

Subgrouping of the Sino-Tibetan languages

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The Sino-Tibetan (ST) languages, including Chinese, are the major family of languages in China and many areas surrounding China in Southeast and South Asia. There have been many proposals about the phylogeny of Proto-Sino-Tibetan (PST) and the possible connections between specific ancient cultures of China and specific subgroups of PST; the basic modern subgrouping followed here is set out in more detail in Bradley (1997, 2002). It has recently been proposed (van Driem 2014) that the entire family should be renamed Trans-Himalayan (TH); others have suggested that the entire family should be called TB, with Sinitic as just one subgroup of TB (DeLancey 2013); both proposals aim to question the central historical position of Sinitic within TB.

The general consensus (van Driem 1999, LaPolla 2001) is that PST was spoken during the 仰韶 Yangshao Culture in northwestern China circa 7,000 to 5,000 years before present (7-5K YBP). The Sinitic branch (Chinese) remained in northern central China during the 龙山 Longshan Culture (5-3.9K YBP), then later spread east during the 夏 Xia Dynasty (4.1-3.6K YBP) and 商 Shang Dynasty (3.6-3K YBP) and southeast in later times. Meanwhile, most of the rest of the family probably moved southwest from the Yangshao area and became Proto-Tibeto-Burman (PTB) during the 马家窑 Majiayao Culture (5.3-4K YBP); PTB then gradually subdivided into various branches as groups of speakers moved further south and west.

In addition to comparative linguistic evidence, there are five types of external evidence. One is paleoclimate: where in the area would it have been ecologically desirable or at least possible for Neolithic hunters, early pastoralists and early agriculturalists to live at various times in the past? A second is archaeology: where and from when are traces of human settlement found, and what level of material culture is present at each period: what domestic and hunted animals, cultivated crops and other collected plants, artefacts and human remains are found? A third is paleobiology: where were the relevant plants and animals indigenous, when did they start to be associated with human management, and how did they spread? A fourth is genetics; though of course not all speakers of a given language are descendants of earlier speakers of that language, and evidence of male (X chromosome) and female (mitochondrial DNA) genetic descent is sometimes contradictory. Lastly, there is much more recent traditional human evidence: oral traditions concerning origins and migration as embodied in oral history, psychopompic and other funeral-related traditions, and so on, as well as written history. Of course sometimes oral and early written history is unclear or partly mythologized, and so may be less reliable than hard evidence from paleoclimate, archaeology, paleobiology and genetics, but it is still suggestive. Where all of these agree, we can begin to build a picture of early civilization in China and surrounding areas, and attempt to connect particular linguistically-reconstructed subgroups with particular locations and periods. For some efforts in these areas, see Bradley (2011) on crops, Bradley (2016) on animals, and Bradley (2017a, 2017b) on correlating crop and domestic animal information with archaeology and PST subgrouping.

Those scholars who wish to rename ST as TH prefer to place the point of origin in what is now the area where northeastern India, northwestern Southeast Asia and southwestern China meet. This proposal is most unlikely on geographical grounds (the area is extremely mountainous and divided by major non-navigable rivers in deep valleys which separate rather than link); on climate grounds (this area has never been a particularly favourable location for pastoral or agricultural activity, and at colder periods much of it has been almost

uninhabitable); and on paleobiology grounds (none of the main documented PST crops and domestic animals originated or was associated with early human activity in this area). The archaeological and genetic evidence in this area is not widely documented. Conversely, the proposal that PST originated in north central China fits well with the early geography and ecology of that area, which used to be more suitable for agriculture than it is now; also with the archaeological evidence of human activity and spread and paleobiological evidence on the distribution of crops and animals as outlined in Bradley (2011, 2016, 2017a, 2017b) as well as genetic evidence and comparative linguistic evidence.

It has been suggested that all of the most successful and widely-diffused ST languages with large numbers of speakers are the outcome of movement into new areas, contact with speakers of other languages and the formation of a creoloid with simplified phonology and morphology and substantial innovative lexicon. This has been proposed for Sinitic in China (DeLancey 2013), Bodo-Garo in the plains of northeastern India (DeLancey 2014), Tibetan in the Tibet AR and surrounding areas (Zeisler 2009) and Burmese (Bradley 1980).

The subgrouping which arises from comparative linguistic research on the ST languages (Shafer 1966-1974; Benedict 1972; Bradley 1997, 2002; Matisoff 2003) suggests five major clusters of languages:

- 1) Sinitic in the northeast
- 2) Karenic in the far south in western mainland Southeast Asia
- 3) Bodic or Western in the west in the Tibet AR and surrounding areas in western China and nearby areas across the other side of the Himalayan range
- 4) Central mostly in what is now northeastern South Asia and nearby in Burma and China
- 5) Eastern in the corridor from Gansu in the north to Yunnan in the south, extending into northern Southeast Asia in the last millennium or so.

There are some additional languages which do not fit neatly into one of these five main subgroups. These include the languages of the 土家 Tujia in south central China, now mainly spoken in northwestern Hunan but formerly much more widespread, and the 白 Bai in western Yunnan; in both cases, these groups have had such long and pervasive Sinitic influence over more than two millennia that the original position of their languages within PTB is unclear. On geographical grounds, one might expect them to fit in Eastern TB; but our linguistic reconstruction of Eastern TB and our ability to sort out what components of Tujia and Bai are a result of contact with Sinitic are not yet far advanced enough to work this out definitively.

Sinitic is the cluster with by far the longest documented written history; it has long been the topic of intensive research by many scholars. It probably originated as the northeastern branch of PST, centred in the upper Yellow River valley and probably associated with the 龙山 Longshan Culture. Sinitic subsequently spread into eastern and southeastern China over several millennia from the 商 Shang Dynasty on, coming into close contact with languages of the Miao-Yao (MY) and perhaps later the Tai-Kadai (TK) groups, and assimilating large numbers of speakers of these languages into what is now known as the Han ethnic group, while also contributing a very large stratum of Sinitic lexicon to MY and TK, which has misled some scholars into classifying MY and TK as branches of ST. There may also have been early contact with other now-disappeared languages in eastern China. The typological structure of Sinitic was strongly affected by this contact, with a change to SVO syntax, loss of most PST morphology, simplification of segmental phonology and eventually a proliferation of tones, thus becoming more similar to MY and TK languages. Some scholars suggest that Sinitic represents a divergent northeastern branch of PTB, with unusual typological characteristics due to contact with MY and TK languages (DeLancey 2013).

It appears that, as Benedict (1972) was among the first to propose, Karenic was the earliest split from PTB or even perhaps from PST, with a migration to the far south in western mainland Southeast Asia and very pervasive subsequent change due to contact with Mon-

Khmer (MK) languages in Southeast Asia over many millennia, also leading to SVO syntax, loss of PST/PTB morphology and substantial phonological and lexical change. The archaeological and paleobiology evidence, internal Karenic linguistic reconstruction as compared with PST and PTB, and typological similarity to Northern MK languages all support this hypothesis.

The other three clusters of core TB languages, Bodic or Western, Central and Eastern, are probably more conservative and represent the original structure of PTB and probably of PST, with SOV syntax; extensive morphology including many prefixes, some suffixes including possibly verb agreement, and many postpositions; and relatively complex syllable structure, including a variety of initial consonant clusters, partly related to prefixation. Whether PST was tonal is still a matter of debate, but most TB languages with tones appear to have developed them in a variety of separate secondary processes. As these later tonal developments were largely conditioned by the manner of the initial consonants and the type of final consonants in a syllable, they show many general similarities but differ in detail. Within each of these three main clusters, there are various distinctive subclusters.

The name Bodic comes from Bod, the autonym of the 藏 or Tibetans; a more neutral term is Western TB. The Bodic cluster represents the westward expansion of TB into what is now Tibet AR and then south across the Himalayas; due to very high altitudes, extreme cold for much of the year and a short growing season, unsuitable for the crops and most domestic animals of the PST family area of origin, this expansion also resulted in substantial cultural and thus lexical changes; Bodic also came under strong direct influence of the Indosphere, bringing in South Asian religion and various South Asian crops, animals and so on. Bodic comprises three subclusters. The largest is Bodish in the north from east to west; the small East Bodic subcluster is in the border area between southeastern Bhutan and India; and Himalayish is in the southwest, now only in in northwestern India and Nepal but also including the former Zhangzhung language of what is now western Tibet AR. Bodic has three subgroups: West, Central and East. Central Bodish (Tournadre (2014) prefers to use the term Tibetic) has five subgroups: Central including Tibetan proper in central Tibet AR with its long literary history and strong influence on many other Bodic languages; Northeastern or Amdo (extending into Qinghai and Sichuan); Southeastern or Khams (extending into Sichuan, Yunnan and Burma); Southern (in south central Tibet AR and extending into northeastern Nepal, Sikkim and western Bhutan); and Western (in western Tibet AR, northwestern Nepal, the far north of northwestern India and eastern and northern Kashmir). Two other distinct subgroups of Bodish are the West Bodish or Tamang-Gurung-Thakali languages in north central Nepal and the East Bodish or Bumthang languages in northeastern Bhutan, also including 门巴 Menpa or Monpa nearby to the northeast in China and India. The second subcluster is the very distinctive East Bodic languages including Olekha and Tshangla, spoken in southeastern Bhutan and the latter also nearby in India.

The third and much more complex subcluster of Bodic is Himalayish. This included Zhangzhung in the area around Mt. Kailash in what is now western Tibet AR, from which the Tibetans received the Bon religion into Tibetan society; Zhangzhung was conquered by the expanding Tibetan empire circa 634 AD, and the language has not been spoken for a very long time, but much of the vocabulary of Bon is said to be from Zhangzhung. South of the main Himalayan range in northwestern South Asia, a series of five groups of related languages are still spoken in Lahul, Kinnaur, further east on both the Indian and Nepal sides of their border in western Nepal, in central Nepal including Newari, the language of the Kathmandu valley with over 900 years of literary history, and some nearby languages, and lastly the complex Kiranti group including many small groups and their languages covering most of the hills of eastern Nepal and more recently parts of Darjeeling and Sikkim in India. Some of the more northerly Himalayish groups are part of the Tibetosphere, with strong Tibetan cultural influences, following Tibetan Buddhism and using Tibetan as a liturgical language but speaking distinct TB languages; others further south are more firmly in the Indosphere. There

are also some groups within Central TB in Bhutan and northeastern India and most of the northern groups in Eastern TB including rGyalrongish, Qiangish and other groups, who also fall within the Tibetosphere; some like 白马 Baima in northwestern Sichuan and southern Gansu are so strongly influenced that little is left of their non-Bodic origins.

The Central subgroup, which has the greatest internal diversity of any TB subgroup, includes the various non-Bodic TB groups of northeastern India, parts of southern Bhutan, northeastern and eastern Bangladesh, western and northern Burma and northwestern Yunnan. The central core of this is what Burling (1983) called the Sal subgroup, from one of its innovative lexical items for ‘sun’; another is **war* ‘fire’ and a third is **nu* ‘mother’. Sal includes Jinghpaw (景颇); the Sak group (Shafer (1966-1974) Luish) including Pyu, Kadu and Sak in northwestern Burma, northeastern Bangladesh and formerly other languages nearby in India; the Mru and Anu/Hkongso of southeastern Bangladesh and western Burma; and Shafer’s Baric subgroup including Northern Naga with various languages within Phom, Chang, Wancho, Konyak, Khiamnyungan, Lainong, Nocte, Tangsa and Tangshang groups along the border between northeastern India and northwestern Burma, also spreading into the plains of Assam where the Bodo-Garo Baric languages represent a wave of TB migration overlaying an earlier population (DeLancey 2014); the term Baric comes from a former spelling of the name of the largest group within Bodo-Garo: Bodo or Boro. Other than the Sal languages, clusters which currently appear to fit here are the four ‘Naga’ clusters (Ao, Angami, Tangkhul and Zeliangrong) and Kuki-Chin (including outliers Manipuri/Meithei with its long literary history and Karbi/Arleng/Mikir) to the south of Sal along the NE India/NW Burma/E Bangladesh border. Other clusters which are not Sal but also appear to be branches within Central TB are Dulong/Nu/Anong/Rawang (the 独龙 Dulong and some of the 怒 Nu in China speak these languages) in northern Burma and far northwestern Yunnan; two distinct clusters of ‘Mishmi’ or 登 Deng languages, Digarish with Idu and Taruang and Mijuish with Kaman/Geman or Miju and Meyor/Zakhring/Zha in northeastern India with a few nearby in southeastern Tibet AR; the many Taniish or 珞巴 Luoba languages in central Arunachal Pradesh, with one group in the plains of northeastern Assam and a few extending into the southeastern Tibet AR. In western Arunachal Pradesh in India, there are two further clusters: Hrusish or Miji including Hruso, Dhammai or Miji and Bangrü or Levai; and Bugunish, Kamengic or Kho-Bwa including Bugun, Sherdukpen and others, probably including Sulung, a few of whom also live in the Tibet AR.. There are several other TB clusters in this area which may also fit here: Lepcha mainly in northeastern Darjeeling and southeastern Sikkim in India, but also in southwestern Bhutan; also a small group including Dhimal in southeastern Nepal, Toto nearby in India and Gongduk in southwestern Bhutan. The cultural and linguistic diversity of Central TB groups in northeastern India and surrounding areas may be partly due to contact with earlier non-TB populations, and partly related to ecological and cultural factors promoting rapid diversification: remote mountains with poor communications inhabited by strongly territorial groups often hostile to others around them, with some until quite recently practising, among other things, capture and enslavement and/or headhunting. This somewhat simplified picture will doubtless be refined as more internal comparative linguistic work within each major subgroup of Central TB is done.

I will look more closely at the internal subgrouping of the Eastern TB cluster, which includes most of the TB languages spoken in China apart from the Tibet AR, and is not fully categorised in most publications on these languages. The following is a brief tabular summary of the subgrouping.

Eastern TB

Northern/‘Qiangic’

Baima

rGyalrongish incl. 西夏 Xixia, rGyalrong, Khroskyabs, Hörpa/“Ergong”

Qiangish incl. 羌 Qiang, 普米 Pumi, Muya, Guiqiong, Queyu, Zhaba
 Ersuish (Ersu, Duosu, Lizu)
 Naish (纳西 Naxi, Naruo, Namuyi, Shixing/Xumi)
 Southern/'Burmish'
 Burmish – Burmese, 阿昌 Achang and others
 Ngwi/彝语支/Loloish
 Western (Nusu, Raoruo)
 Northern (Nosu, Nasu, Nisu/Pula etc.)
 Central (Lolo, Lalo, Lipo/傈傈 Lisu/Lamu, 拉祜 Lahu/Kucong, Sani etc.)
 Southern
 Bisoid: Laomian/Bisu, Sangkong, Phunoi
 Akoid
 哈尼 Ha-Ya, Hani, Akha
 Hao-Bai
 Other Sila etc.
 Uncertain: Azhe/Azha, 'Mondzish'

The Baima language of the Sichuan/Gansu border is almost entirely Tibetanized; it retains a small stratum of Eastern TB lexicon (Sun 2003). The rGyalrongish group included Xixia, also known as Tangut in the non-Chinese literature, whose dynasty flourished circa 1038-1227 AD but was destroyed by the Mongols who later became the 元 Yuan Dynasty. The Xixia language is no longer spoken, though many manuscripts in its distinctive script survive; Jacques (2014) demonstrates that it was a rGyalrongish language. Modern rGyalrongish languages are in three groups: the rGyalrong group, the Khroskyabs (Lavrung, 观音桥 Guanyinqiao) group and the Hörpa ("Ergong") group in northwestern Sichuan, with an additional Hörpa language and an additional rGyalrong language recently located in eastern Tibet AR. There is substantial internal diversity within each of the three groups within rGyalrongish. The Qiangish group partly corresponds to the Qiang in Chinese history, and includes modern 羌 Qiang as well as Muya, Guichong, Choyo/Xueyu, nDraba/Zhaba and 普米 Pumi, mainly in western Sichuan but with the Pumi also extending into northwestern Yunnan. Again, there is large internal diversity within the larger groups within Qiangish, including Qiang and Pumi. The Ersuish languages, which are now spoken between the Qiangish languages to their north and Pumi and Naish languages to their south, include Duosu, documented from the 17th century AD as described in Nishida (1973), as well as Ersu and Lizu; these three languages are closely related. The Naish groups are modern 纳西 Naxi in Yunnan, Na in Yunnan and Sichuan, and Namuyi and Shixing/Xumi in Sichuan; of these, Naxi and Na are closer to each other but the languages are still quite distinct. Naxi has a pictographic script used by traditional shamans. Apart from the modern Qiang, those Pumi who live in Yunnan, the Naxi, the Na in Yunnan who are classified as Naxi, and the Na in Sichuan who are mostly classified as Mongol, all other Qiangic groups in Sichuan (including the Pumi in Sichuan) are officially categorised as members of the 藏 Tibetan nationality. Because they are classified as Tibetan, and because their religion and many other aspects of their culture are strongly influenced by Tibetan Buddhism, many speakers of Qiangic languages in Sichuan are also able to speak some Tibetan, and some learn to read and write Tibetan.

The Burmish subgroup includes all the many Ngwi, 彝语支 Yi Branch or Loloish languages as well as Burmish. The Burmese originally arrived from Yunnan as part of 南诏 Nanzhao armies during the ninth century AD when they conquered the Pyu and settled in upper Burma. Under Pyu and Mon influence, the Burmans developed their script over 900 years ago and came to dominate all of what is now Burma. Some other Burmish groups such as 阿昌 Achang, Zaiwa, Langsu, Leqi and Bola remained behind in western Yunnan but have

also more recently spread into northeastern Burma. The Zaiwa, Langsu, Leqi and Bola are all classified within the Jingpo nationality in China due to their close cultural connections with the Jinghpaw. Their languages are also spoken in Burma, where the Achang are recognised as the Ngochang ethnic group, the Zaiwa are recognised as the Atsi ethnic group, the Langsu are recognised as the Maru ethnic group, and the Leqi are recognised as the Lashi ethnic group; the last three names are the Jinghpaw names for these groups; the names used in China are their autonyms.

The Ngwi (from their original autonym, Bradley 2005), 彝语支 Yi Branch or Loloish subgroup includes a very large number of languages spread over most of Yunnan, southern Sichuan, western Guizhou, western Guangxi as well as northern Burma, Thailand, Laos and Vietnam. They probably originated in the 滇 Dian kingdom circa 2.4-1.9K YBP in the area around what is now Kunming, and spread from there. Their expansion outside China is fairly recent, no more than a few hundred years at the most. The modern Ngwi languages fall into four clusters: Western in southern Nujiang Prefecture in Yunnan; Northern in Sichuan, Guizhou, northwestern Guangxi and eastern Yunnan, also extending into Vietnam; Central in western Yunnan and into Burma, Thailand, Laos and Vietnam; and Southern in south central Yunnan and into southwestern Yunnan, Vietnam, Laos, Thailand and Burma. The Western Ngwi languages are Nusu and Raoruo; their speakers are all classified as part of the 怒 Nu nationality; the Nusu live mainly in Pihe Township of Fugong County and nearby, but have recently also spread into Burma, and the Raoruo live in southwestern Lanping County. The Northern Ngwi languages include the Nuosu in Sichuan, more recently spreading into Ninglang County in Yunnan and since 1950 much further west; their population is the largest among all the Ngwi languages, and their speech is known as the Northern dialect of Yi in China. Other Northern Ngwi languages include Nasu in northeastern Yunnan and northwestern Guizhou, as well as many other smaller groups speaking languages of what is known in China as the Eastern dialect of Yi; these are scattered across northeastern Yunnan including several recently documented around Kunming, such as Sa'nguie to the west, Samadao in a southern suburb, Samei to the southeast, Sadu to the south and so on (Bradley 2005). A third cluster is the languages classified in the Southern dialect of Yi, collectively known as Nisu, and the Pula component of the Southeastern dialect of Yi; the numerous and widespread Pula languages of south central Yunnan are very comprehensively investigated in Pelkey (2011). Apart from the Sadu who are classified as 白 Bai, all these groups are classified as 彝 Yi nationality.

The greatest and least-investigated linguistic diversity within Central Ngwi is in Yongsheng County and surrounding areas of northwestern Yunnan, with a number of small groups like the Taliu who also spread into surrounding areas north of the Jinsha River in Huaping and Ninglang counties and into Sichuan. Probably originating south of Dali in Weishan and Nanjian counties is the Lalo cluster, who probably included the rulers of the Nanzhao Kingdom with its capital at Weishan 738-937 AD, who were defeated by the Tang. The Lalo are now widespread in this area and further south and linguistically complex. The Chinese classify Lalo as the Western dialect of Yi; for a comprehensive survey of Lalo, see Yang (2015). The main groups classified in the Central Yi dialect in the Chinese classification are various varieties of Lolo, spoken across much of Chuxiong Yi Autonomous Prefecture in Yunnan and in some surrounding counties of eastern Dali and northern Pu'er prefectures; other languages included are Hong Yi ('red Yi') in northeastern Chuxiong and Hlersu or Shansu in Shiping, Xinping and Shuangbai counties to the southeast. In the 傈傉 Lisu distribution, with a small number in north central Yunnan and nearby in Sichuan, and a much larger number in northwestern Yunnan, later spreading into Burma, India and Thailand over the last 200 years, poses a problem concerning the early location of this group. Traditional Lisu history reports that the Lisu were soldiers in armies fighting against invading armies, presumably either for the Nanzhao Kingdom against the Tang or the Dali Kingdom against the Mongols; and those in the west have a tradition of having moved west and later north long ago

after losing in these wars. This is supported by the fact that the most similar language to Lisu is Lipo, spoken mainly in western Luquan, Wuding, Yuanmou and other counties in north central Yunnan and nearby in Sichuan; this is between the western Lisu and the eastern Lisu to the north of the Lipo. Also very similar is Miqie, spoken between Kunming and Wuding, and Lamu, spoken in northeastern Binchuan County. So this group, including Lisu, Lipo, Lamu and Miqie, presumably originated somewhere in the current Eastern Lisu and Lipo area northwest of Kunming along the Jinsha River. The easternmost Central Ngwi groups are the Sani and Axi southeast of Kunming in Shilin and northern Mile counties respectively; they have a tradition that they migrated from western Yunnan at the time of wars between the Dali Kingdom and the Mongols in the mid-thirteenth century AD, which accounts for their current geographical location, surrounded by Northern Ngwi languages. Another possibly displaced group is the Kacuo of Tonghai County in south central Yunnan, who are descendants of a Mongol army which settled there after the same war, presumably with wives speaking a Central Ngwi language from further west as the Kacuo language is a typical Central Ngwi language. Another Central Ngwi group is the 拉祜 Lahu who are widely spread across southwestern Yunnan: Lahu Na 'black Lahu' mainly west of the Lancang/Mekong River, Lahu Shi 'yellow Lahu' mainly east of it, and Kucong scattered further east from Mengla to Jinping counties, nearby in Vietnam, and a few further north. Over the last couple of hundred years, many Lahu have moved south into Burma, Laos and Thailand; for an internal reconstruction of Lahu dialects, see Bradley (1979b). The 基诺 Jinuo of northeastern Jinghong City are a concentrated southwestern outlier of Central Ngwi, lexically transitional to Southern Ngwi presumably due to contact. All Lisu and some Lipo are classified as Lisu, all Lahu, Kucong and Lamu are classified as Lahu, the Jinuo are classified as Jinuo, and the Kacuo are classified as Mongol. Otherwise, all the speakers of other Central Ngwi languages including some Lipo are classified as 彝 Yi nationality.

Southern Ngwi has three main subgroups, plus a residual 'other' subgroup. Numerically the largest, and originally mainly located in south central Yunnan but spreading southwestward over the last 500 years or so, is the Akoid subgroup, named from the autonym of the Akha, the Aini or western component of what is known in China as the Ha-Ya dialect of 哈尼 Hani. In addition to Akha and Hani, this includes what is known as the Hao-Bai dialect of Hani, spoken to the north of Hani south and even north of Kunming in central Yunnan. The main sound change distinguishing Ha-Ya is that it merges unaspirated and aspirated voiceless stops and affricates, redistributing them according to whether the syllable is with normal phonation and has an aspirated initial or with creaky phonation and has an unaspirated initial. Hao-Bai lacks this merger but is otherwise quite similar to Ha-Ya. Another Southern Ngwi subgroup is what is known in China as the Bi-Ka dialect of Hani; this includes Piyo, Katu and a couple of other languages to the west of the main Hani concentration; also the Mpi language of northern Thailand. The third Southern Ngwi subgroup is Bisoid, the westernmost subgroup, whose name comes from the autonym of the Bisu group of China, Burma and Thailand. This includes Laomian in Lancang and Menglian counties, where they are classified as Lahu; Bisu in one village in Menghai, two in Burma and three in Thailand; Sangkong in southern Jinghong City; and Phunoi in northeastern Laos, also known as Côm in northwestern Vietnam. While Bisu is recognized as an ethnic group in Burma and Thailand, they are unclassified for nationality in China; the Sangkong are known locally by the exonym Buxia but are officially classified as Hani. Phunoi is linguistically complex, with six main spoken varieties; all are included in the Phunoi ethnic group of Laos, while those in Vietnam are classified as Côm. Bisoid languages share one unusual sound change: some nasals with certain proto-prefixes become prenasalized stops or variably just plain voiced stops; so for example 'fire' is /mbi²¹/ or /bi²¹/ in Bisoid languages, but /mi²¹/ in Akha, Hani and most of the rest of PTB. There are a few other very small groups on the borders of Xishuangbanna Prefecture in China, northwestern Vietnam, northern Laos and northeastern Burma, such as the Sila or Sida of

Laos and Vietnam, the Cosao of Mengla County, the Bana of Laos and so on, who also speak Southern Ngwi languages.

Azhe and Azha along with the Mondzish languages of southeastern Yunnan and southwestern Guangxi are classified by Chinese scholars along with Pula, Sani and Axi in Southeastern Yi. This is a geographical grouping; as we have seen, Sani and Axi are Central Ngwi and Pula is part of a distinctive Northern Ngwi southern subbranch with Nisu. The available data on these languages is not sufficient to be certain of their classification at this stage, though they are clearly Ngwi.

Four of the groups included in the Yi nationality have their own traditional writing systems: Nuosu, Nasu, Nisu and Sani; these all originate from the area around Kunming. Claims are made that these scripts are very ancient, but the oldest attested inscriptions are Nasu from less than a thousand years ago; of course the scripts may have existed earlier. All four are different. Sani is the most distinctive; each also has substantial internal diversity. Nisu script has been used to write Azhe, and Nasu script has been used to write Lolo, but these are not separate scripts. Since the late 1970s there have been separate efforts in Sichuan, Yunnan and Guizhou to standardize one variety for use in that province: Shengza Nuosu of Xide County in Sichuan, Bijie County Nasu in Guizhou and a composite written standard combining all four scripts in Yunnan. In Shilin County the local government supports work on Sani script and literature. For a brief summary of these efforts, see Bradley (2009).

The reconstruction of the phylogeny of Eastern TB is based on the usual four pillars: lexicon, phonology, morphology and syntax. Eastern TB has a large component of inherited PTB lexicon, more so than is seen in many Central TB languages; there is also innovative lexicon within each subgroup. For a detailed comparative study of the Ngwi languages, see Bradley (1979a), also compared with Burmese as an external control within Burmic. At each level, there are various lexical innovations.

Compared to the phonology of PTB, Eastern TB phonology is fairly conservative in the north, and is gradually eroded as various subgroups moved further south over several millennia. What is shared in some languages of most major parts of Eastern TB, though many languages merge this with something else, is a prenasalized stop manner series. There is also either a substantial remaining inventory of initial consonant clusters or a reflection of such clusters discernible from comparative reconstruction in modern sound correspondences, but a very limited inventory of final consonants and a rhyme system that is close to our current understanding of PTB. One characteristic sound change seen in most Qiangic languages is that the rhyme **a* changes to /i/ or /ɿ/ in some environments, but not in Burmic languages. Many Eastern TB languages are tonal. In particular, there is a two-tone contrast reconstructible for Ersuish, Naish and Burmic in non-stop final syllables; some scholars would reconstruct this contrast back to PTB, so it may not be an innovation, but rather a loss of the former PTB tone contrast in rGyalrongish and Qiangish, which would then be a shared innovation linking those two. There is then a split leading to the development of a third proto-tone in Burmic, and a further split leading to a tonal contrast in stop-final syllables in Ngwi; see Bradley (1979a) for details on this and many other phonological changes which allow us to subclassify Ngwi languages as outlined above. While Naish and Ersuish are lexically transitional between Burmic and Qiangic, perhaps due to contact, they lack these characteristic tone splits seen in Burmic and Ngwi, as well as the other Burmic phonological innovations.

PTB morphology is again best preserved in the more northerly Qiangic languages, but some is still reflected in Burmic as well. The best-known example is the PTB **s-* prefix usually known as causative; this is reflected directly or fossilized in sound correspondences across Eastern TB, as far as the southernmost Burmish and Ngwi languages. None of the proposed PTB verb agreement morphology extends beyond the more northerly Qiangic languages; as in the case of phonological erosion, this could be due to the fact that Burmic languages were moving into new areas, assimilating speakers of other languages and thus becoming

structurally simplified. There are also morphological innovations which link subgroups within Eastern TB; for example, most rGyalrongish, Qiangish and Ersuish languages have well-grammaticalized systems of directional prefixes on verbs; in most cases these can be seen to be historically derived from fused motion verbs which also occur in collocation before other verbs in Naish and Burmic languages, but remain independent and non-obligatory there. The Ngwi languages mostly share an innovative process of grammaticalizing positive dimensional extent adjective/verbs into adverbial, nominal and question forms; see Bradley (1995).

In syntax, all Eastern TB languages remain SOV with mainly postpositional marking, though some PTB preposed elements remain, including negation **ma* and usually prohibition **ta* preceding the verb and the very widespread **a* prefix in kinship terms and many other nominal forms. All Eastern TB languages have developed classifier systems, though these are innovative, as is shown by the lack of cognate forms across Eastern TB; we also know that classifiers are innovative in Sinitic, as they were absent in Archaic Chinese and only developed in spoken Sinitic languages over the last two millennia. One unique type of Eastern TB classifiers is for groups of family members; these are found in many Ngwi languages and in Ersuish languages. Most classifiers in nearly all Eastern TB, Sinitic and other ST languages which have a classifier system have classifiers which are one syllable, usually combined with a numeral: a following numeral in some Sal and other Central TB languages, but normally a preceding numeral as in Sinitic and Eastern TB. However, these family group classifiers are usually two syllables, often compounded from kinship terms. For example, to address or refer to a group of people which includes mother and her children, Lisu (Bradley 2001) uses the classifier **M. L;** /ma⁵⁵ laʔ²¹/ as in

NU., W:	LI	M. L;
/nu ³³ wa ²¹	li ⁴⁴	ma ⁵⁵ laʔ ²¹ /
you PL	four	CLF: mother/children
'you four: mother and children'		

Ersu (Zhang (2018: 279) uses the compound classifier /ma⁵⁵ zɿ²¹/ 'mother child' as in

/na ⁵⁵ = zɿ ³³	zo ³³	ma ⁵⁵ zɿ ³³ /
you GEN:family	four	CLF: mother/children
'you four: mother and children'		

Note that the Ersuish form /zɿ³³/ for 'child' reflects the Qiangic **a* > /i/, /ɿ/ sound change, but not the Ersuish form for 'mother' which is also reconstructed with the PTB rhyme **a*. The Lisu form is not as transparent as the Ersu form: Lisu 'mother' is **A M** /a⁴⁴ ma⁴⁴/ and 'child' is **ʌ**: /za²¹/. In general, the Ngwi family group classifiers are less transparent and more grammaticalized than those of Ersu.

There remains a great deal to be done on the Sinitic and TB languages, including basic documentation for many, and full comparative linguistic work on many subgroups and clusters. This presentation is only a brief summary

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