{13}; Muya ndʐo^{35}; Nusu buɔ^{155}ɔ^{131}; Dulong bɪŭm^{53}; Kaman xa^{55}bɪăm^{53}; Taraon bɪo^{53}ɪoŋ^{53}; Idu broŋ^{55}me^{55} (ZMYYC); Tamang 'pro:h; Thakali 'proh (SIL); Chepang bromñ-ca; Proto-Karen *lum?; Ao ^{1}kup^{3}lum^{1}ra; Khezha ^{1}se^{2}pre (TBT).

'carry on back' PT *bak; PTB *bak, an allofam of STC #26 *ba (STC fn. 71); Mutwang Rawang ba? (STC); Jingpo ^{1}ba?; Khiamngan ^{12}a^{23}bau?; Chatthare Limbu pok-s-(u); Taughtu Karen bà?; Kaman tʌ̀m-pʌ̂?; Kom (^{2})pik~(^{1})puk; Chiru pok; Yimchunger (^{1})bu? (TBT); Lushai puak.

PTB *t- > PT *t- ('listen/hear', 'drink', 'big', 'vagina/vulva', 'pick up', 'knock/strike', 'grandfather')

'listen/hear' PT *tat^{2} (< *-as); PTB *ta-s 'hear' (STC #415) (see below).

'drink' PT *tuŋ. No matching PTB reconstruction in STC. Cognates from many TB languages suggest PTB **m-tuŋ: WT 'thung; Mawo Qiang thi; Queyu kə^{35}thũ^{55}; Kaman tauŋ^{55}; Idu tioŋ^{55} (ZMYYC); PL m-daŋ^{1}; PKNC *dɔɔn, Thadou dɔ̀ɔn, Lakher ^{1}dɒ (TBT); Tamang 'thung; Thakali thung; Kaike thung; Sunwar tu:; Khaling tu; Newari twa; Chepang tung (SIL).

'big' PT *tə~*ta; PTB *tay~*ta (STC #298, fn. 208; Matisoff 1985b: #68); (see below).

'vulva/vagina' PT *tu; PTB **təw (see below).

'pick up' PT *tu; PTB **təw. No STC reconstruction. Cf. WT 'thu 'gather, pick up'; Tujia thu^{55}thu^{55}; Anong ʈhu^{55}; Dulong tu^{55}; Taraon ka^{31}tu^{35} (ZMYYC).

'knock/strike' PT *tup; PTB *tup~tip (STC #399); Jingpo tup[31]; rGyarong ka-tɵp (ZMYYC); Hayu tup; Limbu thup; Sunwar 'tup; Khaling duhp.

'grandfather' PT *to; PTB *ta (STAL: fn. 31); Chepang to (STAL); Taraon a[31]tia[55]; Idu na[55]tia[55] (ZMYYC). This root, extremely rare in Tibeto-Burman, could (along with the PT root *jo 'grandmother') be of Mon-Khmer or Tai origin, cf. Proto-Wa *ta? 'grandmother; *ja? 'gradmother' (Diffloth 1980).

The origin of one of the commonest PT roots, *si 'water', had always been a bit of a puzzle, for while the PT *-i rhyme clearly points to PTB *-i or *-əy, there does not seem to be any associable PTB etyma with a **spirant** onset. It has now occurred to us that the etymon of *si must be PTB *ti/*təy 'water', implying the sound change: PTB *ti/*təy > *tʂi (palatalization) > PT *si (deaffrication). Corroboration of the intermediate stage is supplied by the fact that original voiceless PTB affricates (*tʂ- and *ts-) also seem to have turned into spirants in PT (see 4.2.1.2. below, especially the set for 'urine': PTB *tʂi > PT *si).

PTB *t- > PT *s- before *-i/*-əy ('water')

'water' PT *si; PTB *ti~ *təy (STC #129); Kanauri ti; Vayu ti; Magari di; Garo tʂi, Nung thi 'water' (STC); Takpa tshi[53]; Taoba Primi tɕi[53]; rGyarong tə-tʃi; Achang ti[55]; Taraon ma[31]tɕi[53]; Idu ma[55]tɕi[55] (ZMYYC).

However, there is at least one example, PT *di(ŋ) < PTB *di(:)ŋ 'plant v.t.' (see cognate set below), which shows that palatalization before *-i/*-əy may not have applied to **voiced** dental stop *d-.[188]

PTB *d- > PT *d- ('dig', 'sit/live', 'poison', 'plant (tree) v.t.')

'dig' PT *du; PTB *du (STC #129); WB tû; Vayu du; rGyarong tu; (STC); Dulong (Dulong River dialect) du^{53} (Sun 1982); Jingpo thu^{31}; Xide Yi ndu^{33} (ZMYYC).

'sit/live' PT *duŋ; PTB *tu:ŋ~du:ŋ (STC #361). WT 'dug (< *'du:ŋ); WB thuiŋ; Jingpo tuŋ^{33}; Sulung toŋ^{33}; Shixing dzũ^{55} 'sit' (ZMYYC). Ashö Chin ʔdũ 'rest'; Garo a-soŋ-a; Nocte ^{1}toŋ; Rongmei, Liangmei dûŋ; Southern Rengma ^{1}dũ; Northern Rengma ^{1}gi^{3}dũ^{2}gi 'sit' (TBT).

'poison' PT *duk; PTB *duk~*tuk (STC #472); WT dug 'poison'; WB tauk 'poisoned'; Takpa tu^{13}; Tshangla duʔ; Mawo Qiang də; rGyarong tək; Jingpo n^{31}tuk^{55}; Kaman tau^{53}; Taraon thai^{53} 'poison' (ZMYYC); Kham tu:; Sunwar 'du:k-ci 'poison' (SIL). The PT root also means 'hot, spicy'.

'plant (tree) v.t.' PT *di:~*diŋ; PTB *diŋ ~ *di:ŋ (STAL:173); Lepcha diṅ 'be erect, high, perpendicular'; Kachin diŋ 'be straight, rectilinear' (tiŋ^{33}); WB tañ 'place in position, build'; Lushai diŋ 'stand, be upright' (STAL).

PTB *k- > PT *k- ('uncle (maternal)', 'star', 'crab', 'open', 'smoke n.', 'dove/pigeon', 'phlegm')

'uncle (maternal)' PT *ku; PTB *kəw (STC #255); Takpa khu:^{55}; Mawo Qiang ə-ku; rGyarong ta-ku; Dulong a^{31} ku^{53}; Taraon a^{31}kau^{53}; Idu na^{55}ku^{55} (ZMYYC). Note the

[188]The development of Garo dental stops in Garo seems to show the same disparity, e.g. tśi < PTB *ti/*təy 'water', but na-tik 'shrimp' < PTB *(s-) di:k (STC:26).

semantic shift in the WT cognate khu-bo 'paternal uncle'.

'star' — PT *kar; PTB *s-kar (STC #49); WT skar-ma; Tshangla kar-mi; Jingpo ʃă^{31}kan^{33} (ZMYYC); Khaling 'sāng-gār; Chepang kār (SIL); Kulung soŋ-ger; Tamlu Konyak šan-ha; Rongmei ɣan-suáŋ-ŋá (TBT).

'crab' — PT *ke; PTB *d-ka:y (STC 51). Khoirao tśə-ɣai; Lushai ai (STC); Some TB languages show an -r- medial: Tamang ka-khre; Boro kaŋ-krái (TBT).

'open' — PT *-ko; PTB *ka (STC #469). Kachin sum-kha 'be wide open; spread, extend'; WB kâ 'divaricate, be stretched apart, expanded'; Lushai ka 'open (as leg)' (STC); Mawo Qiang rga (?); Namuyi χa^{35}; Shixing qo^{33}; Muojiang Yi khɒ^{21} '(open (door)'; Jingpo mă^{31}kha^{31} 'open (mouth' (ZMYYC). The PT root is a resultative verb particle.

'smoke n.' — PT *mə-kɯ ('fire' + 'smoke'); PTB *kəw (STC #256); Tshangla mu-qu; Mawo Qiang mu-xu; rGyarong tɐ-khə; Ergong mkhɯ-lɯ; Queyu khu^{53}; Lahu mu^{53}ghɔ^{53}; WB mî-khûi; Nusu khɯ^{55}; Dulong mɯ^{31}ɯ^{55}; Jingpo wan^{31}khut^{31} (with -t suffix); Kaman ta^{31}khui^{53} (cf. mʌi-hwût recorded by Weidert in TBT: p.480); Taraon ma^{31}khɯu^{53}; Idu khɯu^{53}; Sulung bæ^{33}kɯ^{33} (ZMYYC); Limbu mi-khu:-ma; Garo wal-ku (wal- < wa?al 'fire'); Nocte ^{2}vʌn-khu?; Khiamngan ^{2}ɪn-^{12}kau?; Moshang mhé-khwú?; Lotha ^{3}mi-kɨɯ(?); Manipuri məi-khù; Angami ^{2}mi-^{1}khu; Tamang ^{1}mi-ŋku; Bwe Karen ?mi-khù. Reflexes in many languages show a prefixed nasal or a suffixed stop, both unattested in PT.

'dove/pigeon' — PT *kɯ; PTB *m-kəw (STC #118, fn. 123); Kachin khru; WB khui; Meithei khu-nu; Khami iŋ-mə-khu; 'pigeon' (STC); Idu pɪa^{55}tɯ^{31}kɯ^{55} 'pigeon' (ZMYYC); Limbu puttu-khe? 'dove' (TBT); WT 'ang-gu 'pigeon'.

'phlegm' — PT *kak; PTB *ka:k 'cough up, phlegm' (STC pp. 71); Lushai kha:k 'phlegm'; Mikir tśiŋ-khak 'clear throat, spit, phlegm' (STC); Tshangla har-khak-taŋ; Ergong sqha^{ɹ}; Zaiwa khju.^{21}kjo?^{55}; Kaman khɪa^{53}; Taraon na^{31}kha^{53} (ZMYYC); Jingpo ^{1}mə^{3}kha; Sgaw

Karen kə^{4}ha?; Lamgang pʌ-khà; Boro ha?-ga?-dɐi? (TBT).

PTB *g-> PT *g- ('bite')

'bite' PT ***gam~gjam***; PTB ***gam*** 'put into mouth; seize with mouth' (STC #491). WT 'gam 'put or throw into mouth'.

4.2.1.2. Affricates

Four PTB affricates, ***ts-***, ***dz-***, ***tś-***, and ***dź-***, are recognized in STC. As for PT, we have reconstructed palatal affricates (symbolized in this work as *č- and *ǰ-), but no dental affricates. The PTB and PT affricates seem to have little to do with each other.

STC roots reconstructed with the rare voiced palatal affricate (only five of them) cannot yet be linked with any known PT forms; there is some indication, however, that PTB ***dz-*** may have shifted to PT ***d-***:

PTB *dz- > PT *d- ('eat, 'stand (v.)')

'eat' PT ***do***; PTB ***dza*** (STC #66); WB câ; Magar dźya; Bahing dźa; WT za; Kanauri za (STC); Tshangla za; Mawo Qiang dzə; rGyarong ka-za; Shixing dzɛ^{53}; Nusu dzɑ^{55} (ZMYYC). TB cognates with **dental stop** initials include: Queyu (Qiangish) kə^{35}tɐ^{53} and Taraon tha^{53} (ZMYYC).

'stand (v.)' PT ***dak***. No matching PTB reconstruction in STC. The PT root and other TB cognates seem to suggest PTB ***N-dzaŋ~N-dzak**; cf. Ergong dzuŋ; Ersu ndzɑ^{55}, Shixing dzɛ^{33}ʔi^{35}; Nusu dzɔ̃^{35}; Tshangla thiŋ; Dulong pă?^{55}daŋ^{35}; Taraon deŋ^{35}; Idu de^{55} (ZMYYC); Ao ^{3}nuk^{3}tak (TBT), Newari da (SIL); WB thoŋ; Phunoi con 'be standing' (Bradley 1978).

On the other hand, PTB roots with the voiceless affricates *ts- and *tś- invariably yield PT reflexes with **spirant** initials. Consider the cognate sets below, which illustrate the developments of these PTB affricates to PT *s-/*z- as well as *ʃ-, in the latter case apparently conditioned by the rounding of the original vocalism.

'urine' — PT *si; PTB *tśi 'urinate (urine also?)' (STC #77). Cf. WT gcid ~ gci 'urinate'; gcin 'urine'; WB tshî (polite term) ~ sê 'urine' (STC); Takpa tɕhin^{53}; Tshangla tɕhe-raŋ; rGyarong ta-ʃtʃi; Guiqiong ɛ^{55}ʃ1^{55}; Tujia ɣue^{55}tshie^{55}; Dulong tɕi^{55}; Jingpo tʃit^{31}; Kaman tɯ^{31}ɕit^{55} 'urine' (STC); PL *ši^{2}; Tamlu Konyak šɯt; Tangsa ^{1}ši(?); Limbu se?-ma:t; Kham 'jis$^{\tilde{n}}$; Sgaw Karen ^{2}shi (TBT).

'nail/claw' — PT *zin; PTB *m-tśen (STC #74); WT sen-mo 'nail'; WB ə-sâñ; Lushai tin (STC); Tshangla tshiŋ-naŋ; Mawo Qiang si; Nusu ʔla^{53}shə̃$^{\text{J}55}$; Jingpo lă^{31}mjin^{33}; Anong ɲin^{55}; Taraon a^{31}ɬɯn^{55} 'fingernail' (ZMYYC); Angami ^{2}dzie^{5}tse; Risiangku Tamang ya:-'chin; Tangsa džak^{2}thin; Chepang sən?; Yimchunger ^{2}mɯ^{2}zan [^{1}] (TBT).

PTB *tś-/*ts- > PT *ʃ- ('boil v.i.', 'fat/greasy')

'boil v.i.' — PT *ʃu; PTB *tśow (STC #275); WT 'tsho-ba 'cook in boiling water, bake'; WB tshu 'boil, bubble, effervesce'; Garo so 'boil'; Lushai śou 'boil' (STC); Taoping Qiang tshu^{33}; rGyarong kə-stso; Muya tsuɯ^{53}; Ersu tsu^{55}; Taoba Primi tə^{55}tɕho^{53}; Anong a^{31}ʂu^{31}; Dulong a^{31}ʂu^{53} (all meaning 'boil v.i.' (ZMYYC); Lepcha sóm 'boiled' (root=só-).

'fat/greasy' — PT *ʃu; PTB *tsow (STC #277); WT tsho-ba 'fat, greasy'; WB tshu 'fat' (STC); rGyarong kə-tsho; Mawo Qiang tshv; Shixing tshuə^{33}; Jingpo sau^{33}; Anong ɕa^{55}ʂu^{55}; Dulong ʂu^{53}ɕa^{55}; Taraon so^{53}; Sulung a^{33}zua^{11}; all meaning 'fat (meat)' (ZMYYC); Lepcha šu- 'fat adj. and n.'; PL *tsu^{1} 'fat n.'. PT *ʃu-

can also mean 'fat (of people)', as the cognates of PTB *tsow in rGyarong, Loloish, and Sulung; cf. also Anong su^{31}a^{31}ɲi^{55} 'fat (of people)'.

4.2.1.2.1. PT Palatal Affricates

The origins of the PT palatal affricates *č- and *ǰ- are still mysterious, as very few convincing extra-Tani comparisons exist. What is clear is that they must have evolved from multiple sources. Some instances of *ǰ- seem to correspond to dental/palatal affricates in other Tibeto-Burman languages (e.g. the set for 'stretch' below). The PT variant roots for 'flat', *rjap (cf. Apatani S lje? 'flatten') and *jep (e.g. Padam-Mising L a-jep; Bokar OY, Bengni S a-jap) indicate that some instances of of PT *ǰ- may stem from PTB consonant clusters containing palatalized -l- (< *bly- in this case?). PT *ǰ- coming from earler *dj- or is also suggested by both intra-Tani variations (ǰuŋ~duŋ 'beat/flog') and external cognates (cf. WT rdung; see also the set for 'fat/stout' below).

PTB *dz-> PT *ǰ- (?) ('stretch v.')

'stretch v.' PT *ǰon. No PTB etyma in STC. Cf. PLB *(?-)dzan^{3}~ *tsan^{3} 'stretch out' (Matisoff 1985b #11, where the following LB cognates are given: WB can' 'stretched out, lengthened'; chan' 'stretch out something, lengthen something'; Lahu che 'stretch out, extend, stick out'; cf. also Anong ʂɿn^{55}; Dulong tʂan^{53}; Idu a^{55}dʑeŋ^{55} 'stretch (hand) out' (ZMYYC); Lushai vân 'stretch oneself'.

PTB *b-ly- > PT *ǰ- (?) ('flat')

'flat' PT *ǰep~*rjap; PTB *ljap (STC #212); WT leb-mo 'flat'; gleb-pa 'make flat'; WB lyap 'very thin' (STC);

Boro da-blá?; Miju blá-lá (TBT); Lepcha a-lyóp~a-lep; Kham pə-lya-to 'flat (of stone)' (Watters:16); Taraon phlã: 'flatten'; Khaling plem plemin 'flat' (SIL). For a discussion of the interactions of d- and l- and in particular of the 'flat' allofams in TB, see Matisoff 1988a, 1990. The etymon of PT *ǰep may have been an allofam of PTB *lyap with a stop prefix (PTB *ly- normally gave PT *rj-, e.g. PTB *(m-/s-)ljak > PT *rjak 'lick'), most probably **bly-, as shown in the Miju, Taraon, Boro, Kham, and Khaling forms.

PTB *dy- > PT *ǰ- ('fat')

'fat/stout' PT *ǰuŋ. No PTB etyma in STC. Cf. Taraon diuŋ[53]; Idu diŋ[55]; Kaman kɯ[31]diaŋ[55]; Yongning Naxi di[33]. PTB **dyiŋ? The PNN look-alike *gluŋ points rather to a *Cl- cluster (French 1983:458 suggests that this PNN root may represent an early loan from Ahom).

The following set shows how an optional -j- glide at the PT level may have turned original PTB *d- into *ǰ-:

'beat/flog' PT *ǰuŋ~*duŋ. PTB **r-duŋ? Cf. WT rdung; Mawo Qiang dy; Muya ty[53]; Dulong duŋ[55] 'strike (iron)' (ZMYYC); Lushai dêng 'hammer, pound'; Magar dung 'strike'; Chepang thung 'collide' (SIL).

PT *č- is not well-attested, but the following roots are securely reconstructible: *čum 'weave', *čaŋ 'ascend', *čam 'ten'. It is extremely hard to find convincing Tibeto-Burman cognates of all three of them, and we can do no more then suggest some suspected parallels to two of these roots:

'ten' PT *čam: (all Kuki-Chin-Naga) Lushai shom, Tiddim, Ngawm, Lai, Laizo, Anal, som; Zotung suŋ 'ten' (Ono:1965); Puiron (related to

Rongmei) **som** 'ten'; Maring (a dialect of Tangkhul) **som-nga** 'twenty' (CNL).

'ascend' PT *čaŋ: Lepcha **hróṅ**; Bantawa **loŋs-**; Jingpo **luŋ**^{31} (ZMYYC); Lotha **chuŋ-wa** Nzieme **haŋ** (CNL); Chang **aŋ** 'go up, climb'; Phom **oŋ**; 'ascend, climb'. Shafer 1967:202 links this Tani root with Lushai **shâŋ** 'high'.

4.2.2. Spirants

STC reconstructs five PTB spirants, ***s-**, ***z-**, ***ś-**, ****ź-**, and ***h-**. Their correlations with the PT spirants ***f-**, ***v-**, ***s-**, ***z-**, ***h-**, and ***ɦ-** seem far from straightforward.

The PTB and PT laryngeal spirants are not relatable to each other. While the origins of PT voiceless ***h-** are largely unknown, at least some instances of PT voiced ***ɦ-** derive from PTB **dental** fricatives (see the sets for 'three' and 'child/son' below). Of the handful of STC roots reconstructed with the PTB ***h-** initial, only one parallel with the PT laryngeal initial ***ɦ-** is noted:

PTB *hy- > PT *ɦ- ('scratch')

'scratch' PT ***ɦok**; PTB ***hyak** (STC 230). Lushai **hiat** (<***hlak**); WB **yak** (STC).

Furthermore, in the two sets below, which involve PTB roots with the ***hw-** cluster initial, the ***h-** element is not attested in their PT reflexes (for supporting forms see under 4.2.5.2.). These two PT ***v-**

roots, the only ones with plausible PTB etyma, also indicate that some instances of PT *v- came from the earlier labio-velar glide *w-:

'come/enter' PT *vaŋ; PTB *hwaŋ 'enter' (STC #218).

'blood' PT *vi:; PTB *s-hwyəy (STC #222).

We will have very little to say on PTB *z-, *ś-, and *ź-. No PTB roots with either *ś- (except in one case PTB *śrik 'louse', discussed below) or *ź- have plausible reflexes in PT. Of the six roots in STC carrying the *z- initial, only one yields a good PT cognate, namely *za > PT *ɦo 'child (offspring)'. This suggests that PTB *z- could be another possible source for this voiced laryngeal initial in PT.

PTB *z- > PT *ɦ- ('child, son')

'child/son' PT *ɦo; PTB *za 'son, offspring' (STC 59). Tshangla, Magar za; Dimasa (ba-)sa; WT sâ (STC); the following forms from ZMYYC are glossed 'son': Ersu $i^{33}\underline{z}a^{55}$; Queyu zi^{35}; Nusu za^{55}; Lisu za^{31}; Jingpo $la^{33}ʃa^{31}$; Cf. also Kaman $\underline{s}a^{55}wai^{53}$; Taraon a^{55}; Idu $ʔa^{55}$ 'child' (ZMYYC).

The following discussions will focus on the fate of PTB *s- in PT, as well as the multiple origins of PT *f-.

4.2.2.1. PTB *s-

Although many convincing PT comparisons are available for PTB *s-, the correspondences are exceedingly intricate. This may have to do partly with the effect of old prefixes, and partly with the general

(and ongoing) trend in this Tibeto-Burman group to weaken dental/palatal spirants to laryngeals.

The most common PT reflex of the PTB *s- seems to be *s-, for example:

PTB *s- > PT *s- ('wither/dry', 'wood', 'breath', 'die')

'wither/dry' — PT *san; PTB **san~**sal 'wither, dry up'; Jingpo san '(of rice grain) wither, become empty', Tshangla saŋ; Dulong sɔŋ^{55}; Kaman sal^{53} 'wither' (ZMYYC); Tamang saŋ; Liangmei saŋ; Angami ^{5}so 'dry v.t.' (TBT), Lepcha a-són 'dry'.

'wood' — PT *suŋ; PTB *siŋ (STC 233); WT sing; WB sats; Magar śiŋ; Lushai thiŋ (STC); Tshangla ɕiŋ; Mawo Qiang si; Dulong ɕiŋ^{55}tuŋ^{55}; Kaman sǎŋ^{35}khliŋ^{55}; Taraon ma^{31}suŋ^{53}; Idu ma^{55}seŋ^{55} (ZMYYC); Sulung hø^{J}n^{33} (my own field data).

'breath' — PT *sak (Western Tani); PTB *sak (STC #485); WB -sak; Chang hak; Pwo and Sgaw Karen θa (STC); Jingpo sa?^{31} (Xu 1983); Yimchunger (1)šak; Sangtam ^{1}a(^{2})sa? (TBT); Lushai thawk (Lorrain and Savidge 1898).

'die' — PT *si; PTB *sɔy (STC #232); WT si; WB se; Takpa ɕi^{53}; Tshangla ɕi; Mawo Qiang ɕi; rGyarong ka-ʃi; Tujia sie^{35}; Dulong ɕi^{53}; Jingpo si^{33}; Kaman si^{53}; Taraon ɕi^{55}; Idu ɕi^{55} (ZMYYC).

In the examples that follow, PTB *s- correspond rather to PT *z- ('fruit', 'liver'), and, in one case noted so far, to *ɦ- ('three'):

PTB *s- > PT *ɦ- ('three')

'three' — PT *ɦum; PTB g-sum (STC #409). Takpa sum^{53}; Tshangla sam; Mawo Qiang khsi; rGyarong kɐ-sam; Achang sum^{31}; Anong a^{31}sɔm^{53}; Dulong a^{31}sum^{53};

Jingpo mă^{31}sum^{33}; Kaman ku^{31}sŏm^{53}; Taraon ka^{31}sun^{35}; Idu ka^{31}son^{55} (ZMYYC).

PTB *s- > PT *z- ('fruit', 'liver')[189]

'fruit' — PT *ze; PTB *C-sey;[190] WT se-'bru 'pomegranate'; Vayu se~si; WB si'; Dimasa ba-thai; Lushai thei; Mikir (a)the 'fruit' (STC); Mawo Qiang sə-ɹmi; Ersu si^{55}sɛ^{55}; Dulong aŋ^{31}ɕi^{55}; Jingpo nam^{31}si^{31}; Idu ɹuŋ^{55}ɕi^{55} (ZMYYC). Cf. also WT se-ba ~ bse-ba ~ gse-ba 'rose'.

'liver' — PT *zin; PTB m-sin (STC #234); WT mchin (<*m-shin); Kanauri śin; WB (a-)sâñ; Mikir iŋ-thin (STC); Tshangla tɕhiŋ-pa; Mawo Qiang si; Ersu ntsha^{55}; Shixing su$\tilde{ə}^{55}$; Nusu ts$\tilde{ə}^{ɹ55}$; Dulong pɯ^{31}ɕin^{55}; Jingpo sin^{31}tʃa?^{31}; Idu huŋ^{53} (ZMYYC).

Furthermore, certain PTB cluster initials involving *s- (the attested combinations are: *m-s; *sl-, and *r-s) shifted to PT **labiodental** initial *f-. The precise conditions for this phonological development remain to be clarified.

'comb n.' — PT *fi; PTB *m-si~*m-səy (STC #466); Ao mə-sə; Mikir iŋ-thī (STC); Mawo Qiang qə-si (qə='head'); Dulong u^{55}ɕui^{55} (u^{55} = 'head'); Jingpo pã^{55}si^{55}; Kaman si^{55}pen^{55}; Taraon tshe^{55}kui^{55}; Idu pe^{55}tshe^{55} (ZMYYC). Chang kù-sái; Sgaw Karen ɬθi; Tiddim săm-si? (săm = 'hair of head') (TBT).

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[189]PT roots for 'liver' and 'nail' are homophonous (as in, e.g. WB and Qiang), although their PTB etyma were most probably not, as shown by the distinct reflexes in many TB languages. Note however that the alternation between ś- (Miri) and j- (Abor) in 'nail', which motivated Benedict's reconstruction of PTB *m-(t)sin 'nail/claw' (STC #74), also occurs in the 'liver' root (cf. Bokar OY jin vs. Bengni S šin 'liver').

[190]This is a revision of PTB *sey (STC #57) in view of such TB forms as WT se-ba ~ gse-ba~ bse-ba 'rose' (Prof. Matisoff, p.c.).

'itch' PT *fak; PTB *m-sak (STC #465); Lushai thak; Lakher pə-tha; Ao me-sak; Mikir iŋ-thak; Lepcha ǰak (STC); rGyarong kə-ra-ǰak; Anong bɯ^{31}saŋ^{55}; Dulong pɯ^{31}sǎʔ^{55}; Taraon ma^{31}so^{53}; Idu ma^{55}so^{55} (ZMYYC); Zemei ^{3}ka^{1}n^{1}cak; Liangmei ma-sâk; Sgaw Karen ^{4}θaʔ (TBT); Jingpo mǎ^{31}saʔ^{31} 'ticklish sensation'.

'sinew/vein' PT *fo; PTB *r-sa (STC #442); WT rtsa 'vein; root'; Lepcha so 'veins; fibers of wood'; Dimasa ra-da 'vein'; Tushai tha 'sinew'; Mikir ar-tho 'nerve, sinew, vein, muscle' (STC); Takpa tsa^{53}; Ergong ʐtsa; Ersu hta^{55}; Shixing sɛ^{55}tsɑ^{33}; Jingpo lǎ^{33}sa^{33}; Taraon sa^{55}; Idu e^{55}sa^{55} 'sinew, tendon' (ZMYYC).

'flea' PT *fi; PTB *s-ləy (STC #440). WT lii-ba; WB hle; Takpa liu^{55}; Taoba Primi ɬe^{53}; rGyarong ndza-ji; Queyu ɬai^{55}; Tujia li^{55}li^{21}; Anong ʂ1^{55}l̩1^{31}; Nusu ɬi^{55}a^{31}; Jingpo waʔ^{31}khǎ^{55}li^{55}; Dulong sɯ^{31}li^{53} (ZMYYC).

4.2.2.2. PT Labiodental Spirant *f-

The PT labiodental spirant *f-, postulated entirely on internal grounds, turns out to have diverse PTB origins. In addition to PTB *s- in combination with certain proto-affixes (q.v. the previous section), other PTB sources of PT *f- include dental or palatal affricates (before proto-back vowels?) and, in one case, the consonant cluster *śr-. Observe the following examples:

'boil v.i.' PT *fu; PTB *tśow (STC #275).

'fat/greasy' PT *fu; PTB *tsow (STC #277).

'head louse' PT *fuk; PTB *śrik (STC #439); WT shig; Tshangla ʂiŋ; Mawo Qiang xtʂə; Dulong ʂĭʔ^{53}; Jingpo tsi̱ʔ^{55}; Lushai hrik; Mikir rek. The Jingpo form ʃǎ^{55}kʒa̱t^{55}

cited in ZMYYC (p. 532) means 'body louse'. The Abor (i.e. Padam Adi) form tuk cited in STC (p.107) is a coalesced form of earlier *ta-juk < PT *ta-fuk.

4.2.3. Nasals

The equations between PTB and PT nasal initials are generally speaking quite straightforward. The PTB bilabial, dental, and velar nasal initials are preserved as such in PT (except for PTB *n-, which seems to have undergone some phonologically conditioned shifts in PT; see below). No PT cognates of the STC roots with the **palatal** nasal *ñ- have been discovered.

PTB *m- > PT *m- ('blow v.', 'dream', 'dead body', 'eagle', 'fire', 'ripe', 'son-in-law', 'man (homo)', 'extinguished', 'eye')

'blow v.' PT *mut; PTB *s-mut (STC #407) 'blow (mouth, wind)'; PT *mut means only 'blow by mouth'. Cf. WB hmut; Achang mut^{55}; Dulong mut^{55}; Idu mu^{55} 'blow by mouth' (ZMYYC); Jingpo ^{1}gə^{1}wut; Khiamngan ^{12}a^{23}mat; Chang màt; Lamgang kʌ-muut; AshŸo hmù?; Zemei ^{1}ke^{1}mət 'blow by mouth' (TBT).[191]

'dead body' PT *si-maŋ ('die' + 'corpse'). No PTB etymon is available from STC. The PT root and the following TB cognates motivate positing a new PTB root (**maŋ~**r-maŋ?): Mawo Qiang rmu (my own field data), Xiandao Achang tʂu^{31}mɔŋ^{55} (Dai Qingxia, p.c.); Rawang ă-mang (Branard 1934); Jingpo maŋ^{33}; Sani ʂi^{33}mu^{33} (Wu et al. 1984); NN *maŋ (French 1983); Nocte ^{1}mʌŋ; Tangsa ^{1}ʌ^{3}mʌŋ; Northern Rengma ^{1}a^{1}ga^{3}mã; Lotha ^{1}o^{1}muŋ; Angami ^{2}the^{3}mɒ; Chepang hmaŋ (TBT); Newari si-mha (SIL).

[191]Weidert 1987:450 proposes an allofam with -a vocalism on the basis of the Baric reflexes.

'eagle' PT *mu 'hawk'; PTB *məw (STC #257); Anong thi^{31}mu^{31}; Dulong tu^{31}mu^{53} (ZMYYC); Lushai mú; Limbu mu-ja; AshŸo hmú; Chepang mu-a?; Kom màar-mú; Lakher ^{3}pə^{1}hmou; Angami ^{2}ru-^{3}mu (ZMYYC).

'fire' PT *mə; PTB *mey (STC #278) (see below).

'dream' PT *maŋ; PTB *(r-)maŋ (STC #82); WT rmaŋ-lam (rare alternative expression of rmi-lam); Lushai maŋ; Mikir maŋ (STC); Mawo Qiang rmu-ʁe; rGyarong ta-rmɑ; Anong maŋ^{55}; Nusu m̥ɑ̰^{55}; Dulong mlaŋ^{55} (metathesized from *rmaŋ); Jingpo jup^{31}maŋ^{33}; Kaman ka^{31}muŋ^{35}; Taraon ja^{55}mɑ^{53}; Idu i^{55}mu^{55} (ZMYYC).

'ripe' PT *min; PTB *s-min (STC #432). WT smin; WB hm(y)añ'; Garo min-gipa; Lushai hmin (STC); Proto-Karen *hmin (III); Tamang 'min-pa; Bumthang ?men; Khiamngan ^{12}a^{21}ñan; Lotha ^{1}mhen; Tangkhul ^{1}khə^{1}min; Mikir ke-mèn (TBT).

'son-in-law' PT *mak-; PTB *ma:k (STC #324); WT mag-pa; Lepcha myok; Dhimal hma-wa; WB sa-mak; Lushai ma:k-pa (STC); Tshangla mak-pa; rGyarong tə-nmak; Tujia ma^{35}; Nusu zɑ^{55}mɑ^{31}; Sulung a^{33}bua^{53} (ZMYYC); PLB *?mak^{L} (TSR #153); Lamgang ka-maak; Tangkhul ^{1}ə^{2}mak-^{1}kə 'brother-in-law'; PK *ma?; Tamang ma:ñ; Lohorong, Yamphe mak-sa; Ashö sə-má?; Anal à-máa (TBT).

'man (homo)' PT *mi; PTB *r-mi/*r-mey (STC: 107, 119, 158); WT mi; Takpa mi^{13}; rGyarong tə-rmi; Taraon me^{35}; Sulung bi^{33} (ZMYYC); Tamang mi:ñ; Lohorong yap-mi; Garo me?-a (TBT).

'extinguished' PT *mit; PTB *mit (STC #374); Lushai -mit; Tangkhul -^{1}mit; Rongmei -mit; Liangmei -mit; Miju (=Kaman) -mît (TBT); Kanauri biŋ-mig; Kaman mut (Boro 1978: 138).

PTB *n- > PT *n- ('thou', 'snot', 'smell v.', 'younger brother', 'cooked')

'thou' PT *no:; PTB *na~*naŋ (STC #407). Dhimal na (STC); Bijiang Bai na^{55}; Anong ŋa^{31}; Dulong na^{53}; Sulung nah^{53} (ZMYYC).

'snot' PT *nap~*nop; PTB *s-nap (STC #102). WT snabs; WB hnap; Lushai hnap (STC); Takpa nep^{53}; rGyarong tə-ʃnam; Ergong snau; Dulong ɲep^{55}; Jingpo nep^{31}; Kaman ɲap^{55} (ZMYYC); Tamang 'nāp; Magar nāp; Khaling nāhp; Kaike nhap (SIL).

'smell v.' PT *nam; PTB *m-nam (STC #464). WT mnam-pa 'smell (v.i.)', snam-pa 'smell (v.t.)'; WB nâm; Tshangla nam; Dulong pu^{31}nam^{55}; Jingpo mă^{31}nam^{55}; Taraon nuŋ^{35}; Idu nu^{55}; Sulung naŋ^{33} (ZMYYC). The Tani root can be used both transitively and intransitively. Moreover, it also appears in nominal compounds meaning 'smell, odor n.' (cf. Bengni S nam-pu:), 'stench' (e.g. Bengni S nam-kur 'armpit odor'), etc.

'brother(younger)' PT *nu; PTB *na:w 'younger sibling' (STC #271) (see below).

'cooked' PT *nu; PTB *now 'soft' (STC #274) (see below).

PTB *n- (before *-i/*-əy) > PT *ñ- ('two', 'sun', 'year')

'two' PT *ñi; PTB *g-ni-s (STC #4); WT gnyis; Kanauri nis; Garo gni; Lushai hni? (STC); Mawo Qiang ɣnə; Dulong a^{31}ni^{55}; Taraon ka^{31}ɲ; Idu ka^{31}ni^{55}; Sulung ɲi^{33} (ZMYYC). Similar to the situation in Jingpo (STC: fn.61), there is no trace of the old *-s suffix in PT *ñi 'two' (contrast PT *-nut < PTB *snis 'seven').

'sun' PT *ñi; PTB *nəy 'sun/day' (STC #81); WT nyi-ma; WB ne (STC); Bijiang Bai ɲi^{44}; Nusu ɲi^{35}a^{55}; Idu i^{55}ɲi^{55} (ZMYYC); Cf. also the following cognates meaning 'day' (for which PT used a totally different root *lo(ŋ)): WT nyin; rGyarong, Ergong sni; Zaiwa ŋji^{55}; Anong ɲi^{31}; Dulong ni^{55}; Kaman ŋin^{53}; Taraon ku^{31}ɲ^{53} (ZMYYC).

'year' PT *ñiŋ; PTB *s-niŋ (STC #368); WT -niŋ (e.g. zla-niŋ 'last year'); Takpa niŋ^{55}; Tshangla ɲiŋ;

Anong ɲɯŋ^{31}; Dulong aŋ^{31}niŋ^{55}; Jingpo niŋ^{33}; Taraon kɯ^{31}nɯŋ^{55}; Idu i^{55}nu^{55} (ZMYYC).

In the following examples, PTB *n- turned into PT *ñ-. Whether this sound change had something to do with the effects of old prefixes (as in Lepcha) is presently unclear.[192]

PTB *n- > PT *ñ- ('ear', 'nose')

'ear' PT *ña-; PTB *r-na~g-na (STC #453); Tshangla rna; rGyarong tə-rna; Xide Yi hnɯ^{21}po^{33}; Dulong a^{31}na^{53}; Jingpo na^{33}; Taraon kɹu-naŋ^{35} (ZMYYC). Other Tibeto-Burman cognates with the ñ- initial include Ergong ɲaŋ, Dali Bai ɲɣ^{33}to^{42}, and Lepcha a-ñor. The second element of the PT compound is most probably the 'hole' root *ruŋ. For a similar compound structure (but with a different root for 'hole'), cf. Khiamngan ^{2}nõu^{2}kan; Yimchunger ^{2}nɯ^{2}kɯn [^{2}]; Rongmei nu-kuán (all = ear+hole) (TBT).

'nose' PT *ña-; PTB *s-na (STC #101); WT sna; Magar hna; Dhimal hna-pu (STC); Mawo Qiang stɣq (< *snɣ+qə); rGyarong tə-ʃna; WB hna-; Nusu hnɑ^{55}kã^{35}; Dulong ʂɯ^{31}nɑ^{55}; Kaman min^{55}niɔŋ^{35}; Taraon xa^{31}niɑ^{53}pɯm^{55}; Idu e^{55}naŋ^{55}bo^{55} (ZMYYC). Note that the Kaman, Taraon, and Idu cognates also show the palatal ñ- initial.

PTB *ŋ- > PT *ŋ- ('five', 'I')

'five' PT *ŋo; PTB *l-ŋa~*b-ŋa (STC #78). WT lŋa; Lushai ŋa~pə-ŋa; Garo bo-ŋa (STC). As stated, both the *l- and the *b- PTB prefixes are preserved in some Eastern Tani languages (Padam L pil-ŋo; Milang pa-ŋu; Shimong Adi pi-ri-ŋo). These prefixes are not part of the PT root but seem to be

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[192]Both PTB *m-nam 'smell' and *s-nam 'sesame' are reflected by dental n- in Padam-Mising L: nam 'smell v.'; nam-duŋ 'sesame', however.

separate, fully syllabic prefixes, which are not attested in Western Tani and Apatani.

'I' PT *ŋo-; PTB *ŋa (STC #406). Cognates of this root exist in the majority of Sino-Tibetan languages. Cf. WT nga; WB ŋa; Nung ŋa; (STC); rGyarong ŋa; Idu ŋa^{35}; Tujia ŋa^{35}; Dali Bai ŋo^{31} (ZMYYC).

4.2.4. Liquids

The PTB liquid initials were well-maintained in PT, both with quite a few secure etymologies. The change of PTB *l- to palatalized *rj- (PT did not contrast *lj- and *rj-) in PT before *-i/*-əy/*-j- should be noted, however.[193]

PTB *l- > PT *l- ('moon', 'take', 'hand/arm', 'wing', 'stone', 'round', 'neck', 'road/way', 'soul')

'moon' PT *poŋ-lo; PTB *s-la~g-la (STC #144); WT zla-ba; Tshangla la-ɲi; rGyarong tsə-la; Primi ɬi^{55}; WB la'; Achang phă^{31}lɔ?^{31}; Dulong sɯ^{31}la^{55}; Kaman lai^{53}; Taraon xa^{55}lo^{55}; Idu e^{55}la^{55} (ZMYYC).

'take' PT *laŋ. No matching PTB reconstruction in STC. A new PTB root **la~laŋ seems warranted not only by this PT root but also by the TB cognates below: WT blang (future tense form of len 'get, receive'); Takpa lɔŋ^{13}; Anong ɬa^{55}, Nusu dzue^{31}la^{55}a^{31}; Kaman ta^{31}lat^{55} 'take' (ZMYYC); Meche and Boro la?; Tamlu Konyak lái 'bring'; la? 'take'; Manipuri lòu; Rongmei lɔ́ (TBT); Jingpo la^{55} 'take', laŋ^{55} 'hold' (Xu 1983); Lepcha lóň; Rawang laŋ 'hold (in the hand)'.

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[193]This palatalization process applied also to *n- and *t-, but apparently not to *d- or *r-.

'wing' PT *lap. STC does not recognize this root for PTB. Matisoff 1985a:443 reconstructs PTB **p/s-l(y)ap 'wing, feather, flap, flutter'; cf. also Kulung lap-to; Athpare lap-ṭaŋ; Thulung lap-ter; Bantawa lap; Limbu lap (TBT); Tshangla wø-lam (ZMYYC).

'hand/arm' PT *lak; PTB *g-lak (STC #86); WT lag-pa; Chairel lak; Jingpo lə- (STC); Takpa la?^{53}; WB lak; Nusu ?la^{53} (ZMYYC).

'stone' PT *luŋ; PTB *r-luŋ 'stone'(STC #88); Garo roŋ; Dimasa loŋ; Lushai luŋ; MIkir ar-loŋ (STC); Tshangla luŋ; Mawo Qiang ʁlu-pi; Achang liŋ^{31}kɔ?^{55}; Anong luŋ^{33}; Dulong luŋ^{55}; Jingpo n^{31}lun^{31}; Kaman lăuŋ^{35}; Taraon phlɑŋ^{35}; Idu a^{31}laŋ^{55} (ZMYYC).

'round' PT *lum; PTB *zlum (STC #143); WT zlum-pa; WB lum' 'round, globular'; Lushai hlum (STC); Dulong aŋ^{31}kш^{31}lŭm^{55} (ZMYYC); Miju tʊ-lʊ; Sangtam ^{1}a^{1}mu^{2}luŋ; Ao ^{2}tш^{2}luŋ^{2}luŋ 'round'; Lushai hlŭum 'ball' (TBT); Lepcha a-blam; Jingpo lum^{33} '(of cylindrical objects) round'.

'neck' PT *luŋ; PTB *(m-)liŋ (STC #96); WT 'jing-pa~mjing-pa (< **m-lying STC fn. 107); Lepcha tŭk-liŋ; WB laṅ; Lushai riŋ (STC); Dulong liŋ^{55}gui^{53} (ZMYYC); Liangmei mai-gõ-riaŋ; Rongmei mái-ʁuaŋ; Kom riiŋ (TBT).

'road/way' PT *lam-; PTB *lam (STC 87); WT lam; WB lâm; Garo ram-a Lushai lam 'way, direction, place' (STC); Takpa lem^{13}; Tshangla lam; Jingpo lam^{33}; Kaman lam^{55}; Taraon a^{31}lim^{55}; Idu a^{31}lioŋ^{35} (ZMYYC).

'soul' PT *ja-lo; PTB *(s-)(g-)la (Benedict's revision of STC #475 cited in French 1983: 555, based in part on Prof. Matisoff's suggestion in STC fn. 361); WT hla 'god'; Burmese-Lolo *s-la 'soul'; Lushai thla 'spirit, one's double'; Tangkhul maŋ-la 'life; ghost, soul, spirit' (STC); Muya lɐ^{53}; Guiqiong lø^{53}; Namuyi ə^{J55}ɬi^{33}; Anong phш^{31}lɑ^{31}; Dulong plɑ?^{55}lu^{53}; Jingpo num^{31}la^{33} 'soul' (ZMYYC); Jingpo has another form mă^{31}la^{31} 'soul, spirit'. The *g- variant prefix

seems to be based only on Northern Naga. The semantic range of the PT root seems to be close to that of the Lushai cognate 'soul (of living person); one's double'.

PTB *l- (before *-i/*-əy) > PT *rj- ('wind n.', 'bow n.')

'wind n.' PT (Western Tani) *rji; PTB *g-ləy (STC #454); WT rdzi; Jingpo puŋ^{31}li^{55} 'breeze', where puŋ^{33} = '(wind) blow' (Xu et al 1983); Tshangla ri-di; rGyarong kha-li; Shixing ɬe^{53}; Achang ɮi^{55}; Nusu mu^{55}a^{31}ɬi^{35} (ZMYYC); Lushai tlhí; Lamgang tʌr-hli; AshŸo klhí; Bwe Karen gli (TBT).

'bow (weapon)' PT *rji; PTB *d-ləy (STC #463); WB lê; Lepcha sǎ-li; Takpa li^{13}; Tshangla li; Ersu si^{55}li^{55}; Nusu li^{53}; Taroan a^{31}lai^{53}; Idu i^{55}li^{55}; Sulung lei^{53} (ZMYYC); Kham li:; Kaike lhi; Magar khur-li (SIL); Limbu li?; Kaman hli-gàŋ; Ao ^{3}li^{3}tšak; Garo cri (TBT).

PTB *m-r- > PT *l-? ('bone')

'bone' PT *loŋ; Related to PTB *(m-)ra:ŋ (STAL:fn. 11; French 1983:461); cf. Tangsa ^{1}ʌ^{2}ran; Tamlu Konyak ɣeŋ; Wakching Konyak wan; Chang ló (TBT); Dimasa be-ge-reng (CNL); Jingpo n^{31}za^{33} (Xu et al 1983); PNN *ra:ŋ.

PTB *r- > PT *r- ('fowl', 'otter', 'sharp-edged', 'horn', 'enemy', 'fireplace shelf', 'buy', 'fir', 'ant', 'nit')

'fowl' PT *rok; PTB *rak (STC fn. 301); Lushai va-rak 'duck'; WB krak; Primi ro^{53}; Ersu ro^{55}; Nusu ɹo^{31} 'chicken' (ZMYYC); Sunwar 'rāk-mi:k-ci (SIL); Athpare poŋ go-rok (TBT); PLB *k-rak^{H} 'chicken/fowl' (TSR #184)..

'otter' PT *ram; PTB *s-ram (STC #438). WT sram; Tshangla sam; rGyarong tʃə-ʃram; Ergong sɻem;

Achang sam^{55}; Nusu xɹa^{35}; Dulong sw^{31}ɹŏm^{53}; Jingpo ʃă^{31}ʒam^{33}; Kaman ɹam^{35}; Taraon xa^{31}ɹwŋ^{35} (ZMYYC).

'sharp-edged' PT *rat^{1} cf. PTB *ra~rat 'cut, reap' (STC #458). The association of the PT and PTB forms is semantically compatible but uncertain. Cf. Jingpo ʒat^{31} 'wound by cutting'; Dulong a^{31}xɹat^{55} 'cut'; WB phrat 'cut in two', Garo ra~rat 'cut'; Reflexes with the 'sharp' meaning are mainly from either Tani or Mishmi languages, cf. Kaman kɹat^{55}; Taraon and Idu ɹa^{55} (ZMYYC); see also Magar rheT-ke 'sharp' (SIL).

'horn' PT *rəŋ; PTB rwaŋ (STC #87); Lepcha ă-rón; Vayu ruŋ; Bahing ruŋ; Garo groŋ; Tshangla wa-roŋ; Kaman kɹăn^{35}; Jingpo n^{31}ʒuŋ^{33}; Taraon ɹau^{55}; Idu ɹu^{55} (ZMYYC); Kham 'rã; Khaling grong; Chepang rong? (SIL); Nocte ^{1}roŋ; Tangsa ^{1}ʌ^{3}ruŋ; Chang làŋ; Khiamngan ^{12}ʊ^{21}ʊŋ (TBT).

'enemy' PT *mi-rol; PTB *(g-)ra:l 'fight, quarrel, war' (STC fn. 219); Lushai ra:l 'war against, warrior'; Angami te-hre 'war' (STC); WB ran-su 'enemy' (ZMYYC); Maring ral; Manipuri lal; Lushai do-ral (all meaning 'enemy') (CNL). The first component morpheme of the PT compound is *mi- 'man (homo)'.

'fireplace shelf' PT *rap; PTB *rap 'fireplace/fireplace shelf' (STC #84). Lushai rap, Mikir rap; WB mî-rap-pôŋ (STC); Dulong mw^{31}ɹŏp^{55}; Nusu mi^{55}ɹɑ^{53} 'fireplace' (ZMYYC); Lepcha hróp. The Jingpo cognate ʒap^{31}, contra STC p.31, does not mean 'central fireplace (which is tap^{31}khun^{33} with the PTB *tap root)' but 'fireplace shelf', according to Xu et al. 1983.

'buy' PT *rə; PTB *b-rey (STC #293); Garo bre; Dimasa ba-rai (STC); Jingpo mă^{31}ʒi^{33}; Taraon bɹai^{35}; Idu lio^{53}; Sulung vɛ^{ɹ33} (ZMYYC); Boro bai; Nocte ^{1}ri; Tangsa ^{3}ri; Anal i-rin (TBT).

'fir' PT *ru; PTB *(s-)row 'fir; pine'(STC #320); Kachin mə-rau; WB thâŋ-rû (STC); Dulong sw^{31}ɹu^{55}ɸiŋ^{55}; Kaman ɹuŋ^{53}săŋ^{35} (ZMYYC).

'ant' PT *ɾuk; PTB *(g-)ɾwak (STC #199); WT grog-ma; rGyarong kho-ɾok; WT pă-ɾwak Dulong sɯ^{31}ɹɔ̌?^{55}; Kaman tɕu^{31}kɹik^{53} (ZMYYC); Sunwar ʾɾāk-miːk-ci (SIL); Athpare poŋ go-ɾok (TBT); PLB *p-rwak^{H} ~ *k-rwak^{H} ~ *s-rwak^{H} (TSR #183).

'odor' PT *ɾɯː; PTB *ɾi~ɾəy (STC #459); WT dri-ma 'dirt, filth, odor'; Bahing (ə-)ɾi 'odor'; Lepcha mə-ɾi 'dirt' (STC); (ZMYYC).

'nit' PT *ɾɯ; PTB *ɾow (STC #278).

4.2.5. Glides

PTB *y as a syllable initial is well-maintained in PT.[194] The fate of PTB *w seems more precarious, as shown in the PT developments of this proto-glide discussed below.

4.2.5.1. Palatal Glide *y

PTB *y as a syllable initial is generally kept as such in PT. At the medial position, however, PTB *-y- seems less stable, sometimes fusing with the onset consonant (as might be the case in the development PTB *dj- > PT *ǰ- discussed above) and sometimes syncopated in PT.

PTB *y- > PT *j- ('night', 'sleep', 'fan')

'night' PT *joː; PTB *ya (STC 417). Dulong ɹa^{55}dɯŋ^{53}; Tangkhul ^{1}ŋə^{3}ya; Mikir a-ió; Chepang ya?-diŋ; Nocte ^{1}rʌŋ^{1}dža; Lushai zàan; Tiddim zâan; Lakher ^{2}za (TBT).

[194]Note that we use the IPA symbol j for the same proto-phoneme in PT.

'sleep' PT *jup; PTB *yup (Benedict's revision of STC #114, French 1983:551); Tshangla jip; Namuyi jy^{33}; Hani ju^{31}; Zaiwa jup^{55}; Dulong ǐp^{55}; Jingpo jup^{55} (ZMYYC). PNN *C_{vd}-yu:p; PLB *yip (TSR #180).

'fan' PT *jap; PTB *ya:p (STC #92). WT yab-mo; WB yap; Lushai hi-dźap 'fan'; Tangkhul kə-yap 'to fan' (STC); Kaman tʌ́-yʌ́p; Ao ^{3}a^{1}yup; Kom zàap; Tamang 'yapñ 'winnow v.'; Chepang yap-; Tamlu Konyak yɛp 'fan' (TBT). This seems to be an allofam of PT *krap 'winnow' (q.v.).

PTB *-y- > PT *-j- ('fly v.', 'lick', 'wait')

'fly v.' PT *byar; PTB *byer (STC fn. 249); Bahing byer (STC); Bijiang Bai fe^{ɹ55}; Jingpo pjen^{33}; Dulong bě^{ɹ55}; Sulung pie^{33} (ZMYYC); Dulong (Nujiang dialect) zě^{ɹ53}; Gurung birñ; Chamling perñ- (TBT).

'lick' PT *rjak; PTB (m-)lyak~(s-)lyak (STC #211); WT ldag (<*N-lak); WB yak; Achang le?^{55} (<*ljak); Lushai liak; Dulong la?^{55}; Taraon ljo^{53}; Nusu ?lja^{53} (ZMYYC); Magar lhāk-ke (SIL); Liangmei ma-liak; Yimchunger ^{2}mu^{2}leak; Tangkhul ^{1}khə^{1}mə^{2}lek; Zemei ^{3}ke^{1}n^{3}niak (TBT); PLB *m-lyak^{L} (TSR #179).

'wait' PT *(r)jaŋ; PTB **lyaŋ? 'wait'. Ergong liaŋ; rGyarong ka-na-jo; Guiqiong lɔ̃^{55}-di^{35}; Ersu lo^{53}; Zaiwa laŋ^{55}; Nusu lɑ̃^{31}; Jingpo la^{31}; Kaman a^{31}ʑaŋ^{35}; Taraon and Idu ka^{31}lioŋ^{35} (ZMYYC); Tamang 'ruŋ; Chepang lyuŋñ (ZMYYC); Lushai rǎň. Cf. also Jingpo khʒiŋ^{31} 'stop, rest', WT sring 'wait, tarry'; PLB *?laŋ, tone ^{1} or ^{3} (Prof. Matisoff, p.c.).

Consider also the set below:

'machete/iron' PT *rjok. The primary gloss in Tani is 'machete/knife', but it seems clear that 'iron' was also part of the original meaning (cf. Padam-Mising L jok-din 'iron', i.e. 'knife-flesh'!). This could be an earlier borrowing from Pre-Tibetan *lyaks, cf. WT lcags (< *k-lyaks, cf. *lci < *klyi 'dung' < PTB *k-ləy 'excrement'); Takpa lek^{53} (ZMYYC); Lepcha

pă-yuk 'sword' (Bodman 1988:12); Bumthang ᴴlak (Mazaudon and Michailovsky 1992). According to Schuessler (1990:34), Tibetan lcags and the related Chinese form tiě may represent an early loan from Austro-Asiatic or Austro-Tai into Sino-Tibetan (cf. Proto-Waic *hlic~*hlik Diffloth 1980:120; Proto-Tai *hlek). Nungish (Anong, Dulong, Rawang) and some Burmish languages (Zaiwa, Langsu) also use the same root (*sam) for both 'iron' and 'sword' (cf. note 179 by JAM, STC p.53).

In some cases, PT palatalized initials correspond to unpalatalized initials in the PTB etyma. Such instances of -j- seem to be secondary (the PT 'nose' and 'ear' roots may belong also to this set):

PTB *r- > PT *rj- ('fathom', 'evening/dusk')

'fathom' PT *rjam; PTB la(:)m (STC fn. 220). WB ă-lam; Lushai hlam 'arm span'; Tiddim Chin la:m (STC); Takpa klam[13]; rGyarong tə-kɕam; Queyu tə[35]lõ[55]; Guiqiong ta[33]xɔ̃[53]; Anong thi[55]lom[55]; Dulong lăm[53]; Jingpo lă[31]lam[55]; Taraon liɯŋ[53]gie[31]; Idu e[55]lian[55]ge[55] (ZMYYC). The WT form 'dom (< N+lom) 'fathom' is also a direct cognate (not in STC). Both the Lushai and Dulong forms suggest lack of vowel length in the PTB root; whereas Takpa, Lushai, Guiqiong, and rGyarong forms indicate a prefix (*k-?). The PT (probably also the rGyarong) form may be from an allofam with the -j medial.

'evening/dusk' PT *rjum; PTB *rum~*rim 'dark, dusk, twilight' (STC #401); WT rum 'darkness'; Nung rim-rim wɛ 'twilight' (STC); Khaling rihm-ka ; Chepang rāhma 'twilight' (SIL); Kaman ɹɯm[53]la[35] 'dark'; Jingpo niŋ[33]ʒim[33] 'dusk' (ZMYYC).

The converse situation, where the PTB palatal medial -y- apparently failed to survive, is noted in at least one set:

'stand' PT *rop; PTB *g-ryap (STC #246); WB rap; Bahing rap; Vayu yep; Dhimal dźap (STC); rGyarong ka-rjap; Jingpo tsap; (ZMYYC); Tamang 'rap; Nocte tšap; Tangsa tšhʌp; Mikir ^{2}kar^{1}jap; Limbu yep- (TBT); PLB *?rap^{L} (TSR #175). The WT cognate zhabs 'foot [hon])' is suggested by G. H. Luce. The PT form is used now mainly as a verbal particle for 'up', as in Bengni S dak-rap 'stand up', with dak- being the main 'stand' root (< PT *dak).

'know' PT *ken; PTB (m-)kyen (STC #223); WT mkhyen [hon.]; Jingpo tʃe^{33}; Takpa khan^{55}ni^{53}. The cognacy of the Jingpo form is doubtful. Weidert wrongly associates the Gallong and Apatani reflexes of PT *ken, with palatalized reflexes of the original PT *k- initial, to PTB *syey (STC #182) (Weidert 1987:241).

'fish' PT *ŋo; PTB *ŋya (STC #189). WT nya; Lepcha n̊o; Tshangla ŋa; WB ŋâ; Lushai hŋa (STC); Anong ŋuɑ^{55}; Dulong ŋa^{55}plă?^{55}; Jingpo ŋa^{55}; Kaman a^{31}ŋa^{55}; Taraon ta^{31}naŋ^{53}; Idu a^{55}ŋa^{55} (ZMYYC); Khiamngan ^{1}ŋõu?; Sgaw Karen ^{2}ña; Tamang 'tar-ŋa; Boro, Meche na?; Tangsa ŋa?; Manipuri ŋà; Lotha ^{1}o^{2}ŋo(?); Limbu na:; Chepang ŋa? (TBT).

'scratch' PT *n̊ok; PTB *hyak (STC 230). Lushai hiat (<*hlak); WB yak (STC).

4.2.5.2. Labio-Velar Glide *w

In some cases, PTB *w has apparently been elided without a trace in modern Tani, as shown in the set for 'sleepy' below:

'sleepy' PT *mi; PTB *(r-)mwəy~*(s-)mwəy 'sleep' (STC #196). WT rmi 'dream v.'; Miju mui; Magari mi 'sleep'; WB mwe' 'sleep' (STC); Sgaw Karen ^{4}mi (TBT); Jingpo ʃă?^{31}mu?^{31} 'sleepy, drowsy'.

Other instances of *w, before disappearing, have left their impact on the development of neighboring segments. The most interesting example of this type is the set for 'dog' below.

'dog' PT *kwi:; PTB kwey (STC #159); WT khyi; WB khwê; Kanauri kui; Chepang kwi; Lushai ui (STC); Mawo Qiang khuə; Dulong $dw^{31}gwi^{55}$; Taraon $kuaw^{53}$ (< kuak); Kaman kui^{55} (ZMYYC).

Here the *w must have persisted well after the PT stage; in fact, relative chronology can establish further that the *-w- drop must have happened **after** velar palatalization (*k- -> č- before *-j, *-i, and *-e), one of the sound changes that split Western Tani from Eastern Tani. Consider the following scenario:

Proto-Tani	*ki 'ill/hurt'	*kwi: 'dog'
1. Velar Palatalization (Western Tani)	či	NA
2. -w- Drop	NA	ki:
Output (e.g. in Bengni S)	-či	-ki

Needless to say, the reverse order would produce *či: for 'dog', unattested in any documented variety of Tani. However, all that the Tani-internal evidence tells us is that **some** proto-medial blocked the velar palatalization in 'dog'; the identity of this element as *-w- can only be established via external comparison.

Another interesting set which, like 'dog', also manifests the blocking effect of an original *-w- glide is that for 'sweet' below:

'sweet' PT *ti:; PTB *twəy (STC #159); Lushai tui 'nice to taste or smell'; Dimasa (gi)-di (STC); Taoping Qiang tɕhy[33]; Shixing tɕhyɛ[35]; Jingpo tui[31] (ZMYYC).

In the following, the probable derivational history of PT 'sweet' is contrasted with that of 'water' (see 4.2.1.1. above):

Proto-Tibeto-Burman	*ti/*təy 'water'	*twəy 'sweet'
1. Spirantization	*si	NA
Proto-Tani (?)	*si	*twi
2. *-w- Drop	NA	*ti:
Proto-Tani (?)	*si	*ti:

Although the proto-medial *-w- offers a satisfying explanation for the distinct developments of these two PT roots,[195] it should be noted that in this particular case it is not absolutely clear, in the absence of relevant evidence from relative chronology,[196] whether we should reconstruct *tw- for PT. In other words, it is uncertain whether the sound change *tw- > *t- happened **before** or **after** the Common Tani stage.

[195]Shafer 1967:199 links the Tani words for 'water' with Lushai tui 'water' < PTB *twəy, but doing so would leave the distinct PT 'sweet' and 'water' roots unaccounted for.

[196]Whereas in the case of 'dog', since *kw- > *k- must be ordered after Velar palatalization, which is a **Western Tani** innovation, we have no qualms about positing *kw- as a realistic **Proto-Tani** entity.

On the other hand, the following sets indicate that the original *w- glide fused with the following *-a vocalism, developing into *-u- in PT:[197]

PTB *-wa- > PT *-u- ('bear n.', 'ant', 'slip v.', 'outer covering')

'bear n' — PT *tum; PTB *d-wam (STC 461). WT dom; WB wak-wam; Mikir wam; Lushai sa-yom; Bahing wam (STC); Takpa ɔm[13]; Tshangla ʔom-ɕa; Ergong wo; Zaiwa vam[51]; Kaman kum[55]; Taraon ta[31]m[55] (ZMYYC); Taungthu Karen thàm; Bumthang wam; Thakali tom; Chepang yom; Anal tɔ̀ɔm; Kom kʌ-yóm (TBT).

'ant' — PT *ruk; PTB *(g-)rwak (STC #199).

'slip v.i.' — PT *lut[1]; PTB *g-lwat 'free, release' (STC #209); WT hlod 'loose, relaxed', glod 'loosen, relax, slacken'; WB lwat 'be free', hlwat 'free, release'; Kachin lot 'escape, be free, unrestrained' (STC); Lepcha flut 'slip v.' (Forrest 1962:332)

'outer covering' — PT *kruk; PTB *(r-)kwâk (STC #342; fn. 229). WT skog-pa 'shell, rind'; phyi-kog 'bark n.'; Bahing siŋ-kok-te; WB ə-khauk 'bark'; Chourasya kwak-te~kok-te 'skin'; PLB *ʔkuk 'outer covering' (STC); Newari kwa-lā 'bark; shell'. Weidert suggests that this PTB root may have a disyllabic origin (TBT: 170); PLB *ʔkuk ~ *ʔguk (H ~ L) (TSR #71). Note the extra PT -r- medial.

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[197]This sound change is first noted by Benedict (STC:49), based only on modern Mising data. LaPolla 1987:25 notes similar labializing effects of PTB *w- in Dulong (Nungish). For some unknown reason, the PT reflex of PTB *rwaŋ 'horn' is *roŋ, rather than the expected *ruŋ.

Furthermore, two etymologies involving the PTB consonant cluster *hw-can be securely established, where PTB *w- **directly survived** as the PT labio-dental initial *v-:

PTB *hw- > PT *v- ('come/enter', 'blood')

'come/enter'[198] PT *vaŋ; PTB *hwaŋ 'enter' (STC #218); WT 'oŋ (< *'waŋ) 'come'; Dhimal waŋ; WB waŋ 'enter'; Bunan hwaŋs~hoaŋs 'come out' (ZMYYC); Tamang 'wāng; Thakali ong; Sunwar o: (SIL).

'blood' PT *vi:; PTB *s-hwyəy (STC #222); Kanauri śui; Chepang wi~wei; Lepcha vi; WB swe' (STC); Tshangla ji; Mawo Qiang sɑ; rGyarong ta-ʃi; Nusu sui[55]; Dulong ʂui[55]; Jingpo sai[31]; Sulung hue[53] (ZMYYC).

4.2.6. Consonant Clusters

PTB had two types of cluster initials, involving semi-vowel and liquid medials, respectively (STC:37). Since the former type has been dealt with in the foregoing sections on PT correspondences of PTB *-y- and *-w-, this section treats in particular PTB cluster initials composed of stops or nasals plus *-l- and *-r-:[199]

*pr-	*pl-	*br-	*bl-	*mr-	*ml-
*kr-	*kl-	*gr-	*gl-	(*ŋr-)	

[198]This root is also used for the meaning 'set (as sun)'.

[199]It is suggested (STC: fn. 135) that PTB probably also had *tr-, *dr-, *sl-, and *zl-, but few actual PTB roots are posited with these sequences. PT seems to have simplified PTB *zl- to *l-, e.g. PTB *zlum > PT *lum 'round'.

Reliable PT cognates of PTB roots reconstructed with *br-, *mr-, *kl-, [200] *gr-, *gl-, and *ŋr- are yet to be discovered.

PTB *pr- > PT *pr- ('good')

'good' — PT *pro; PTB *pra (STC #129); Thami ə-pra; Thado ə-pha (STC); Qinghua Primi phʒi^{55}; Shixing rɑ^{33}; Taraon, Idu pɪɑ^{55} (ZMYYC); Lushai trhà; Thadou phà; Anal ì-trhà; Lakher ^{2}ə^{2}phə; Tangkhul ^{1}kə^{3}pha; Manipuri phə (TBT).

PTB *pl- > PT *pr- ('plank', 'palm/sole', 'plait v.')

'plank/board' — PT *swŋ-prəŋ; PTB *pleŋ 'flat surface, plank, slab' (STC #138). WB pyañ' 'be reduce to a level; plant; flat surface'; Mikir ka-pleŋ; Garo bol-pleŋ; Nung śiŋ-byen; Kachin phun-pyen 'plank' (STC). Idu ma^{55}seŋ^{55}pɪa^{55} (ZMYYC).

'palm/sole' — PT *pro; PTB *pla~*pwa~*pya, JAM's revision of STC #418 PTB *pwa (Matisoff 1985a:447); Gurung yo-plā:; Magar huT-pyā; Sunwar tā-plā (SIL); Kaman plà-tpà˘-làp (TBT). The PTB reconstruction should accomodate the rather widely attested allofam with the liquid medial.

'plait v.' — PT *prat^{2}; PTB **plas~**blas? cf. Takpa phre^{53}; Qinghua Primi khə^{35}phʒə^{35}; Ersu phʒ1^{55}; Namuyi phə^{ɹ33}phə^{ɹ55}; Jino phɪæ^{33}; Nusu phɪɑ^{ɹ55}ɑ^{31}; Dulong blat^{55}; Sulung bɪɛ^{ɹ33} (ZMYYC); Lepcha flót; PLB *pan~*C$_{vd}$-pat (Matisoff 1985b:16; the Jino and Nusu forms suggest -r- even at the PLB level); Kanauri böʃ 'plait (ropes)'; bĕʃ 'plait n.'.

PTB *bl- > PT *br- ('full')

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[200]It is very tempting to associate the PT root *kri 'intestines/belly' (cf. Lepcha tă-klí 'entrails') with PTB *kləy 'excrement'. However, the fact that other TB languages have distinct but similar forms for these meanings should give us pause; e.g. Taraon klai^{53}; Idu khɪi; Kaman tu^{31}khui^{53} 'excrement' vs. Taraon ku^{31}ɬai^{55}; Idu kɪu^{55}; Kaman xa^{31}lăi^{35} 'guts' (ZMYYC).

'full' PT *brɯŋ; PTB *bliŋ~pliŋ (STC #142); WB prañ'; Nusu bə̃$^{\text{ɹ31}}$; Jingpo phʒiŋ^{55}; Kaman phlăŋ^{55}; Taraon blɯŋ^{55}; Idu bɹoŋ^{55}ba^{55} (ZMYYC). PL *m-bliŋ^{3}; Mikir pleng; Lotha phyang-a (CNL).

PTB *b-l- > PT *pr-

'four' PT *pri; PTB b-ləy (STC #410); WT bzhi; Tulung bli; Mikir phli (STC); Takpa pli^{53}; rGyarong kə-wdi (< *bli); Anong bɹi^{53}; Nusu vɹi^{35}; Dulong a^{31}bli^{53}; Kaman kɯ^{31}bɹɯn^{53}; Taraon ka^{31}pɹai^{55}; Idu ka^{31}prɯi^{55}; Sulung və$^{\text{ɹ}}$i^{33} (my own field data vəi$^{\text{ɹ53}}$) (ZMYYC).

Note that, interestingly, PTB *b-l (> PT *pr-) from *bl- (> PT *br-) have distinct reflexes in PT. Recall that this is exactly paralleled by the development of PTB prefixal *d- in the PT root for 'bear n.' (PTB *d-wam > PT *t-um).

PTB *ml- > PT *mr- ('penis', 'arrow poison', 'world/earth')

'penis' PT *mrak. This PT root is related to, but distinct from, the more common PTB *m-ley root (STC #262). Possible cognates in other TB groups include: Lepcha a-ɲak; Sulung a^{33}la?^{53}; Bangru mə^{33}lɔ?^{53}, and Sherdukpen lak. Tshangla long 'penis' may also be related (Das Gupta 1968; for Tshangla -ŋ from PTB *-k, cf. ming 'eye', shong 'breath', shing 'louse') < PTB **mlak?.

'arrow poison' PT *mro; PTB **mla. The established root in STC is *bla (#449), but the alternative reconstruction *mla is mentioned as a possibility (fn. 313 by JAM). There was probably proto-variation **mla~bla (cf. Kachin pə-la; Jili dialect of Kachin mə-la). The following supporting forms reflect the *mla allofam: WT mda (< *mla);[201] Magari mya; WB hmrâ (STC); Mawo Qiang

[201]There is ample Tibeten-internal evidence that WT mda is derived from earlier *mla via regular assimilation toward the nasal stop m-, shared also by the homorganic nasal prefix N- (achung), cf. the alternation mdongs (< *m-long-s) ~ ldongs (< *N-long-s)

ɣdʒa; Ergong mdɔŋ; Ersu ma^{J55} Nusu thɑ^{31}mɑ^{55}; Dulong tɯ^{31}ma^{55} (ZMYYC). PL *C-mla^{2}; Thangkhul ^{1}mə^{1}la-^{2}thiŋ 'bow' (TBT). The PT semantic shift from 'arrow' to 'arrow poison' is noteworthy; cf. the 'arrow' to 'bow' shift in Kuki-Chin-Naga pointed out in TBT:304.

'world/earth' PT *mroŋ (-ŋ here probably secondary). As in the 'penis' root, this PT form could also be associated with (but not possibly derived from) a more common PTB root with the *ml- initial, *m-ləy (STC #152). Possible cognates in other TB groups include Lepcha mlo 'universe, world' and Dulong a^{31}mɹɑ^{55} 'earth' (ZMYYC) < PTB *mla?

PTB *kr- > PT *kr- ('weep', 'crow v.', 'sour', 'winnow')

'weep' PT *krap; PTB *krap (STC #116). Cf. Jingpo khʒap^{31}; Taraon khɹo^{53}; Sulung kjak^{53} (ZMYYC); Magar rāp-ke; Chepang ryā?; Tamang krā:-pā (SIL); Garo grap-a; Mao ^{1}kra; Chang háp (TBT); Kanauri krap; Lepcha hryóp.

'crow v.' PT *krok; PTB **krak? Cf. krek^{53}; Anong gɹ1^{55} (ZMYYC); Tamang kra: (< *krak); Athpare ok (< *ɣrok-) (TBT).

'sour' PT *kroŋ; PTB **kroŋ~kyoŋ? No matching PTB root in STC. Probably an allofam of KNC *k(h)rok 'sour' (STC p. 41). Consider also the following possible cognates: Queyu tʂõ^{55}tʂõ^{55}; Taraon xɹɯ^{55}; Idu hɹu^{55} (ZMYYC) (ZMYYC); Gurung kyũ-; Tamang, Takhali kyung- (SIL); Rongmei xĩaŋ; Liangmei khĩaŋ (TBT). Another 'sour' root reconstructed in STC, *kri(y) (#413), also contains the *kr- initial.

'winnow' PT *krap; PTB *krap 'beat, winnow, thrash' STC pp. 74, 141-2; WT 'khrab 'strike, winnow'; Chepang krap 'winnow'; Rawang rap 'winnow' (< *k(h)rap); Palaychi Karen kra 'winnow' (STC); Kaman khɹat^{55} (ZMYYC). Weidert mentions that the *krap root is

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'blind'. Other Bodic languages also show l- in this root, e.g. Takpa bla^{53}, Chepang l^{-}a?.

reflected in most KNC and Kiranti languages, e.g. Lushai trhâap; Yimchunger trip; all meaning 'winnow' (TBT).

The following set is exceptional in that the PT form for 'grind' shows *r- instead of the expected *kr-.[202]

'grind (mill)' PT *rit; PTB *krit (STC #119); Bahing khrit; WB krit; Nung a-gyit; Mikir tśiŋ-krit; Taungthu Karen khrût (STC); Anong dʐɿ[53]; Kaman khɹit[55]; Taraon ɹi[35]; Idu ɹue[35]; Sulung ɣaʈ[33] (ZMYYC); PLB *krit~ *Nkrit[H] (TSR #94); Lepcha ṅrik; Nruangmei riek (CNL). There is no evidence of the *k- in PT.

PTB *kl- > PT *k-? ('marrow')

'marrow' PT *kin; PTB *r-kliŋ 'marrow/brain'(STC #126; fn.128), Matisoff 1983:471 adds the allofam *r-klyaŋ on Tibetan and Lolo-Burmese evidence. Cf. Mikir ar-klen; Lushai thliŋ; WB khraŋ-tshi; Dimasa bu-thluŋ~bi-thlim 'brain'; Lepcha (ă-)yăṅ (STC); Kaman xiŋ[53].

PTB *gr- > PT *gr-? ('call')

'call' PT *grok; PTB **grok?; probably related to STC #310 *groy 'crow, scream'. For the checked rhyme cf. Sgaw Karen [4]kɔ? 'call' (TBT). Cf. also Idu gɹa[55] 'call' (ZMYYC).

4.2.7. Zero initial

[202]Note that the *k- also fails to show up in the Pwo Karen word for 'grind'; thus Pwo has Xa? 'winnow' (< PTB *krap) and Xi 'body dirt' (< PTB *krəy), but ɣai?~ɣɛ? 'grind' (Pwo ɣ- < PTB *r-).

The STC roots with zero-initial do not have recognizable reflexes in PT, as far as we know. The following comparisons, however, are offered for consideration.

PTB *0- > PT *0- ('shoot v.', 'excrement')

'shoot v.' PT ***ap**; cf. PTB ***ga:p** (STC #219). The PT form is not likely to stem from a proto-form with ***g-**. Rather ****ap**, the zero-initial allofam of ***ga:p**, must be recognized in view of the zero-initial forms attested in many modern TB branches, including Tani. Cf. Bahing ap; Lepcha ǒp (STC); Dulong **ap**^{55} (ZMYYC); Athpare, Yakkha, Limbu **ap-** (Weidert 1987:456 thinks these came from ***ɣrap-** but no reasons are given)(TBT); Khaling, Sunwar **ʾāp**; Chepang **ʔāp** (SIL).[203]

'excrement' PT ***e:**. The most similar etymon recognized in STC is ***e:k** (STC: 26, 146, Kuki-Chin-Naga only). The PT form plus Proto-Karen ***ʔe**^{B} and Lepcha **e** (baby talk) suggest rather an open-syllable PTB etymon ****e**.

[203]Another good example of zero-initial alternation with velar-stop initial is 'needle' (WB **ap** vs. WT **khab**) which also involves the ***-ap** rhyme (Prof. Matisoff, p.c.).

4.3. Rhymes

The PTB rhyme system posited in STC recognized contrastive vocalic length in some diphthongal open-syllable rhymes (i.e. *a:y and *-a:w) and in closed-syllable rhymes.[204] Although phonemic vowel quantity obtains in all modern Tani languages and, in all likelihood, also existed in PT, we have not been able to directly associate the quantity distinctions in PTB and PT. While this failure may have to do with the elusiveness of vowel length in the PT roots currently reconstructed, it may also be that vocalic length was not a stable phonological feature in the PTB system itself (Matisoff 1985b 23). Therefore, the issue of vowel length will not be addressed in the ensuing discussions.

4.3.1. Open Rhymes

4.3.1.1. Monophthongal Rhymes

The following on-gliding open rhymes are recognized for PTB in STC (rarely attested ones are in parentheses):

-a (-i) (*-u) (*-e) (*-o)

[204]Contrastive quantity in closed syllables is relatively uncommon in Tibeto-Burman, attested only in such languages/groups as Kuki-Chin-Naga, Dulong, Kaman, Limbu, and Kanauri (Kinnauri). This distinction is recognized for PTB in Benedict 1972 on the basis of Lolo-Burmese, Kuki-Chin and Bodo-Garo correspondences. Whether the quantity contrasts in Dulong, Kaman, Limbu, and Kinnauri consistently reflect the reconstructed PTB distinction remains to be investigated. LaPolla 1987: 2 reports negative results on the correlation between Dulong and PTB vowel length.

All of the above, except *-a, are supported by only a handful of supporting recontructions in STC. In contrast, we recognize a seven-vowel PT system (vowel length disregarded): *-a, *-i, *-u, *-e, *-o, *-ə, and *-ɯ. We now know for certain that the two additional PT back unrounded vowels descended from PTB **diphthongs** (see below), while PT *-o (and some instances of PT *-a) came from PTB *-a. No PT cognates of PTB roots with the *-o rhyme are available.

The attested correpondences and their supporting data are presented as follows:

PTB *-a > PT *-o ('good', 'child/son', 'thou', 'night', 'moon', 'open', 'soul', 'fish', 'palm/sole', 'arrow poison')

'good' — PT *p(r)o; PTB *pra (STC #129); Thami ə-pra; Thado ə-pha (STC); Qinghua Primi phʒi^{55}; Shixing rɑ^{33}; Taraon, Idu pɹɑ^{55} (ZMYYC); Lushai trhà; Thadou phà; Anal ì-trhà; Lakher ^{2}ə^{2}phə; Tangkhul ^{1}kə^{3}pha; Manipuri phə (TBT).

'child/son' — PT *ɦo; PTB *za 'son, offspring' (STC #59).

'thou' — PT *no:; PTB *na~*naŋ (STC #407).

'night' — PT *jo:; PTB *ya 'night' (STC #417).

'moon' — PT *poŋ-lo; PTB *s-la~g-la (STC #144).

'open' — PT *-ko; PTB *ka (STC #469).

'soul' — PT *ja-lo; PTB *(s-)(g-)la 'god, soul' (Benedict's revision of STC #475).

'fish' — PT *ŋo; PTB *ŋya (STC #189).

'palm/sole' — PT *pro; PTB *pla.

PTB *-a > PT *-a ('ear', 'nose')

This correspondence seems to be limited to two PT roots, both of which begin with a palatal nasal initial *ñ-. We need more examples to be certain whether this exceptional equation (PTB *-a normally went to PT *-o) is the result of phonological conditioning (but see PT *jo < PTB *ya 'night' above, which also involves a **palatal** initial).

'ear' PT *ña-; PTB *r-na ~ g-na (STC #453); Tshangla rna; rGyarong tə-rna; Xide Yi hnɯ^{21}po^{33}; Dulong ɑ^{31}nɑ^{53}; Jingpo na^{33}; Taraon kɹu-nan^{35} (ZMYYC).

'nose' PT *ña-; PTB *s-na (STC #101); WT sna; Magar hna; Dhimal hna-pu (STC); Mawo Qiang stɣq (< *snɣ+qə); rGyarong tə-ʃna; WB hna-; Nusu hnɑ^{55}kɑ̃^{35}; Dulong ʂu^{31}nɑ^{55}; Kaman min^{55}nion^{35}; Taraon xa^{31}niɑ^{53}pɯm^{55}; Idu e^{55}nan^{55}bo^{55} (ZMYYC).

It should be pointed out at this juncture that although PTB *-a developed regularly to PT *-o, PT does have a few *-a roots in addition to the two discussed in the above; their origins still elude us.[205]

PTB *-i > PT *-i ('two', 'urine')

'two' PT *ñi; PTB *g-ni-s (STC #4).

'urine' PT *si; PTB *tsi 'urinate (urine also?)' (STC #77).

PTB *-u > PT *-u ('dig', 'elbow')

[205]For a list of such roots, please see section 2.3.2.1.

'dig' PT *du; PTB *du (STC #129); WB tû; Vayu du; rGyarong tu; (STC); Dulong (Dulong River dialect) du^{53} (Sun 1982); Jingpo thu^{31}; Xide Yi ndu^{33} (ZMYYC).

'elbow' PT *lak-du; PTB *du (STC:21). The STC reconstruction was based on two TB forms only, the Miri (i.e. Mising) form -du, and the WB du 'knee'. The Lepcha form ká-t'u 'elbow' (ká='hand') may be another reflex. Consider also the following Naga forms: Angami $^{5}u^{2}bu^{4}thu$ ($^{5}u^{2}bu$='arm'); Chakrü $^{2}bo^{5}tho$; Khezha $^{2}ba^{2}šu$; Rongmei mái-sâu; Liangmei ka-cau 'elbow', for which Weidert reconstructs Naga-I *(t)su^{III} (TBT).

PTB *-e > PT *-e ('beans', 'excrement')

'beans' PT *pe:; PTB *be (STC #153); WB pâi 'leguminous plant'; Dimasa sa-bai; Lushai bê; Sgaw Karen $^{4}pɛ$; Jingpo $^{3}še^{3}pre$; Boro so-bai; Rongmei pai (TBT); Kaman $ma^{55}blăi^{53}$; Taraon $ma^{31}blai^{53}$; Idu $ma^{55}bɹe^{55}$ (ZMYYC). Note that Jingpo, Taraon, Kaman, and Idu forms point to a liquid medial not reckoned with in the STC reconstruction. Weidert mentions Luce's idea that this root could be a direct borrowing from Old Mon ?bāy (TBT: 335). Cf. also Shuangguan Brang (Palaungic) $pɛ^{35}$ (Li 1986).

'excrement' PT *e:. The most similar etymon recognized in STC is *e:k (STC: 26, 146, Kuki-Chin-Naga only). The PT form plus Proto-Karen *?e^{B} and Lepcha e (baby talk) suggest rather an open-syllable PTB etymon **e.

4.3.1.2. Diphthongal Rhymes

The following rather symmetrical system of PTB diphthongal rhymes is posited in STC (rare rhymes are enclosed in parentheses):[206]

[206]STC does not recognize **medial** diphthongs for PTB. The *-ew rhyme is the most problematic, which can only be posited at the Kuki-Naga level (STC: 68). Matisoff 1985b

*ay	*a:y	*iy (=*əy)	*ey	(*oy)
*aw	*a:w	*uw (=*əw)	(*ew)	*ow

The fate of PTB *-a(:)w and *-oy in PT is still not clear, since few good PT comparisons are available.[207]

PTB *-ay > PT *-e ~ *-jo ('tongue', 'tail', 'crab')

We have made a case study of the proto-variation PT *me ~ *mjo for the set 'tail' in 2.1.1. Could the PT *e ~ jo alternation here reflect proto-variation at the PTB level? Variations elsewhere in Tibeto-Burman languages lend some support to this view, at least with respect to the set 'tail' (Jingpo (ṅ-)mài, Mikir ar-me < PTB *r-may; WB əmri; Akha dɔ̌-mi; Mikir -mi < *r-mey Matisoff 1985b:4.233). However, the *-e ~ *-jo variation also occurs for the set 'crab', PT *ke (e.g. Padam-Mising L ta-ke) ~ *kjo (Gallong W ˆta-so < ta-čo < PT *ta-kjo), not paralleled elsewhere in Tibeto-Burman, as far as we know (cf. PTB *d-ka:y STC #51). Furthermore, the PT reflex of PTB

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thoroughly reviews many PTB diphthongal rhymes with the -y offglide, adding quite a few new roots.

[207]The following Abor-Miri (i.e. Padam-Mising L) forms are suggested as probable reflexes of PTB *-oy roots in Matisoff 1985b: gə (cf. PTB *koy) 'crooked'; bə: (cf. PTB *b-woy) 'monkey'; ŋi 'comfort, soothe, pacify' (cf. PTB *ŋoy 'gentle/quiet/moderate'). This is possible but what is puzzling is that the three Padam-Mising L forms here all contain different rhymes (respectively -ə, -e, and -i). The form gə is actually restricted to Mising L (cf. Mising T gə: 'bend, bent'), apparently an allofam of the more common form gər found in Padam L and elsewhere in Tani, hence our PT reconstruction *gər 'crooked/ bent'. The form ŋi, on the other hand, is restricted to Padam L; the Mising L cognate niŋ (cf. Mising T ni:) suggests that the original root may be something like *ŋiŋ (for ŋi- > ni- in Mising L, cf. Padam L ŋi-tom, Mising L ni-tom 'song, story').

*m-lay ~ *s-lay 'tongue' is *rjo, with no intra-Tani variation. It would seem, then, that there might be two **competing sound changes** at the PT level: PTB *-a(:)y > PT *-jo vs. PTB *-a(:)y > PT *-e.

The sound change PTB *-a(:)y > PT *-jo is one of the most fascinating PT phonological developments. Apparently, the original PTB diphthongal rhyme *-ay underwent **metathesis**, the output *-ya then changed further to jo (PTB *a > PT *-o is regular).

'tongue' PT *rjo; PTB *(m-)lay~(s-)lay (STC #281); WB hlya (STC fn. 202 attributed the -ya rhyme to the influence of *lyak 'lick'); WT lce; Dimasa sa-lai; Lushai lei (STC); Tshangla le; Taoba Primi ɬiɛ^{53}; Dulong pɯ^{31}lăi^{53}; Kaman blai^{53}; Sulung rye^{33} (ZMYYC).

'tail' PT *me~mjo; PTB *r-may (STC 282). Lushai mei; Aimol rə-mai (STC); Taoba Primi mɯ̃^{35}ɬio^{53}; Jingpo mai^{31}; Kaman a^{31}măi^{55} (ZMYYC). The Taoba Primi, and especially the Kaman reflexes suggest a different PTB rhyme for this root 'tongue' (-a:y?).

'crab' PT *ke~*kjo; PTB *d-ka:y (STC 51). Khoirao tśə-ɣai; Lushai ai (STC); Some TB languages show an -r- medial: Tamang ka-khre; Boro kaŋ-krái (TBT). The PT variant *kjo is based on the Gallong W form ta-ʒo (ʒ- in Gallong often comes from earlier č-, which in turn could derive from *kj-).

PTB *-ay > PT *-e ~ *-a ('big')

Matisoff 1985b:fn 52 uncovers quite a few examples of the previously unrecognized PTB variation *-a ~ *-ay. For the set 'big' (#68), however, only the Padam-Mising L form ta is cited to support the the variant PTB *ta. Interestingly, it turns out that Padam-Mising

L itself exhibits the alternation -ta~ -tə, suggesting variation at the PT level (cf. Bengni S -tu:; Bokar OY tə:-pə 'big').[208]

PTB *-ay ~ *-a > PT *-ə ~ *-a ('big')

'big' PT *tə~*ta; PTB *tay~*ta (STC #298, fn. 208; Matisoff 1985b: #68); WT mthe-bo 'thumb' (lit. 'the big one'); Mikir the 'big, large, great' (STC); rGyarong kə-kte; Qinghua Primi ta^{55}; Guiqiong dɑ^{33}dɑ^{33}; Namuyi dɑ^{55}dʐ$_{1}^{33}$; Shixing duə^{35}; Bai do~to; Dulong tǎi^{53}; Kaman ku^{31}tai^{35} 'big' (ZMYYC).

PTB *-ey

Only three of the STC sets reconstructed with the *-ey rhyme have parallels in Tani. Two of them show the *-ə rhyme, while the PT root for 'fruit' is currently posited with a different rhyme *-e.

PTB *-ey > PT *-ə ('fire', 'buy')

'fire' PT *mə; PTB *mey (STC #278); WT me; Kanauri me; Bahing mi; WB mî; Lushai mey (STC); Mawo Qiang mə; Ergong wmu; Nusu mi^{55}; Dulong tu^{31}mi^{55}; Kaman mǎi^{53} (ZMYYC).

'buy' PT *rə; PTB *b-rey (STC #293).

PTB *-ey > PT *-e ('fruit')

'fruit' PT *ze; PTB *sey (STC #57).

PTB *-ey

[208]For other TB cognates which may reflect the PTB *ta allofam, cf. Qinghua Primi ta^{55}; Guiqiong dɑ^{33}dɑ^{33}, Shixing duə^{35} 'big' (ZMYYC).

This is the best-attested PTB rhyme in PT. The regular PT reflex, as in many other Tibeto-Burman languages, is *-i. In the set for 'odor', however, PTB *-ɐy yields PT *-ɯ: instead.

PTB *-ɐy > PT *-i ('bow n.', 'give', 'die', 'wind n.', 'sun', 'man (homo)', 'seed', 'flea', 'blood', 'comb n.', 'sweet', 'four', 'sleepy')

'bow n.' PT *rji; PTB *d-lɐy (STC #463).

'give' PT *bi; PTB *bɐy (STC #427); WT pê; WT sbyin; Dhimal pi (STC); Khaling bi; Newari bi (SIL); Proto-Karen *phe'; Chepang bəi?; Limbu pi?-ma; Lushai pè; Manipuri pì (TBT).

'die' PT *si; PTB *sɐy (STC #232).

'wind n.' PT *rji; PTB *g-lɐy (STC #454).

'sun' PT *-ñi; PTB *nɐy 'sun, day' (STC #81).

'man (homo)' PT *mi; PTB *r-mi~*r-mɐy 'man (homo)' (STC: 107, 119, 158).

'seed' PT *li. No PTB reconstruction in STC. This PT root plus the following Tibeto-Burman cognates suggest PTB **lɐy: Tshangla li; Jingpo li^{33}; Kaman xa^{31}lɯi^{35} (ZMYYC); Lepcha (a-)lî; Nocte ^{1}ʌ^{1}li; Tangsa ^{1}ʌ^{3}lʌi; Garo ca?-ri; Sgaw Karen ^{4}khli; Mikir ^{2}ci^{3}li (TBT).

'flea' PT *fi; PTB *s-lɐy (STC #440).

'blood' PT *vi:; PTB *s-hwyɐy (STC #222).

'comb n.' PT *fi; PTB *m-si~*m-sɐy (STC #466).

'sweet' PT *ti:; PTB *twɐy (STC #159).

'four' PT *pri; PTB *b-lɐy (STC #410).

'sleepy' PT *ɯi; PTB *(r-)ɯwəy~*(s-)ɯwəy (STC #196).

PTB *-əy > PT *-ɯ ('odor')?

'odor' PT *rɯ:; PTB *ri/*rəy (STC #459); WT dri-ma 'dirt, filth, odor'; Bahing (ə-)ri 'odor'; Lepcha mə-ri 'dirt' (STC); (ZMYYC).

PTB *-a:w > PT *-ɯ? ('younger brother')

Of the (about a dozen) PTB roots reconstructed in STC with the *-a:w rhyme, only one, PTB *na:w 'younger brother', seems to be reflected in Tani (PT *nɯ). The development of PTB *a(:)w in PT must at present be considered uncertain.

'brother(younger)' PT *nɯ; PTB *na:w 'younger sibling' (STC #271); WT nu-; Lushai nau 'younger sibling'; Garo no 'younger sister' (STC); Ersu ɲi^{55}nua^{55} 'younger brother'; Dulong a^{31}nɯ^{55} 'younger sister'; Jingpo kǎ^{31}nau^{33}; Sulung a^{33}nua^{11} 'younger sibling' (ZMYYC); Limbu nu-sa? 'younger sibling'; PNN *na:w 'younger brother/child'.

PTB *-əw > PT *-ɯ ('uncle (maternal)', 'pick up', 'smoke n.', 'eagle', 'vagina, vulva', 'dove/pigeon')

'uncle' PT *kɯ; PTB *kəw (STC #255).

'pick up' PT *tɯ; PTB **təw.

'smoke n.' PT *mə-kɯ ('fire' + 'smoke'); PTB *kəw (STC #256).

'eagle' PT *mɯ 'hawk'; PTB *məw (STC #257).

'vulva/vagina' PT *tɯ; PTB **təw. The PTB reconstruction *tey^{B} offered in Benedict 1991 is based on rather meager evidence: Mising L ɯt-tɯ (which Benedict's mistook for it-ti), Karen ?te 'penis', and Mikir ven-the

'vulva'. The -ɯ vocalism of this PT root (as well as the Mising form on which Benedict's original recontruction was partly based) suggests rather a relationship with WT stu (for the PT *-ɯ <-> WT -u < PTB *-ɔw correspondence, see above); Tshangla thu; Lepcha tŭ (marked as a Tibetan loanword in Maiwaring-Grünwedel 1979; this view needs to be reconsidered, since tŭ appears to be the only word in Lepcha for the given meaning), Sulung $a^{33}tui^{53}$ (my own field data), lCog-rtse rGyarong ta-ʃtu (Sun Hongkai, p.c.), Yingjiang Achang $tɯ^{55}$ (Dai Qingxia, p.c.), Meche ki-ṭu?; Chepang tu?; Khiamngan ^{12}tau?; Manipuri thù; Lakher ^{3}tshu 'vagina' (TBT); Mru thu/chu; Meithei chu (VSTB:227).

'dove/pigeon' PT *kɯ; PTB *m-kɔw (STC #118, fn. 123).

PTB *-ow

The main PT reflex of this rhyme seems to be *-u, as indicated by the sets 'boil v.i.', 'fat', 'cooked', and 'fir' below. A different equation PTB *-ow > PT *-ɯ is represented by the set 'nit'. Kachin (Jingpo), incidentally, also has two reflexes (-u and -au) for PTB *-ow (STC:65, 69).

PTB *-ow > PT *-u ('boil v.i.'; 'fat/greasy', 'cooked', 'fir')

'boil v.i.' PT *fu; PTB *šow (STC #275).

'fat/greasy' PT *fu; PTB *tsow (STC #277).

'cooked' PT *nu; PTB *now 'soft' (STC #274); Nung nu, WB nu' 'young, tender', nû 'be made soft, tender' (STC); Mawo Qiang nə; Taraon ñoŋ; Idu $ñu^{55}$ 'cooked'; Ersu $ɲo^{33}ɲo^{55}$ 'soft' (ZMYYC); Lushai nŏu; Mao ^{1}mo^{3}nŭ 'young, tender' (TBT); PLB C-nu^{2} 'soft'.

'fir' PT *ru; PTB *(s-)row 'fir; pine'(STC #275).

PTB *-ow > PT *-ɯ ('nit')

'nit' PT *rɯ; PTB *row (STC #278); STC cites only WT ɜrɔ-ma; and Kachin tɜi?-ru (cf. ZMYYC Jingpo kʒat^{55}ʒu^{31}); STC fn. 201 adds rGyaong dʐə-ru (cf. ZMYYC rGyarong ndʒə-ru). We can now add Takpa ʂu^{53}; Muya tʂhə^{55}rɯ^{53}; Taraon tʂhaɯ^{55}xa^{31}ʑaɯ^{55} (ZMYYC); Mawo Qiang xtiu-ɣdz (< ɣdzɣ; my own field data).

4.3.2. Closed-Syllable Rhymes

In the PTB rhymes system posited in STC, all of the five major vowels (*-a-, *-i-, *-u-, *-e-, *-o-)[209] can presumably co-occur with the following nine consonantal codas: *-m, *-n, *-ŋ, *-p, *-t, *-k, *-s, *-r, *-l. Although this proto-system mostly probably contained gaps, no detailed distributional statements are provided in STC. One of the major differences between the PTB and PT systems of closed-syllable rhymes is that the latter contains some rhymes with back unrounded medial vowels. As will be shown in the discussions below, the PT medial vowel *-ɯ- is clearly secondary, originating from PTB high medial vowels *-i- and *-u-. The PTB origin of the meagerly attested PT *-ə-, however, is still enigmatic. Another intriguing development in PT closed-syllable rhymes is the tendency in PT to extend the shift of PTB *-a to *-o to closed syllables as well, resulting in competing PT reflexes *-aC vs. *-oC corresponding to many PTB rhymes in *-aC (where -C = unspecified syllabic coda).

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[209]The quantity contrast would double the number of actual contrastive vowels in PTB closed syllables. Two additional medial vowels *-â- and *-ə- are suggested for PTB, mainly to handle PTB and Chinese correspondences and Tibetan vocalic alternations (STC: fn. 188, 344; STAL:178). Their reflexes in modern Tibeto-Burman languages are poorly known.

4.3.2.1. Nasal-Coda Rhymes

The PT system of nasal-coda rhymes is quite similar to the PTB system, except that three additional PT rhymes with back unrounded vocalism are recognized: *-ɯn, *-əŋ, and *-ɯŋ. In general, the PTB nasal codas are well-preserved in PT, although certain instances of the PT velar nasal *-ŋ may be innovative. The clearest example of this is the postposed verbal negator *maŋ, which definitely descends from the widespread Tibeto-Burman negative morpheme *ma plus a nasal increment -ŋ.[210] In a number of roots, the -ŋ element is reflected in some modern languages but not in others. The set for 'day' is a case in point. The Mising L form loŋ points to PT *loŋ while Bokar OY lo: and Bengni S lu: came from the PT open-syllable *lo. Actually, the -ŋ coda here seems to be optional in Mising L itself, as shown in compounds comprising the 'day' root, e.g. si-lo 'today', me-lo 'yesterday'. An important clue is offered by the disyllabic Padam T cognate lo-ŋə 'day', which shows that this particular -ŋ coda in Mising L may be the reduced form of an earlier morpheme -ŋə. Another likely case of secondary -ŋ is found in the Bokar OY form poŋ-lo 'moon', with poŋ- corresponding to po- elsewhere in Tani. The -ŋ coda here seems to have been inserted by analogy with doŋ-ñi 'sun', with which po-lo 'moon' constitutes the culturally important

[210]Kuki-Naga languages also use a suffixed form of this root *ma-k (STC: 97).

collocation **doŋ-ñi po-lo** 'sun-moon god', the supreme deity in the Tani animistic religion.[211]

PTB roots in ***-im**, ***-em**, ***-om**, ***-un**, ***-on**, and ***-oŋ** are not attested in PT; conversely, the origins of PT ***-im**, ***-iŋ**, ***-un**, ***-on**, ***-en**, ***-eŋ**, remain mysterious.

PTB *-an > PT *-an ('otter', 'fathom', 'smell v.',)

'otter' PT ***ran**; PTB **s-ran** (STC 438).

'fathom' PT ***rjan** (<***ljan**); PTB **la(:)n** (STC fn. 220).

'smell v.' PT ***nan**; PTB ***n-nan** (STC 464).

'road/way' PT ***lan-**; PTB **lan** (STC 87).

PTB *-an > PT *-on ('language/mouth')

'language/mouth' PT ***gon**; PTB ***r-ka(:)n** 'edge, bank, precipice; mouth' (STC #329); the only supporting form cited therein with the meaning 'mouth' is Lushai **kan**. Cf. also Khaling **kwān** (SIL),Thadou **kàn** (TBT). Cf. also WT **'gram-pa** 'cheek'.

PTB *-un > PT *-un ('three', 'evening/dusk', 'round', 'smallpox')

'three' PT ***ñun**; PTB **g-sum** (STC #409).

'evening/dusk' PT ***rjun**; PTB ***rum~*rim** 'dark, dusk, twilight' (STC #401).

'round' PT ***lun**; PTB ***zlum** (STC #143).

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[211]The PT root for 'moon' ***po-lo**, is perhaps to be compared with Southern Loloish ***bəla**^{C} 'moon' (Bradley 1979), Proto-Tamang ***bla**^{B} 'spirit/soul', Rawang **phəla** 'soul/demon', and Nakhi phvlà 'god'. These forms may be borrowed from PAT ***(m)bulal** 'moon' according to Benedict (Benedict 1990:166).

'smallpox' PT *bum; PTB *N-brum~bum.

PTB *-an > PT *an ? ('wither/dry')

'wither/dry' PT *san; PTB **san~**sal 'wither, dry up'.

PTB *-an > PT *-on ? ('stretch v.')

'stretch v.' PT *jon. No PTB etyma in STC. Cf. PLB *(ʔ-)dzan^{3} ~ *tsan^{3} 'stretch out'.

PTB *-in > PT *-in ('ripe', 'liver')

'ripe' PT *min; PTB *s-min (STC #432).

'liver' PT *zin; PTB m-sin (STC #234).

PTB *-en > PT *-en ('know')

'know' PT *ken; PTB (m-)kyen (STC #223).

PTB *-en > PT *-in ('nail')

'nail' PT *zin; PTB *m-tśen (STC #74).

PTB *-aŋ > PT *-aŋ ('uncle (paternal)', 'dream', 'dead body', 'come/enter', 'wait', 'take')

'uncle (paternal)' PT *paŋ; PTB *bwaŋ (STC: 23,174,189). Chepang paŋ; Vayu poŋ-poŋ; Garo a-wan 'father's younger brother' (STC); Mawo Qiang ə-pu. Muya ɛ^{33}pu^{55} 'father's younger brother'; Taoba Primi a^{55}põ^{55} "father's elder brother'; Dulong a^{31}wăŋ^{53}; Kaman poŋ^{35}; Taraon a^{31}ba^{35}a^{55}; Idu na^{55}ba^{55}; 'paternal uncle' (ZMYYC).

'dream' PT *maŋ; PTB *(r-)maŋ (STC #82).

'dead body' PT *si-maŋ ('die' + 'corpse'). PTB **maŋ~**r-maŋ.

'come/enter' PT *vaŋ; PTB *hwaŋ 'enter' (STC #218).

'wait' PT *(r)jaŋ; PTB **l(j)aŋ.

'take' PT *laŋ; PTB **la~laŋ.

PTB *-aŋ > PT *-oŋ ('bone', 'spindle')

'bone' PT *loŋ; PTB *(m-)ra:ŋ.

'spindle' PT *poŋ; PTB *pwaŋ (STC #48); WT (')phang; Thebor phaŋ; WB waŋ-rûi (STC).

PTB *-waŋ > PT *-oŋ? ('horn')

'horn' PT *roŋ; PTB *rwaŋ (STC #85). The expected PT reflex is **ruŋ.

PTB *-iŋ and *-uŋ

The two PTB rhymes seem to have merged in PT, producing PT *-uŋ. Apparently, this merger did not occur across the board, for there is at least one set, PT *ñiŋ < PTB *s-niŋ 'year', where PT *-iŋ corresponds to PTB *-iŋ. In this case, borrowing from Tibetan is a possibility, especially in view of the competing forms in Eastern Tani (which in general has been subjected to less Tibetan influence); e.g. Padam-Mising L (du-)tak; Milang T ta-rak; Tangam di-tak 'year'. In two other sets, 'name' and 'marrow', PTB *-iŋ seems to have yielded PT *-in/*-un. More solid examples are needed before this equation can be viewed as a valid sound change.

PTB *-iŋ > PT *-uŋ ('neck', 'wood', 'full', 'deep')

'neck' PT *lwŋ; PTB *(m-)liŋ (STC #96).

'wood' PT *swŋ; PTB *siŋ (STC #233).

'full' PT *brwŋ; PTB *bliŋ~pliŋ (STC #142).

'deep' PT *rwŋ; PTB *s-riŋ 'long/elongate' (STC #433). WT ring; Lepcha (ă-)hyrăn; Kachin ren; Dhimal hrin, WB hrañ 'long' (STC); Takpa rin^{13}po^{53}; Tshangla riŋ-mo; Kaman khɹăŋ^{55} 'long'; WT gting ring-po; Takpa toŋ^{13}riŋ^{13}po^{53}; Tshangla tiŋ riŋ-mo; Taraon ɹum^{55}; Kaman ku^{31}ɹuuŋ^{53} 'deep' (ZMYYC). The WT form gting ring-po (i.e. 'bottom-long') offers a nice link between the original meaning 'long' and the shifted meaning 'deep' in the PT root.

PTB *-iŋ > PT *-iŋ ('year')

'year' PT *ñiŋ; PTB *s-niŋ 'year' (STC #368).

PTB *-iŋ > PT *-in/-un ('marrow', 'name')

'marrow' PT *kin; PTB *r-kliŋ 'marrow/brain'(STC #126; fn.128), Matisoff 1983:471 adds the allofam *r-klyaŋ on Tibetan and Lolo-Burmese evidence. Cf. Mikir ar-klen; Lushai thliŋ; WB khraŋ-tshi; Dimasa bu-thluŋ~bi-thlim 'brain'; Lepcha (ă-)yăṅ (STC); Kaman xiŋ^{53}.

'name' PT *mun; PTB *r-miŋ (STC #83; fn. 99); cf. WT ming; Magari ar-min; Limbu miŋ; Lushai hmiŋ; (STC); Takpa meŋ^{35}; Tshangla miŋ; Mawo Qiang rmə; WB na-mañ; Jingpo mjiŋ^{33}; Kaman a^{31}măŋ^{55}; Taraon a^{31}muŋ^{55} (ZMYYC). Apatani S ar-mrjã may reflect a variant PT root *r-mjwŋ.

PTB *-uŋ > PT *-wŋ ('stone', 'drink', 'beat/flog')

'stone' PT *lwŋ; PTB *r-luŋ 'stone'(STC #88).

'drink' PT *twŋ; PTB **m-tuŋ.

'beat/flog' PT *jwŋ~*dwŋ. PTB **r-duŋ.

PTB *-u:ŋ > PT *-uŋ ('sit/live')[212]

'sit/live' PT *duŋ; PTB *tu:ŋ~du:ŋ (STC #361).

PTB *-eŋ > PT *-aŋ ('plank/board')

'plank/board' PT *swŋ-praŋ; PTB *pleŋ 'flat surface, plank, slab' (STC #138). WB pyañ 'be reduced to a level; plant; flat surface'; Mikir ka-pleŋ; Garo bol-pleŋ; Nung ɜiŋ-byen; Kachin phun-pyen 'plank' (STC). Idu ma^{55}ɜe$ŋ^{55}$p$ɹa^{55}$ (ZMYYC).

PTB *-oŋ > PT *-uŋ ? ('throat')

'throat' PT *gruŋ. No matching PTB root in STC. Cf. Taoba Primi su^{55}<u>tʂhõ</u>^{53}; rGyarong tə-<u>khruŋ</u> <u>khruŋ</u>; Achang <u>$kh^{ɹ}ɔŋ^{31}$</u>$tʂo^{35}$; Taraon $ɕu^{31}tɯ^{31}$<u>gɹu</u>^{53} (ZMYYC); WB khrôŋ~khyôŋ 'windpipe'; PL ?-kroŋ^{2}; Jingpo ju?^{31}<u>khzo</u>^{33} 'voice [lit]'; Kaman gŏ-rŏŋ (Boro 1978); Dimasa ga-raŋ; PTB **groŋ~kroŋ?.

PTB *-oŋ > PT *-oŋ ? ('sour')

'sour' PT *kroŋ; PTB **kroŋ~kyoŋ?.

4.3.2.2. Stop-Coda Rhymes

The noteworthy feature of the reconstructed PT system, as compared with the PTB prototype, is its inclusion of three rhymes with back unrounded vocalism: *-ɯt, *-ək, and *-ɯk. Judging by the attested PT reflexes, the original Tibeto-Burman stop codas are also rather faithfully maintained in PT.

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[212]This set is the only evidence uncovered so far for the preservation of the PTB vowel length contrast in PT (i.e. PTB *-uŋ > PT *-ɯŋ; PTB *-u:ŋ > PT *-uŋ). More examples are required before we can be assured of this correlation.

PTB *-a(:)p > PT *-ap ('weep', 'fireplace shelf', 'wing', 'winnow', 'snot', 'fan')

'weep' PT *krap; PTB *krap (STC #116).

'fireplace shelf' PT *rap; PTB *rap 'fireplace/fireplace shelf' (STC #84).

'wing' PT *lap. PTB **p/s-l(y)ap 'wing, feather, flap, flutter' (Matisoff 1985:443).

'winnow' PT *krap; PTB *krap 'beat, winnow, thrash' (STC pp. 74, 141-2).

'snot' PT *nap~*nop; PTB *s-nap (STC #102).

'fan' PT *jap; PTB *ya:p (STC #92).

PTB *-ap > PT *-op ('stand', 'handspan')

'stand' PT *rop; PTB *g-ryap (STC #246).

'handspan' PT *gop. Cf. Sulung gua^{53}; Kaman tɯ^{31}kau^{53}mo^{53}; Jingpo lă^{31}kham^{33} (ZMYYC); Lushai khâp; Lepcha góm; PTB **gap~**gam?

PTB *-up > PT *-up ('knock/strike', 'nest', 'sleep')

'knock, strike' PT *tup; PTB *tup~tip (STC #399); Jingpo tup^{31}; rGyarong ka-top (ZMYYC); Hayu tup; Limbu thup; Sunwar 'tup; Khaling duhp.

'nest' PT *sup. No matching PTB etymon in STC. The PT root plus the following cognates in other TB languages suggest a new PTB root: *tsup~*tsip (Prof. Matisoff, p.c.): Jingpo tsip^{55}; Kaman su^{55} (ZMYYC); Chang hâp; Nocte rup; Kham 'sip; Limbu hap; Thangkhul ^{1}ə^{1}thip; Lotha ^{1}o-šup; Yimchunger (1) sap; Liangmei sêp; Miju (=Kaman) sâp (TBT); Lepcha a-šap; PNN *siup; French 1983:526 mentions

Benedict's idea that this PTB root might be from *s- (animal prefix) plus *jup 'sleep').[213]

'sleep' PT *jup; PTB *yup (Benedict's revision of STC #114, French 1983:551).

PTB *-at > PT *-at^{1} ('leech (land)'; 'sharp-edged')

'leech (land)' PT *pat^{1}; PTB *r-pat (STC #).

'sharp-edged' PT *rat^{1} cf. PTB *ra~rat 'cut, reap' (STC #458)..

PTB *-it > PT *-it ('extinguished', 'grind')

'extinguished' PT *mit; PTB *mit (STC #374).

'grind (mill)' PT *rit; PTB *krit (STC #119).

PTB *-ut > PT *-ut^{1} ('blow v.')

'blow v.' PT *mut^{1}; PTB *s-mut (STC #407) 'blow (mouth, wind)'; PT *mut means only 'blow by mouth'.

PTB *-ot ? > PT *-ot^{2} ('rub (skin)')

'rub (skin)' PT *not^{2} STC reconstructs PTB *nu:l (#365) on the basis of forms from only three TB languages: Kachin (Jingpo) nun 'be threadbare'; kə-nun 'rub'; Garo nol 'rub, knead'; and Lushai nu:l 'rub against'. Actually, all three languages also have other forms with related meaning ending in a -t: Jingpo nut^{31} 'rub', Lushai nawt 'rub, scour'; Garo nat-a 'rub'. The following additional TB cognates with -t make it necessary to recognize a new PTB root **not?: Nocte nʌt; Yimchunger (1) nut (all meaning 'rub'; Mikir hi-nòt 'scrub, rub between the hands' (TBT).

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[213]However, Prof. Matisoff points out (p.c.) that the Tibeto-Burman 'animal prefix' *s- is never applied to verbs.

PTB *-ak > PT *-ak ('breath', 'hand/arm', 'carry (on back)', 'lick', 'itch', 'penis')

'breath' PT ***sak** (Western Tani); PTB ***sak** (STC #485).

'hand/arm' PT ***lak**; PTB ***g-lak** (STC #86).

'carry on back' PT ***bak**; PTB ***bak**, an allofam of STC #26 ***ba** (STC fn. 71).

'lick' PT ***rjak**; PTB **(m-)lyak~(s-)lyak** (STC #211).

'itch' PT ***fak**; PTB ***m-sak** (STC #465).

'penis' PT ***mrak**; PTB ****mlak**.

PTB *-a:k > PT *-ak ('phlegm', 'son-in-law')

'phlegm' PT ***kak**; PTB ***ka:k** 'cough up, phlegm' (STC: 71).

'son-in-law' PT ***mak-**; PTB ***ma:k** (STC #324).

PTB *-ak > PT *-ok ('fowl', 'crow v.', 'scratch')

'fowl' PT ***rok**; PTB ***rak** (STC fn. 301).

'crow v.' PT ***krok**; PTB ****krak**? Cf. Takpa **krek**^{53}; Anong **gɪl**^{55} (ZMYYC); Tamang **kra:** (< ***krak**); Athpare **ok** (< ***ɣrok-**) (TBT).

'scratch' PT ***fiok**; PTB ***hyak** (STC #230).

PTB *-ak > PT *-ok? ('sweep')

'sweep' PT ***pok**; PTB ***py(w)ak** (STC #174); WT **'phyag**; Lushai **hmun-phiat**; Chepang **phek**; Mikir **ar-phek** 'broom' (STC); Tshangla **phak**; Taraon **a**^{31}**paɯ**^{53}

'sweep' (ZMYYC); Gurung phyoq; Thakali phyā; Sunwar 'phi:k 'sweep' (SIL).

PTB *-ik > PT *-ik ('eye')

'eye' PT *mik; PTB *mik~myak (STC #402); WT mig; Takpa me?^{53}; Tshangla miŋ; Dulong mĕ?^{55}; Jingpo mji?^{31} (ZMYYC); Garo mik; Lushai mit; Lepcha ă-mik; Limbu mik.

PTB *-ik > PT *-uk ('louse (head)')

'louse (head)' PT *ſuk; PTB *śrik (STC #439).

PTB *-uk > PT *-uk ('poison', 'pour')

'poison' PT *duk; PTB duk~tuk (STC #472).

'pour' PT *luk. The closest etymon found in STC is *(m)lu(w)~*(r-)lu(w) 'pour, bathe' (STC pp. 110, 147). An allofam with -k (**m-luk?) is motivated by the PT root along with the following TB cognates: WT ldugs (< root *luk; cf. pf. form blugs); Takpa lok^{13}; Tshangla luk 'pour' (ZMYYC); Nocte lok; Bumthang yok (TBT); Lepcha lăk (all glossed 'pour'). Benedict links the Tibetan form rather with the following (chiefly Baric) forms for 'drink': Garo riŋ; Dimasa luŋ~liŋ; Kachin lu? and proposed PTB *lu:ŋ~*lu(:)k 'drink' (STAL: fn. 11).

PTB *-u:k > PT *-uk ('powder', 'cave')

'powder' PT *muk; PTB *mu:k 'dust' (STC #363); WB ə-hmuik 'refuse, dust'; Lepcha muk 'weeds, rubbish' (STC); Takpa len^{31}no?^{53} 'flour' (ZMYYC).

'cave' PT *puk; PTB *pu:k~ *buk 'cave' (STC #358); WT phug-pa 'cavern'; Ao Naga te-pok 'cave'; Lushai pu:k 'cave' (STC); Taoping Qiang ʐɑ^{33}pu^{33} (ZMYYC); Chepang lyum-phuk (SIL); Limbu phuk-ku.

PTB *-u:k > PT *-uk ('cloud/fog')

'cloud/fog' PT *muk~*mok; PTB *r-mu:k 'foggy, dark' (STC #357, fn. 236); WT rmugs-pa 'dense fog'; Lepcha muk 'foggy'; WB muik 'dark, ignorant'; Lushai mu:k 'dull (color)' (STC); Tshangla muk-pa 'cloud, fog'; Taraon $a^{31}m^{55}$ 'cloud'; Idu $a^{55}mu^{55}$ 'cloud' (ZMYYC); Dulong mŭ$?^{55}$ 'sky'; Jingpo mu$?^{31}$ 'cloudy'.

4.3.2.3. S-Coda Rhymes

The PTB dental spirant coda -s rarely survives in the modern languages. Some traces of erstwhile *-s have been kept in Tani languages, although there is little direct evidence for reconstructing *-s for PT. On the basis of some solid comparisons with PTB etyma (e.g. 'listen/hear', 'vomit', and 'seven'), it is quite clear that PTB *-s survived as -t in Eastern Tani but was apocopated in Western Tani, after affecting the quality of the preceding nuclear vowels. To further clarify the diachronic scenario, contrast the probable developments of the PT roots 'leech (land)' vs. 'listen/hear' in Eastern and Western Tani, assuming for the sake of argument that the latter root contained the *-s coda:

Proto-Tibeto-Burman	*r-pat 'leech'	*tâ-s 'listen/hear'
Proto-Tani	*pat	*tas
Eastern Tani (*-s > *-t)	*pat	*tat
Mising T	*pat	*tat

Proto-Tibeto-Burman	*r-pat 'leech'	*tâ-s 'listen/hear'
Proto-Tani	*pat	*tas
Western Tani (*-s > *-0 with compensatory vowel lengthening)	*pat	*ta:
(other sound changes)		
Bengni S	ta-pit	tu:
Apatani S	ta-pe?	ta

This indicates that PTB *-s must have remained distinct from PT *-t < PTB *-t at the PT stage, otherwise (i.e. merger of PTB *-s and *-t) the separate developments of PTB *-s in the two major Tani subgroups of modern Tani would be unexplainable. It is to be recalled that in Chapter II the alternate t-coda rhymes -at^1 and -at^2, -ut^1 and -ut^2, -ot^1 and -ot^2 are tentatively set up purely on the basis of distinct correspondence patterns: the -t^2 rhymes all showing -t in Padam-Mising L and zero coda in the other key languages.[214] External comparisons reveal that at least **some** of the -t^2 rhymes may originate from PTB rhymes ending in *-s. We believe that, at the current stage of comparative Tani, it is reasonable to postulate PT *-s **only for those -t^2 roots which have clear Tibeto-Burman parallels in *-s**. In other words, it seems prudent to keep those -t^2 rhymes whose PTB origins are not yet ascertained in limbo, leaving the possibility open that they may turn out to have alternative diachronic sources.

[214]This is also true of the *-ut rhyme, although in this case we do not have enough evidence for claiming more than a single *-ut rhyme.

In the following sets, the PTB origin in *-s seems probable; the PT reconstruction may accordingly be revised to *-s:

PTB *-as/-âs > PT *-at^{2} (-> *-as) ('listen/hear', 'vomit', 'plait v.')

'listen/hear' — PT *tat^{2} (-> *tas) ; PTB *tâ-s 'hear' (STC #415); WT thos; Vayu thas 'hear'; the following cognates are glossed rather as 'listen': Anong tho^{53}; Jingpo mă^{31}tat^{31}; Dulong tɔ^{55} (ZMYYC); Gurung the:-m; Tamang the nyem; Thakali the; Kaike Tā; Nocte ^{1}dže-tat; Tamlu Konyak dzái; Chang dìt; Ao ^{2}a^{3}ŋa^{1}tut (TBT); Kanauri thas; Kham thas 'be heard'.

'vomit' — PT *b(r)at^{2} (-> *b(r)as). No matching PTB reconstruction in STC, but a PTB root **N-pras 'vomit' is supported by the PT root together with the following (note especially the Tshangla and Kanauri 'vomit' forms with -s): Tshangla phros; Mawo Qiang ɹɑ; rGyarong kɐ-mə-mphat; Achang phat^{55}; Nusu phɑ^{ɹ55}iɯ^{55}; Kaman phat^{55} (all meaning 'vomit') (ZMYYC); Jingpo n^{31}phat^{31} 'vomit (n. and v.)'; Tamlu Konyak pat; Nocte phat; Tangsa ^{1}phai(?); Limbu pɛ?-ma:t; PKNC *prat/pryat 'come out' (TBT); Kanauri phas 'vomit'; PLB *C-pat^{L} (TSR #38).

'plait v.' — PT *prat^{2} (-> *pras?); PTB **plas?. Cf. Takpa phre^{53}; Qinghua Primi khə^{35}phzɐ^{35}; Ersu phʂ1^{55}; Namuyi phə^{ɹ33}phə^{ɹ55}; Jino phɹæ^{33}; Nusu phɹɑ^{ɹ55}ɑ^{31}; Dulong blat^{55}; Sulung bɹɛ^{ɹ33} (ZMYYC); Lepcha flót; PLB *pan~*C$_{vd}$-pat (Matisoff 1985b:16; the Jino and Nusu forms suggest -r- even at the PLB level?); Kanauri bŏʃ 'plait (ropes)'; bĕʃ 'plait n.'.

PTB *-is > PT *-ut (-> *-us) ('seven')

'seven' — PT *kV-nut (-> *-nus); PTB *s-nis (STC #5). Cf. Kanauri (s-)tis; Gyarong kĕ-snĕs; Kachin sə-nit (STC); Takpa nis^{55}; Mawo Qiang stə (< *snə); Dulong sɯ^{31}ɲĭt^{55}; Kaman nɯn^{53} (ZMYYC); Khiamngan ^{12}džv ^{1}ñat; Boro sni?; Nocte ^{1}wan ^{1}i-ŋit; Chang ñʌ́t; Manipuri tə-ret; Ao ^{3}tɯ^{3}nut; Tamang 'nyis; Thakali 'ŋis; PLB *snit^{L}.

4.3.2.4. Liquid-Coda Rhymes

Although rhymes containing the two liquid codas *-l and *-r undoubtedly existed in the PT system, few PT roots reconstructed with such rhymes can be readily linked with currently recognized PTB etyma.[215] While PTB *-r seems to survive as PT *-r, the relationship between PTB and PT *-l is not yet fully understood. Certain PT forms may resemble STC roots reconstructed with *-l at first blush, yet their cognacy is highly doubtful. Consider for example PT *krat^{1} 'kidney' and *mut 'hair', cf. PTB *m-kal 'kidney' (STC #12) and *(r-)mul~*(s-)mul~*(s-)mil 'body hair' (STC #2). The credibility of the connection between PT *krat^{1} and PTB *m-kal is diminished not only by the presence of the extra -r- medial in the PT form but, a fortiori, by the two cognate sets 'enemy' and 'earthworm' below where the PT reflex of PTB *-al is *-ol. There is also some indication that the resemblance of PT *mut to the PTB roots with *-l is deceptive. First, the true cognate to PTB *(r-/s-)mul is attested at least in Mising L which has **both** -mur (< *mul),[216] occurring by itself with the meaning 'hairy' and in the compound nam-mur 'beard/mustache' (< nap- 'mouth' + mur 'hair'), **and** -mut referring to hair on other parts of the body. Furthermore, Tani is not the only language group in Tibeto-Burman with a 'hair' word ending in -t, cf. also WB mut-chit; mut-nâ; Phunoi bàn-hmot 'beard'; Lepcha măt 'hair' (occuring in 'beard' and

[215]PTB liquid-coda rhymes, except *-ar and *-al, are not well-represented in the STC reconstructions either.

[216]For PT *-l > Mising -r, see 2.3.2.5.

'pubic hair'). In sum, examples like the foregoing have caused us to have misgivings about PT *-t as a possible reflex of PTB *-l.

Following are a few good comparisons of PT and PTB liquid-coda roots that have been unearthed so far.[217]

PTB *-ar/-år > PT *-ar ('star', 'ignite')

'star' PT *kar; PTB *s-kar (STC #199).

'ignite' PT *par; PTB *bwår~*pwår 'burn, fire' (STC #220, fn. 78).

PTB *-er > PT *-ar ('fly v.')

'fly v.' PT *byar; PTB *byer (STC fn. 249); Bahing byer (STC); Bijiang Bai fe$^{\text{J55}}$; Dulong bě$^{\text{J55}}$; Sulung pie^{33} (ZMYYC); Dulong (Nujiang dialect) zě$^{\text{J53}}$; Gurung birñ; Chamling perñ- (TBT).

PTB *-a(:)l > PT *-ol ('enemy'; 'earthworm')

'enemy' PT *mi-rol; PTB *(g-)ra:l 'fight, quarrel, war' (STC fn. 219); Lushai ra:l 'war against, warrior'; Angami te-hre 'war' (STC); WB ran-su 'enemy' (ZMYYC); Maring ral; Manipuri lal; Lushai do-ral (all meaning 'enemy') (CNL). The first component morpheme of the PT compound is *mi- 'man (homo)'.

'earthworm' PT *tol~*dol; PTB **dal. Cf. Rawang ber-dal; Dulong (Dulonghe dialect) pu^{31}dǎl^{53}; Achang ta^{55} 'earthworm' (ZMYYC); perhaps also Maring tal; Manipuri til 'worm'. Probably not related to PTB *zril, which is based mainly on WT sril~srin 'insect/worm'.

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[217]The possible connection between PT *kjul and PTB *m-tśril 'spittle' is tantalizing but doubtful. Shafer 1967:200 associates the Padam-Mising L word bul 'snake gourd' with the PTB root *b-rul (STC #447).

4.4. Summary of PTB-PT Phonological Correspondences

The major correspondences between PTB and PT initials and rhymes are summarized in the following tables. PTB initials and rhymes unattested in PT are omitted. In case more than one equation is observed, the more regular or less contextually restricted ones are given first; doubtful equations carry a question mark.

4.4.1. Initial Correspondences

PTB		PT	PTB		PT
*p-	>	*p-	*-w-	>	*-0-/*v-
*b-	>	*b-	*y-	>	*j-
*m-	>	*m-	*pr-	>	*pr-
*t-	>	*t-/*s-	*pl-	>	*pr-
*d-	>	*d-	*bl-	>	*br-
*n-	>	*n-/*ñ-	*ml-	>	*mr-
*k-	>	*k-	*kr-	>	*kr-/k-
*g-	>	*g-	*kl-	>	*k-(?)
*ŋ-	>	*ŋ-	*gr-	>	*gr-(?)
*dz-	>	*d-/*j-(?)	*hw-	>	**v-
*ts-	>	*f-	*hy-	>	*ĥ-
*tś-	>	*f-/*s-/*z-	*sl-	>	*f-
*s-	>	*s-/*z-/*ĥ-/*f-	*śr-	>	*f-
*z-	>	*ĥ-	*dy-	>	*j-(?)
*l-	>	*l-/*rj-	*ly-	>	*rj-
*r-	>	*r-			

4.4.2. Rhyme Correspondences

PTB		PT	PTB		PT
*-a	>	*-o/*-a	*-uːŋ	>	*-uŋ
*-i	>	*-i	*-eŋ	>	*-aŋ
*-u	>	*-u	*-oŋ	>	*-uŋ?/*oŋ?
*-e	>	*-e	*-ap	>	*-ap/*-op
*-ay	>	*-jo ~ *-e	*-up	>	*-up
*-aːw	>	*-ɯ?	*-at	>	*-at[1]
*-əy	>	*-i/*-ɯ	*-it	>	*-it
*-əw	>	*-ɯ	*-ut	>	*-ut
*-ey	>	*-ə/*-e	*-ot	>	*-ot?
*-ow	>	*-u/*-ɯ	*-ak	>	*-ak/*ok
*-wa-	>	*-u-	*-aːk	>	*-ak
*-am	>	*-am/*-om	*-ik	>	*-ik/*-ɯk
*-um	>	*-um	*-uk	>	*-ɯk
*-an	>	*-an?/*-on?	*-uːk	>	*-ɯk/*-uk
*-in	>	*-in	*-as/*-âs	>	*-as
*-en	>	*-en/*-in	*-is	>	*-ɯs
*-aŋ	>	*-aŋ/*-oŋ	*-ar/*-âr	>	*-ar
*-iŋ	>	*-ɯŋ/*-iŋ/*-in?/*-ɯn?	*-er	>	*-ar?
*-uŋ	>	*-ɯŋ	*-al/*-âl	>	*-ol

Chapter V

External Relations of Tani in Tibeto-Burman

5.0. Introduction

The primary objective in this chapter is to clarify, from the vantage-point of reconstructed Proto-Tani, the linguistic position of Tani in Tibeto-Burman. Section 5.1. surveys and contrasts exisiting views on the affiliations of Tani in Tibeto-Burman. Section 5.2. inspects in detail a number of Tibeto-Burman languages which have been nominated in the literature as possible close relatives of Tani. After screening out a few unlikely contestants, a pilot lexical study is conducted in section 5.3. to weigh the degrees of lexical affinity between Tani and the remaining candidates as compared with three control languages, Written Tibetan, Written Burmese, and Garo. The implications the output of this study has on the phylogenetic position of Tani are then discussed. In the concluding section, the nature of the relationship between Tani and Digarish, the language group which turns out to be most akin to Tani in basic vocabulary, is further considered.

5.1. Existing Views on the Place of Tani in Tibeto-Burman

The genetic affiliations of Tani with Tibeto-Burman have seldom been called into question,[218] and should now be considered **proven beyond reasonable doubt** in view of the accountability of much of the PT phonological developments in terms of PTB as shown in the preceding chapter.[219] However, there is no consensus yet as to how Tani interrelates with other Tibeto-Burman languages. In fact, as shown in the following survey of the subgrouping literature, opinions diverge from, and often conflict with, each other with regard to both lower-level and higher-level affiliations of Tani in Tibeto-Burman.

5.1.1. Konow: 'North Assam'

In the colossal Linguistic Survey of India, Tani languages, along with other little-known Tibeto-Burman languages of Arunachal Pradesh, were brought together in the so-called 'North Assam' group. That this was meant to be an expedient, geographical grouping is clear

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[218]The great lexical differences between Tani and other Tibeto-Burman languages (only 12.5% agreement of basic vocabulary with Tibetan and Burmese according to his calculation) has led Marrison to doubt not only the genetic affiliations of Tani with Tibeto-Burman, but also "the reality of the Tibeto-Burman language family as generally accepted...The Tibeto-Burman family is an unsatisfactory construct, and this whole field of investigation should be reopened" (Marrison 1988:216). My own lexical study, however, has turned up much higher cognate figures between Tani and either Tibetan or Burmese (see 5.3. below). Even if Marrison was right about the cognacy rates, his radical view on the status of Tibeto-Burman, we believe, will be hard to accept for most Sino-Tibetanists.

[219]Recall that the regular sound correspondence between PTB *-əy and PT *-i is backed up by as many as eleven cognate sets, all belonging to basic vocabulary (see section 4.3.1.2.).

from the the following remarks by Sten Konow, the originator of this term (Konow 1909b:568, 569, emphasis ours):

> The North Assam group is **not a well-defined philological group** with salient grammatical features distinguishing it from other Tibeto-Burman forms of speech...In many important points, however, Mishmi[220] differs from Abor-Miri, and **the points of correspondence just referred to are not of an importance sufficient to prove a close connexion between the two forms of speech.**

As for higher-level connections, Konow made only a vague suggestion (Konow op. cit.:572):

> The North Assam forms of speech can be described as links which connect the Tibetan and Himalaya dialects with the languages of the Bodo, Naga, Kuki-Chin and Kachin groups.

5.1.2. Shafer: Mishingish (Bodic/Burmic)

The distinctness of the 'North Assam' languages is further underscored in Shafer 1955: 102, where no less than four separate groups are recognized: Mishingish (= our Tani), Digarish (=Taraon-Idu), Midźuish (=Kaman-Meyöl), and Hrusish (= Hruso = Aka). Shafer

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[220]As shown by ensuing research, the Mishmi languages do not form a coherent linguistic unit either. Rather, there is a fundamental cleavage between Digaro-Chulikata-Midu (Taraon-Idu) and Miju (Kaman). Thurgood 1985:81 claims that the Mishmi languages belong with Nungish under a supergroup 'Kaman-Nung' with "fully substantiated lower-level genetic relationships". We believe that this claim, which remains unproven even to this day, underestimates the great differences between the two Mishmi groups (for a more conservative view, cf. Sun 1980:299-315).

did not attempt a further classification but suggested that all of them are 'possibly sections of Bodic, possibly of Burmic, **certainly not of Baric**' (Shafer 1955:102).

5.1.3. Benedict: Mirish (Major Tibeto-Burman Nucleus)

While positing Abor-Miri-Dafla (i.e. Mirish in the narrow sense, = Tani) as one of the major nuclei of the Tibeto-Burman family, Benedict (1972: 5) suggests that to this division perhaps also belong not only the three Arunachal neighbors of Tani: Taraon, Kaman, and Hruso, but also the geographically more distant Dhimal group (Sikkim and Nepal). This claim, in effect, upgrades for the first time Konow's 'North Assam' from an **areal** to a true **genetic** grouping. He further speculates that this group (Mirish in the extended sense) could ultimately be linked with Kachin (Jingpo), Baric (Bodo-Garo and Konyak), Nungish, and Lolo-Burmese under the supergroup 'Burmic' (op. cit.:11). This view was soon given up: in STAL:178; fn. 14, he proposes instead that, as far as core vocabulary is concerned, Tibetan, Chepang, Tamang (i.e. Bodic), Burmese-Lolo-Nungish, Lushai (Kuki-Chin-Naga), and Miri (Tani) form one supergroup as against Kachin, Garo, Konyak languages, and Chairel.[221]

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[221]Incidentally, Benedict's revised view on the special relationship between Jingpo, Bodo-Garo, and Northern Naga seems to be receiving growing endorsement (Burling 1971, 1983; French 1983). The most drastic move in this direction is taken by Weidert 1987: fn.22, where Jingpo is put directly under one of the three branches of Barish: Western Barish (=Bodo-Garo, or Burling's Garo branch); Eastern Barish-I or Arunachal Barish (=Tangsa, Nocte, Wancho); and East Barish-II (= Konyak, Phom, Chang, Khiamngan, and **Jingpo**). DeLancey 1991a:160 also classifies Jingpo as a branch of Baric. An alternative view groups Jingpo rather with Lolo-Burmese, forming a '**Jiburish**' subgroup on the strength of hundreds of cognates between Jingpo and Lolo-Burmese and some parallel phonological developments (Matisoff 1974). In Matisoff 1991:481, however,

Benedict's revised view on the linguistic position of Abor-Miri-Dafla (AMD = Tani) can thus be interpreted as follows: At a lower-level, AMD is most closely related to Hruso, Taraon, Kaman, and Dhimal; these languages are allied further with Lolo-Burmese, Bodic, and Kuki-Chin-Naga, as against Kachin and Baric. It is important to note that while Benedict ventures explicit claims about possible lower-level close relatives of Tani, he agrees with Shafer that **Tani is not akin to Baric.**

5.1.4. Other Ideas

Egerod 1974 also contains a classification of Tibeto-Burman, founded largely on Shafer and Benedict's frameworks. According to Egerod, Mirish (= Tani) is one of the major branches of Tibetic (= Shafer's Bodic); further, all of the other sections (Dhimalish, Digarish, Midźuish, Hrusish, Newarish, and Dzorgaish) left unclassified between Bodic and Burmic by Shafer are directly assigned to 'Other Tibetic'. Further genetic subrelations among these Tibeto-Burman groups are not explored by Egerod, however. Whatever criteria may underlie Egerod's classificatory proposal, it is clear that, like Shafer and Benedict, he does not consider Mirish to be closely affiliated with Baric.

DeLancey 1991a is one of the most recent statements on the genetic relationships among the Tibeto-Burman subgroups. His

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Jingpo (Kachinic) and Lolo-Burmese are treated as separate major Tibeto-Burman subgroups.

classification, incorporating some recent subgrouping proposals, departs in significant ways from his predecessors. For one thing, he has a greatly expanded notion of Baric, subsuming not only Bodo-Garo and Konyak (= French's Northern Naga), but also Kuki-Chin-Naga, Jingpo, Luish, and Mirish. For DeLancey, 'Mirish' includes the three Mishmi languages in addition to Tani proper, but not Dhimal (assigned to Bodic) or Hruso (not mentioned in his framework).

DeLancey's extended conception of Baric may be inspired by the geographically-based **Kamarupan** group proposed in Matisoff 1985b: fn. 8, where, however, the terms is explicitly stated to be 'a **neutral overall designation** for the TB languages of NE India and adjacent areas'. In Matisoff 1991:480-1, Kamarupan appears as one of the seven major Tibeto-Burman subgroups on a simplified heuristic subclassification model, again with the disclaimer that this is a 'purely geographic rubric'. Under Kamarupan we find Kuki-Chin-Naga, Mikir, Meithei, Mru, Bodo-Garo, as well as Abor-Miri-Dafla. Unlike DeLancey's Baric, however, Matisoff's Kamarupan does not include Jingpo, which forms a subgroup (Kachinic) by itself.

It is evident by now that there is hardly any agreement among the leading Tibeto-Burmanists concerning the linguistic affiliations of Tani in Tibeto-Burman. While this indeterminacy reflects the immature state of higher-level Tibeto-Burman subclassification in general (Thurgood 1985, Sun 1988, Dai 1989, DeLancey 1991c: 160),[222] the uncertainty surrounding the linguistic position of Tani

[222]One important reason for the lack of agreement in Tibeto-Burman subgrouping may be the different criteria (often implicit) used in the various subgrouping proposals. Thus, Thurgood puts Nung in his 'Rung' supergroup apparently on morpho-syntactic evidence

and related languages in particular can be directly attributed to the shortage of comparative data essential for recovering the linguistic histories of these languages, which in turn makes definitive subclassification well-nigh impossible.

Yet, what is relatively uncontroversial is that languages of the Tani group (i.e. Shafer's Mishingish, Benedict's Mirish in the narrower sense) do form a compact unit, more closely related to each other than to any other Tibeto-Burman language. We think it is important for the clarification of the issue to assert with certainty that **no other Tibeto-Burman language known to us deserves a place on the same taxonomic order with the major Tani subgroups.** Hence, earlier proposals which subsume languages like Midu (Thurgood 1986:93),[223] Aka (Nishida 1979b:77), or Sulung and Bangru (Sun 1983:267)[224] directly under Tani proper are untenable. This is not to deny, of course, that Tani may not be grouped further with other Tibeto-Burman languages in a co-ordinate relation under some higher Tibeto-Burman division, the topic of the next section.

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only (Thurgood 1985). What is not explained is the considerable amount of shared basic vocabulary between Nung and Lolo-Burmese (STC:8; STAL: fn 14).

[223]Thurgood claims that 'Even from the limited LSI sample of data, it is clear that the Chulikata Mishmi [=Midu]...must be subgrouped with these Adi languages rather than with the Miju language' (Thurgood 1986:93). Actually, Midu should be equated with Idu (autonyms: Idu, Midu, Dudu), which Thurgood in the same paper correctly assigns to the Taraon group.

[224]Sun Hongkai's tentative inclusion of Sulung and Bangru under the Nishi-Bangni subgroup of Tani was done apparently at a time when linguistic data on these languages was not yet available to him (Sun 1983:267). His more recent view is that Sulung and Bokar (other Tani languages are not mentioned) are distinct languages belonging to the 'Jingpo' supergroup, which also contains Jingpo, Nungish, and the Mishmi languages (Sun 1988:69).

5.2. Possible Close Relatives of Tani

What, then, are the **collateral relatives** of Tani proper in the Tibeto-Burman family? A number of languages have been mentioned in the literature as showing particular affinity with Tani, including Lepcha (Bodman 1988), rGyarong (Nagano 1984), Dhimal (Benedict 1972), Hruso (Benedict 1972, Nishida 1979b, 1984), and the Mishmi languages (Benedict 1972, DeLancey 1991b: 431). These proposals will be considered below in light of our improved understanding of the Tani evidence.

5.2.1. Lepcha

The phylogenetic position of Lepcha, a Tibeto-Burman language of Sikkim, has also been highly controversial. Earlier analyses have aligned Lepcha with Naga (specifically, the 'Northern Naga' branch of Shafer 1955:106),[225] Tibetan-Kanauri and Kiranti (Benedict 1972:7-8), and Mikir (Bauman 1976). In a valuable recent revisit to the issue, Bodman (1988) compares Lepcha with a number of Tibeto-Burman languages which are lexically most similar to Lepcha, including an unidentified variety of Adi extremely similar (if not identical) to Padam. The substantial evidence of the lexical affinity between Lepcha and Adi comprises a list of 130 cognate pairs, based on which some important Lepcha-Adi consonantal correspondences are worked out.

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[225]This is not the same as the 'Northern Naga' (or Konyak) languages of French 1983. Rather, it refers to the group of Naga proper which Weidert terms Naga-II, comprising Ao, Lhota, Sangtam, Yimchunger, and Northern Rengma (Weidert 1981: fn. 3).

On close inspection, however, many such sets appear to be **common retentions** from the common Tibeto-Burman lexical stock, and do not demonstrate by themselves the special lexical relations between Lepcha and Adi. They include the following: 'leech', 'carry on back', 'give', 'male of animals', 'snake', 'horn', 'otter', 'drink', 'dig', 'eat', 'flat', 'star', 'cry (weep)', 'crab', 'shade', 'blow', 'dream', 'eye', 'fire', 'ripe', 'son-in-law', 'blood', 'tongue', "smell v.', 'two', 'wood', 'three', 'fish', 'five', 'bow (weapon)', 'four', 'road', 'stone', and 'seed'.

Furthermore, the cognacy of the following items seems doubtful:

'sew' Lepcha hrap, Adi om-kap: The true Tani root for 'sew' is the first element om- (< PT *fiom); the second element -kap,[226] on which the comparison is based, is a verbal particle signifying 'closure'. Thus, the precise meaning of Adi om-kap is 'sew up'. This makes Adi -kap semantically less compatible with the Lepcha form.

'spirit' Lepcha a-pil, Adi a-bur a-jo (listed as a-bun a-jo in Lorrain 1907:361; a typo?). The Adi form a-bur a-jo can indeed mean 'spirit', but the phonology does not match (Like Lepcha, Padam preserves -l, but the form in question ends in -r).

'crumb' Lepcha p'yol, Adi pim-pil: The Lepcha form, which does not mean 'crumb' at all, is an adverbial which occurs in reduplicated form p'yol p'yol (e.g. p'yol p'yol glo nóŋ 'to fall into pieces'). The Adi word is a compound composed of the 'grain' root PT *pim plus an element pil (< PT *pjul) which refers to small rounded

[226]From PT *kap 'cover'. Cf. rGyarong pkap; Jingpo mă^{31}kap^{31}; Dulong ta^{55}kŏp^{55}; Kaman ŋkhap^{53}; WT 'kheb~ 'gebs 'cover'.

objects in general and appears also in such compound words as 'grain', 'coin', 'uvula', 'clitoris', and 'kidney'.

'dig up' Lepcha bɔl; byɔl, byul; Adi du-bur. The Adi compound, which has a more specific meaning of 'dig up (earth) and make it powdery', contains the morpheme du-, the real root for 'dig' (< PT *du) ; the -bur element, semantically incompatible with the Lepcha forms, is a (resulative) verbal particle meaning 'so as to be powdery'.

'beetle' Lepcha bŭt, Adi je-put. The Lepcha word is glossed 'insect that eats and causes destruction' in Mainwaring-Grünwedel 1979:258, and seems to be derived from the verb bŭt meaning 'pulverize, decay (of tooth)'. The Adi form, on the other hand, refers to 'scarab, dung beetle' and is transparently composed of je 'excrement/ dung' plus put 'burrow/bore v.'!

'steep' Lepcha dóp, Adi tap-. The Adi form seems to be a resultative verbal particle which means rather 'down, become horizontal (of something upright, e.g. a tree)'.

'stick, adhere' Lepcha krap, Adi gap. The Adi morpheme, which appears in the compound gey-gap 'adhere/stick to', actually means 'grasp/hold' and is here used as a resultative verbal particle after gey-, the true root for 'adhere, stick, heal'.

'ladle (v.)' Lepcha kuk; Adi ə-guk 'ladle n.'. This Adi word refers primarily to 'gourd'; the meaning 'ladle n.' is clearly a semantic extension.

'close (v.i.)' Lepcha zap; Adi a-dap. The central meaning of the Lepcha root zap is 'place compactly'; zap seems to take on the meaning 'close together' only in an adverbial phrase sǎ-zŭ-sǎ-zap.

The following pairs seem to involve convincing cognates; however, further comments can be added to them:

'divide, distribute' Lepcha ór, Adi or. The two words are semantically distinct. The Lepcha form means 'separate (people or things) that are close together', whereas the Adi form (< PT *hor) means rather 'distribute'.

Lepcha rŭm 'god', Adi u-rom 'ghost': Lepcha rŭm seems to refer more generally to 'benevolent spirits' and thus semantically closer to the Adi word, which is from PT *rom 'ghost (ancestral)' (contrast PT *ju 'evil spirits').

'pubic hair' Lepcha măt, Adi a-mut. Actually, the semantics of the given roots in both languages goes beyond 'pubic hair'. The Adi form goes back to PT *mut, a general 'hair' root (for both body hair and hair of head). The Lepcha root măt also appears in the compound bon-măt 'beard (mouth-hair)'. Also to be noted is the shared -t final, rarely found in Tibeto-Burman words for 'hair'. The cognacy of these forms to PTB *mul is dubious, as there is otherwise little evidence for the *-l > -t shift in either language. In fact, PTB *mul is directly attested in the Lepcha doublet a-myal 'body hair, feathers, armor', as well as in the Mising L forms nam-mur; soŋ-mur <*nap-mul; *čok-mul 'beard' (PT *čok 'chin/jaw').

'taboo, omen' Lepcha nyo, Adi ño. The Padam Adi form is a verb which means 'be tabooed or quarantined for religious reasons'; the Lepcha form is glossed as 'be ominous, have a bad effect'. The really remarkable fact, not mentioned by Bodman, is both of these forms show the same variant form with the -t (suffix?), Lepcha nyot; Padam-Mising L ñot!

What is surprising about Bodman's comparative list is that many cases of plausible lexical comparability between Lepcha and Padam Adi (Eastern Tani) coincide with the east-west lexical split among Tani languages, and the forms more common in Western Tani do not resemble the Lepcha forms at all. Consider the following examples:

'breeze' Lepcha fár, Adi a-sar. This is an Eastern Tani word; cf. Western Tani: *rji (< PTB *g-ləy).

'swell' Lepcha bróm; Adi pom (< PTB *(s-)bwam). This form appears to occur in Padam only; other Tani < PT *brwŋ (< PTB *bliŋ~pliŋ 'full').

'fear' Lepcha ro(-m), Adi le-ro. Milang T a-re-ma; Padam-Mising L le-ro; aŋ le-lo (aŋ ='heart'); other Tani < PT *pV-so~bV-so.

'sky, heaven' Lepcha tă-lyaň, Adi ta-leŋ~ta-jeŋ. This is mainly an Eastern Tani form (q.v. section 3.2.2).

'return, (give) back' Lepcha lót, Adi -lat. This form, another verbal particle, is used only in Eastern Tani; contrast Western Tani -kur.

'girdle' Lepcha a-rek, Adi mag-rek. This form is found in Padam only.

We can also contribute a few more items to the list of Lepcha-Tani comparabilia:

Lepcha pán 'be forgetful, absent-minded', PT *mit-pan 'forget' (PT *mit- = 'extinguished').[227]

[227]Cf. Damu OY mit-pan to-mit 'forget'. Prof. Matisoff suggests that the *mit- element may reflect PTB *m-yit 'mind'. This is possible, but the normal PT 'mind/think' root is *mwŋ.

Lepcha pán 'break off v.i.' vs. Lepcha fán (← *ph-?) 'break off v.t.'; Padam-Mising L ben~bet; Padam-Mising L pen~pet. This is one of the rare instances where Tani preserves the familiar Tibeto-Burman transitivity-based voicing alternation (cf. Xiandao Achang bio '(of thread) be broken v.i.' vs. phio 'break (thread), v.t.'; Taraon bɪwn^{53} '(of ropes) be broken' vs. phɪwn^{53} 'break (ropes)' (Sun et al. 1980:205).[228]

'nest' Lepcha a-šap; PT *sup.

'revolve in mind; reason' Lepcha myóň; PT *mwŋ 'think'.

'take' Lepcha lóŋ; PT *laŋ.

'bowels' Lepcha tă-kli; PT *kri. VSTB:214-5 suggests that these forms may originate from PTB *kləy 'excrement'. The root also occurs in compound words for 'belly' and 'navel' in Tani, but not in Lepcha.

Lepcha mlo 'world, universe'; PT *mroŋ 'world/land/earth'.

We have shown that although Bodman's original list of Lepcha-Adi comparisons needs revision, the rather remarkable lexical tie between these languages cannot be overlooked. In addition to a few new items added to the list (further search will doubtlessly uncover more), we have also made the discovery that despite the geographical location of the present Lepcha-speakers to the west of the Tani language area, it is in Eastern Tani (particularly Padam Adi), that the more striking similarities are found. Does this mean that Lepcha and Tani are close kin on the Tibeto-Burman genealogical tree? We will

[228]Causativity in modern Tani is normally expressed by means of affixation (usually involving the morpheme 'do/make' mo:) rather than by stem-modification.

defer judgement until this issue is further explored later in this chapter.

5.2.2. rGyarong

We now turn to rGyarong, another language supposedly showing special affinity to Tani according to Nagano 1984. One of Nagano's central claims in this work is that in its deepest lexical stratum, rGyarong is more intimately related to AMD (i.e. Abor-Miri-Dafla) than to either Tibetan (the traditional view) or Qiangish (a view espoused by leading Qiangish specialists of China; see for instance Sun 1982 and Huang 1991).[229] In order to demonstrate this new linguistic alignment, Nagano presents a comparative list of about a hundred core vocabulary items (mostly verbs) with which to establish sound correspondences between the GC (i.e. lCog-rtse) dialect of rGyarong and AMD. The AMD data is taken from Yano B unless otherwise stated (actually, forms are often cited from the distinct Tagen B variety instead), interspersed with Abor-Miri forms taken from Lorrain 1907 (=Padam-Mising L). To one's puzzlement, Ao Naga and Mikir forms are included under the AMD heading, though these languages had never been considered to belong to the AMD group. What is also perplexing is Nagano's decision to use modern lCog-rtse forms instead of reconstructed Proto-rGyarong roots, in his rGyarong-AMD

[229]Wolfenden 1936:168 also suggested that rGyarong may be a moderately close surviving relative of Xixia (Tangut), which is now generally considered to be another Qiangish language (Sun 1988:67, Matisoff 1991: 482).

comparison.[230] Rather than presenting a thorough review of the rGyarong-Tani lexical connections suggested by Nagano, the following sample set of comparisons supposedly representing rGyarong-Tani **dental-stop** correspondences (Nagano op. cit.: 142), will be examined; the highlighted segments in the GC (lCog-rtse rGyarong) and AMD forms therein being the proposed equations:

'dig': GC **tuw**, Yano B **du-to**. The Yano B form goes back to PT ***du** which, like the rGyarong form, are reflexes of the prevalent PTB etymon *du~tu (STC #258). This is a common TB root attested in various TB branches and cannot be regarded as evidence of the special lexical link between rGyarong and Tani.

'hit': GC **tom**, AM **dem**. This rGyarong form is derived from PTB *dup~dip; *tup~tip 'beat' (STC #399). The nasal final -**m** is secondary, cf. the form **ka-top** from the same lCog-rtse dialect cited in ZMYYC:1081 and Qu 1984: 79. Padam-Mising L **dem** has a more specific meaning 'beat (with a stick, etc.)' and is clearly a separate root. The true cognate with rGyarong **-top** 'hit' is rather PT ***tup** 'strike', both being reflexes of PTB ***tup**.

'big': GC **kte**; Yano **kte**. No such Yano B form exists. The real Yano B root should be just **-tè**, a bound morpheme occurring with classifiers. Again, both forms may reflect a common PTB root ***tay** (STC #298).

'see': GC **mto**; Yano **kâ-to**. This is a misinterpretation. Instead of the real root **kâ** (< PT ***kaŋ**) 'look/see' which is mistaken

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[230]This is perplexing considering the general principle that if two languages bear a true genetic relation, then the further back one traces their histories, the more similar they should become.

for a 'prefix' (op. cit.:90), the Yano morpheme selected for comparison, -to, is an imperative marker which appears on all citation-form verbs in Bor's Yano-Tagen wordlist.

'straight': GC sto; AM adong. This Padam L form actually means 'long' (cf. PTB *duŋ, STC p.19) rather than 'line', contra op. cit.:143.

'cold': GC sytak (i.e. [ʃtak]); Yano po-teng-pa. This Yano B form actually means 'dry (of clothes)' (cf. Bengni S pu-tuŋ). We fail to see any possible connection, formal or semantic, between these GC and Yano words.

'go': GC thal; AM to. The AM form is unknown. As far as we know, no Tani language has a form with this meaning.

'put': GC tha; AM tâk. The rGyarong form exemplifies a well-attested Tibeto-Burman root PTB *ta (STC #19), with an open rhyme. The AM form, occurring in a compound tak-po 'put (cover) on', is semantically compatible but the fact that tak- is a checked syllable makes the connection dubious.

'ask (enquire)': GC tho; Yano B tao-to. Tani languages, like some other Sino-Tibetan languages, use the same verb root for both 'listen/hear' and 'ask (i.e. cause to listen)'.[231] We believe that the the variant forms Padam-Mising L tau, Yano B and Tagen B tao for the meaning 'ask' may reflect the same PT root *tas. The association of the Tani and rGyarong forms, though superficially plausible, is weakened by the fact that rGyarong (lCogrtse dialect) uses a

[231]Cf. the Chinese parallelism: wén 'hear' vs. wèn 'ask'.

completely separate root for the meaning 'hear/listen' ka-roŋ-na (ZMYYC).

'give': GC dit; Yano ji. The palatal initial in the Yano B form is secondary. The real PT root should be *bi (< PTB *bəy, STC #427), which is by no means cognate with GC dit.

'arrive': GC Ndu; AM tok. The Padam-Mising L form tok actually means 'descend'. The real Padam-Mising L word for 'arrive' should be puŋ (< PT *puŋ, attested mainly in Eastern Tani languages, cf. also Bokar OY puŋ).

'meet': GC rdo; Yano che-tok. The 'Yano' form is actually a word from Mikir, which is not even a Tani language. The real Yano B word for 'meet' is gue-ter-ra (i.e. go + ? + verbal particle of reciprocality, cf. Bokar gu-tum-ra:).

In short, eight ('hit', 'see', 'straight', 'cold', 'go', 'give', 'arrive', 'meet'), or two thirds, of the twelve proposed cognate sets above are probably misidentified,[232] while the sets for 'dig', and 'big', although legitimate for setting up rGyarong-Tani consonantal correspondences, are of limited evidential value for the proposed lexical affiliation since common TB roots are involved. Therefore, although Nagano starts with the sensible idea of probing deep lexical relations by focusing on

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[232]This alarming proportion of dubious equations is, unfortunately, true of the rest of the proposed lexical comparisons. Right on the next page (p.143), for example, rGyarong kye 'walk' is compared with Yano -cho in the word le-cho 'foot', supposedly showing the correspondence ky- : ch-. The Yano form actually comes from PT *pro 'palm/sole' (i.e. *-pro > -pjo > -čo), completely unrelated to the given rGyarong verb. Further, the AB form kot- adduced to support the alleged cognacy between rGyarong skyo- and Yano fit- 'write' (< PT *fat[1]), is really part of a disyllabic Assamese loanword kakɔt 'paper' (marked plainly as F or foreign word in Lorrain's Abor-Miri dictionary)!

a selected area of core vocabulary, namely basic verbs,[233] the forms randomly picked from modern Tani languages, unfortunately, failed to provide him with a reliable basis for comparison.

Nagano's alignment of rGyarong with Tani may come as a surprise for those who have examined the structures of these languages, for they diverge from each other in almost every linguistic subcomponent. Phonologically, rGyarong has a much richer system of segmental contrasts. In contradistinction to the situation in Tani, aspiration is phonemic in rGyarong stops/affricates. Moreover, while Tani has only one (palatal) series of affricates, rGyarong distinguishes as many as four (dental, retroflexed, alveopalatal, and palatal). Although consonant clusters are not unknown in Tani (especially Western Tani), they cannot begin to compare in number and variety with the impressive array of consonant clusters found in rGyarong. The differences in morphosyntax are even more fundamental. Although both languages utilize considerable affixation, rGyarong is predominantly **prefixing** while the Tani languages are mainly **suffixing**. In terms of function, rGyarong boasts highly complex derivational as well as inflectional morphology, in contrast to Tani where morphological processes are much less abundant. Furthermore, rGyarong is an ergative language[234] with many head-marking features (Nichols 1986), including a system of verb agreement which indexes

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[233]Cf. Matisoff 1976 in which body-part terminology is chosen as the target semantic area in an exploration of shared contact vocabulary between Sino-Tibetan and Austro-Tai.

[234]Patients carry no case-marking in rGyarong. In this regard rGyarong differs from languages of the 'Qiangish' group (to which rGyarong has been assigned by some Chinese scholars).

not only person, number, but also direction (or person hierarchy, i.e. direct vs. inverse) of the discourse participants. All Tani languages, on the other hand, display the so-called 'anti-ergative' pattern (LaPolla 1992), where agents are generally not case-marked while a single 'object' case marks a number of semantic roles, including patients, recipients, beneficiaries, and even temporals.[235] The two languages also employ distinct verb-phrase structures. In Tani, various complements and modifiers of the verb, along with such other categories as tense, aspect, polarity, and modality, are generally expressed by a large set of postposed 'verbal particles'. This characteristic is so important in Tani that it may not be too wide of the mark to say that the study of the Tani verb phrase is largely the analysis of such verb particles. No comparable phenomenon obtains in rGyarong, where many of these categories are conveyed by verbal prefixes instead. This, in short, leaves the lexicon as the only likely linguistic sub-system in which possible **close** genetic ties between rGyarong and Tani can be sought.

In order to assess the assertion that rGyarong is closely affiliated with Tani in its deepest lexical core, a total of 383 basic adjectives (stative verbs) and verbs listed in ZMYYC are examined, yielding the following comparable pairs between rGyarong (i.e. Proto-rGyarong as proposed in Nagano 1984)[236] and Tani (i.e. PT) in these two basic semantic areas (states and actions):

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[235]For more discussion, see Sun to appear in 1993b:4.2.

[236]Unfortunately, only a limited number of Proto-rGyarong roots are proposed in Nagano 1984:133-9. Where Proto-rGyarong reconstructions are unavailable, modern (lCog-rtse) forms (unasterisked), are cited from ZMYYC.

Gloss	Proto-Tani	rGyarong
'big'	*tə~*ta	*k-Te
'come'	*puŋ ('arrive')	*bo
'cover'	*kap	*p-Kap
'die'	*si	*syi
'dig'	*du	*duw
'dream'	*maŋ	*r-mo
'eat'	*do	*za
'exist'[237]	*duŋ	ndo
'heavy'	*ji	*li
'itch'[238]	*fak	*ya
'lean (against)'	*grəŋ	kə-nə-ŋgrə
'melt, thaw'	*jit	kə-ndzi
'ripe, cooked'[239]	*min	*s-min
'run'	*duk~juk	kə-rɟjək[240]
'smell'	*nam	*nam[241]

[237]The PT root also means 'sit/stay/dwell'. rGyarong uses a completely different form ka-~ni for 'sit/dwell'.

[238]Nagano posits an open-syllable proto-form *ya; a lCog-rtse form with a checked syllable -jak, however, appears in ZMYYC.

[239]This PT root means only 'ripe'.

[240]Cf. WT rgyug.

[241]Nagano 1984 provides the lCog-rste form nam-nam. Compare the different form kə-nə nsə nsət in ZMYYC.

'stand'	Bokar OY *rop[242]	*ro
'sweet'	*ti:	*ci
'thin (of people)'	Bokar OY gi	kə-nə-khi
'vomit'	*b(r)at[2]	kə-nə-mphət
'wait'	*jaŋ	ka-na-jo
'weep'	*krap	ka-ŋa-kru

Table 5.1. Comparison of Selected Basic Verbs in Tani and rGyarong

That is, out of the 383 sets compared, only twenty-one pairs (or about 5%) show enough resemblance to be considered **probable** cognates. Furthermore, rather than revealing uniquely shared rGyarong-Tani lexical relations, the majority of such pairs (e.g. 'die', 'dig', 'eat', 'heavy', 'smell', 'ripe', 'stand', 'vomit', 'weep') involve widely attested roots in the Tibeto-Burman family.

To assess further the lexical relations between rGyarong and Tani **vis-à-vis** other Tibeto-Burman members, another sample comparison is conducted which includes Tibetan and Burmese, two other languages showing considerable affinity to rGyarong. The items utilized for ths pilot study are narrowed down to the seventeen verbs from the Swadesh 100 core vocabulary list:[243]

[242]Elsewhere in Tani, PT *rop occurs mainly as an adverbial verbal particle for 'up'.

[243]The main roots are underlined; cognates with PT roots are boldfaced.

GLOSS	Proto-Tani	rGyarong	Written Tibetan	Written Burmese
'drink'	*tuŋ	*not	'thung	sok
'eat'	*do	*za	za	sâ
'bite'	*g(j)am	mtʃik khə-lət	so brgyab	kuik
'see'	*kaŋ-paŋ	mto	mthong	mrang
'hear'[244]	*tat²-paŋ	*r-na	thos; rna-ba 'ear'	krâ; na
'know'[245]	ken	*sye	shes; mkhyen [hon.]	si'
'sleep'[246]	*jup	*r-ma	nyal; gnyid	ip
'die'	*si	*syi	si; 'chi	se
'kill'	*man	*sat	gsod	phyak; sat
'swim'	*bjaŋ	pjaw	rkyal; 'phyo	po
'fly v.'	*bjar	*N-pjam	'phur	pyaṁ
'walk'	*in	ptɕe	'gro	hlyok; hrok

[244]The rGyarong root is cognate with WT rna-ba 'ear' and WB nâ 'ear', na 'listen'.

[245]The predominant rGyarong words for this gloss are cognate with WT shes and WB si' < PTB *śey (STC #182); cf. lCog-rste ka-ʃə (ZMYYC), Tsanla ka-nga-syiɜ, Khamto ka-syɪ, Suomo ka-nə-nəsyi, Chos-kia ko-syu (Nagano op. cit.:109). Nagano also gives the alternative PG root *gye-s which he links with PTB *m-kyen (and hence supposedly cognate with PT *ken), but it is not clear what data support this reconstruction.

[246]Nagano associates this rGyarong root with WT rmi < PTB *r-mwəy 'sleep'. The equation rGyarong -a <-> PTB *-əy, however, seems restricted to this single example.

'come'[247]	*(ɦ)aŋ	*bo	yong~'ong; 'byon	la; waŋ
'sit'	*duŋ	ɲi[248]	'dug; snye(s) 'recline,lean against' (?)	thuiŋ
'stand'	*dak; *rop	*ro	lang; 'greng	rap
'give'	*bi	dit; wu	sprad; sbyin	pê
'say'	*lu; *ban	tə-rjo ka-pa	bshad; smra	prô

Table 5.2. Comparison of Selected Tani Verb Roots With rGyarong, Tibetan, and Burmese

Table 4.2. yields the following pairwise cognate numbers: Tani-rGyarong 3/17, Tani-Tibetan 8/17, Tani-Burmese 7/17; rGyarong-Tibetan 8/17-10/17;[249] and rGyarong-Burmese 8/17.[250] It is

[247]WB waŋ means 'enter'. WT 'byung 'emerge, come, go' is listed in the cognate set for PG *bo in Nagano op. cit.:84; however, if this rGyarong root came from PTB *byon (STC #179) as Nagano suggests, then the true WT cognate should rather be 'byon 'go, arrive, appear'.

[248]This rGyarong root is linked with WT snye(s) 'lean against, lie down'; again, the equation between rGyarong -i and WT -e(s) is limited to this pair.

[249]The following glosses are considered to involve rGyarong-WT cognates: 'eat', 'see', 'hear/ear', 'know', 'die', 'kill', 'swim', 'come'. The cognacy of the pairs PG *r-ma, WT r-mi 'sleep', and PG *nyi 'sit', WT snye(s) 'lie down' is possible but uncertain. Thus, the number of rGyarong-WT cognates in this sample ranges from eight to ten.

[250]The following items are judged to involve rGyarong-WB cognates: 'eat', 'fly v.', 'hear', 'know', 'die', 'kill', 'stand', and 'swim'.

important to note that rGyarong has almost three times as many cognates with Tibetan and Burmese than with Tani, and that the rGyarong-Tani pair shows the **lowest** cognate count among all the five pairs. To the extent cognate counts derived from such a limited sample can be suggestive of the **relative** strength of lexical ties among the languages compared, rGyarong appears to be much more closely related in basic vocabulary to Tibetan and Burmese[251] than to Tani. This fact, coupled with the striking structural differences between the two Tibeto-Burman groups, makes their intimate genetic connection highly improbable.

5.2.3. Dhimal

Dhimal (in Darjeeling and Jalpaiguri area of Sikkim and eastern Terai, Nepal), and the closely related Ṭoṭo (south of the borderline between Bhutan and West Bengal) are two small languages comprising the obscure Dhimalish section of Shafer 1955:102. The only documentation on these languages available to us are Hodgson1847 for Dhimal and Sanyal 1955 for Ṭoṭo. The association of this group to Tani is vaguely suggested by Benedict in STC, and we quote: "Abor-Miri and Dafla make up the nucleus of the 'North-Assam' group of Konow and the Linguistic Survey of India. Aka (or Hruso) has the most points of contact with this nucleus, and **Dhimal (in Sikkim) the fewest**" (p. 6). From this statement alone it is not certain whether

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[251]The strong rGyarong-Lolo-Burmese lexical ties, suspected by Benedict (p.c.), is an area awaiting further investigation.

Benedict refers to a contact or genetic relationship. However, on the previous page (p. 7), he does consider Dhimal to be a likely addition to the Abor-Miri-Dafla (Mirish) nucleus.

A revisit to the Dhimalish sources, however, has failed to reveal too many significant points of agreement between Tani and Dhimalish. The following test comparisons, utilizing again the seventeen basic verbs from the Swadesh 100-word list, should be suggestive of the genetic distance between the two groups:[252]

GLOSS	Proto-Tani	Dhimal	Ṭoṭo
'drink'	*tuŋ	**ám**	**āng**
'eat'	***do**	**chá**	**cā**
'bite'	*g(j)am	---	**cā-pir**
'see'	***kaŋ**-paŋ	**dó; khang**	**kāng**; **ting**
'hear'	***tat²**-paŋ	**hén**	**hing**
'know'	*ken	**gé**	**gē**
'sleep'	*jup	**jim**	**jing-ju; jin**
'die'	***si**	**sí**	**shi-pu**
'kill'	***man**	**shé**	**pāi**
'swim'	*bjaŋ	**nó-i**	---
'fly v.'[253]	***bjar**	***bhír***	***bi*** **-u**
'walk'	*in	**hi-gil**	**tē**

[252]Data transcription follows the original sources. Probable cognates with the PT roots are boldfaced; suspicious look-alikes are boldfaced and italicized.

[253]PT ***bjar*** reflects PTB ***byer***. The Dhimalish forms may come rather from PTB ***pur~pir***, now considered a separate root (STC fn. 249).

'come'	*(ɦ)aŋ	lé	lē
'sit'	*duŋ	*yong*	*i-ung*
'stand'	*dak; *rop	jáp	lŏ-o; *lo* -
'give'	*bi	pí	pi
'say'	*lu; *ban	dóp	jāng

Table 5.3. Comparison of Selected Basic Verbs in Tani and Dhimalish

The Dhimal and Toto words for 'eat', 'die', 'give' and 'look' are undoubtedly cognate with the PT roots. The cognacy of the Ṭoṭo form for 'stand', and the Dhimalish words for 'fly v.' and 'stand' (italicized in the table) to the corresponding PT roots are uncertain. Everything considered, we get at most 7 cognates out of 16 pairs compared, which is equivalent to the cognate figure between Tani and Burmese obtained in the above by using the same test sample. The set for 'look/see' (PT *kaŋ, Dhimal khang, Ṭoṭo kāng) may appear to be a striking parallel between the two groups; yet, this root occurs also in many **Kiranti** languages, e.g. Bahing koŋ 'look, watch'; Chamling, Bantawa khaŋ 'look, see', Newari khan- 'see'. On the other hand, Dhimalish seems to exhibit many more lexical links with Kuki-Chin, and especially with Tibetan, as pointed out in Shafer 1950b:207. This is probably why DeLancey 1991c classifies Dhimalish under Bodic, together with Newari, Kiranti, and Bodish.[254]

[254]DeLancey's 'Bodish' group, roughly equivalent to Benedict's Tibetan-Kanauri nucleus, contains anomalies like Kusunda, which is not even Sino-Tibetan.

At any rate, the similarities between Tani and Dhimalish are far from numerous, otherwise they would not have escaped the attention of both Konow and Shafer. It seems, therefore, futile to search for deep connections between Tani and Dhimalish, although more extensive inquiry (and with much better Dhimalish data) needs to be done to properly assess the 'points of contact' between the two groups which prompted Benedict to place them in the same subgroup.

5.2.4. Hruso

Hruso (paleo-exonym Aka), is the best-known representative of the obscure Hrusish branch of western Arunchal Pradesh. The remarkable linguistic divergence of Hruso from neighboring Tibeto-Burman languages was already noted by Konow (1909b). Shafer 1947 compares various early wordlists of 'Aka' and concluded that actually two very distinct 'dialects' of Hruso can be established: Dialect A and Dialect B. To Dialect B, or **Hruso proper**, belong most early records of 'Aka'. Shafer's Dialect A of Aka is actually a distinct language, represented only by Campbell (1874)'s variety of 'Aka'. We have recently made the discovery that Shafer's 'Dialect A of Hruso' seems to be the same language spoken by the **Dhammai** (exonym: **Miji**) tribe to the north of the Hruso country. For this important language, which is more conservative than Hruso proper, we are now able to consult Simon 1979, a far ampler source than any available to Shafer. There is at least one more Hrusish language in Arunachal Pradesh, namely the language of the Bangru tribe of North-western Upper Subansiri

district.[255] Publications on the Bangru language are completely non-existent. Our limited fieldwork data on Bangru[256] reveals such striking resemblances between Bangru and Dhammai that they may even turn out to be dialects of the same language.

The lexical similarities between Hrusish languages and Tani (especially Western Tani) are indeed notable and deserve to be carefully investigated.

5.2.5. 'Mishmi' Languages

Comparable to Hrusish languages of the west, the Mishmi languages are the most important linguistic neighbors of Tani in the east. Unlike Tani or Hrusish, however, the Mishmi languages do not form a coherent unit. Instead, they fall into two distinct groups, Taraon-Idu (Shafer's **Digarish**) and Kaman (Shafer's **Midźuish**). Sun 1980: 299-315, to date the only comparative study of the Mishmi languages based on accurate first-hand data, turns up remarkable differences. Of the 2477 native lexical items compared, 2089 or 84.4% are non-cognate, including quite a few core Tibeto-Burman items such as 'man (homo)', 'snake', 'sit', 'hand', 'hair', 'weep',

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[255]The Bangru (autonym Levai /lə^{31}væ^{55}/) tribe consists of about a thousand souls whose villages are distributed in the Lagong area along the Tibetan-Indian border (Anonymous 1989:248). Note the similarity between the name **Levai** and the Miji autonym **Dhammai** (/ðum-mai/). It is possible that the Levai represents a northeastern subbranch of the Mijis of Eastern Kameng. The name Bangru (/buŋ-ru/) is a Bengni exonym; cf. also the Sulung exonym of Levai: Buzwa (/bu^{33}zwa^{53}/).

[256]I recorded about a thousand Bangru words from my Sulung consultant, who has speaking knowledge of this language, on a recent linguistic tour to Tibet (summer of 1992).

'know', 'buy', 'tooth', 'hear', 'rain', and 'house'. The morpho-syntactic disparity between the two groups is also considerable. For example, Kaman has pronominal verb agreement while Taraon and Idu do not; moreover, Kaman sometimes uses prefixes (e.g. taŋ^{55}- 'nominalizer', mai^{55}-/mɯ^{31}- 'negator', ai^{53}- 'prohibitive marker') while Taraon and Idu, like Tani, always use suffixes (e.g. Taraon -ja^{31} 'nominalizer', -jim^{55} 'negator', -ja^{53} 'prohibitive marker'). These languages, therefore, do not appear to be as intimately related to each other as represented in Thurgood 1985. Thus, before we even begin to compare them further with Tani (or with any other language), we must bear in mind that the alleged unity of the Mishmi languages is still an unproven hypothesis.

As stated, most Tibeto-Burman classifications place the Mishmi languages close to the Tani nucleus. Indeed, even a cursory glance at the data shows considerable parallels between Tani and these languages (in particular Taraon and Idu), calling for more detailed exploration.

In summary, after inspecting a few alleged close relatives of Tani, we have decided to screen out rGyarong and Dhimal as improbable candidates. In the following section, the remaining languages will be further assessed by means of a more detailed lexical test.

5.3. Tani's Next of Kin: A Further Search

5.3.1. Methodological Perspectives

Much doubt has been cast on the validity of lexicostatistics in historical linguistic research; VSTB:1.14 outlines the hazards of a particular application of this method, namely the use of cognate counts in setting up subgroups among related languages.[257] However, the following statement seems quite reasonable (Thomas and Headley 1970:411, emphasis ours):

> Lexicostatistics is not a precision tool. Careful phonological reconstruction is necessary if one desires detailed information about language relationships. **Lexicostatistics is useful, however, for giving a quick general picture of language groupings.**

In fact, the authors of the preceding quote claimed that the results of their lexicostatistic analysis of Mon-Khmer internal relations can be 'presented with the confidence that the general outlines will still be standing after detailed phonological reconstruction has been done' (Thomas and Headley op. cit.). The ensuing two decades have seen considerable advances in comparative Mon-Khmer and phonological reconstruction of many Mon-Khmer subgroups (Monic, Waic, Aslian, etc.); indeed, the Thomas-Headley subgrouping

[257]The two most serious problems pointed out by Professor Matisoff being (a) How can one ensure that one's cognate identification is reliable, when detailed knowledge about the sound laws in the languages compared may be lacking? (b) How can an all-or-none (i.e. cognate vs. non-cognate) scoring method reflect the gradient nature of phonological-semantic relationships in the lexical data?

framework turns out to have stood the test of time, judging by a recent authoritative statement on Mon-Khmer subclassification (Diffloth and Zide 1991).[258] Consider also the small-scale lexicostatistic study presented in STAL, where Tibetan, Burmese, Kachin, Garo, Lushai, and Pwo Karen are compared with Mandarin Chinese in terms of the Swadesh 100-word list, the primary purpose of which is to test the solidarity of the Tibeto-Burman grouping vis-à-vis Chinese and Karen. It is on the findings of this analysis that Benedict proposes the **'basic cleavage line'** in Tibeto-Burman between the Baric-Jingpo supergroup and practically all other Tibeto-Burman groups. This hypothesis has been corroborated by a follow-up comparative study of Northern Naga (i.e. Benedict's Konyak group), leading the author to conclude with confidence that the validity of the Bodo-Garo-Northern Naga-Jingpo supergroup 'should no longer be in doubt' (French 1983: 727). A key factor behind these two successful (in the sense of producing new and viable ideas, inspiring further research, and contributing eventually to growing consensus) applications of lexicostatistics is that the investigators are all specialists in the respective language families, which means that the risk of cognate misidentification was minimized, and sensible adjustments in the Swadesh wordlist could be made to fit the particular target language families. Therefore, lexicostatistical methods, if applied with due caution and without extravagant

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[258]Both scholars are among the world's leading Austro-Asiaticists. They have demoted Thomas and Headley's 'Malacca' (i.e. Aslian) and Nicobarese from coordinate families of Mon-Kkmer to branches within Mon-Kkmer, added a few minor new discoveries like Mang and Palyu (Lai), and proposed some possible higher-level divisions (Northern, Eastern, Southern, Vietic), but the basic Mon-Khmer branches remain identical to Thomas and Headley's original proposal: Viet-Muong, Khasi, Palaungic, Monic, Khmuic, Katuic, Bahnaric, Khmer, and Pearic.

claims,[259] may still serve as **subsidiary** tools for detecting probable subgrouping patterns.

Although the non-existence of genetic relations between languages is unverifiable in principle, it is possible to ascertain whether any given two members in a group of related languages share a **particularly close** relationship. However, this cannot be done by simply listing random similarities, because alternative explanations (borrowing, areal features, shared substratum, common retention, etc.) are not ruled out. Even if regular sound correspondences in the basic vocabulary are demonstrated, the special relation between the two languages remains unproven, for such equations can, by definition, be established between any two genetically related languages anyway.[260] What we need to do, obviously, is to single out **uniquely shared linguistic features** which set these languages apart from all others, enough to 'tip the scale against any contrary hypothesis which sets the relationship merely at the level of the underlying proto-language' (Bauman 1976:26). However, sorting out the linguistic relations between Tani and its possible next of kin in Tibeto-Burman poses a currently insurmountable problem: the study of the Tibeto-Burman languages of Arunachal Pradesh and the immediate environs, among which the close relatives of Tani are most likely to be found, is still in its infancy, and we simply do not have the amount of linguistic

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[259]Such as the two most controversial applications of lexicostatistics: **glottochronology** (i.e. lexicostatistic dating) and the Greenbergian approach of **'mass comparison'**, which seeks distant linguistic relations by counting shared basic vocabulary.

[260]Thus, the sound correspondences between such language pairs as rGyarong-AMD (Nagano 1984), Lepcha-Adi, and Lepcha-Nung (Bodman 1988) alone do not constitute sufficient proof that these languages are more closely related.

information required for such detailed comparative analysis. What we can do at the present stage is no more than offer a **process of elimination**, which narrows down potentially promising avenues for further research.

5.3.2. A Lexicostatistic Test

A lexicostatistic study has been conducted (for the actual comparative table, see Appendix I below) with an aim toward assessing degrees of lexical affinities between Tani and four possible close relatives surviving the preliminary screening of the previous section: Taraon, Kaman,[261] Lepcha,[262] and Dhammai.[263] Written Tibetan,

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[261]The Taraon and Kaman data are cited mostly from Sun et al. 1980 and Anonymous 1991 (=ZMYYC). Forms missing from these sources are supplemented from Chakravarty et al. 1963 for Taraon and Boro 1979 for Kaman.

[262]Lepcha forms are taken from Mainwaring-Grünwedel 1979. Root forms (enclosed in square brackets as in the original source) are cited where available; e.g. the root [krí], rather than the suffixed adjectival form a-krím, is given for the gloss 'bitter'. Loanwords (chiefly from Tibetan) are marked with the asterisk in the dictionary; such forms are avoided herein unless in the rare cases where the asterisked forms turn out to be the only ones listed for the given meaning.

[263]Dhammai forms are based on Simon 1979. The sound system of Dhammai is retranscribed as follows (phonetic symbols used in the original are enclosed within parentheses):

1. Vowels: a, e, ɯ (ɨ), i, o, u

2. Consonants:

p	t	ts	č (c)	k	ʔ
ph	th	tsh	čh (ch)	kh	
b	d	dz	ǰ (j)	g	
f	θ	s	š (sh)	h	
v	ð	z	ž (zh)		
m	n		ñ	ŋ (ng)	
	l				
	ɬ				
	r				

Written Burmese, and Garo, which have never been suspected to be **intimately** related to Tani, are added as control languages. The modest objective of this pilot study is to eliminate dubious candidates according to a simple and, we trust, reasonable principle: if a language is a true next of kin of Tani, then there should at the very least be a **significantly higher** percentage of shared core vocabulary between this language and Tani than that between Tani and languages from separate major divisions of Tibeto-Burman, in this case Written Tibetan (Bodish), Written Burmese (Lolo-Burmese), and Garo (Bodo-Garo). The test wordlist used in this study is based on the CALMSEA 200-word list[264] proposed in VSTB: 284-96. For some CALMSEA glosses, however, no PT reconstructions are presently obtainable; either because extreme internal variation precludes positing uniform PT roots (e.g. 'descend', 'bamboo', 'sweat'), or Indic loanwords are suspected (e.g. 'needle', 'silver'), or simply because the gloss is not realized by distinct roots in most Tani languages (e.g. 'twenty'). In such cases (thirty-seven in total), CALMSEA glosses are replaced with the following items, mostly body part terms and common verbs: 'angry', 'borrow', 'call/cry', 'come', 'dead body', 'count', 'do', 'door',

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w j (y)

Remarks: (1) Dhammai may have contrast vowel length and phonemic tone; neither gets marked in the main body of this source. (2) The glottal stop is a phonemic syllable coda, represented in the source by -h. (3) Dhammai has a peculiar lateral consonant symbolized by Simon as ll, which he describes as being 'articulated with the tongue rolled'. This is probably the retroflexed lateral l.

[264]Abbreviated from Culturally Appropriate Lexicostatistical Model for South-East Asia, this list represents Prof. Matisoff's revision of the Swadesh basic vocabulary list to make it culturally and typologically more appropriate for Southeast Asian languages.

'dry/wither', 'duck', 'exit', 'face', 'fireplace', 'float', 'flow', 'fly (insect)', 'gall', 'grandfather', 'grandmother', 'hungry', 'kidney', 'knee', 'language', 'melt', 'nest', 'placenta', 'rot', 'seed', 'shoulder', 'soul', 'suck', 'swallow (v.)', 'take', 'think', 'tired', 'tiger', and 'wet'. The resultant compromise list, we hope, contains few glosses that are arguably not part of the lexical core of the target languages. Our cognacy judgement[265] with respect to WT, WB, and Lepcha should be relatively uncontroversial, for much is known about the historical phonology of these languages, and expert guidance is readily available from STC and various other works on Sino-Tibetan reconstruction. The same can be said of Garo, the best known of all Baric languages not only because of its status as one of the principal languages on which the PTB reconstructions in STC are based, but also thanks to a series of treatises on Baric contributed by Robbins Burling, especially Burling 1959, Burling 1983, and Burling 1992.[266] Cognate detection involving the other target languages is much more difficult. In the

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[265]Cognate identification in Tibeto-Burman is an extremely risky undertaking. Our general attitude is to be more willing to **err on the conservative side**, for our knowledge of the various languages involved (except perhaps Tibetan) is not sufficient to allow bold speculation. In this study, forms are treated as cognate only if they are considered to descend from one and the same **proto-allofam** (i.e. variants of the same proto-word-family, Matisoff 1978a:17). Thus, WB klok~kyok and PT *luŋ 'stone' are not directly cognate even though they may come from related proto-allofams. By the same token, Taraon pia^{53}kɹau^{35} and Kaman tɕi^{55}khɹuŋ^{55} (< PTB *(m-)krəw 'dove', STC #118) are not cognate with PT *ku 'dove/pigeon' (< PTB *(m-)kəw 'pigeon' STC #495; note that PT normally kept the PTB *kr- cluster), for they are derived from related but distinct PTB etyma. Of course, such subtle distinctions are not always possibile with languages the sound laws of which are not yet well-known.

[266]The Garo data are taken mainly from Burling 1983. Supplementary forms, marked by #-, are added from Momin: no date. Transcription of Garo is based on the '**combining**' (i.e. non-final) form, which is etymologically more basic (Burling 1981:69-70). Garo-Tani cognate determination is greatly facilitated by the etymological tables in Burling 1983, where the PTB etyma of many Garo roots are provided.

case of Taraon and Kaman, although we are lucky to have access to mutually complementary Indian and Chinese sources (the accuracy of the latter is quite impeccable), the phonological developments of these languages, especially the less conservative Taraon language, are not yet well-known.[267] Dhammai is even more troublesome in terms of data reliability and cognate identification. Furthermore, thirty-three test items are missing from the word list in Simon 1979 (the only available substantial source on this important language), although it is not clear to what extent the incomplete data may cause the **averaged** cognate percentage to be skewed.

5.4.3. Results and Discussion

Each of the languages compared contains a number of forms of indeterminate cognacy with the corresponding PT roots. Such is the case, for instance, between PT *kʷ 'dove/pigeon' and WT 'ang-gu 'pigeon'.[268] A more conservative estimate may discount these doubtful cases, a bolder count would include them all, while the cognate figure closest to reality may lie somewhere in between. These two different figures, then, represent the **range** of possible cognation between the given language and PT. Since, for example, WT shows two doubtful

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[267]Initial efforts have been made to inspect the sound laws of Taraon, but a full-scale comparative study of Taraon and its close kin Idu has not been attempted.

[268]WT 'ang-gu is more common in Central Tibetan. In Khams Tibetan, mug-gu is used instead. The normal Classical Tibetan word is phug-ron. While PT *kʷ is clearly a reflex of PTB (*m-)kəw 'pigeon' (STC #495), WT 'ang-gu shows an unexpected voiced initial g- (although WT -u regularly reflects PTB *-əw).

cognates (the other being PT *be, WT spre 'monkey') and fifty-six sound ones, the cognate ratio between PT and WT ranges therefore from 56/200 (or 28%, conservative estimate) to 58/200 (or 29%, less conservative estimate). The much larger percentage of such uncertainty for Taraon is a function of the phonological deviancy of the language. Thus, the output of this study can be summarized in the following table:

	WT	Garo	WB	Taraon	Kaman	Dham-mai	Lepcha
avail-able forms	200	194	200	200	200	167	200
cog-nate count	56-58	46-50	54-57	59-**76**	**43**-50	43-49	47-49
%	28-29	24-26	27-28.5	29.5-**38**	**21.5**-25	26-29	23.5-24.5
average %	28.5	25	28	**33.75**	**23.3**	27.5	24

Table 5.4. Cognate Figures Between Tani and Seven Tibeto-Burman Languages

The output obtained from this pilot study has a number of noteworthy implications on the phylogenetic position of Tani.

First, this lexicostatistic test has indeed accomplished its unpretentious mission of **separating off problematic candidates** from

among the possible close relatives of Tani. The cognate figures of PT with both Lepcha and Kaman are **lower** than those between PT and the three control languages. In particular, the PT-Kaman cognate percentage is the lowest of all figures obtained. If core vocabulary is reliable at all as an index of relative genetic distance, then these facts should constitute strong disproof of any intimate relation between either of these languages and Tani. As for the lexical similarities between Lepcha and Tani observed by Bodman 1988, alternative explanations must be sought, such as shared substratum,[269] or early contact (in southern Tibet?) of the two language groups before their migration to the present locations. In short, our findings support Bodman's conclusion that although Adi may be among the TB languages which are more similar in lexicon to Lepcha,[270] the relationship between them is not very close (Bodman op. cit.:4).

Compared with Lepcha and Kaman, Dhammai shares a higher cognate percentage with PT, yet, this figure is still lower than that between PT and WT. Although we are not well-informed enough about the linguistic structures of the Hrusish languages to say anything definite about the relation between Hrusish and Tani, we do suspect

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[269]Consider for example PT *luk, Lepcha lyăk, cf. PTB *lay 'exchange' (STC #283). The PT and Lepcha forms may be related rather to Mon-Khmer, cf. Proto-Wa-Lawa *ʔlɔh (Diffloth 1980), Kammu (Yuan dialect) lɛɛk 'exchange' (Lindell 1974:200). The PT and Lepcha words for 'excrement' may also be of Mon-Khmer origin (Forrest 1962). The considerable Mon-Khmer contact vocabulary in Tani languages will be explored in a separate paper.

[270]Unfortunately, the Kuki-Chin-Naga and Kiranti-Tibetan-Kanauri links are not considered in Bodman 1988. Lepcha certainly seems to have as many good lexical comparisons with Mikir and Ao Naga as with Tani, on Bauman 1976's evidence.

that the similarities between them[271] may be the consequence of prolonged contact rather than exclusively shared linguistic history, and that the true roots of Hrusish may lie somewhere else in Tibeto-Burman.

Cognate percentages between PT and the three control languages run between 24 and 29. The close clustering of these figures indicates that Tani indeed forms a distinct division in Tibeto-Burman, coordinate with other major nuclei in the family. The lower Tani-Garo figure suggests that Tani is more akin to WB (Lolo-Burmese) and WT (Bodic) than to Garo (Baric), corroborating Benedict's inclusion of Miri on the non-Baric side of the 'basic cleavage line' in Tibeto-Burman. This also shows that subgrouping Tani under Baric (e.g. DeLancey 1991a) may not be advisable. Furthermore, Tani shares almost as many cognates with WB as with WT, a finding which is all the more remarkable since Lolo-Burmese and Tani (or for that matter any Arunachal Tibeto-Burman groups except perhaps Singpo) have never been known to be in close areal contact. This calls into question Egerod's decision to classify Tani directly under Tibetic (Egerod 1974).

The language that stands out with the highest cognate figure with Tani is Taraon (29.5%-37.5%, average **33.5%**). This figure, interestingly, is higher even than that of the Taraon-Kaman pair (30%-33%, average 31.5%).[272] The large gap between the more

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[271]As may be expected, more parallels exist between Hrusish and Western Tani. For example, the Western Tani root *nam 'house' (as against Eastern Tani *kjum) is obviously related to Hrusish, cf. Dhammai nen, Bangru nɛ:[55], Hruso ñe 'house'.

[272]The Taraon and Kaman forms for the following items are judged to be cognate: 'bear n.', 'bird', 'blood', 'brain' (?), 'borrow', 'burn' (?), 'child/son', 'cloud', 'day', 'die',

conservative (29.5%) vs. the bolder cognate estimate (37.5%), nevertheless, reflects our current inability to distinguish between true cognates, allofams, and chance look-alikes. However, as stated, we have made an attempt to uncover the elusive sound laws of this language, and our cognateness judgements, we contend, are at worst educated guesses rather than wild speculations.

5.4. More Thoughts on the Tani-Digarish Relationship

A major outcome of the preceding section is that Digarish (Taraon and Idu) may be the Tibeto-Burman group most similar in lexicon to Tani. However, before jumping to the conclusion that Digarish and Tani are collateral relatives in Tibeto-Burman, we should be reminded that the fundamental research necessary to prove such an intimate connection has not been done, and alternative accounts of such lexical parallels cannot yet be ruled out. Since to adequately pursue this line of research would involve at least another dissertation-length study, we will have to content oursleves with suggesting a few interesting Tani-Taraon parallels in other linguistic subcomponents.

With regard to shared **peculiar** phonological innovations, the development of PTB *dz- to PT *d- is paralleled by Taraon th-; e.g. PTB *dza, PT *do, Taraon tha^{53} 'eat'. Elsewhere in Tibeto-Burman,

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'dog', 'dove' (?), 'dream', 'eat', 'eight', 'extinguished', 'fat/stout', 'fat n.', 'excrement', 'fire', 'fireplace', 'fish', 'float' (?), 'flower' (?), 'four', 'full', 'gall', 'guts', 'head', 'horse', 'kidney', 'kill', 'knife', 'leech', 'lick', 'listen/hear', 'melt', 'moon', 'mortar', 'name', 'neck', 'otter', 'penis' (?), 'pig', 'poison', 'ripe', 'river', 'road', 'round', 'seed', 'sharp-edged', 'smoke n.', 'stone', 'tail', 'thick', 'thin', 'thou', 'three', 'tiger', 'tongue', 'village', 'vomit', 'water', 'weave', 'wet', 'wing', and 'wood'.

PTB *dz- usually either survive as africates (e.g. Mawo Qiang dzə; WB câ 'eat') or spirantized (e.g. WT za; Jingpo ʃa^{55} 'eat').[273] Another possible example of common phonological aberrancy is the irregular **palatalized** initial in the following roots: PT *rjam, Taraon liɯŋ^{53}-gie^{31} < PTB *la(:)m 'fathom'; PT *rjum 'dusk/evening', Taraon liɯŋ^{53} 'night', < PTB *rum ~ *rim 'dusk' (STC #401); PT *ña-; Taraon xa^{31}nia^{53}pum^{55} < PTB *s-na 'nose' (STC #101).

The remarkable lexical affinities between Taraon and Tani are not restricted to content words. As shown in the following examples, some **grammatical** morphemes are also cognate:

'comparative auxillary' PT *jaŋ; Taraon joŋ^{53}[274]

'imperative suffix' PT *to; Taraon tio^{53}

'prohibitive suffix' PT *jo; Taraon ja^{53}

'experiential aspect marker' PT *kɯ; Taraon koŋ^{35}

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[273]This development is not uniquely shared by Tani and Digarish, however. Matisoff 1978b:11 reports, for instance, that PTB *ts- and *dz- went respectively to th- and t- in Mpi, a southern Loloish language of Thailand. Cf. also the Queyu (Qiangish) word for 'eat' kə^{35}tɯ^{53} (ZMYYC).

[274]For usage, consider the illustrative sentences below:

Bokar OY (Ouyang 1985: 71)

ši: lamto a:to-joŋ-da
this road far-more-declarative
'This road is farther.'

Taraon (Sun et al. 1980:219)

tɕe^{55} xaŋ^{35}-doŋ^{31}go^{31} lau^{55}dʑoŋ^{55} pɹa^{55}-joŋ^{35}
s/he I-than learn good-more
'S/he learns better than I do.'

The morpho-syntactic structures of the two groups have not been carefully explored, but here some prima facie resemblances also exist. In both groups, pronominal verb agreement is lacking. Further, the predominant verbal morphology in both cases is suffixation. Digarish languages, like languages of the Tani group, seem to exemplify the so-called 'anti-ergative' case-marking type (LaPolla 1992), where patient and recipient nominals receive **identical** marking while agents are seldom case-marked.

On the other hand, the differences between the two groups seem to overshadow their similarities. Apart from their overall lexical differences, many of the characteristic Tani lexical items (see Appendix III) and phonological developments (such as PTB *-a > PT *-o, and the shift of all PTB diphthongs into PT monophthongs) find no counterparts in Digarish. The overwhelming majority of grammatical morphemes in Tani and Digarish are also unrelated. From the few available syntactic descriptions, the two groups also show important disparities in morphosyntax. For instance, Digarish languages use separate existential verbs depending on **animacy** of the subject, a distinction unattested in any known Tani language. As stated, although some Tani languages do contrast different existential verbs, the relevant distinctions are usually polarity (e.g. Bengni S **do:** 'exist/have'; **ka:-ma:** 'not exist/have') or even **posture** (Apatani A **da** 'exist (referent standing)'; **du** 'exist (referent sitting)'; **do** 'exist (referent lying)') of the predicated nominal (Abraham 1985:70-3). Moreover, relative clauses in Taraon are formed simply by gapping,

without first nominalizing the embedded clause as is usually the case in the Tani languages.[275]

In summary, even though Digarish and Tani bear some striking resemblances, their equally impressive differences make it doubtful that, even if future studies could establish an **exclusively shared** genetic relationship between them, this relationship could be an intimate one.

275Observe the example below, taken from Sastry 1984:189 (tone marks omitted):

hã̄ [hɨbaŋ bo-ya jyinaŋ]$_{REL}$ Ø-dȭ kitab haŋ-de
I forest go-impf cousin Ø-obj book give-impf
'I give the book to (my) cousin who goes to the forest.'

Concluding Remarks

This dissertation represents preliminary results of ongoing endeavors to unravel the linguistic mysteries of Arunachal Pradesh and its environs, one of the last sequestered corners in the dwindling Tibeto-Burman tribal world. The fundamental research reported herein will hopefully bridge a long-standing gap in our knowledge about the richly diversified Tibeto-Burman language family, and contribute significantly to the establishment of rigorous Tani microlinguistics.

Lack of space and adequate data, however, has made it necessary to curtail the scope of this work and leave certain problematic areas unsettled, such as the provenance of tonality and vowel length, the detailed subrelations among the Tani languages, and the exact nature of the Tani-Digarish affinity. Forthcoming data, especially from the underexplored regions of Arunachal Pradesh, will hopefully clarify many of these issues and will, no doubt, necessitate revision of many points on Proto-Tani reconstruction proposed herein. Topics barely touched upon in this work, such as the Chinese progenitors of the PT roots and the possible Kadai and Mon-Khmer substratal elements in Tani, should also constitute promising areas for further exploration.

Despite its limitations, if this work can provide a viable working framework for future research in comparative Tani linguistics to test and build on, one of the objectives of this dissertation project would be fulfilled. With this wish, we submit this work to our co-workers in the Tibeto-Burman field for consideration and criticism.

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Appendix I [276]

Comparison of 200-Word Core-Vocabulary in Eight Tibeto-Burman Languages

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
alive	*tur	gson-pa	taŋ-	hraŋ	a^{31} sɯŋ^{55}	kɯ^{31} ɹăŋ^{35}	šun	zu
angry[277]	*haŋ-fak	'khro; 'tshig; sdang	ka-o-naŋ	cit-chûi; mjak	khɯm^{55} mioŋ^{55}	sun^{55} dut^{55} lat^{55}	nen	a-mlem nók non; lî; sak lyak
ant	*ruk ~*rup	grog-ma	---	pu-rwak	kɯ^{31} jɯ^{53}	tɕu^{31} kɹik^{53}	---	tŭk-fyil
arrow	*puk	mda'	#bra	hmrâ	*pɯ^{55}*	a^{31} wat^{55}	nu	tsóń

[276] Probable cognates are highlighted; uncertain cognates are both boldfaced and **italicized**, to be taken account of separately in the cognacy calculation.

[277] Many of the 'angry' forms here are compounds with a first element meaning 'mind'; e.g. PT *haŋ-, WB cit-, and Lepcha sak- (which looks deceptively like the main PT 'angry' root *fak).

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
ascend	*čaŋ	'dzeg	ga-kat	tak	tu^{31} dzi^{35} ɲoŋ^{55}	lun^{55} xai^{55}	khun?	*hróṅ*
awake (v.i.)	*ɦut^{2}	gnyid sad	#mik-rak	nûi	dzɯ^{55} a^{55}	kɹăŋ^{55}	phrɯ-u	ší
banana	*ko-pak	skyes-sdong	te-rik	hŋak	pha^{31} dʑi^{55}	xa^{31} biuŋ^{55}	ru-ɓaŋ; ru-ɬaŋ	-blo
bear (n.)[278]	*tum	dom	map-il	wak waṁ	ta^{31} m̥m^{55}	kum^{55}	šu-*tsaŋ*	să-na
belly	*kri	grod khog	ok	pok	kɯ^{31} jɯŋ^{55}	dăk^{53}	rug	(tă-) băk
bird	*taŋ	bya	do?	hŋak	pia^{55}	wa^{35}	bu-zu(?)	fo
bite	*gam~ *gjam	so brgyab	cik	kok	tie^{55}	săk^{55}	tha?; šu-wrai?	tsuk; ran

[278]For Taraon ta^{31}m̥m^{55}, cf. the more transparent form ta:-hom in Chakravarty 1963.

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
bitter[279]	*ka:-	kha	ka	kha'	khlai^{55}	kha^{53}	mu-khu?	kri
blood	*vi:	khrag	a?n-ci	swe'	xa^{31} ɹuai^{53}	a^{31} ɹui^{35}	žai	ví (nyo)
blow	*mut	'bud	spo-	hmut	muŋ^{53}	thut^{55}	---	măt~ măt
bone	*loŋ	rus-pa; gdung	greŋ	a' rûi	ɹu^{31} boŋ^{35}	ɕiŋ^{55} ɹak^{55}	(mu-) ljaŋ	a-hrăt
borrow[280]	*nar	g.yar; skyi; brnyan	ra?-cak	hŋâ; khyê	xa^{31} ŋa^{55}	a^{31} ŋat^{55}; lu^{53}	---	*nyó-lyă

[279]The Dhammai form mu-khu? exemplifies a regular sound change PTB *-a > Dhammai -u, cf. also bu-ŋu 'five'; tsu? 'eat', lu 'month'/moon', zu 'son'; thu 'tooth'.

[280]Sino-Tibetan languages generally do not lexicalize directionality of the loaning transaction, thus 'borrow' and 'lend' are usually expressed by identical roots. Instead, many Tibeto-Burman languages make a different distinction based on the nature of the loaned object; thus 'borrow/lend something that must itself be returned' and 'borrow/lend something that can be returned in kind' involve distinct roots, e.g. Tibetan g.yar vs. skyi; Burmese hŋâ vs. khyê; Kaman a^{31}ŋat^{55} vs. lu^{53} in the table. This contrast has not been detected in any Tani language.

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
bow (n.)	*rji	gzhu	#cri	lå	a^{31} lai^{53}	$gaŋ^{35}$	gu-ri?	sǎ-lí
brain	*pVk-ni	klad-pa	ta-niŋ	û-hnok	pu^{31} $ŋum^{55}$	nun^{53}	---	a-t'yak yóṅ; a-yǎṅ
branch	*ɓak	yal-ga; gel-pa	#cek-si	a'-khak	xa^{31} ra^{53}	ŋkhǎi^{35}	ou du- tsaŋ	a-kóṅ; a-nǔṅ
breath	*sak, ŋa	rŋgam	raŋ-sit	(a-) sak	$ɕu^{55}$	$ntshon^{35}$	du-thu	sóm
burn (v.i.)	*gu	'bar	kam	tok	$xiau^{53}$	gri^{35}; xu^{31} nai^{35}	phrjaŋ; rau?	ni dyak
buy	*re	nyo	bre	way	$brai^{35}$	$ɕip^{55}$	phun?	par
call/cry	*grok	'grags~ 'grogs	o-kam; crik	hac; khaw	xa^{31} $tiuŋ^{55}$ a^{31}; #grǎ:	buu^{53}	then	lik

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
child/ son	*ʔo	bu	bi?-sa	sá	a^{55} (ju^{55} a^{55})	sa^{55} wai^{53}	zu	a-kŭp
cloud	*muk ~ *mək	sprin-pa	a-ram	tim	a^{31}m̥^{55}	ka^{55} măi^{35}	mei-miw	-byoṅ
come	*vaŋ	'ong	re?-ba?	la	xa^{31} naŋ^{55}	xu^{53}	dai	di;lat; t'i
count	*krw	brong	#chan	rañ'	ta^{31} tsai^{55}	xa^{31} tsut^{55}	---	fróṅ
day[281]	*lo	nyi-ma	sal	rak	kw^{31}n̥^{53}	ŋin^{53}	wu	nyí
dead body	*si-man	ro	mang gi-si	ə-lôŋ	thwŋ^{55}	dzal^{35}	---	(a-) fŭṅ
die	*si	'chi	si	se	ŋi^{55}	si^{53}	či	mak

[281] For the ZMYYC Kaman form ŋin^{53}, cf. Boro 1979 ŋit; TBT:478 ŋît 'day'.

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
dig	*du^{1}; *ko^{2}	rko^{2}; ʾbru	co?^{1}	tû^{1}	ua^{55}	gua^{35}; son^{35}	thau?^{1}	du^{1}; byol
do	*rjɯ^{1}; mo^{2}	byed; spyod	dak	lup; mu^{2}	ba^{53}	pam^{35}	ru^{1}	mat; zuk; fat
dog[282]	*ki:	khyi	a-chak	khwê	kuaɯ^{53}	kui^{55}	ša-ži?	kă-ju (pă-lí)
door	*rjap	sgo	do-ga	taṁ-khâ	ka^{31} luŋ^{35}	mphun^{53}	ban-phi?	(tŭṅ-) vyeṅ
dove	*kɯ	ʾang-*gu*	do-kru	khui	pia^{53} kɹau^{35}	tɕi^{55} khɹuŋ^{55}	bjuŋ-lo	fă-wu-fo
dream	*jup-maŋ	rmi-lam; rmang	ju-maŋ	ip-mak	ja^{55} mo^{53}	ka^{31} muŋ^{35}	---	móṅ

[282]Note the secondary -k coda in the Taraon form kuaɯ^{53} (for -ɯ < -k, cf. Chakravarty 1963 kuak; Sastry 1984 kwág).

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
drink	*tuŋ	'thung	riŋ	thok	tim^{35}	tauŋ^{55}	thuŋ	t'ă̊ñ~ t'óñ; báp
dry/ wither	*san	skam-po	ra?n	khrok	ɸoŋ^{35}	sal^{53}	mu-khjaŋ	a-šin; a-són; a-jep
duck	*ǰap	ngur-ba	do- *gep*	bhai	ma^{31} tɸi^{53} pia^{53}	kɹai^{35} pit^{55}	ŋu-so	*dam-byó
ear[283]	*ña-ruŋ	rna	na-cir	nâ-rwak	kɹu^{53} naŋ^{35}	iŋ^{55}	žo?	a-nyor
eat	*do	za	ca?	cå	tha^{53}	tɸa^{53}; ɸa^{53}	tsu?	zo; wam-mat; t'a
egg	*pu	sgo-nga	bit-ci; do?-ci	u'	ma^{31} na^{53}	kɹai^{55} sit^{55}	du-rin?	a-tí

[283]The Taraon word for ear' is literally kɹu^{53} 'head' + naŋ^{35} 'leaf'.

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
eight	*pri-ñi	brgyad	cet	hrac	lium^{35}	i^{55} lioŋ^{35}	su-gi?	kă-kŭ
excre-ment	*e:	skyag-pa	ki	khyê	klai^{53}	tu^{31} khui^{53}	---	'ayít; ít; e
exit	*len	thon; 'byung	---	thwak	leŋ^{35} bi^{31}	xa^{55} tha^{35}	---	záň
extin-guished 284	*mit	shi	#ki-mit	se	xa^{31} mun^{53}	măn^{53}; #mut	---	mí mak
eye	*mik	mig	mik-ron	myak-se'	bu^{31} lum^{55}	min^{55}; #mik	mi?	a-mik

[284]The Lepcha form is literally mí 'fire' + mak 'die'. Lepcha mak 'die' is unlikely to be cognate with PT *mit 'extinguished'.

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
face	*mik-mo:	gdong; ngo; bzhin	mik-kaŋ	myak-hna	ŋaŋ^{55}	a^{31} gul^{35}	gw-mja?	a-mlem
fall (from a height)	*ho	lthung	gak-on	kya'	blai^{55} dau^{55}; #ga-lja:	mit^{55} ti^{35} sau^{55}; #bral	dw-jun	hlat; glo; klo
far	*do	rgyang-ring-po	ce?l	wê	dia^{55}	klam^{55}	mw-rum?	[rŭ]
fat/ stout	*jum	rgyags-pa; tsho-ba	mil	wa'	diuŋ^{53}	kw^{31} diaŋ^{55}	za?-mw-	[šu]; a-t'or ~ a-t'yor; [ňur]
fat (n.)	*fu	snum-pa	mit-dim	chi	ta^{31} so^{53}	ta^{31} si^{55}	do thai-bau	a-šut < [šu]

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
fear	*bV-so: ~*pV-so:	'jigs; zhed; dngang	ken-	krok; khrok	ɹai^{55}	ta^{31} si^{55} tup^{53}	(mu-) rin	[ro]
finger[285]	*ke(ŋ)	mdzub-mo	jak-si	lak-hñûi	a^{31} bɪɯŋ^{55}	duŋ^{35}	gi-tso?	ká-jóm
fire	*me	me	wa?l	mî	na^{31} mun^{55}	măi^{53}	mai?	mí
fireplace	*ram ~*rom	(me-) thab	cu-dap	mî-lâŋ- phui	sai^{53} gɪoŋ^{53} gɪoŋ^{55}	sai^{55} gɪoŋ^{55}	lo?	[kom]; [dap; dop]

[285]The ká- 'hand' element in the Lepcha form seems unlikely to be cognate with PT *ke(ŋ) 'finger'.

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
fish	*ŋo	nya	na?-tok	ŋâ	ta^{31} ŋaŋ^{53}	a^{31} ŋa^{55}	thui; tčui	ŋo
five	*ŋo	lnga	boŋ-a	ŋâ	ma^{31} ŋa^{35}	ku^{31} len^{55}	bu-ŋu	fă-ŋo
flee	*kat^{1}	'bros	#ke-ne kat	thwak-prê; hroŋ	lwi^{53}	lun^{55}	---	tor; tet
float	*bjaŋ	lding	#git-cho; bal-bo	po	rau^{55} a^{31}	jau^{53}	---	plyuṅ
flow	*bwt	'bab; rgyug	#jo-kang; so-ol-ang	cî	#blum	#tai	---	dáṅ; nóṅ; yŭ
flower	*puŋ ~pun	me-tog	bi-bal	e-pwaŋ'	ta^{31} pw^{55}	phan^{53}	ou-bo?	ríp; [bor]
fly (n.)	*jiŋ	sbrang-bu	tam-pi	yaŋ; phrut	ta^{31} liau^{35}	giul^{35}	bu-luŋ?	sŭm-bryoṅ

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
fly (v.)	*bjar	'phur	bil	pyaṅ	jim^{35}	phiuŋ ^{55}	gw-nui	lám
foot	*le	rkang-pa	ja?	khre	groŋ^{53}	*pla^{55}*	lai	(a-) t'oṅ; (a-) dyaṅ
forget	*mit-pan	rjed	gu-al	me'	we^{55} ma^{31} sa^{53}	a^{31} mlaŋ^{55}	thlaŋ	hryu; plón; myón; pán
four	*pri	bzhi	bri	lè	ka^{31} prai ^{55}	kw^{31} bzwn^{53}	b(w)-li	fă-lí
fowl	*rok	bya-de rang	#do-o-rang	krak	tiu^{53}	kzai^{55}	du-zu	hik (-kŭp)
frog	*tuk	sbal-ba	#beng-bek	phâ	pa^{31} zai^{53}	kaŋ^{55} khrik^{55}	---	tă-lŭk
fruit	*ze; *pu	shing-tog; 'bras-bu	bi-te	e-sí	ta^{31} *pí*^{53}	sit^{53}	ou-then	[pót]

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
full	*bruŋ	gang	gap	prañ'	bluŋ^{55}	phlăŋ^{55}	---	a-blyăṅ
gall	*pu	mkhris-pa	ka?-kit	sâñ-khre	thu^{31}-mun^{55}	măn^{53}	---	*k'í-bo
give	*bi	ster; skur; sbyin	o?n	pê	ŋ̊ŋ^{35}	pi^{55}	bi(?)	byi (n); bi; bo
grand-father	*to	mes-po	a-cu	ə-phûi; ə-bhûi	a^{31} tia^{55}	kuŋ^{35}	a-luw	t'i-kuṅ
grand-mother	*jo	phyi-mo; ma-mo	am-bi	phwâ; ə-bhwâ	a^{31} ja^{55}	măi^{31} ŋu^{35}	a-žui	nyi-kuṅ; nyo-kuṅ
guts[286]	*kri	rgyu-ma	bi-bik	u	ku^{31} ɬai^{55}	xa^{31} lăi^{35}	luŋ	tă-klí

[286]The Dhammai form is also glossed 'heart'.

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
hair (on body)[287]	*mut	spu	kin-i; kim-ir	ə-mwê	m̥^{55}	bul^{35}	phiw	myal
hand/ arm[288]	*lak	lag-pa	*jak*	lak	a^{31} tio^{55}	*ɹau^{53}*	gi	kă; ká
have/ exist[289]	*doŋ	yod; 'dug	doŋ	hri'	i^{55}; aŋ^{55}	tɕau^{53}; kam^{35}	*du*	nyí

[287]For the phonologically reduced Taraon form m̥^{55}, cf. Chakravarty et al. 1963 **um** 'hair (on body)'.

[288]For (ZMYYC) Kaman ɹau^{53}, cf. also Boro 1979 rok; Weidert 1987:479 râuk 'arm'. The r- initial of these Kaman forms is perplexing, especially since Kaman apparently maintains the PTB contrast between *l- (e.g. lăuŋ 'stone' < PTB r-luŋ; lap^{53} 'leaf' < PTB *lap) and *r- (e.g. ɹam^{35} 'otter' < PTB *s-ram; ɹuul^{35} 'snake' < PTB *b-ru:l).

[289]In both Taraon and Kaman, several existential verbs are distinguished: Taraon i^{55} and Kaman tɕau^{53} occur with animate subjects, Taroan aŋ^{55} and Kaman kam^{35} with inanimate ones, a third Kaman existential verb tun^{55} applies only to abstract qualities (Sun et al. 1980). A different type of semantic differentiation of existential verbs is reported in Apatani A, based apparently on posture of the predicated subjects, but comparative data from other Tani languages is not sufficient for deciding whether this distinction should be pushed back to the PT level. The different Tibetan existential verbs reflect rather the **pragmatic** distinction of degrees of knowledge integration: **yod** for fully assimilated knowledge and **'dug** for new, unassimilated knowledge.

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
head	*dum; *tuk	mgo	sko	khóŋ	kru^{53}	kwu^{53}	u	a-t'yak; tok
heart (organ)	*puk	snying	ka?-toŋ	hma'-lùṁ	xa^{31} po^{55} tiai^{53}	lum^{35}	luŋ	a-lŭt
heavy	*ɦit	ljid-po	#jrim	lè	wau^{55} a^{55}	ka^{31} lăŋ^{35}	mu-lji?	li; bryón-nă; glám-lă
horn	*reŋ	rwa	groŋ	khyui	rau^{55}	kraŋ^{35}	šu-žuŋ	(a-) róṅ
horse	*kʷ	rta	#gu-re	mrâŋ	ma^{31} roŋ^{55}	pa^{31} xoŋ^{35}	šu-gro	on; *ta
hundred	*lʷŋ	brgya	rit-ca	ra	ma^{31} lɯ^{55}	wa^{31}-je^{53} mu^{53}	bu-loŋ	k'a ɬă-ṅo

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
hungry	*kV-noŋ	ltogs; bkren	#ok-kri a-ni	cha; mwat; ŋat	na^{31} tioŋ^{53}	di^{31} iŋ^{53}	fen-či	krít
I	*ŋo	nga	aŋ	ŋa	*xaŋ*^{35}	ki^{53}	*ñaŋ*	kă-do; go
ill	*ki	na(d)	sa; jom	na	*n*aŋ^{35}	nat^{55}	no	dăk
insect	*pum	ʾbu	jo?ŋ	pô	ta^{31} pum^{55}	klauŋ^{55}	bi-luŋ?	[bík]
iron	*rjok	lcags	sil	saṁ	sai^{53}	tɯ^{31} gli^{53}	sen	pŭn-jen; lăṅ-să a-lŭt
itch[290]	*fak	ʾbun; za	#mi-to; ka-kit	yâ	ma^{31} so^{53}	phuŋ^{53}	gu-dzu	jak

[290]Taraon ma^{31}so^{53} is undoubtedly cognate with PT *fak, both reflecting PTB *m-sak 'itch' (STC # 465). For the equation PT *-ak <-> Taraon -o, cf. also PT *rjak, Taraon lio^{53} 'lick'; PT *jak, Taraon jo^{53} 'fox-tail millet'.

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
kidney	*krat-pjɯl	mkhal-ma	*gi-la; ko-rong-te	kjok-kap	ɕi^{55}	ɲtɕhi^{53}	mu-gu-bau?	*k'a-dok
kill	*man	gsod	so?t	phyak; sat	se^{55}	sat^{55}	wai	sót
knee	*lə-bɯŋ	pus-mo	ja?-sku	dû	pha^{31} bɯɯ^{55}	pa^{31} pau^{35}	lai gu-phiw	tŭk-păt
knife	*rjok	gri	a-te	thâ	ta^{31} ɹa^{55}	sot^{35}; kɹa^{35}	vai-	ban
know[291]	*ken	shes; mkhyen [hon.]	u-i	si'	ka^{31} sa^{53}	ŋit^{35}	ñi; zu-u	t'yak; yă

[291] In the sense of 'have knowledge of'.

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
language	*gom	skad	ku-sik	bha-sa	khi^{55} tɯ^{31} ku^{55}	khi^{55} lai^{55}	lau	a-ríṅ
laugh[292]	*ŋil	dgod	ka-diŋ	râi	ma^{31} ɹa^{55}	kɹit^{55}	tho	t'yăn; sak prok; zól
leaf	*nə	lo-ma	bi-jak	a'-rwak	naŋ^{35}	lap^{53}	ou-le?	lóp; a-nyóm
leech (land)	*pat^{1}	pad-pa	ru-at	hmyo'	ka^{31} pe^{53}	tɯ^{31} wat^{53}	dɯ-ve?	-fót; šŭm-pat
left-side	*lak-ke	g.yon	jak-a-si	lak-wâi	tɯ^{31} *kiɯ^{55}*	kɯ^{31} wai^{53}	su-vjo?	vím
lick	*rjak	ldag	#cha-srak	yak	lio^{53}	lo^{53}	---	*lók

[292]This PT root is quite unique in Tibeto-Burman. The only extra-Tani cognate known to us so far is Tshangla ŋar 'laugh'.

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
liquor	*poŋ	chang	cu	se	ju^{53}	si^{53}	čaŋ	čí
listen/ hear[293]	*tat^{2}; *tat^{2}- poŋ	nyan; thos	kin-a-	nâ-thoŋ; krâ	tha^{31} ɹɯŋ^{55}; tha^{31} tiɯŋ^{53}	ta^{55} giat^{55}; tat^{55}	rui	t'yo
liver	*zin	achin-pa	bi-ka	a'-sâñ	ɹu^{55} xa^{31} tiai^{53}	blai^{31} blai^{33}	mu-thun	a-byet
look/ see[294]	*kaŋ; *kaŋ-poŋ	lta; mthong; rig	ni-; nik-	krañ'; mraŋ	ɹueŋ^{53}; ka^{31} tiɯŋ^{53}	thoŋ^{55}; ŋuŋ^{55}	waŋ	ńak, ší; hyón

[293]In languages that distinguish 'listen' from 'hear', forms for both meanings are given (in that order), separated by a semicolon. In Tani, the same root occurs for both meanings; the punctual, involitional sense 'see' is expressed by adding to the root a resultative verbal particle -poŋ. This is true of such other pairs as 'listen' vs. 'hear'; 'search' vs. 'find'. The Garo form means 'hear'.

[294]In languages that distinguish 'look' and 'see', both forms are given (in that order) separated by a semicolon.

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
louse (head)	*fɯk	shig	tik	sân	*tshaɯ*^{53}	sǎl^{53}	fi?	*šák
man (homo)	*mi	mi	man-de	lu	me^{35}	tsoŋ^{35}	ñi?	mǎ-ró
marrow 295	*loŋ-kin	rkang; ngo-bo-nyid	#gheu	khraŋ-chi	ɹu^{53} su^{53}	xiŋ^{53}	---	yǎn̊; sǔn̊-dǎk
meat	*dɯn	sha	be?n	(ə)-sâ	ta^{31} bɹeŋ^{53}	ɕin^{53}	šu-čuŋ	a-mán
melt	*ǰit ~ *jet	bzhu	#jron-gat	pyo	ji^{53}	jau^{55}; kɹǎl^{55}	---	*jǔ; *šǔ

295 This is not considered cognate with PT *-kin, because the regular reflex of the PTB medial vowel *-i- seems to be -ǎ- (i.e. short -a-) in Kaman (but *-i- or *-ɯ- in PT); e.g. sǎŋ^{35} 'tree' < PTB *siŋ; a^{31}mǎŋ 'name' < PTB *r-miŋ; mǎn^{53} < mǎt < PTB *mit 'extinguished'; ntshǎn 'claw' < PTB *m-(t)sin.

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
monkey [296]	*be:	spra; *spre* ('u)	---	myok	ta^{31} min^{53}	a^{31}muŋ^{35}	šu-*bo*	sǎ-hŭ̌
moon	*po-lo	zla-ba	*ja*-joŋ	la'	xa^{55} lo^{55}	lai^{53}	lu	lǎ-vo
mortar	*par	sgog-ting	ca?-am	chuṁ	loŋ^{35}	gloŋ^{35}	du-lo	[tsam]
mountain	*di	ri	a?-bri	toŋ	thui^{55} ja^{55}	a^{31} dzau^{35}	phuŋ-	hlo; rók
mouth[297]	*nap- paŋ; gam	kha	ku-sik	pâ-cap; mê-ce'	thu^{31} ɹum^{53} bum^{35}	ɲtɕhuu^{53}	go	a-boṅ

[296]The -ŋ in the ZMYYC Kaman form a^{31}muŋ^{35} seems secondary; cf. TBT:358 ?mùk; Boro 1978 a-muk, both keeping the original -k coda; the latter Kaman forms are cognate with PLB *myok^{L} (TSR #133) < PTB *mruk STC:112.

[297]The Dhammai form go could not be cognate with PT *gam because the expected Dhammai equation to PT (and PTB) *-am is -en; e.g. Dhammai lem-baŋ (< len-) PT *lam 'road'; Dhammai nen, Western Tani *nam 'house'; Dhammai ñen, PT *nam 'smell v.'; cf. also Dhammai sen < PTB *śam 'iron' (STC #228).

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
nail	*zin	sen-mo	#jak-skil	lak-sáñ	a^{31} ɬun^{55}	ɹău^{53} dzit^{55}	gi-thun	pŭn-či
name	*mun	ming	bi-muŋ	na-mañ	a^{31} muŋ^{55}	a^{31} măŋ^{55}	min?	a-bryaň
neck[298]	*luŋ	ske; mgul; 'jing-pa	git-dok	lañ-pâŋ	pa^{31} n̥ŋ^{55}	xuŋ^{55}	---	[tok]; [liň]
nest	*sup	tshang	bi-tip	thuik	a^{31}ju^{55} #pja:-sag	mphău^{53}; #ŏ-wa sap	---	-šap
night	*jo	nam; mtshan-mo	wal	na'; nañ'	ku^{31} ja^{55}	ŋal^{53}	jaŋ-gou	[nap]

[298]For the Taraon form pa^{31}n̥ŋ^{55}, cf. Chakravarty et al. 1963 pa:-haŋ.

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
nine	*kjo-nay	dgu	sik-u	kûi	ka^{31} ŋwŋ^{55}	nan^{55} mu^{53}	sw-thwn	kă-kyót
nose	*ña-pum; ña-bun	sna	giŋ-tiŋ	hma-khôŋ	xa^{31} nla^{53} pwm^{55}	min^{55} nioŋ^{35}	ñi	[nóm]
old (of things)	*ku~ *kju	rnying- pa	git-cam	hôŋ	me^{53}	taun^{35}	mu-šwo	[ňol; sŭk-kyor
one	*kon	gcig	sa	tac	khun^{55}	ku^{31} mu^{53}	uŋ	kat
otter	*ran	sran	mat-tran	phyaâ	xa^{31} rwŋ^{35}	ran^{35}	---	să-ryóm
palm	*lak-pro	lag- mthil; thal-mo	jak-pa	wâ	#a:-tjo- ka:	#rok ta- pa	gi dw-luŋ	[lyók]
penis	*mrak	mje	---	li	#mlŏ	#jaŋ	---	t'ik

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
pig	*rjek	phag-pa	wak	wak	bu^{31} liai ^{55}	li^{55}	žo	món
placenta [299]	*man	sha-ma	---	ə-khyâŋ	a^{55} po^{55}	sa^{55} sap^{55}	---	kap-p-ŭň; ʾayeň-čót (~ tyól)
poison[300]	*duk; *mro	dug	#bi-si	ə-chip	thai^{53}	tau^{53}	nu-phaŋ	[bo]; a-nyiň
put	*pa	ʾjog	don-	thâ	xa^{31} go^{55}	kɹal^{55}	rou	dya; t'o
rain (n.)	*pV-doŋ; *mV-doŋ	char	mik-ka	mûi rwa	ka^{31} ɹa^{55}	a^{31} waŋ^{55}	phrjo	so

[299]The Taraon and Kaman words are composed respectively of 'child' + 'protect' and 'child' + 'nest'. As for the Lepcha forms, kap-pŭň is literally 'covering, that which covers'; while ʾayeň tyól is 'child' + 'accompany'.

[300]Cf. the Chakravarty et al. 1963 tha:ik for Taraon and Boro 1979 tŏuk for Kaman, both retaining the -k coda.

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
rat	*ko-buŋ	byi-ba; tsi-tsi	#me-se	krwak	ka^{31} tɕi^{55}	si^{55} nu^{53}	---	kă-lók
red	*luŋ	dmar-po	git-cak	ni	ɕi^{53}	kap^{31} sal^{35}	mu-tsu	a-hyir
rice[301]	*pim	'bras-chan	mi	tha'-mâŋ	ta^{31} peŋ^{35}	ɕat^{53}	an tsa-vo	nŭm-or-mo
right-side	*lak-bruk	g.yas	jak-ra	ya	tɯ^{31} tɕa^{55}	kɯ^{31} jau^{53}	ši-dzin	gyóm
ripe	*min	smin-pa	min-	chim'; hnañ'	#ha:-mɯŋ	#shu-mɯ	min	[kru]; a-măn
river	*si; *buŋ	chu	ci-bi-ma	mrac	tɯ^{31} luu^{35}	tɯ^{31} lo^{35}	vu-do	uṅ kyoṅ

[301] More precisely 'cooked rice'. For the Kaman form ɕat^{53}, cf. Weidert 1987:479 má-syât 'boiled rice' (root = syâ 'eat' plus nominalizing dental suffix -t).

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
road	*lam	lam	ra-ma	lám	a^{31} lim^{55}	bloŋ^{35}; lam^{55}	lem-baŋ; hlen	lóm
root	*pur; *m(j)a	rtsa-ba; rtsad	ja?-dir	ə-mrac	xa^{31} ɹai^{55}	kɹa^{53}	-khrin	a-fja; a-bǎn̥; [sáň]
rot	*jaŋ	rul	so-	pup	tshwŋ^{55} xo^{31}	ɹam^{53}	---	byót
round (globular)	*lum	ril-ba; zlum-po	ta?m-bi?	wûiŋ; lûm	geŋ^{55} weŋ^{55} da^{55}	ga^{55} waŋ^{55} na^{55}	mu-du-riu	a-blam; a-pŭm
salt[302]	*lo	tshwa	ka-ri	châ	pla^{35}	tu^{31} min^{55}	lu	vóm

[302]The Taraon form pla^{35} seems to come from earlier *plaŋ (cf. Midu prã̃ 'salt') and therefore phonetically quite distant from PT *lo.

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
scratch	*ɓok	'phrug; phur	ku-ak	Yak; phrok~ phyok	wa 55	glua 35	gw-fja?	hut
seed	*li	sa-bon; son	bit-cri	myûi-ce'	ta 31 *plai 55*	xa 31 lwi 35	thei-žo	lí
sell	*pruk	'-tshong	pal	rôŋ	kha 31 ji 55	xa 35	tsuŋ-ru	ůl
seven	*kʏ-nwt	bdun	sin-i	khu-nac	weŋ 53	nun 53	nja?	kă-kyăk
sew	*ɓom	'tshem	#sik; ko	khyup	#ru	taŋ 55 kiap 55	bw-ča	hrap
sharp-edged	*rat 1	rno	mat	thak	*ra 55*	*kra t 55*	---	lăt~ let

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
shoot[303]	*ap	'phen	go	phok	o^{53} ja^{31}	top^{55} kap^{35}	buw	óp
shoulder	*gor-	dpung-pa; phrag-pa	pak-re	pu'-khûm̊	khɯ^{55} liɯŋ^{53} pa^{35}	a^{31} pho^{55}	pa-stuŋ	tŭk-puń
shy	*han-ñiŋ	skyeng; khrel; 'dzem	#kat-ca	hrak	#ha:- la:g-a:	#i-juk- rai	dai	uk; a-mlem glo
sit	*duŋ	sdod; 'dug	a-soŋ	thuiŋ	di^{55}	lăp^{55}	juŋ?	ṅan
six	*krə (ŋ)	drug	dok	khrok	ta^{31} xɪo^{53}	kɯ^{31} tam^{53}	re?	tă-răk

[303]The Taraon form o^{53}- is judged to be cognate with PT *-ap. For the equation PT -ap <-> Taraon -o, cf. also PT *krap, Taraon khro 'weep'.

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
skin	*pin	(l)pags-pa; ko-ba	bi-gir	ə-re	ko^{55}	uŋ^{35}	phri?	a-kap; a-t'un; a-pi
sleep[304]	*jup	nyal; gnyid-log	tu-si	ip	ɲ̣^{53}	ŋui^{55}	ji	mik krap
smell (v.)	*nam	snom	---	nâm; hru	nuŋ^{35}	ntshiŋ^{55}	ñen	n(y)óm
smoke (n.)	*mu-ku	du(d)-ba	wa?l-ku	mî-khûi	ma^{31} khuu^{53}	ta^{31} khui^{53}	thuŋ	mí-kan
snake	*bu	sbrul	cip-bu	mrwe	ta^{31} bu^{55}	ɹuul^{35}	nu-buw	bŭ

[304]The resemblance between Dhammai ji to PT *jup is misleading, for the Dhammai form could originate from a nasal-final rhyme, cf. Bangru dʑẽ^{33}; Hruso jum 'sleep'. The Lepcha compound is literally mik 'eye' + krap 'hang down'.

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
soft	*mjak	mnyen; 'jam; snyi	#nom; ri-nok	pyo'	ñim^{55} m̥^{55}	ka^{55} miŋ^{35}	mu-bu-lja?	nŭm
son-in-law	*mak-bo	mag-pa	#ca-wa-ri	sâ-mak	ku^{31} mu^{53}	tsa^{53}	---	myók
soul/ spirit	*ja-lo	nyam (s)	#jaŋ-gi sil-ci; gi-sik	lip-pra	ta^{31} gɹa^{35}	ka^{31} mau^{35}	---	a-pil; [jŭm]; hyit
sour	*kruŋ	skyur	me-seŋ	khyañ	ɹɹw^{55}	săl^{55}	mu-čuŋ	a-čór; rók-nón
spittle[305]	*kjul	mchil-ma	ku-ci	tam-twê	khw^{31} lai^{35}	dʑăl^{35}	že?	dyuk

[305]The Garo word means 'saliva'; from ku 'mouth' + ci 'water'.

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
stand	*dak; *rop	'greng	ca-deŋ	rap	deŋ^{35}	loŋ^{53}	gjuŋ	diṅ
star	*kar	skar-ma	a-ski	kray	kha^{31} dwn^{55}	kw^{31} grun^{35}	do-tsuŋ	sǎ-hór
steal	*pjoŋ	rku	ca-u	khui	a^{31} kau^{53}	kal^{55} xwu^{53}	tsu-khu?	tŭk-mo mat
stone	*luŋ	rdo	ro?ŋ-te	kyok~ klok	*phlaŋ^{35}*	lǎuŋ^{35}	gu-luŋ	lǎṅ
suck	*bruŋ	'jibs	op	cut; cui'	du^{55}	jip^{55}; #thet	bu-nu	yup; háp
sun	*ŋi	nyi-ma	sal	ne	rwn^{53}	min^{35}	jo; zu?	sǎ-tsŭk
swallow (v.)	*met	(khyur) mid	#mi-nok	nyui	blai^{53}	biap^{53}	bu-lui	yop; hyul; am-mat

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
sweet[306]	*ti:	mngar~ dngar	ci-	khyui	ɕau^{55}	*tim^{35}*	mu-jaŋ	a-klyam
swidden	*ruk	zhing-ka	a-ba	lay	kha^{31} liau^{55}	a^{31} kuŋ^{55}	vaw	nyót
tail	*mjo~ *me	rnga-ma	ki?-me	a'-mrî	lu^{31} mun^{55}	a^{31} măi^{55}	---	[ší]
take	*laŋ	'khyer; len~ long	ra?-; rim	yu	ɕi^{35}	ta^{31} lat^{55}	lu?	lyă; le; lyo
ten	*rjuŋ; *čam	bcu	ci-kiŋ	ə-chai	xa^{31} luŋ^{55}	kiap^{55} mu^{53}	lin	kă-tí

[306] The Taraon form ɕau^{55} seems to come from a checked syllable, cf. Chakravarty et al. 1963 **shyeb** 'sweet'.

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
thick (book)	*brŋ	mthug	rit-ca?-	thu	bi^{31} tɕoŋ^{55}	bi^{31} tɕoŋ^{55}	---	tăṅ
thin (book)	*bV-čor	srab	ba?-	pá	*ba^{55} a^{55}*	kw^{31} *pa^{35}*	mu-du-thaŋ	sap
think	*maŋ	sem(s); bsam	can-ci	thaŋ; câñ	ta^{31} we^{55}	ntshum^{55}	mjen; šu	(sak) čiṅ
thou	*no	khyod; khyed; nyid [hon]	na?ŋ	naŋ	noŋ^{35}	no^{53}	ñi	hó; a-do
three	*ɦum	gsum	git-tam	sûṅ	ka^{31} suŋ^{35}	ku^{31} sǎm^{53}	gw-thun	san
tiger	*mro (*mjo?); *paŋ-ta	stag	mat-ca	kyâ	bo^{55} da^{55}; #ta:-mja	bo^{55} da^{55}	tiŋ-graŋ	sǎ-t'ǎṅ

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
tired	*pe	dub; thang chad	ne?ŋ-	mô	giai^{53}; #he-ra:	ɕai^{55}; #min-jin	khaŋ-ru	pyăl
tongue	*rjo	lce	sre	hlya	thw^{31} llw^{53} na^{35}	blai^{53}	že?-ɣi	a-lí
tooth	*fi:	so	wa-gam	swâ	laŋ^{35}	*si^{55}*	thu	a-fo; fo-ká
two	*ñi	gnyis	gin-i	hnac	ka^{31} n^{55}	kw^{31} jin^{53}	gni	nyăt; nyi
urine	*sum; *si	gcin; (dri-) chu	su-bu	chî	kw^{31} *tɕaŋ^{55}*	tw^{31} ɕit^{55}	brui?	jit

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
village	*nam-pom;	yul-gru;	sog	rwa	ma^{31}	mw^{31}	gu-bjag	lí brom;
	dun-lun	grong			$tiuŋ^{55}$	$tăŋ^{53}$	lí broṅ;	
							lí kyoṅ	
vomit	*bat2~	skyug	#ci-sat;	aṁ	$mɐ^{53}$	$phat^{55}$	mu	mót; hluṅ
	*brat2		wa-kal					
wash	*ɦur	'khru ~	a-u	khyui'	ma^{31}	ta^{31}	---	mŭ-tŭt;
body;		'khrud;			$nɯm^{55}$	$ruwl^{35}$		mŭ-čóṅ
bathe		chu rgal			$tsai^{53}$	lai^{53}		
water	*si	chu	ci	re	ma^{31}	$a^{31}ti^{35}$	yu	uṅ
					tpi^{53}			
weave	*čum	'thag	dok	rak	ta^{31}	tho^{55}	čun	t'ok
					tiu^{55}	tan^{55}		
					tio^{53}	tho^{55}		

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dham-mai	Lepcha
weep[307]	*krap	ngu; shum; khrap	grap	ŋui	khɹo^{53}	ŋai^{55}	---	hryóp; prám mat
wet	*ju-jaŋ	rlon-pa	so-si	cui; cwat	pɯm^{55}	phom^{55}; #kan-sak	mu-gro?	šăl
white	*pun~ *puŋ	dkar-po	gip-bok	phru	lio^{53}	kɯ^{31} mphlaŋ^{55}	mu-grjaŋ	[du]
wind	*rji	rdzi; rlung; lhag-pa	bal-wa	le	xa^{31} ɹɯŋ^{55}	bauŋ^{35}	jo	sŭn̊-mŭt; so-mŭt

[307]WT khrap occurs only in the phrase khrap-khrap 'weeper, cry-baby'. The normal 'weep' meaning has been taken over by the ngu root.

GLOSS	PT	WT	Garo	WB	Taraon	Kaman	Dhammai	Lepcha
wing[308]	*lap	gshog-pa; 'dab-ma	graŋ	a'-toŋ	ta^{31} loŋ^{55}	ŋkhloŋ^{35}	gɯ-či	pă-ku; pŭn̆-ku
wood	*sɯŋ	shing	bol	sac	ma^{31} sɯŋ^{53}	săŋ^{35} khliŋ^{55}	u	šaň; kuň
year[309]	*ñiŋ	lo; -ning	#bil-si	hnac	ku^{31} nɯŋ^{55}	lau^{53}	du-ren	nam (tum)

[308]WT 'dab-ma (< N + lap) is a direct cognate of PT *lap. The dental stop initial is transparently caused by the homorganic nasal prefix N- (represented orthographically by the achung ꠣ). For more evidence of the effects of achung, cf. 'dom (< N + lom) 'fathom' < PTB *la(:)m (STC p.71); 'do (< N + lo)~ zlo 'say, repeat'; this view is also strongly supported by the **identical** delateralizing effect of the m- nasal prefix, cf. WT mda (< m + *la); PTB *mla~bla 'arrow' (STC fn. 313). For a different interpretation of the provenance of this WT form (owing perhaps to a different view on the phonetic nature of WT achung), cf. Matisoff 1985a:443-4 as well as STC: 122-3; fn.338, 339.

[309]In WT, the root -ning 'year' occurs only in compounds, such as na-ning 'last year'.

Appendix II

Tani Tribes, Languages, and Sources: A Checklist

Following is a concise summary of the basic demographic and linguistic information on the various Tani-speaking tribes on both Chinese and Indian soil.

For convenience of reference, all language sources known to us are listed below, even though some of which may duplicate entries in the general bibiography of this dissertation (in such cases places of publication and publishers are omitted).

Names of a number of other minor tribal groups distributed in the Tani language area have been mentioned in the literature, such as Bangpo, Bogum, Bomdo, Chikum-Dui, Damro, Donggong, Kiri, Lingbo, Nga, Nidu-Mora, Padu, Peesa, Rau, Rishi-Mashi, Takam, Tapiochi, and Tatar Tani. Some of these names may refer to subbranches of major tribes, or tribes better known under other names, or even tribal groups speaking non-Tani languages.

I. Adi (including the following subtribes: Asing, Bokar, Bori, Bomo Janbo, Gallong, Komkar, Karko, Miguba (Damu), Milang, Padam, Pailibo, Panggi, Pasi, Ramo, Simong, and Tangam):

Asing (Ashing):

General information: The Asing Adi people live between Bori Adis to the west and Simong Adis to the east in northern West Siang District of Arunachal Pradesh.

Language: No precise information, possibly Eastern Tani.

Bokar:

General Information: The Bokar Adis (total population: ca. 3,800) live mainly in northern West Siang District (the Monigong and Mechuka areas) of Arunachal Pradesh. Another 700 Bokar Adis inhabit Nan-yi Township of Smin-gling County of Tibet on the Chinese side of the border, all of whom recent emigrants from Monigong and Mechuka.

Language: Bokar Adi is now one of the best-known varieties of Tani, thanks to the efforts of the Chinese linguist Ouyang Jueya (see language sources below). According to Megu 1990, there are two dialects of Bokar, Upper and Lower. Bokar shares both Eastern and Western Tani linguistics traits, but leans more toward the latter subgroup. Bokar is not as conservative as Padam or Mising with respect to PT rhyme distinctions, but keeps some traces of PT consonant clusters obliterated in typical Eastern Tani languages. Definitely non-tonal.

Language Sources:

(1) Kumar, B. B. 1977. Hindi-Bokar Vocabulary (in Hindi). Kohima: Nagaland Bhasha Parishad.

(2) Ouyang, Jueya. 1985. Brief description of a language of the Luoba nationality: the Bengni-Bokar language (in Chinese). (Outline grammar, wordlist, and preliminary comparison with Bengni and Damu; data from Bokar of Smin-gling County, Tibet).

(3) Megu, Arak. 1990. Bokar Language Guide. (Grammatical sketch plus wordlist; data from Bokar of Monigong, West Siang District, Arunachal Pradesh).

Bomo Janpo:

General Information: The Bomo Janpo Adis occupy an area to the south of Padma Bkod (i.e. Motuo County, Tibet), abutting on the Sino-Indian border. Bomo Janbo is named after their major villages, Bomo and Janpo. Their immediate neighbors to the south are the Karko Adi (Anonymous 1987:214).

Language: No information.

Bori:

General Information: The Bori Adis (population: ca. 1,800) inhabit the central portion of the Siyom valley and a major portion of the Sike valley, in the upper central region of West Siang District, Arunachal Pradesh. Their immediate neighbors are Bokar Adis to the north, Minyong Adis to the east and south, and Gallong Adis to the (south-) west. There are twelve Bori villages (Megu 1988).

Language: The Bori Adis speak a variety of Eastern Tani, which is said to resemble Minyong. The speech of the Gatte and Gasheng

villages are markedly different from that of the other Bori villages. Like Minyong, Bori retains the PT velar nasal coda. The most conspicuous phonological trait of Bori is the tendency to shift PT labial codas to the corresponding dentals (e.g. `ta-pon` < PT `*pam` 'ice'; `a-lot` < PT `*lap` 'wing').

Language Source: Megu, Arak. 1988. Bori Phrase book. (Grammatical sketch plus wordlist; the only substantial publication on Bori in existence; data from Payum village).

Gallong (autonym: Galo):

General information: A numerically important group (population: ca. 30,000), the Gallong Adi people occupy the western half of the Adi territory in West Siang District, extending to the land of the Pailibo, Bori, and Minyong Adis to the north, the Assam-Arunachal border to the south, the Minyong territory to the east, and the Subansiri river to the west. The major clans of the Gallongs are Boka (?), Dobang, Karka, Hangu-Bagra (?), Memong, and Tadun according to Dunbar 1915. Srivastava 1962 provides a different list of Gallong subgroups: Bogum, Karga, Karka, Lodu, Patku, and Tator-Tani.

Language: There are three dialects of Gallong: Upper, Lower, and Western; the r- and s- (< PT `*rj-` and `*s-`) in the phonologically conservative Upper dialect correspond respectively to j- and h- in the Lower dialect (e.g. `rek-po` <-> jek-po 'pig (male)'; `so-bo` <-> `ho-bo` 'mithun') (Das Gupta 1963: v). Das Gupta also reports that 'It is not so tonal as Singpho or Nocte though distinctive tones have been suspected in a few cases' (Das Gupta 1977:15). Weidert 1988,

establishes three distinctive word-tones (contouremes) for the variety of Gallong he worked on, which seems to fit the phonological characteristics of the Lower dialect given by Das Gupta. In general, Gallong dialects seem to be transitional between Tani languages spoken by the Siang Adi tribes and the Nishi-Bengni dialects to the west. This observation is corroborated not just by the 'dual allegiance' exhibited by Gallong in terms of some phonological and lexical isoglosses discussed in Chapter 3, but also by the fact that the speech of the major Adi tribes (Padam, Simong, Minyong) and that of the Bengni-Nishi tribes are mutually unintelligible, but both seem to be understandable to the Gallong people (Anonymous 1987:216).

Language Sources:

(1) Das Gupta, K. 1963. An introduction to the Gallong language. (Grammatical sketch and wordlist; variety unidentified).

(2) Weidert, Alfons. 1987. Tibeto-Burman tonology: A comparative account. (Pp. 215-59 of this work provide over three hundred well-transcribed forms plus phonemic description, including vital information on the word-tone system of Gallong; data from a speaker of the Bomjen clan).

Karko (=Karka):

General Information: The Karko Adis dwell in the area between the Minyong and Simong land in the central part of the West Siang District. The name Karko comes from the name of the major one of their four villages.

Language: The speech of the Karkos is a variety of Eastern Tani which, according to Das Gupta 1978:36, is so close to Minyong that it can be considered a dialect of Minyong.

Language Source: Das Gupta 1978 is the only publication where actual Karko forms are cited.

Komkar:

General Information: Komkar is an obscure minor Adi group. They are found in an area between the Simong (north) and Panggi (south) on the left bank of the Siang. Their main village is also called Komkar (Anonymous 1987:212-3).

Language: No information.

Miguba (Tsangla exonym? Referred to in Chinese sources as **Damu**):

General information: A heterogeneous Adi group of only about 80 souls at Damu Township, Motuo County, Tibet (Anonymous 1987:131). They are composed of as many as five different branches: Pojue, Gawo, Yaxi, Miri, and Zhu (Misinba). The Miri branch is said to originate from the Tangam tribe (q.v.), which now dwell on the Indian side of the border.

Language: The Miguba people speak a heavily Tibetanized variety of Tani, known by the village name Damu. More akin to Eastern Tani, Damu is not a tone language. Like such Adi languages as Tangam, it is also characterized by merger of word-medial *-l- to -r-.

Language Source: Ouyang, Jueya. 1985. Brief description of a language of the Luoba nationality: the Bengni-Bokar language. (Phonological inventory and dozens of comparative forms. A separate wordlist is kindly supplied by Ouyang and Sun Hongkai.)

Milang:

General information: The Milang Adi people (population: ca. 2,600) occupy the area between the Simong and Padam lands on the bank of the upper Yamne river within the Mariyang sub-division of East Siang District in Arunachal Pradesh. They are also found scattered in the lower bank of the Siang river, in parts of Dibang Valley District, in the lower region of the Pasighat sub-division, intermingling with Pasis, Minyongs, Padams, and other groups. There are only three Milang villages: Milang proper, Dalbin, and Peki-Modi.

Language: Milang is one of the most divergent members of the entire Tani branch. It is not mutually intelligible to speakers of other Tani languages. There is wide-spread belief, which seems unfounded, that this divergence stems from intentional language disguise on the part of the Milangs to comfound their enemies during warfare. Their strikingly divergent numeral system is especially noteworthy. Milang seems to be a tone language (Das Gupta 1980:15). For more information on the linguistic aberrancy of Milang, see section 3.4. in this dissertation.

Language Source: Tayeng, Aduk. 1976. Milang phrase-book. (The only available source on this important language; meager grammatical summary and wordlist, variety unspecified.)

Minyong:

General Information: The Minyong Adis (population: ca. 19,000) is one of the dominant Adi tribes of Arunachal Pradesh. They are distributed in a large area on both banks of the Siang river, and the valley between the Siang and Yamne rivers in the East Siang District.

Language: Despite the numerical strength of the Minyong tribe, publication on the Minyong Adi language is scarce. It bears general resemblance to Padam Adi, with some notable phonological differences (Das Gupta 1977). Incidentally, the language of the wordlist given in the appendix of Roy 1960, contra Marrison 1990:216-22, appears to be Padam rather than Minyong.

Language Sources:

(1) Kumar, B. B. Publishing date unknown. Hindi-Minyong vocabulary. Kohima: Nagaland Bhasha Parishad. (Currently the only published lexical source on Minyong Adi).

(2) Das Gupta, K. 1977. A few features of the Minyong language. (Dealing with general features of the language with dozens of lexical forms and sentences).

Padam (=Bor):

General information: The Best-known of all Adi tribes (population: ca. 10,000), the Padams occupy a large area between the Yamne and the Siang rivers (East Siang and Dibang Valley Districts in

Arunachal Pradesh), and adjacent areas of Lohit District. Their villages are scattered mainly between the Siang and Sissiri (Sikang) rivers.

Language: The Padam speech has close similarity with that of the Pasi, Minyong, Simong, Karko, and Panggi Adis, as well as the Misings of Assam (q.v.). A typical Eastern Tani language, Padam Adi rather faithfully preserves Proto-Tani rhyme distinctions, but is not at all conservative regarding PT initials. Among the conspicuous phonological characteristics of Padam are the presence of the -l coda and the absence of the voiceless palatal affricate č- (> s-) and the glottal fricative h (> 0-) initials. Not a tone language.

Language Sources:

(1) Lorrain, J. H. 1907. A dictionary of the Abor-Miri language. (The richest body of lexical data on Eastern Tani; the Abor (Bor Abor) portion of the dictionary is Padam Adi).

(2) Kumar, B. B. 1976. Hindi-Adi dictionary: Padam dialect. Kohima: Nagaland Bhasha Parishad. (Wordlist containing ca. 2,000 words, transcription in both Roman and Devanagari letters. An important supplement to the above).

(3) Tayeng, Aduk. 1983. A phrase book in Padam. (Outline grammar and meager word list; data from unidentified variety of Siang Padam).

(4) Marrison, G. E. 1988. The Adi-Dafla group of languages of North-East India: a sketch. (Short wordlist and phonemic inventory, variety unspecified).

Pailibo (=Lingbo?, Pailebo, Libo, Lebo):

General Information: The Pailibo Adis, like their neighbor Ramo Adis, live on the banks of the Siyom river in northern West Siang District.

Language: The Pailibo speech could be more closely related to Bokar.

Language Source: Kumar, K. 1979. The Pailibos. (Contains a short wordlist, the only available data on Pailibo).

Panggi (Pangi):

General information: The Panggi Adi settlements are found south of the Simong country, between the Yamne and Siang rivers, East Siang District, Arunachal Pradesh.

Language: No precise information, but could be close to Padam.

Pasi:

General Information: The Pasi Adi, a minor and impoverished tribe, occupy the area on the left bank of the Yamne river to the east of the Padam land and the Pasighat area, East Siang District, Arunachal Pradesh.

Language: No precise information but could be close to Padam (Tabu Taid, p.c. in 1992).

Ramo:

General Information: The Ramo Adis (population: ca. 1,000-2,000) live in the Mechuka subdivision of West Siang District, Arunachal Pradesh, near the Tibetan border.

Language: The Ramo speech is a variety of Eastern Tani. It is said to be 'easily understood by the Pailebos [Pailibos] and the Bokars', and '...influenced by Pailibo, Bokar, Bori, Gallong, and Minyong on one side and the Memba (Tsangla) on the other' (Dhasmana 1979: 148).

Language Source: Dhasmana, M. M. 1979. The Ramos of Arunachal. (Words cited passim plus appendixed wordlist; the only published data on Ramo).

Simong (Shimong):

General information: The relatively small but powerful Simong tribe (population: ca. 2,000) occupies the northern fringe of Siang along the left bank of the Siang river in northeastern West Siang District, Arunachal Pradesh. The following are the names of their ten villages: Simong (the main village), Ngaming, Jido, Anging, Singiang, Palin, Likor, Puging, Gete, Gobuk. Their Adi neighbors are the Komkar, Panggi (south), Minyong (southwest), Karko, and Bomo Janpo (west).

Language: Simong is a variety of Eastern Tani very close to Minyong and Karko, according to Das Gupta 1978.

Tangam:

General information: The Tangam Adis (population: ca. 200 only) live on the banks of the Tsangpo and Yang-Sangchu rivers in the northern extremity of the West Siang District. Disastrous clashes with Tibetans and their Adi neighbors (especially Simong Adis) have decimated their original population and forced them to migrate south. Presently, they occupy only three villages: Kuging, Nyering (on the right bank of Yang Sang Chu river), and Mayum (left bank of the Tsangpo).

Language: Tangam is a rather aberrant variety of Eastern Tani. The merger of medial -l- to -r- (e.g. po-ro < PT *poŋ-lo 'month') has been mentioned as a notable Tangam phonological feature. Yet, this sound change may alos be shared by other Tani dialects, such as damu OY and Karko-Simong (e.g. Karko-Simong pirino 'five', cf. Padam pilno Morgenstierne 1959:297).

Language Source: Bhattacharjee, Tarun Kumar. 1975. The Tangams. Shillong: Research Department, Government of Arunachal Pradesh. (Contains a short wordlist; the only published data on Tangam).

II. Bengni (alternate names: Bangni, Beni; paleo-exonym: Dafla) and Related Tribes:

General information: The Tani-speaking people of East Kameng District of Arunachal Pradesh call themselves Bengni; the local variants of this name include Mlaseng Bangni (alias Nashang, Bameng area, East

Kameng District), Mloke Bangni (alias Mloke, foothills area of West Kameng District), Beni, Bangmi, etc. The Bangni in Sepla area, however, call themselves Yano. The Bengnis seem to be an extension of the culturally and linguistically related **Nishi** people (q.v.) of the Lower Subansiri District.

Language: All varieties of Bengni speech, together with those of the Nishi, Tagin, and Hill Miri tribes, seem to belong to Western Tani. The extent of dialect variation among the Bengnis cannot yet be determined. What is evident is that the widely distributed Bengni settlements are far from linguistically uniform. The Bengni data recorded in Ouyang 1985, for example, seems quite different from both Bor's Yano (autonym: 'Bengni') and Robinson's 'Dophla' (autonym: 'Bangni').

Language Sources:

(1) Robinson, M. A. 1851. Notes on the Dophlas and the peculiarities of their language. (Brief ethnological description, grammatical sketch, and a short wordlist).

(2) Bor, N. L. 1938. Yano Dafla grammar and vocabulary. (Outline grammar and comparative Bengni-Nishi vocabulary).

(3) Ouyang, Jueya. 1985. Brief description of a language of the Luoba nationality: the Bengni-Bokar language (in Chinese). (Phonemic inventory and sporadic forms cited in the sections on Bengni-Bokar comparison; data recorded at Rtsedthang with a male speaker of Bengni from Taksing).

Bayi:

General Information: The Bayis, numbering only about fifty souls, are one of the smallest Tani-speaking groups. They live in one single village, Labaningla, on the Indian side of the Sino-Indian border south of Lhun-rtse County (Anonymous 1989:248).

Language: According to our Bengni consultants, the Bayis also speak a variety of Bengni.

Dazu:

General Information: There are about 1,000 people in the Dazu tribe. They are distributed in the Ningdibare, Furi, and Sibiya areas, but the majority of them (about 800 people) have migrated southwest to Bomdila (Anonymous 1989:248).

Language: According to our Bengni consultants, the speech of the Dazu is also a variety of Bengni.

Mara (exonym: Maya):

General Information: The Maras, with a population of only around thirty people, are probably the smallest of all Tani-speaking groups. They live in Daruning and Dajeng villages of the Lawo area on the Indian side of the Sino-Indian border to the south of Lhun-rtse County (Anonymous 1989:248).

Language: According to our Bengni consultants, the language the Maras speak is quite different from the Bengni dialects of this area, but is still intelligible to Bengni speakers.

Na (Bengni):

General Information: Na is a small tribe occupying the Taksing area in the Upper Subansiri District of Arunachal Pradesh (to the southeast of the Lhunrtse county in Tibet). They number only around 150 (Anomymous 1989:248).

Language: The speech of the Na people is a dialect of Bengni, which is referred to by the Na themselves simply as bəŋni gəm (i.e. Bengni language). The Bengni data reported in Ouyang Jueya 1985 is also provided by a speaker of Na Bengni.

Language Source: Our field data recorded in Tibet in 1992, consisting of a wordlist of over 2,000 items and some syntactic data.

III. Nishi (alternate names: Nyisi, Nyisu, Nyishing, Nyi, Nishang, Nashang; Bengni exonym Tagin, Talgin, Tagen; paleo-exonym: Dafla):

General information: The Dafla people living in the Lower Subansiri District of Arunachal Pradesh now prefer to be known by their autonym Nishi (with dialectal variations listed in the heading above), they are culturally and linguistically related to the Hill Miris to the north-east and to the Bengnis of West Kameng. According to the 1981 census of India, their total population at that time was 28,488. There are three main branches of the Bengni-Nishi tribe: Dol, Dodum,

and Dopum, each of which comprise several phratries, which in turn are composed of a number of clans.

Language: As is the case with the Bengnis, the Nishis speak varieties of Western Tani. In the Nishi country, as Fürer-Haimendorf puts it, 'language groups extend over large areas and merge very gradually one into the other' (Fürer-Haimendorf 1982:22). It is not clear whether the ethnologically based division between Nishi and Bengni is linguistically valid, or whether the speech forms of these peoples form a dialect continuum.

Language Sources:

(1) Hamilton, R. C. 1900. An outline grammar of the Dafla language. (Sketch grammar and vocabulary of what Hamilton calls 'Eastern Dafla', which is a dialect of Lower Subansiri Nishi distributed to the north of the North Lakhimpur town in Assam).

(2) Bor, N. L. 1938. Yano Dafla grammar and vocabulary. (The 'Tagen' portion of the comparative Yano-Tagen vocabulary represents a variety of Nishi of Lower Subansiri District).

(3) Das Gupta, K. 1969. Dafla language guide. (Grammatical sketch and vocabulary, data based on the speech of the Nishis of the Palin-Nyapin area, perhaps a variety of what Chhangte 1992a refers to as the North Aya dialect of Nishi).

(4) Kumar, B. B. 1974. Hindi-Nishi-English vocabulary. Kohima: Nagaland Bhasha Parishad. (Vocabulary of ca. 1,500 words in Devanagari transcription; variety unidentified).

(5) Tayeng, Aduk. 1990. Nishi phrase book. (Vocabulary and sentences; data from Nishi spoken in Seijosa, Balijan, Kimin, and Doimukh areas of the East Kameng and Lower Subansiri Districts).

(6) Chhangte, Thanggi. 1990. Nyisi grammar sampler. (Outline grammar plus short wordlist; data representing at least three varieties of Nishi, i.e. South Aya, Sagali, and Lel).

(7) Chhangte, Thanggi. 1992a. Phonology of some Nishi (Dafla) dialects. (Comparative phonology of several varieties of Nishi, especially South Aya, Sagali, and Lel).

(8) Chhangte, Thanggi. 1992b. Nishi (Dafla) word list. (Short word list of Nishi; the identity of the dialects involved are not clearly identified, but could represent South Aya and Lel dialects of Nishi).

IV. Apatani (autonym: Tanw; Bengni exonym: Apa Tanang; other exonyms: Tanae, Anka):

General Information: The Apatanis (population: ca. 13,000) are an important and prosperous Tani-speaking tribe of the Apatani valley in Lower Subansiri District. Their communities comprise the following seven villages: Bela, Hari, Hang, Mudang-Tage, Michi-Bamin, Duta, and Haja.

Language: Apatani is a distinct Tani language related to Western Tani but unintelligible with any other Tani variety. There are three dialects of Apatani according to Fürer-Haimendorf 1962: 64: (1) the (majority) dialect spoken in Bela, Haja, Duta, Michi-Bamin, and Mudang-Tage villages; (2) the **Hari dialect** spoken in the Hari village; and (3) the **Hang dialect** spoken in the Hang village. All three dialects are mutually comprehensible. All published Apatani materials seem to be based on the majority dialect.

Language Sources:

(1) Simon, I. M. 1972. An introduction to Apatani. (Grammatical sketch and copious vocabulary; variety unidentified.).

(2) Weidert, Alfons. 1985. Tibeto-Burman tonology: a comparative account. (Pp. 215-59 of this work provide phonological inventories and comparative Apatani-Gallong cognate sets; Apatani data based on the speech of Mudang-Tage village).

(3) Abraham, P. T. 1985. Apatani grammar. (Concise reference grammar; data from Mudang-Tage and Reru villages).

(4) Abraham, P. T. 1987. Apatani-English-Hindi dictionary. (More up-to-date but rather incomplete lexical source on Apatani).

V. Hill Miri (alternate name: **Sarak**; autonym of some members of the tribe: Nishi):

General Information: The Hill Miris (population: ca. 8,000) live on the mountain tracts on either side of the Lower Kamla River and the Simmi river, Lower Subansiri District, Arunachal Pradesh. They have been given three different names (all exonyms) by different authors: Panibotia, Tarbotia, and Sarakdwar Miris. The proper Hill Miris refer to a group of people generally known as Gungü, which is subdivided into the following phratries: Pei (exonym: Sarak Miri), Chimr, Komdu-Kange, Telu-Todum, and Tenu-Talom.

Language: Regarding the language of the Hill Miris, Fürer-Haimendorf says (1947): 'The language of the Gungü group differs from the so-called Leli dialect of the foothills and the dialects spoken by the tribesmen of the Duri group on the upper Kamla. But the

differences are not sufficiently great to bar understanding...'. This view is confirmed by Simon's remark (1976:i): 'the Hill Miri languages belongs to the same group as Nishi or Galo, to which indeed it bears striking resemblance'. Simon adds, however, that in its absence of tones and simple phonological system, Hill Miri is more like the Adi dialects of the Siang Districts. As in some Nishi dialects, moreover, Hill Miri shows the tendency to clip the final vowels of original binomes (cf. pol 'moon' cf. Nishi C pol; Nyisu H pol).

Language Sources:

(1) Simon, I. M. 1976. Hill Miri language Guide. (Grammatical sketch and vocabulary).

(2) Kumar, B. B. 1974. Hindi-Hill Miri-English Vocabulary. Kohima: Nagaland Bhasha Parishad. (Vocabulary of ca. 800 words arranged by semantic fields.)

VI: Tagin:

General information: The Tagins (population: ca. 20,000) are officially recognized as a distinct tribe of Arunachal Pradesh. Found in the northern part of the Upper and Lower Subansiri Districts, they are mainly concentrated on the Sippy (Sipi) Valley. They are culturally and linguistically akin to the neighboring Bengni and Hill Miri tribes. Importantly, this tribal group must be carefully distinguished from the 'Tagen' Daflas of Bor 1938, who are none other than Nishis of Subansiri (Tagen is a derogatory Bengni exonym).

Language: The Tagin people speak varieties of Western Tani very similar to Bengni. According to Das Gupta, there are significant

dialectal variations within the Tagin tribe; in some varieties in the higher Tagin regions, the vowel of the prefixes may drop, leaving an initial consonant cluster (e.g. tlo < to-lo 'up there'). The variety spoken in the Daporijo area is almost like an admixture of Gallong and Nishi. According to Das Gupta 1983, Tagin shows tonal (e.g. pa with abrupt rising tone meaning 'cut' but with level tone means 'get') as well as vocalic length contrasts (cf. a-lo 'bone' vs. a-lo: 'there').

Language Source: Das Gupta, K. 1983. An Outline on Tagin Language. (Outline grammar and vocabulary; based on the speech of Taliha).

VII. Mising (paleo-exonym: (Plains) Miri):

General Information: The Mising people (population: ca. 500,000) are numerically the most important Tani-speaking tribe. They live mainly in the Dibrugarh, Sibsagar, Lakhimpur, and Darrang Districts of Assam, and some areas of the East Siang district of Arunachal Pradesh. Originally closely related to the hill-dwelling Adis of Arunachal Pradesh, they have been undergoing steady Indianization since their migration to the Assam plains, and are now generally converted to Hinduism. They have the following major clans: Sayang, Oyan, Chutiya, Dambuk, Delu, Moying, Pagro, and Somuang.

Language: The Mising speech is remarkably similar to the speech of the Padam Adis, and is said to be internally quite uniform. Taid 1987:130 mentions several varieties of Mising: Sayang, Oyan, Dambug, Moying, Pagro, and Somuang, saying that 'no Mising ever has much difficulty in understanding any of these varieties'.

Language Sources:

(1) J. F. Needham. 1886. Outline Grammar of the Shaiyang Miri language. (Outline grammar and vocabulary; data based on the speech of the Sayang clan).

(2) Lorrain, J. H. 1907. A Dictionary of the Abor-Miri language. (Currently the most copious lexical source on any Tani language).

(3) Taid, Tabu. 1987. 'A short note on Mising phonology'. (The only available publication on Mising phonology written by a native-linguist, based on the author's University of Reading thesis).

(4) Taid, Tabu. 1987. 'Mising morphophonemics'. (Sequel to the above highlighting selected topics in Mising morphophonemics).

Appendix III

Characteristic Tani Vocabulary

Following are fifty selected PT roots, of which external Tibeto-Burman cognates are apparently non-existent or extremely scarce. Like rta 'horse', bdun 'seven', khrag 'blood' in Tibetan and sal 'sun' and wal 'fire' in the Sal languages (Burling 1983), then, they represent the diagnostic vocabulary which helps define the unique place of Tani in the Tibeto-Burman family.

PT	Gloss	PT	Gloss
*tur	'alive'	*dun	'meat/flesh
*puk	'arrow'	*be:	'monkey'
*čaŋ	'ascend'	*ro	'morning'
*dum	'barking deer'	*nə	'mother'
*taŋ	'bird'	*di	'mountain'
*pa	'cut with ax'	*bru	'move/quake'
*ju	'demon'	*kon	'one'
*rjap	'door'	*pa	'place/put'
*pu	'egg'	*mrak	'penis'
*pri-ñi	'eight'	*luk	'exchange'
*len	'exit'	*luŋ	'red'
*mik-mo:	'face'	*lak-bruk	'right-hand'
*ho	'fall from a height'	*jaŋ	'rot'

PT	Gloss	PT	Gloss
*ke(ŋ)	'finger'	*pruk	'sell'
*bɯt	'flow'	*ñom	'sew'
*pil	'fold v.'	*rat¹	'sharp-edged'
*tɯk	'frog'	*dut²	'sound (n.)'
*dum	'head'	*rum	'spider'
*ruŋ	'hole'	*pjoŋ	'steal'
*ki	'ill/hurt'	*tol	'strong'
*rjok	'iron/machete'	*bjuŋ	'suck'
*man	'kill'	*rɯk	'swidden'
*ŋil	'laugh'	*čum	'weave'
*lak-ke	'left-hand'	*fat¹	'write'
*ñok	'lose (v.t.)'	*pum	'worm'

Appendix IV

Phonemic Inventories of Supplementary Language Sources

Lexical data from the following secondary sources has been put to more than incidental use in this dissertation: Apatani A (Abraham 1984, 1985), Apatani W (Weidert 1987), Bokar M (Megu 1990), Bori M (Megu 1988), Gallong DG (Das Gupta 1963), Gallong W (Weidert 1987), Hill Miri S (Simon 1976), Mising T (Taid 1987a, 1987b, 1992), Nishing DG (Das Gupta 1969), Nishi C (Chhangte 1992a, 1992b), Nyisu H (Hamilton 1900), Padam T (Tayeng 1983), Tagen B (Bor 1938), Tagin DG (Das Gupta 1983), and Yano B (Bor 1938). Transcription of data from these sources has been standardized in order to facilitate comparison of forms from multiple sources (the phonetic symbols used in the original sources are enclosed within braces).

The phonological inventories of the Tani varieties described in the above sources are provided in the following:

(1) Onsets:

p	t	č {c}	k
b	d	ǰ {j}	g
	s		x h
m	n		ŋ {n̂}
	l		
	r		
	j {j}		

Remarks: (1) /b/ is realized as [β] intervocalically. (2) The palatal nasal onset is analyzed as a cluster of n- plus -j-.

(2) Cluster onsets:

pj {py}	bj {by}	mj {my}
dj {dy}	lj {ly}	
gj {gy}		

Remarks: Unlike Apatani S and Apatani W, Apatani A does not have initial clusters of the Crj- type. Cf. Apatani S xrjɯ, Apatani W ²xrjɯ²ɯ, Apatani A xɯ 'six' < PT *krə(ŋ).

(3) Nuclear Vowels:

a	i	u	e	o	ɯ {ɨ}

Remarks: (1) Vowel length is not recorded in Apatani A. (2) Several[492] 'vowel clusters' are listed in Abraham 1985:16-7, most of which are probably not true diphthongs (see 2.2.3.2.).

(4) Codas: -ŋ -r

Remarks: (1) Word-finally, -ŋ is realized as nasalization on the preceding vowel. (2) Three additional codas, -m, -s, and -l, are said to occur, but they seem to be found only in loanwords; e.g. /bom/ 'bomb'; /opis/ 'office'; /botel/ 'bottle'.

(5) Tonality: Apatani A distinguishes three tones: rising (v́), falling (v̀), and level (unmarked), apparently on all syllables.

(1) Onsets:

p	t	č {tš}	k	
b	d	ǰ {dž}	g	
	ts			
	dz			
	s		x	h
m	n	ñ	ŋ	
	l			
	r			
(w)	j {y}			

Remarks: (1) /w/ occurs only in the form /pɯ¹ ²wɯ ¹do/ 'snatch'. (2) The voiceless velar fricative x- is distinct from xrj-; they are interchangeable in some words. (3) In the word 'tired', Weidert recorded a syllabic velar nasal: /²re ²ŋ ²do/.

(2) Cluster Onsets:

pj {py}	lj {ly}	gj {gy}		
prj {pry}	brj {bry}	mrj {mry}	xrj {xry}	grj {gry}

(3) Nuclear Vowels:

a	e	i	o	u	ɯ
a•(a:)	e•(e:)	i•(i:)	o•(o:)	u•(u:)	ɯ•(ɯ:)

Remarks: Vowel length is contrastive only in nonfinal position of open syllables.

(4) Codas: -ŋ -ʔ -r

Remarks: (1) -m, and -n occur as positional variants of -ŋ before a homorganic stop or nasal in the following syllable. (2) -ʔ occurs only word-medially; it is dropped in final position.

(5) Tonality: Two tones, high and low, exist for every syllable and syllable type. In Weidert's transcription the tone marks are raised numerals preceding the tone-bearing syllable: ² (high) and ¹ (low).

(1) Onsets:

p	t	č {c}	k
b	d	ǰ {j}	g
	s		h
m	n	ñ {ny}	ŋ {ng}
	l		
	r		
w	j {y}		

Remark: /w/ does not seem to be a phoneme in this language.

(1) Nuclear Vowels:

-a	-i	-u	-e	-o	-ə {é}	-ɯ {í}
-a:	-i:	-u:	-e:	-o:	-ə: {é:}	-ɯ: {í:}

Remarks: Vowel length marking does not seem to be consistent.

(3) Codas: -p -t -k -m -n -ŋ {-ng} -r

(5) Tonality: no information, probably non-tonal.

(1) Onsets:

p	t	č {c}	k
b	d	ǰ {j}	g
	s		h
m	n	ñ {ny}	ŋ {ng}
	l		
	r		
	j {y}		

(1) Nuclear Vowels:

a i u e o ə {é} ɯ {í}

Remark: Vowel length marking seems inconsistent (vowel length is said to be distinctive at least for the vowel /a/).

(3) Codas: -p -t -k -m -n -ŋ {-ng} -r (-l)

Remarks: (1) -l seems to occur only in loanwords. (2) A distinctive trait of Bori is the tendency to merge labial and dental codas. This sound change apparently has not yet run its full course, since there are instances of labial codas in native vocabulary (provided, of course, that the data is correct).

(5) Tonality: no information, perhaps non-tonal.

(1) Onsets:

p	t	ts	tʂ	tɕ	c	k	ʔ
pʰ	tʰ	tsʰ	tʂʰ	tɕʰ		kʰ	
b	d	dz	dʐ	dʑ	ɟ	g	
	s			ɕ		x	
	z					ɦ	
m	n			ɲ		ŋ	
m̥						ŋ̊	
	l						
	l̥						
	r						
w					j		

(2) Cluster onsets:

pr	br

(3) Rhymes:

a	e	i	o	u	ə	ɯ	y	ø	ɿ	ɻ
aː	eː	iː	oː	uː	əː	ɯː	yː	øː		
	ei			ui						
iaː			iu							
					əɯ					
ap	ep	ip		up	əp			øp	iap	iəp
am	em	im	om	um	əm		ym		iam	iəm
at	et	it		ut	ət		yt	øt		
an	en	in	on	un	ən	ɯn	yn	øn		
ak	ek	ik	ok	uk	ək	ɯk				iək
aŋ	eŋ	iŋ	oŋ	uŋ	əŋ	ɯŋ			iaŋ	iəŋ
ar	er	ir	or	ur	ər	ɯr	yr	ør	iar	iər
aʔ	eʔ		oʔ	uʔ		ɯʔ	yʔ	øʔ	iaʔ	

Other rhymes: iuk,yo, yuŋ, yuk, uet, yəp

Remarks: (1) Vowel length is distinct only in open syllables. (2) ɻ and ɭ are found only in Tibetan loanwords.

(4) Tonality: Damu is not a tone language.

(1) Onsets:

p	t	č {c}	k
b	d	j {j}	g
	s		h
m	n	ñ {ny}	ŋ {ng}
	l		
	r		
	j {y}		

Remarks: Initial r- tends to get palatalized, in some dialects, *r- became j-.

(1) Nuclear Vowels:

-a	-i	-u	-e	-o	-ə {é}	-ɯ {í}
-a:	-i:	-u:	-e:	-o:	-ə: {é:}	-ɯ: {í:}

(3) Codas: -p -t -k -m -n -r

Remarks: The velar nasal coda -ŋ does not exist in Gallong, except secondarily as a result of phonetic assimilation (e.g. /rok-ne/ > [roŋ-ne] 'hen').

(5) Tonality: Gallong may well be a tone language, but no relevant information is provided in this source.

(1) Onsets:

p	t	č {tš}	k
b	d	j {dž}	g
	s		h
m	n	ñ	ŋ
	l		
	r		
		j {y}	

Remarks: Intervocalically, /s/ varies freely with /h/.

(2) Nuclear Vowels:

a	e	i	o	u	ə {ɤ}	ɯ
a: {a•}	e: {e•}	i: {i•}	o: {o•}	u: {u•}	ə: {ɤ•}	ɯ: {ɯ•}

(3) Codas: -p (-t) -k -m -n -ŋ -r

Remarks: (1) Syllable-final stops assimilate to -t if followed by /t-, «c-, «j-/. (2) As in the case of Nyisu H, Hill Miri S, and Nishi C, root reduction processes lead to secondary -l and -s codas (e.g. ¯ja-si > ¯jas 'urine').

(4) Tonality: Gallong W has three word-level tones ('contouremes'); the first syllable of a word is always high level, the three distinctive contours are manifested only from the second syllable on. The three word-tones are: (1) slight falling (x̌), (2) steep falling (\x), and (3) high level (x̄).

(1) Onsets:

p	t	č {c}	k
b	d	ǰ {j}	g
	s	š {sh}	h
m	n	ñ {ny}	ŋ {ng}
	l		
	r		
w	j {y}		

Remark: The distinction between s- and š- is probably not phonemic, although Simon uses separate symbols for them.

(2) Nuclear Vowels:

-a -i -u -e -o -ə {-é} -ɯ {-í}

Remark: Vowel length is not consistently marked. Interestingly, however, length marks occur on closed syllables in a number of cases (e.g. kap 'weep' but ka:p 'good'; -kur 'back (adv.)' ku:r 'hoe').

(3) Codas: (3) Codas: Remark: Hill Miri tends to apocopate word-final short vowels (e.g. pol 'moon' < *po-lo). This means practically all onset consonants can potentially occur as syllable codas.

(4) Tonality: Simon explicitly claims that Hill Miri is not tonal.

(1) Onsets:

p	t	č {c}	k
b	d	ǰ {j}	g
	s		h
m	n	ñ {ny}	ŋ {ng}
	l		
	r		
	j {y}		

Remark: Milang has a few cluster onsets of the Cj- type.

(1) Nuclear Vowels:

-a -i -u -e -o -ə {-é} -ɯ {-í}

Remark: (1) Vowel length is not marked. (2) Central vowels are orthographicallly distinguished from front vowels only in the section on phonology (pp. 1-3) and the appendixed sample sentences (90-106).

(3) Codas: -p -t -k -m -n -ŋ {-ng} -r -l

Remarks: The frequently occurring -l coda is a notable feature of this language. Some instances of -l reflect PT *-l, but other are secondarily developed via syllable reduction, e.g. such adverbs of place as al 'here', ul 'there', a-ral 'within', the -l coda being a reduced form of the PT locative particle *lo.

(5) Tonality: No information regarding tonality is provided in this source, but Das Gupta 1980: 15 gives one tonally differentiated pair, ŋa 'I' vs. ŋa (rising tone) 'we (exclusive)'.

(1) Onsets:

p	t		k
b	d		g
	s		
	z		
m	n	ñ {ny}	ŋ {ng}
	l		
	r		
	j {y}		

Remark: Mising T does not have h- (> 0-), č- (> s-), or ǰ- (> z-).

(2) Nuclear Vowels:

-a	-i	-u	-e	-o	-ə {e'}	-ɯ {i'}
-a:	-i:	-u:	-e:	-o:	-ə: {e':}	-ɯ: {i':}

Remarks: (1) Quite a few vowel sequences can occur in Mising T, it seem however that most of them are not true diphthongs (see 2.2.3.2.). (2) Vocalic length is neutralized in word-final postion.

(3) Codas:

-p, -t, -k, -m, -n, -ŋ {ng}, -r, -l

Remarks: (1) The occurrence of -l is very infrequent (in loanwords?).[505]
(2) An additional coda -s shows up in loanwords only.

(5) Tonality: Taid explicitly asserts that Mising T is not a tone language.

Nishi C

The Nishi C data is cited from from Chhangte 1990, 1992a, and 1992b. Chhangte conducted her field work in Lower Subansiri District, Arunachal Pradesh, in the summer of 1989. She worked with Nishi speakers from various dialect backgrounds. Owing to practical limitations, her data pool is dialectally heterogeneous and must be used with caution. The following pan-dialectal phonemic inventory, which is supposed to be true of all of the dialects she worked on, is based on Chhangte 1992a.

(1) Consonants:

p	t	č {c}	k	ʔ
b	d	ǰ {j}	g	
	s		x	h
m	n	ñ	ŋ	
	l			
	r			
		j {y}		

Remarks: (1) Stops/affricates contrast in voicing in both initial and final positions. (2) /r/ is phonetically an alveolar flap. (3) Initial consonant clusters are of the Cj- type only. (4) The syllable codas are: -p, -t, -ʔ,-b, -d, -g, -č, -ǰ, -m, -n, -ŋ, -r, -l. (5) /ʔ/ occurrs only syllable-finally; it is realized as [-k] in some dialects. (6) /ŋ/ occurs only syllable-initially. (7) In western Nishi dialects the codas /-b/ and /-d/ are spirantized and accompanied by breathy voice. (8) The stop codas /-p/, /-t/, and /-k/ can be released, and even followed by a voiceless vowel (e.g. 'dog' /ik/ -> [ikʰi̥]). (9) Syllables

characteristically end in a rich variety of consonant clusters which[507] even include sequences of a glottal stop plus stops (e.g. 'your' /no?g/), or two nasals (e.g. 'five villages' /pamŋ/); such cluster codas are derived historically from extensive apocope and are always morphologically complex. (10) The cluster coda /-ŋg/ is realized as [ŋɣ]. (11) Some cluster codas may be broken up by an epenthetic vowel; e.g. /no?g]->[no?og]).

(2) Vowels:

a	e	i	o	u	ə {ë}	ɯ {ï}
a:	e:	i:	o:	u:	ə:	ɯ:

Remarks: (1) The contrast between /ə/ and /ɯ/ is neutralized in unstressed syllables. (2) Vowel length applies to all vowels (represented by Chhangte as geminate vowels (e.g. /i:/ -> {ii}), but seems distinctive only in the first syllable of multisyllabic words. (3) The following vowel sequences are recorded: ai, ui, oi, ɯi, ao.

3. Tonality: Chhangte claims that of the Nishi dialects she heard, only the Sagali dialect seems more likely to have tones. For the other dialects (Lel and South Aya), however, there are a few suspicious pairs with apparently identical segmental elements but which speakers claim to be distinct. It is still unclear if these putative minimal pairs are real, and, if so, what phonetic distinctions (tone?) are involved.

(1) Onsets:

p	t	č {c}	k
b	d	ǰ {j}	g
	s		h
m	n	ñ {ny}	ŋ {ng}
	l		
	r		
	j {y}		

Remarks: Das Gupta mentions the bilabial fricative [ɸ] (e.g. ɸi 'tooth' < PT *fi) and velar fricative [x] (e.g. ho-xi 'metal girdle', cf. Bengni S huk-fi) in some dialects of Nishing, corresponding to h- in the variety described herein.

(1) Nuclear Vowels:

-a -i -u -e -o -ə {-é} -ɯ {-í}

Remarks: Vowel length is not marked.

(3) Codas:

-p -t -k -m -n -ŋ {-ng} -r

(5) Tonality: No information provided.

Nyisu H

The sound system of Nyisu is not directly provided by Hamilton but is inferred from the Nyisu data in the source. The original orthographical system adopts that of Needham's Shaiyang Miri grammar (Needham 1886).

(1) Onsets:

p	t	č {ch}	k	
b	d	ǰ {j}	g	
	s		x {kh}	
	z			h
m	n	ñ {ny}	ŋ {ng}	
	l			
	r			
	j {y}			

Remarks: (1) The č- phoneme is often represented by orthographic -tch- word medially (e.g. {etchin} -> /e-čin/ < PT *a-pim 'cooked rice'). Das Gupta mentions the bilabial fricative [ɸ] (e.g. ɸi 'tooth' < PT *fi) and velar fricative [X] (e.g. ho-Xi 'metal girdle', cf. Bengni S huk-fi) in some dialects of Nishing, corresponding to h- in the variety described herein.

(2) Cluster onsets:

pl	bl	mn
tr?		
kr~xr {khr}	gr	
kj	lj	

Remarks: (1) The medials -l- and -r- are probably in complementary distribution: -l- after labials and -r elsewhere (exceptions: pru 'sell'; ca-pra 'chin'). (2) The cluster kr- seems to vary with xr- (both from PT *kr-). (3) The cluster tr- occur in the form jom-tru 'chilli'. (4) The cluster mn- shows up in mnɔ-bl 'earthquake' and mnɔ-rɔ 'forest' (< PT *mr-).

(3) Nuclear Vowels:

-a	-i	-u	-e	-o	-ə {ŭ}	-ɯ {-ü}?	{ui}?
-a: {â}		-i: {î}	-u: {û}	-e: {ê}	-o: {ô}		

Remarks: (1) Quantity distinction of the two central vowels are not marked in the source. (2) Hamilton orthographically distinguished [ɔ] {å} from [o] {o}, it is unclear whether this reflects a genuine phonemic contrast. (3) The realisticness of the usage of symbols ü (umlaut-u) and ui is not certain. Hamilton describes the former as 'like the Frech 'u' in lune (i.e. [y])', and the latter as 'fluctuating between the French 'eu' (i.e. [ø]) and 'î' (i.e. [i:])'.

(4) Vowel sequences:

ai	au	oi

(5) Codas: In Nyisu, as in some other Nishi dialects and Hill Miri S,[511] final short vowels tend be be elided. This means practically all onset consonants can potentially occur as syllable codas. As in Nishi C, there are even secondary cluster codas, e.g. la**nk** 'back (n.)' < PT *lam-ko.

(6) Tonality: No information.

(1) Onsets:

p	t		k
b	d	j {j}	g
	s		
m	n	ñ {ny}	ŋ {ng}
	l		
	r		
	j {y}		

Remarks: (1) The onsets č- and h- do not exist in Padam T. (2) The only kind of cluster type is Cj-, e.g. si-pjak 'cotton'. Tayeng does not list such clusters in this source, unfortunately.

(2) Nuclear Vowels:

-a -i -u -e -o -ə {-é} -ɯ {-í}

Remark: Vowel length is not marked.

(3) Codas: -p -t -k -m -n -ŋ {-ng} -r -l

Remarks: (1) The preservation of the -l coda is an important characteristic of Padam.

(4) Tonality: no information, apparently non-existent.

Tagin DG

(1) Onsets:

p	t	č {c}	k
b	d	ǰ {j}	g
	s		h
m	n	ñ {ny}	ŋ {ng}
	l		
	r		
	j {y}		

(2) Nuclear Vowels:

-a -i -u -e -o -ə {-é} -ɯ {-í}

Remark: Vowel length is not marked.

(3) Codas: -p -t -k -m -n -ŋ {-ng} -r

(4) Tonality: Tagin seems to be a tone language considering the minimal pair cited in p. vii.

This source treats two varieties of Western Tani, Yano Bengni and Tagen Nishi. The transcription is impressionistic and inconsistent, which makes an accurate phonemic interpretation on the data almost impossible. No separate account of the sound systems of Yano and Tagen is provided, even though the phonological differences between the two Tani languages must be quite considerable. The following Yano-Tagen phonological inventory, therefore, must be regarded as tentative.

(1) Onsets:

p	t	č {ch}	k
b	d	ǰ {j}	g
f	s	š	x
v			
m	n	ñ {ny}	ŋ {ng}
	l		
	r		
	j {y}		

Remarks: (1) Yano Bengni, like Bengni S, has two labiodental spirants: /f/ and /v/. (2) The /f-/ in Yano correspond in most cases to x- in Tagen; as shown in Chapter IV, these sounds often reflect PT *f-. (3) Bor list a number of consonants, including aspirated stops, š-, and its voiced counterpart ž-; all of these presumably exist only at the phonetic level.

(2) Cluster onsets:

pl fl flj bl ml

(3) Nuclear Vowels:

-a -i -u -e -o -ə {-ö} -ɯ {-ü}

Remarks: (1) Vowel length is not marked in any consistent way. (2) Bor uses as many as three phonetic symbols,{é}, {e}, and {è}, to transcribe /e/; this is clearly a case of overdifferentiation. (3) The other additional vowel symbol used is {â}, which may be a variant of the /o/ phoneme.

(4) Codas: -p -t -k -m -n -ŋ {-ng} -r

Remarks: The above list reflects more the Yano coda system. Tagen tends to weaken -k to the glottal stop, represented in the source by the raised comma (Yano ñek; Tagen e-ñiʔ 'eye'), and to drop -ŋ (Yano le-bəŋ; Tagen le-bɯ 'knee').

(5) Tonality: no information.

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