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Edited by
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Volume II

Language Contact and Areal Features

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INTRODUCTION TO VOLUME II

Language contact and areal features

This volume of the set is devoted to articles discussing language contact in the development of the languages of the family and the existence of areal features.

We now know from genetic and archaeological evidence that migration into Asia was from the southwest, across Asia and then up to the north, over a period from 18,000–60,000 years ago (Chu et al. 1998; Jin and Su 2000; Ke et al. 2001; HUGO Pan-Asian SNP Consortium 2009). Analysis of genetic distributions and other evidence points to there being two genetic populations in the Neolithic age, roughly north vs. south of the Yangtze River (Zhao and Lee 1989; Zhang Haiguo 1988; Zhang Zhenbiao 1988; Weng et al. 1989; Etler 1992). Cultures developed in different areas of what we now think of as China, but the one we associate with the early Sino-Tibetans is the Neolithic Yangshao culture of the Yellow River valley (see, for example, Chang 1986; Treistman 1972; Pulleyblank 1983; Fairbank, Reischauer and Craig 1989; Xing 1996). From that area, some 6,000 years ago, there were migrations to the east and south,[1] into areas where speakers of Hmong-Mien, Tai-Kadai (Zhuang-Dong, Kra-Dai), and Austro-Asiatic languages, and precursors of the Austronesian languages, lived (Pulleyblank 1983; Bellwood 1992; Tong 1998; Blust 1984/1985, 1994a, 1994b; Thurgood 1994), and others to the west into and down through the Tibetan plateau, and still others southwest along the river valleys to the east of the Tibetan plateau, where there was also contact with Tai-Kadai and Austroasiatic language speakers. And as the migrations were in waves, there was also contact between earlier and later migrants from the Sino-Tibetan homeland. These migrations led to the current differences among linguistic varieties in the family in two ways: due to the split of the speakers and the resulting diverging developments, and also due to contact with other cultures in areas they migrated to (LaPolla 2001; LaPolla forthcoming; see also Ge et al. (1997) on the history of the migrations).

The serious study of language contact in linguistics is relatively new; although there was Haugen (1950), Weinreich (1953) and Weinreich, Labov and Herzog (1968), the field didn't really take off until the publication of Thomason and Kaufman (1988). But within Sino-Tibetan linguistics there were some pioneers who very early on understood the importance of language contact to the current shape of the

language family and the individual varieties. We present a selection of articles by these pioneers here.

We start off in Chapter 17 with a 1965 general overview of the distribution of certain phonetic[2] and morphological features by Eugénie Henderson, a pioneer at looking at language contact (see also Henderson (1951)). This is an early example of geolinguistics (typo-geography, linguistic geography, geography of languages or features),[3] the mapping of features geographically, which was later developed by Mantaro J. Hashimoto (1978) and his students (see Iwata (1995) and the papers from the conferences of the Asian Geolinguistics Society of Japan [http://agsj.jimdo.com/] and the ILCAA joint research project "Studies in Asian Geolinguistics" [www.aa.tufs.ac.jp/en/projects/jrp/jrp210] run by Endo Mitsuaki of Aoyama Gakuin University).[4] Prof. Hashimoto had a number of papers talking about the distribution of features of all types from north to south in China (1974, 1976a–b, 1984, 1986 and 1992,[5] among others). Here we present two of these articles (Chapters 18 and 19; 1976a, 1984), which make the same basic point, that there is a cline of features in Chinese that are more Altaic-like in the north and more Tai-Kadai or Austro-Asiatic in the south, but use somewhat different data and phenomena to make the point. Prof. Hashimoto's view is that Sinitic was more like the Tai languages in the past, and came to be as it is due to Altaic influence. See Bennet (1979) for critical comments on the hypothesis, and the suggestion that it was Tai influence in the south, not Altaic influence, that was more important.

Chapter 20 is by Fang-Kuei Li, a pioneer in Sino-Tibetan studies generally, and a specialist on the Tai languages, as well as on Tibetan, Chinese, and certain North American languages. In this article (1945) Prof. Li assumes Tai and Chinese are genetically related (see Chapter 1 in Volume I, Li (1936–1937)), but talks about what he sees as very early loans from Chinese into Tai. In Chapter 21 Prof. Li (1976) explores the relationship between Chinese and Tai, pointing out that there are regular as well as irregular correspondences, so he suggests there must be both loans and genetically related sets of words, though does not take a strong stand as to the nature of the relationship between the languages. This article has often been cited as showing that Tai and Chinese are in fact related, but Prof. Li himself remained agnostic,[6] and in his oral history (Li 1988) he said that we don't know enough about Chinese or Tai, and when we do, the answer will be clear. Most linguists now go along with Benedict's view (1942, 1976a—see Volume I, Chapters 3 and 6) that Chinese and Tai (and Hmong-Mien) are not related but have a deep contact relationship (see also Matisoff (1973), also in Volume I (Chapter 5), Downer (1963), and Egerod (1976)), but see Luo (2008) for counter-arguments.[7]

Chapter 22 is Anne O-K. Yue-Hashimoto's well-known but difficult-to-get 1976 article "Southern Chinese dialects: the Tai connection", in which she talks about the influence going the other way, from Tai (essentially Zhuang [Chuang]) to the southern Chinese varieties, Yue and Min. She argues for teasing apart the different historical layers in the languages,[8] and looking at areal influences. From doing this, she argues that a Tai variety formed the oldest layer of the southern dialects.[9] Yue-Hashimoto argues that the lexical items that are said to be uniquely

Min (using data from Norman (1970)) show affinities with Zhuang. While she mentions syntactic and lexical evidence, Yue-Hashimoto focuses mainly on what she sees as a deep connection between Zhuang and the southern varieties of Chinese in terms of the reflexes of historically voiced initials, which are exclusively unaspirated stops and affricates in the *yáng* (historically voiced) tones in Zhuang, and she argues, can be shown to be the same for what she sees as the oldest stratum of the Min and Yue varieties.[10] She also takes issue with Norman's (1973; see Chapter 50 in Volume III) reconstruction of a three-way distinction in the voiced stops of Proto-Min, arguing that it is not supported by evidence outside Min or in the phonetic compound characters.[11]

Yue-Hashimoto's view contrasts with that in the following chapter, Norman and Mei (1976), "The Austroasiatics in ancient South China: some lexical evidence", which argues for Austroasiatic influence on the Min varieties, using seven words that seem to be of Yue (here understood as Austroasiatic) provenience found in old Chinese texts, and eight words from modern Min dialects that also seem to be related to Austroasiatic words. The article is very well researched and carefully presented with interdisciplinary arguments. Based on facts related to the fact that the word for the Yangtze River in Chinese is a loan from Austroasiatic they even pinpoint the area where Chinese first came into contact with the Austroasiatics to be where the Han and the Yangtze rivers meet, as the Han river, which runs from Shaanxi through Henan and down to the Yangtze in Hubei, is the route the Chinese used in moving south. Given that, and other data from Chinese texts, they argue the ancient Chu kingdom included the Austroasiatics as one of the ethnic groups.

Both Yue-Hashimoto's and Norman and Mei's articles have been very influential (see for example Schuessler (2007)), though recently Sagart (2008), who argues for a connection between Chinese and Austronesian (Sagart 1993, 2005), has argued that the evidence presented by Norman and Mei is not convincing, and in fact might better support an Austronesian connection, though if one accepts Benedict's (1942) Austric (see also Reid (1994)) or Benedict's later (1966, 1975) assertion of an Austroasiatic substratum in Austronesian, then the question may be moot.[12]

Another language, spoken far to the west of Chinese, in Sikkim, West Bengal, Nepal and Bhutan, that more clearly manifests substratum or adstratum influence by an Austroasiatic language, is Lepcha (Rong). In our next paper, R. A. D. Forrest (1962) says "It is clear that we have in Rong a very mixed form of speech" (p. 335), and presents five dozen words in Lepcha that seem to have clear Austroasiatic connections, and argues that these and many of the prefixes found, plus what he calls "an antipathy to aspirated initials" and richer vocalisms, "all point to an Austroasiatic substratum" (p. 335).[13] Forrest also teases apart the many Tibetan loans[14] from an older Tibeto-Burman stratum, and, showing that it is quite conservative, argues that the language is important for comparative work.

The next paper, by Nicholas C. Bodman (1988), takes up the position of Lepcha within Tibeto-Burman, but aside from confirming clearly that it is a Tibeto-Burman

language, and showing many similarities with Tibeto-Burman languages to the east, such as Adi, Jinghpaw, Rawang, and Ao, does not take a stand on the exact position of Lepcha in the family. This may be because some of the languages he compares with Lepcha are quite conservative, as is Lepcha itself, and so it is hard to find clear shared innovations. While acknowledging the different strata that Forrest has identified, Bodman questions the nature of the prefixes mentioned by Forrest as being purely Austroasiatic, and points out that some of the examples of Lepcha-Austroasiatic lexical connections are also found in other Tibeto-Burman languages, and even Chinese, so the question is "what direction has the borrowing gone?" (p. 3). He adds another layer to the mix as well, in mentioning "the widespread use of Nepali (even as a first language among many Lepchas)" (p. 3) (see also Nakkeerar n.d.). Very interesting is Bodman's discussion of word families in Lepcha, and comparisons with those in Tibetan and Chinese, from which he concludes Lepcha is the most conservative of the three. Lepcha has clear morphological affixes, including an infix *-y-*, and suffixes *-m*, *-n*, and *-t*, plus alternations in the initials and vowels with semantic consequences (see LaPolla (1994) on variable finals in Sino-Tibetan generally, and LaPolla (2017) for an overview of affixes and initial alternations in Sino-Tibetan).

The spread of major languages will generally influence the speech habits of the speakers who adopt that language, initially through bilingualism (superstratum influence), and possibly eventually complete language shift, but at the same time the major language will also be affected by the speech habits of those who adopt the language, if their population is large enough (substratum influence—see LaPolla (2005, 2009) on the nature of substratum and superstratum influence). The next five articles discuss the influence of Burmese on other languages of Myanmar, and also the influence of Mon and Pali on Burmese.[15] The first of this set, Chapter 26, from Theodore Stern (1962), talks about the influences of Burmese on Plains Chin, that is, how bilingualism in a genetically related secondary (and dominant) language has caused changes in the primary language. In his introduction he shows the disparity between the hill peoples and the plains peoples in terms of the ratio of the population divided by the number of dialects, with plains peoples' ratios being ten to eighty times the hill peoples' ratios, and makes the interesting observation that "Life in the Irrawaddy Plains for many reasons has fostered intercommunication and in all probability the reduction of number of dialects" (p. 1), showing how geography can influence language development.[16] Another interesting point he makes is that the relative social status of the languages can affect the degree of influence: he says that in Sandoway District, although the Burmese were in the majority compared to the Arakanese, the latter had a greater influence on Plains Chin, and this might be due to the fact that Arakanese was closer to Plains Chin in terms of social status. He also gives a nice overview of the migrations and culture of the Chin and some of the differences between the many Chin varieties, and argues there is a cline of acculturation to Burmese, from the urban areas to the forests in the hills. He then outlines the phonological changes the local Arakanese Burmese and Colloquial Burmese have gone through compared to Written

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Burmese, and then compares the forms with the Plains Chin forms. He also gives examples of many grammatical forms, including modals and classifiers, and constructions in Plains Chin that are the result of borrowing/contact influence.

The second article of this set, Chapter 27, from Denise Bernot (1975), discusses the influence of Burmese on Singpho, the western variety of Jinghpaw, showing that the loanwords can be distinguished into different historical layers, with some showing more conservative forms than Modern Burmese, and generally fall into different semantic categories.

We then turn to influences on Burmese from Mon and Pali. The Mon have influenced Burmese culture generally since the establishment of the Burmese kingdom in Bagan (Pagan) in the eleventh century. As the Mon already had an established court and written language and religion, in setting up their kingdom, the Burmese modelled their court on the Mon court, used Mon as a prestige and literary language, adapted the Mon alphabet for writing Burmese, and learned Theravada Buddhism and Pali from the Mon. At that stage Mon was a superstrate language (Jenny 2013). What we now think of as southern Myanmar was until the mid eighteenth century a Mon kingdom, and after the Burmese conquered the area, the many Mon speakers there (except for the far south) switched to speaking Burmese, leaving a very strong substratum influence on Burmese. The many loan words from Mon is the subject of Chapter 28 by Hla Pe (1967). See Jenny (2015) for loans from many other languages. The extensive influence of Mon on the phonological system of Burmese, including the prosodic system and word structure, is the topic of Chapter 29 by David Bradley. In terms of influence on grammatical structure, Jenny (2013) talks about the use of the verb *pè* [give] in preverbal position to mark permissive causatives (Okano 2005) as due to Mon influence, and also discusses other Mon-like features found only in the colloquial Burmese of the southern area, and Bauer (2006) talks about four grammatical markers that were borrowed into Burmese from Mon and two grammatical markers that went the other way (but see Jenny (2015) for critical discussion of Bauer's paper).

The last paper of this set, Chapter 30, by John Okell (1965), is about the influence of Nissaya Burmese, a system of using Burmese to translate Pali texts. Okell argues that the writers felt Pali was a superior language, and so tried to adapt Burmese to be more like Pali, and make the translations more direct. This, Okell argues, influenced the language outside that particular use as well (see also Jenny (2015)).

We then turn to Northeast India and Nepal. The first of this set is Chapter 31, an overview of the language situation in Northeast India by Dipankar Moral (1997). After introducing some of the main languages out of the 220 or so spoken in the area, Moral presents phonological, grammatical, and lexical evidence to show that there are features that are common in Northeast India that are not common in the larger linguistic area (*Sprachbund*) of India generally (Emeneau 1956; Masica 1976), and some of the features of the general Indian linguistic area are not present in Northeast India, so Northeast India should be considered a separate linguistic area from the rest of India. See in this regard the spread of Nepali in this

area and its influence, documented by Sprigg 1987. See also Post 2015, which while acknowledging the areal convergence noticed by Moral, argues that Northeast India is an ethnolinguistic crossroads:

> Lying directly at the intersection of South Asia, Mainland Southeast Asia, and East Asia (specifically, Southwest China), NEI displays geographical, linguistic, and cultural affinities with all of these regions. NEI as a region is best defined by the diversity that results from this dynamic mixture and broad range of affinities.
>
> (p. 214)

The second paper on this area, Chapter 32, is a very detailed and rigorous analysis of the subtle influences that seem to have caused similarities in the verbal morphology in Nepali and Newar by Edward H. Bendix (1974). The paper argues not so much for similarity in form, but in the semantics/pragmatics of how the forms are used, which represents what Bhattacharya (1974), Ross (2001), and LaPolla (2009—see also 2015) have talked about as converging on a common way of construing events in the world.[17]

The last two papers in this volume, Chapters 33 and 34, are about the language contact in the northwest of China, a traditional crossroads where speakers of Tibetan varieties, Turkic varieties, Mongolic varieties, and Sinitic varieties have interacted for centuries. The first of the two papers is by Charles N. Li, one of the first to investigate the contact varieties in that area. In this 1983 paper, "Languages in contact in Western China", he discusses three varieties: i) the Wutun language, a Chinese variety of Qinghai Province heavily influenced by the surrounding Tibetan variety; ii) the variety of Chinese spoken by the Hui people of the Linxia Hui Autonomous District in southwestern Gansu Province (previously called Hezhou, and so the Chinese variety there is often referred to as Hezhou in English or Hezhouhua in Chinese), which is heavily influenced by Altaic languages;[18] and iii) the Baonan language, a Mongolian language, also spoken in the Linxia Hui Autonomous District, heavily influenced by Chinese. Li (p. 35) points out that in that one district, which he says is about the size of a California county, the following ethnic groups live and interact: "the Baonan people, the Santa people, the Han Chinese, Tibetans, and Salars as well as the Hui", each speaking different linguistic varieties, from four different language families (Mongolian—Santa and Baonan, Amdo Tibetan, Turkic—Salar, and Sinitic—Hui and Han varieties, which are distinct). The paper and others written since then about these languages show how similar the grammatical and phonological structures have become among these languages.[19] This is why Arienne Dwyer (1995), the author of our next article, refers to this area as a Sprachbund.

Dwyer's paper in this volume, Chapter 34, "Altaic elements in the Línxià dialect: contact-induced change on the Yellow River Plateau", like Bendix's, discussed earlier, looks at convergences in the way people in the area have come

to profile events in the same way, and make certain distinctions that aren't made in Standard Chinese. She focuses on three aspects of the variety of the Línxià dialect spoken by the Han people (unlike Li's focus on the variety spoken by the Hui): i) how the Línxià and Xining varieties of Chinese, like other non-Sinitic languages of the area, divide up the semantic domain of "small" with two different lexical items, *ka*^{44} and *çio*^{44}, with the former used for the sense of "small and cute", where the latter just means "small"; ii) forms used to express instrumental and comitative senses are in one case calques on Mongolian, and in the other case a loan of the Mongolian form; iii) the use of what seems to be the Mandarin copula *ʂɿ* as a clause-final conditional marker in a pattern similar to that of the neighbouring Altaic languages and Tibetan.

Notes

1. As Henry Serruys (1969: 442ff.) notes, the migrations were generally southward, as these areas were more suitable in terms of climate and terrain to Chinese agricultural practices, whereas the north was only suitable for a nomadic herding existence. The migrations might have also been due at least in part to changes in the climate (see Liu and Chen (2012), Chs 2, 7).
2. See also Egerod (1971) and Matisoff (2001) on phonation patterns that appear in languages all over China and Southeast Asia. As Egerod says (p. 170):

   > Phonation types, registers, tones, and split vowel systems offer interesting examples of the diffusion of phonetic phenomena over a very large area, where the single languages because of different structure and different rate of diachronic change utilize these phenomena in totally different ways.

   See also Solnit (1992) on glottalized consonants as an areal feature, Clark (1992) on a certain type of topic marker as an areal feature, and Bisang 2006 on Southeast Asia as a linguistic area.
3. See Grootaers (1943) for the history and a bibliography of geolinguistics up to that time and justification for applying it to Chinese, and Grootaers (1946) for a specific example of its application. See also Paul Serruys (1943), Ballard (1992), and de Sousa (2015).
4. The influence of Prof. Hashimoto can be seen in the fact that several of the papers in this volume or cited in this introduction were published in either *Computational Analyses of Asian and African Languages*, a journal he founded and edited, or *Genetic Relationship, Diffusion, and Typological Similarities of East and Southeast Asian Languages*, a book he edited.
5. See Chapter 52 in Volume III of this set for Hashimoto (1992).
6. Chang and Chang (1976) also remain agnostic after showing many parallel forms and features among Miao-Yao, Tibeto-Burman, and Chinese.
7. Downer (1963) and Chen and Li (1981) both show parallels between Chinese and Hmong-Mien (Miao-Yao), including initial, tone, and rhyme, and agree that they cannot be due to chance, though differ in terms of whether they see the commonalities as due to borrowing or genetic inheritance, the big question in this controversy. But Downer's position is a bit stronger in that he shows that the similarities are found only in comparison with Ancient Chinese (Middle Chinese), roughly the Chinese of the fourth to seventh centuries, but not with earlier forms of Chinese, and so he argues this is evidence of borrowing at that time. See also Benedict (1976b); Bodman (1980); and Schuessler (2003) on loans into Chinese, even at the Proto-Chinese period, from Tai, Hmong-Mien, and Austroasiatic, and Ballard's work on the Hmong-Mien (Miao-Yao) influence in

Wu, Xiang, and Min, and for affinities between these dialects or parts of them with each other (1971, 1985a-b, 1992).

8. See also Yue-Hashimoto (1991). Cf. Firth (1948) on multiple phonological systems within a single language due to contact influence, and Ho (2000) on the differences in the work on strata in Indo-European vs. Chinese linguistics, and the use of such analyses in understanding the history of Chinese, using Min dialects as an example. See also Norman (1979, 1991); Mei and Yang (1995); Chappell (2001); and Tu (2013) on phonetic, lexical, and grammatical strata in Min. See LaPolla 2001 for the migrations that led to the different strata, and Mei (2015) for linguistic evidence of one of those migrations.
9. See also Xu (1946); Cen (1953); Yuan (1983); and Cao (1997) for commonalities between Zhuang and the southern Chinese dialects, and Huang (1990) on the mutual influence of Zhuang, Cantonese, and the local variety of Mandarin in the Wuming area. See also Bauer (1987a) for arguments that formative elements in bodypart terms in Yue, Min, and Hakka derive from Tai languages, and Bauer (1987b, 1996) on loanwords from Tai (Kadai) into Yue. Yuan (1983: 167) also concludes that the Yue dialects manifest traces of the Zhuang-Dong languages. See FitzGerald (1972: xvii) for an insightful discussion on how a non-Chinese becomes Chinese.
10. See Yue (2012) for other evidence and her most recent views on the issue.
11. In fact Norman (1986) and his students (e.g. O'Connor (1976)) did find evidence for the distinctions outside Min. See the discussion of Norman's paper in Volume III of this set.
12. For an example of more recent and clear interaction and influence between Min, Tai, and Austroasiatic, see Solnit (1982), on Hainan Southern Min, and for a recently created Tai-Chinese contact language in Yunnan see Chen 1996.
13. Compare Shafer's (1952, 1965) discussion of what he sees as 161 parallel words between Austroasiatic, particularly Khasi, and Sino-Tibetan. Shafer says he cannot decide which way the loans went, but Diffloth (2008) divides up the 102 Khasi-ST parallel forms into three groups: i) 36 items with widespread Austroasiatic cognates; ii) four that only have cognates in the Northern division of Austroasiatic; iii) 47 with no known cognates in Austroasiatic; and iv) 15 forms that "present uncertainties of various kinds" and so aren't discussed (p. 95), and suggests that the first group may be due to borrowing from Austroasiatic into Sino-Tibetan or possibly Austroasiatic substrate influence in Sino-Tibetan, the second set could be local loans from Sino-Tibetan into the Northern division of Austroasiatic, and the third set is most likely loans from Sino-Tibetan into Khasi.
14. See also Sprigg (1982, 1986).
15. Here we will cover the situation in Myanmar; for an overview of the linguistic situation in Thailand and the resulting contact, see Matisoff (1983).
16. See Nichols (2015) and other papers from De Busser and LaPolla (2015) on the influence of geography and other non-linguistic features on the development of languages.
17. For the general language situation in Nepal, see Toba (1992); Kansakar (1996); and Eagle (1999); and for other examples of the influence of language contact there, see Noonan (1996, 2003, and 2008).
18. Wurm (1997) argues that Linxia/Hezhou Chinese looks more like a variety that had an Altaic language as its base, with a strong Chinese superstratum influence. This would explain why the structure is mainly Altaic, but the lexical items and phonetics are more Chinese.
19. For more information about Wutun, see Chen (1986); Lee-Smith and Wurm (1996a); and Sandman (2016). For more information about Hezhou/Linxia Chinese, see Ma (1984); Dwyer (1992); Lee-Smith and Wurm (1996b); Lanzhou Daxue Zhongwenxi Linxia Diaocha Yanjiuzu (1996) and Wurm (1997). For other languages and more general works about the area, see Zhang and Zhu (1987); Dede (2007); Xu (2014); Yixiweisa (2003); Cao et al. (2015); and Zhou (2016).

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17

THE TOPOGRAPHY OF CERTAIN PHONETIC AND MORPHOLOGICAL CHARACTERISTICS OF SOUTH EAST ASIAN LANGUAGES

Eugénie J. A. Henderson

Source: *Lingua* 15, 1965, 400–34

In the deliberations of the study group that was the forerunner of the present conference one of the matters that arose upon which there appeared to be the most widespread agreement was the need for more typological studies at all levels – phonological, morphological, syntactic and lexical – of the languages of the Indo-Pacific area. Warnings that such studies should in the first instance be carried out without regard to their correlation with accepted genetic groupings were sounded by several scholars (Robins, Uhlenbeck), but hopes were expressed by others (e.g. Shorto, Simmonds, Egerod) that it would prove possible ultimately to effect a connection between typological and historico-genetic statements. In view of such general interest it is perhaps disappointing (though not surprising to those familiar with the difficulties), that there should be so few 'pure' typological studies among the contributions to this conference. Typological material there is, however, in plenty, used sometimes as a means of inferring sub-groups within larger groups of languages whose genetic relationship is hardly to be disputed, and sometimes, more controversially perhaps, as ancillary evidence of genetic relationship alongside the more orthodox evidence supplied by regular correspondences in basic vocabulary. It is clear that many scholars are still not inclined to take too seriously Robins' warning that 'inference from one type of comparison to the other are not necessarily valid' and that 'it is illicit to exploit the criteria applicable to synchronic comparison to produce or even to buttress historical genetic groupings'.[1])

It is the paucity so far of studies in the present collection devoted to typological treatment for its own sake that prompted me to put together the present paper. The time limits within which the materials had to be assembled meant that by no means all relevant authorities were consulted, and it is my sincere hope that

criticisms, corrections and additions will be forthcoming from participants to the conference and from other colleagues.[2])

My own concern with the languages of the area has been as a phonetician and general linguist and has therefore been primarily with synchronic description rather than with historical hypotheses. In the course of investigations extending over many years into the present phonological and grammatical structure of a variety of languages on the South East Asian mainland, my attention has, however, inescapably been drawn to a number of features which suggest themselves as characteristic of the area, or of sub-areas within the larger area. The extent to which such characteristics coincide with or cross accepted language-family boundaries and the conclusions to be drawn from such coincidences or crossings are matters I am content to leave to my historically orientated colleagues to decide. It is my purpose here merely to suggest what requires to be done in the way of synchronic comparison before reliance can be placed upon statements as to what features can or can not be borrowed from one language to another, or upon the theoretical assumption that some features (e.g. grammatical) are less subject to change and less likely to be borrowed than others (e.g. phonetic).

Among the features which have suggested themselves as typologically characteristic of a South East Asian linguistic area, or of smaller areas within it, and in some instances of larger areas in which the South East Asian linguistic area might be included, are the following:

1. *The presence or absence of 'tone'*, and its correlation with (a) initial consonants, (b) vowel quality, (c) vowel quantity, (d) final consonants, (e) phonation-type, and (f) its use for grammatical, as opposed to lexical, purposes.
2. *The presence or absence of 'register'*[3]) and its correlation with (a) initial consonants, (b) phonation-type, (c) pitch.
3. *Initial consonant patterns and their distribution*, with special reference to the use made of (a) aspiration distinctions, (b) the voice/voiceless distinction (or alternatively the fortis/lenis distinction), (c) retroflexion, (d) 'preglottalization', (e) 'prenasalization', (f) the distinction between a velar and uvular series of initial consonants, (g) the various initial fricative patterns, (h) the various initial nasal patterns, (j) initial clustering patterns (this latter inextricably bound up with syllabification patterns – see below); (k) the grammatical use made of any of these.
4. *Syllabification patterns*, i.e. the comparative structures of 'tonic' and pre-tonic or post-tonic syllables, or 'major' and 'minor' syllables,[4]) and the permitted combinations of these. Of particular interest here are the relations of the various initial clustering patterns to the restrictions in the permitted initials of pre-tonic syllables as against those of tonic syllables, and to the permitted sequences of pre-tonic and tonic initial consonants. These seem to me to be of prime importance to the understanding of the phonological structure of syllables and 'words' in the area, though the only attempt at a detailed analysis along these lines so far appears to be that by Uhlenbeck for Javanese.[5]) Linked to the study of syllabification patterns is that of affixation, i.e. the grammatical use of pre- and post-tonic minor syllables, whether as prefixes, infixes or suffixes.
5. *Vowel systems* with special reference to (a) the incidence and distribution of back unrounded vowels, (b) the vowel length distinction, (c) diphthong patterns, (d) correlation of vowels with initial consonants, final consonants, tone or register, (e) 'vowel-gradation', i.e. the grammatical role of vowel quality differences.
6. *Final consonant patterns and their distribution*, with special reference to (a) incidence of final palatals, (b) use of the voice distinction finally, (c) final 'clusters', (d) the grammatical use of final consonants.

On the grammatical and syntactic levels also there are characteristic features which might provide interesting isoglosses, as has been remarked by a number of scholars.[6]) It is necessary here, however, to restrict both the number of features and the number of languages examined, and in this paper I propose to restrict myself to a provisional preliminary glance at the distribution of a mere handful of phonetic features over a range of 59 languages only.

The 59 languages examined are listed by number in the key on page 23 and alphabetically on page 24. The arbitrary nature of their selection should be noted. My preference, derived both from professional training and experience, would be to present only material of which I have first-hand personal knowledge, since, though this may be fallible, one may at least suppose the same bias to run through the whole of it. As my own first-hand experience has been confined to a mere sprinkling of languages on the South East Asian mainland, however, (a fact which is clearly reflected in the maps that follow), I feel that to serve any useful purpose I must cast my net somewhat wider than this to include at any rate some of the Austronesian languages and certain other languages that may be regarded as peripheral to the South East Asian area geographically. I have accordingly ventured, though very tentatively only, to draw upon material contained in the writings of colleagues and participants of this conference, to whom I apologize for any misinterpretations that may have arisen.

The difficulties inherent in using other people's material were pointed out to us last time by Uhlenbeck: 'As language typology can only be carried out satisfactorily if there is similarity in descriptive techniques, it will be necessary to reach a certain minimum of agreement on, or at least a mutual understanding of, the techniques used.'[7]) It is clearly 'preposterous', as Bazell has said, to demand 'neutral descriptions based on agreed criteria identical from linguist to linguist, and from the description of one language to that of all others' and attempts to pursue the selected 'features' through the descriptive accounts of other writers have convinced me of the justness of his view that phonology is a 'most unfavourable domain' for typology, 'for here linguists tend to diverge in their criteria of relevance, so that a feature which is present in the material for one is for the other virtually non-existent.[8])

It might be supposed, for instance, that it would be a relatively easy matter to decide whether a language is 'tonal' or not, but consideration of linguistic descriptions in our

area shows that this is not the case. Difficulties arise because 'tone' is seldom, if ever, a matter of pitch alone. There are very frequently concomitant features of phonation-type, glottal constriction, stress, etc. which pose problems of interpretation and definition. Similarly, the characteristic phonation-types of 'register' languages such as Mon and Khmer may be accompanied by, or perceived as being accompanied by,[9]) concomitant pitch features. It is necessary, therefore, to be more precise and to define the feature we are examining as 'lexically contrastive pitch' rather than 'tone', or as 'lexically contrastive phonation-type' rather than 'register', if we are to hope to make valid comparisons of the material available. Even so, we shall, of course, be at a loss if the author of the material under examination has not found it necessary for his purposes to note such a feature as phonation-type. Similar difficulties arise with regard to phonemic accounts of languages unless accompanied by a detailed description of allophonic variants. One man's unit phoneme may be another man's cluster; one man may for reasons of 'economy' use a symbol usually associated with a voiced sound to denote a voiceless one; another whose concern is to 'get on with' the grammar as soon as possible may give no account at all of the phonetic values to be attached to his symbols. Contrary, perhaps, to general belief, a phonological description much manipulated in the name of 'economy of phoneme inventory' or 'pattern congruity' within the language concerned may be far less suitable for comparative purposes than one more firmly anchored in similarities of phonic substance or, indeed, in a well-ordered and accurate phonetic description in general terms. Fruitful comparison cannot, however, be made entirely in phonic terms without regard to context and function. Languages which make no lexical use of the distinction between aspirated and unaspirated sounds may nevertheless contain both, phonically speaking; languages which voice utterance-medial plosive sounds in rapid speech may only employ voiceless plosives in other contexts. What is needed therefore, is comparison in what may be called 'pre-phonological' language, in terms of 'prospective phonemes' and the like[10]), in the expectation that it is precisely towards those parts of the material that give rise to problems of interpretation that our attention may most usefully be directed.

A further problem relates to what has been called the 'recognition of different strata within one language with different genetic affiliations.'[11]) It is clear that when such strata are thoroughly integrated into a given language, a synchronic account of that language will include all phonetic and morphological characteristics, whether or not they are to be found in the deepest layer of all. Doubt may arise, however, when certain features appear to be confined to a very small number of obvious loanwords, or to special styles of utterance, or to a small section of the community. It is important that note should be taken of any special restrictions, since sounds or other features subject to them may be the harbingers of future innovation or the survivors of patterns elsewhere obsolete, thus marking the advance and retreat of specific isoglosses.

It is proposed to examine in turn the distribution over the selected languages of the following phonetic features:

Lexically contrastive pitch
Lexically contrastive phonation-type

Lexically contrastive aspiration of initial plosives
Lexically contrastive voicing of initial plosives
Lexically contrastive retroflexion of initial plosives
Lexically contrastive preglottalization of initial plosives
Lexically contrastive prenasalization of initial plosives
Lexically contrastive final consonants.

It is proposed also to look briefly at some of the interrelationships between these features, and to note the languages in which they have a grammatical, i.e. morphological, as well as a lexical function to perform.

Initial plosives are selected as representative of the initial consonant systems in the area, since to handle all types of initial consonantal possibilities would overload the present paper. Clusters including plosives are excluded for the reason given on p. 404. The palatal type affricates (*c*, *ch*, etc.) are also excluded since they cannot be handled profitably without the discussion of clustering patterns.

The distribution of the selected features is shown diagrammatically by the appropriate marking of a square on the relevant map. A number key to the language squares on the maps is provided below. It is pointed out that both the number, location and size of squares has been dictated to a large extent by purely practical considerations of space and of ease of reproduction. The size of the squares and their position on the map has only a very rough-and-ready correlation with the geographical location and importance of the languages concerned. The general direction of the fringe languages to the north, east and west is indicated by arrows pointing to the relevant squares.

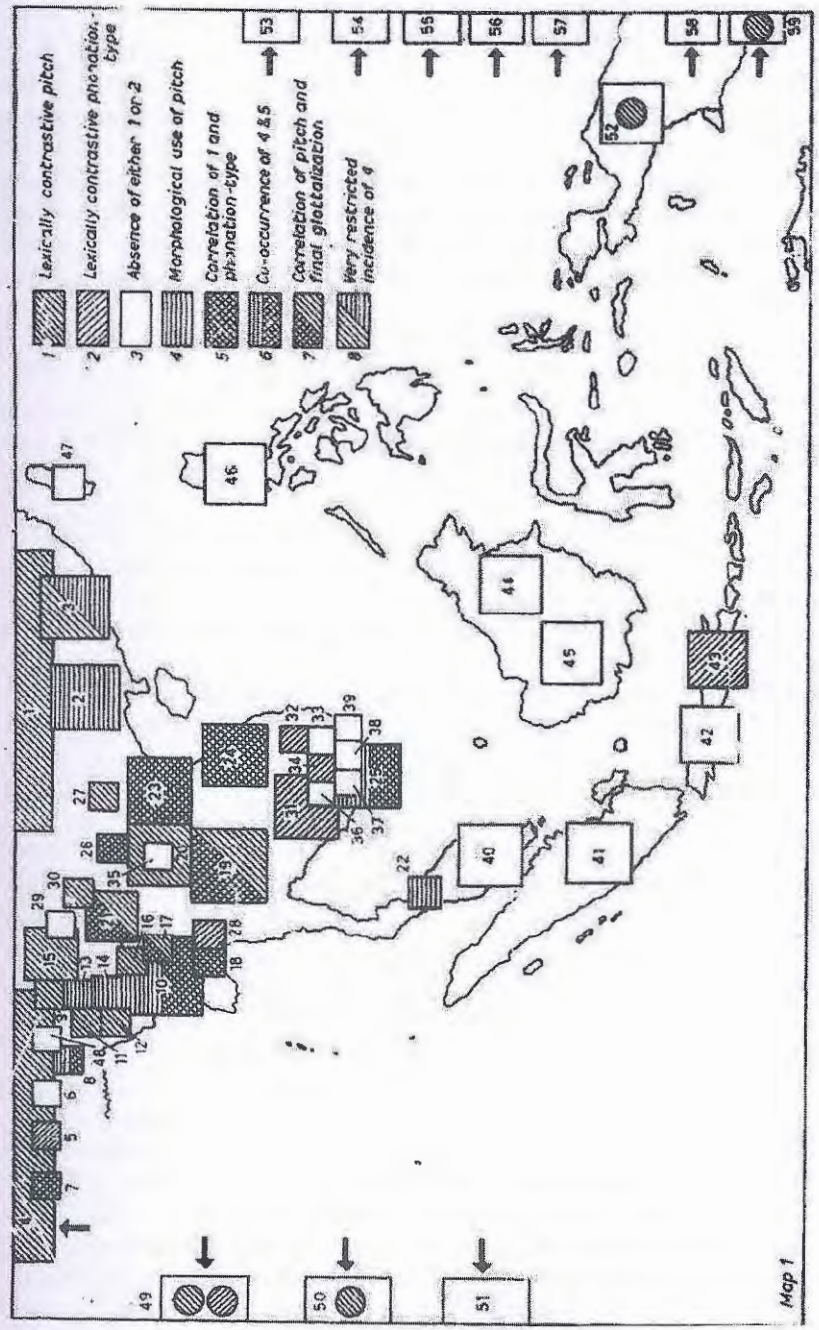
Numerical key to languages

1. Mandarin
2. Cantonese
3. Hakka
4. Tibetan (Lhasa)
5. Limbu
6. Lepcha
7. Gurung
8. Boro
9. Naga (Angami)
10. Burmese
11. Khyang
12. Marma
13. Northern Chin (Tiddim)
14. Central Chin (incl. Lushai)
15. Kachin
16. Northern Karen (Taungthu)
17. Central Karen (Bwe)
18. Southern Karen (Pwo, Sgaw)
19. Central Thai (Siamese)
20. Lao
21. Shan
22. Southern Thai (Songkhla)
23. Northern Vietnamese (Hanoi)
24. Central Vietnamese (Huê)
25. Southern Vietnamese (Saigon)
26. Miao (White)
27. Yao (Highland)
28. Mon
29. Palaung
30. Riang-Lang
31. Khmer (Cambodian)
32. Hrê/Sedang
33. Bahnar
34. Mnong/Srê
35. Khmu?
36. Stieng
37. Cham
38. Chrau
39. Rhadé/Jarai
40. Malay

41. Minangkabau
42. Sundanese
43. Javanese
44. Sea Dayak
45. Land Dayak
46. Tagalog
47. Atayal
48. Khasi
49. Northern Indian (Indo-Aryan)
50. Munda
51. Dravidian
52. New Guinea languages
53. Kapingamarangi
54. Fijian
55. Samoan
56. Gilbertese
57. Ellice
58. Rarotongan
59. New Caledonian

Alphabetic key to languages

	Square		*Square*
Angami Naga	9	Limbu	5
Atayal	47	Lushai	14
Bahnar	33	Malay	40
Boro	8	Mandarin	1
Bwe Karen	17	Marma	12
Burmese	10	Miao (White)	26
Cambodian	31	Minangkabau	41
Cantonese	2	Mnong	34
Cham	37	Mon	28
Chin (Central)	14	Munda	50
Chin (Northern)	13	Naga (Angami)	9
Chinese (Cantonese)	2	New Caledonian	59
Chinese (Hakka)	3	New Guinea languages	52
Chinese (Mandarin)	1	Palaung	29
Chrau	38	Pwo Karen	18
Dayak (Land)	45	Rarotongan	58
Dayak (Sea)	44	Rhadé	39
Dravidian	51	Riang-lang	30
Ellice	57	Samoan	55
Fijian	54	Sedang	32
Gilbertese	56	Sgaw Karen	18
Gurung	7	Shan	21
Hakka	3	Siamese	19
Hrê	32	Songkhla	22
Indo-Aryan (Northern Indian)	49	Srê	34
Jarai	39	Stieng	36
Javanese	43	Sundanese	42
Kachin	15	Tagalog	46
Kapingamarangi	53	Taungthu Karen	16
Karen (Central)	17	Thai (Central)	19
Karen (Northern)	16	Thai (Southern)	22
Karen (Southern)	18	Tibetan (Lhasa)	4
Khasi	48	Tiddim Chin	13
Khmer	31	Vietnamese (Central)	24
Khmu?	35	Vietnamese (Northern)	23
Khyang	11	Vietnamese (Southern)	25
Lao	20	Yao (Highland)	27
Lepcha	6		



Map 1. Lexically contrastive pitch and phonation-type

Map 1 – Lexically contrastive pitch and phonation-type

1.1. Lexically contrastive pitch

Little doubt is likely to be raised over the majority of languages marked in the map as having this feature, but Lepcha illustrates some of the difficulties that may arise.

I understand from Mr. R. K. Sprigg that Professor Bodman of Cornell is inclined to regard the language as tonal. Sprigg reports however, that there are 'no pitch or register distinctions in verb or particle forms, or in monosyllabic nouns, but in *dissyllabic* nouns pitch differences are coarticulated with stress differences as follows:

'i. [.¯][.\] Final stress + high pitch; initial non-stress + low pitch.

'ii. [_·][\.] Initial stress + high pitch; final non-stress + high/low pitch.

'Type ii is much the less frequent, and includes (high-tone) loanwords from Tibetan, together with a number of 'contrastive' nouns, e.g. *róng-kúp, tsong-kúp, lum-kúp* (= 'Lepcha', 'Limbu', 'Nepali'), *sung-kung, rip-kung, tung-kung* (different kinds of tree).

'A few loanwords show, but erratically, a pattern [_.] (iii), e.g. *wo-mo* (Tib. low-tone *wa-mo* 'fox'), *lal-krin* [lalṭin], = English 'lantern', but I think they are not consistent enough to be taken seriously.

'If one did opt for tone rather than stress such examples as the following would make difficulties:

'(i) ['zo:bi] [\ _] 'meal' (rice and vegetables), (ii) [zo'li:] [_ \] 'rice shoot'. ['zo:/zo] would have to be high-tone in (i) but low tone in (ii); and yet, apart from stress, the environment is the same (first syllable of a disyllabic noun). One would have to introduce stress to make a tone analysis work; then why not be content with stress alone, the pitch features being correlated in a one-to-one relationship?'

A further problem is raised by such languages as Mon and Srê, both of which Pinnow designates as tone languages,[12]) although Mon is not, to my way of thinking, characterized by lexically contrastive pitch. Smalley's account of Srê describes a pitch feature correlated with length, but sides against pitch as the contrastive feature *unless* 'conscious Vietnamese loans' have to be taken into account, thus raising the important problem of the extent to which loans *should* be taken into account and of how one is to define a 'conscious' loan.[13])

The hatched circle within the New Guinea square relates to Yabẹm/Bukawac' in North West New Guinea,[14]) that within the New Caledonian square to Patyi (and possibly others) as reported by Haudricourt.[15]) The circle hatched for lexically contrastive pitch within the Northern Indian square draws attention to the tonal features reported for Panjabi, and possibly other North Indian languages,[16]) that within the Munda square is tentatively for the 'tone' reported by Zide for Korku.[17])

1.2. Lexically contrastive phonation-type

There are a number of doubtful areas here since this feature has frequently been ignored in published material or described in terms that are difficult to interpret phonetically. I believe that the feature is far more widespread than has hitherto been recognized. I am unable to discover from available published data consulted whether lexically contrastive phonation-type is to be stated for the Cham, Chrau, Stieng etc. group in South Vietnam but suspect that this may be the case, for some of them at least.[18]) Javanese is shown as having contrastive phonation-type on the strength of statements by Catford[19]) and of Eleanor Horne's description of the 'murmured, fuzzy quality' of the 'heavy' consonants (i.e. those she writes *b, d, ḍ, dj, g* and *lh*).[20])

The circle hatched for contrastive phonation-type in the Northern Indian square relates to Gujarati, as reported by Firth and Pandit.[21])

1.3. Morphological use of pitch

An attempt has been made in the map to designate which of the languages which use pitch contrasts lexically also do so morphologically, i.e. to make grammatical as well as lexical distinctions. One may cite as instances the extensive use made of tonal alternation in the verb in Chin, in related pairs of noun and verb in Cantonese, in certain forms in Southern Vietnamese[22]) and in attributive constructions in Burmese. As regards the latter, however, it should be pointed out that Sprigg maintains that in such cases as *eiŋ' fiŋ* 'householder' as contrasted with *eiŋ* 'house', it is phonation-type rather than pitch which expresses the grammatical relation.

The special hatching for Hakka records the fact that in this language the morphological function of pitch is restricted to certain uses of the first person pronoun. Tibetan should perhaps be similarly marked, since Sprigg reports three instances in which it might be said that pitch contrast is playing a grammatical role.

1.4. Correlation of contrastive pitch and phonation-type

In many of the languages of the area certain tones are regularly associated with a given phonation-type, as, for example, in Northern Vietnamese, the 'nỏi' tone with 'breathy' phonation, the 'ngã', and frequently the 'nặng',[23]) tone with 'creaky' phonation, and so on. The distribution of such languages, as contrasted with languages in which there appears to be no such regular association, is shown on the map. In some cases there is a partial correlation in that certain tones are associated with marked glottal constriction or with a final glottal stop at the end of the syllable rather than with 'creaky' phonation of the syllable as a whole. Here one may cite as examples the high and the falling tones of Central Thai (in pre-pause

position), the low level, high level and falling tones of Shan,[24]) the mid and low tones of Bwe Karen,[25]) and the 'abrupt' tone of Burmese. Since it is precisely in cases of this kind that differences of opinion may arise as to whether the final glottal element is to be regarded as 'consonantal' or not,[26]) it has been thought useful to distinguish them on the map from, on the one hand, those languages in which there is no comparable feature and, on the other, those in which the correlated phonation-type runs through the whole syllable. Languages like Burmese and Southern Vietnamese which associate some tones with a characteristic phonation of the whole syllable, others with final glottalization only, are for convenience marked as of the former type.[27])

It is possible that in some of the languages marked as having lexically contrastive phonation-type, the phonation-type should be regarded as having optional concomitant pitch features.

1.5. Co-occurrence of the correlation of contrastive pitch and phonation-type and of the morphological use of pitch

Burmese, Southern Vietnamese and Boro are cited as examples here.[28]

1.6. Correlation of contrastive pitch and phonation-type with initial and final consonants

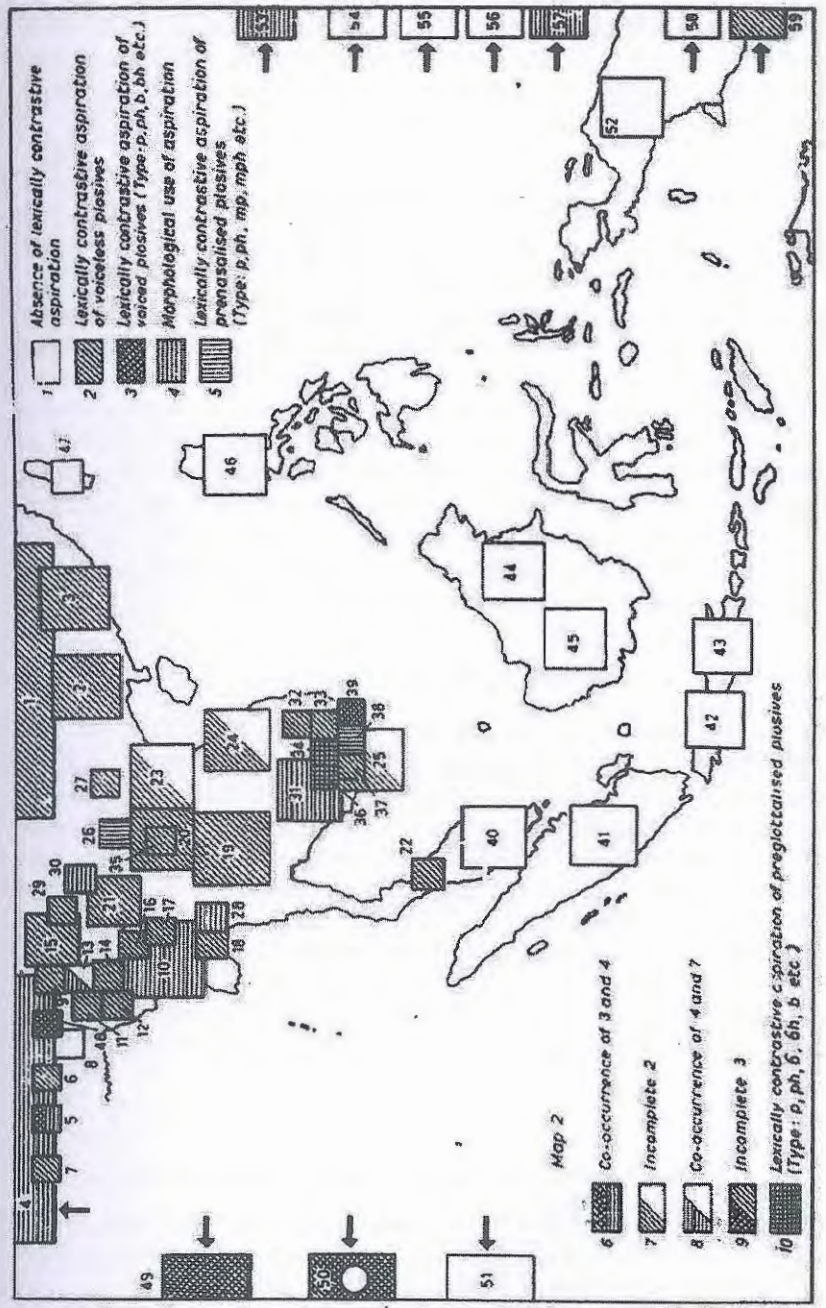
The correlation of 'tone' with final consonants is so general that it requires no map to illustrate it. The only exception I have come across to the rule that syllables ending in stops have fewer tonal possibilities open to them than those ending in continuants is Northern Chin, in which long syllables ending in *-p*, *-t*, *-k* have exactly the same tonal range as syllables ending in vowels, nasals, and *-l*. Short syllables ending in *-p*, *-'*, *-k* are tonally restricted in the usual way.

Map 2 – Lexically contrastive aspiration of initial plosives

Attention is here focussed upon the lexically contrastive use of aspirated as against unaspirated plosives in tonic syllables in utterance-initial position.

2.1. Lexically contrastive aspiration of voiceless plosives

Here the standard type-pattern is *p*, *ph*; *t*, *th*; *k*, *kh*. Languages in which this pattern is asymmetrical or incomplete are shown with half the relevant square marked as for absence of contrastive aspiration. An example is Vietnamese, in which the aspiration contrast is incomplete in present day pronunciation, since, though the orthography shows a contrast in writing, *t-*, *th-*, *ph-*, *k-*, *kh-*, these are pronounced [t], [th], [f], [k] and [x] respectively, and there is no initial [p] sound except in a few recent foreign loans such as *píp* < French 'pipe'[29]).



Map 2. Lexically contrastive aspiration of Initial plosives

2.2. Absence of lexically contrastive aspiration

It should be noted that in a given language there may be aspiration of initial voiceless plosives, as there is in English for example, but that it may be lexically non-contrastive. Such languages are marked on the map as being without contrastive aspiration. Boro is a case in point.

2.3. Lexically contrastive aspiration of voiced plosives

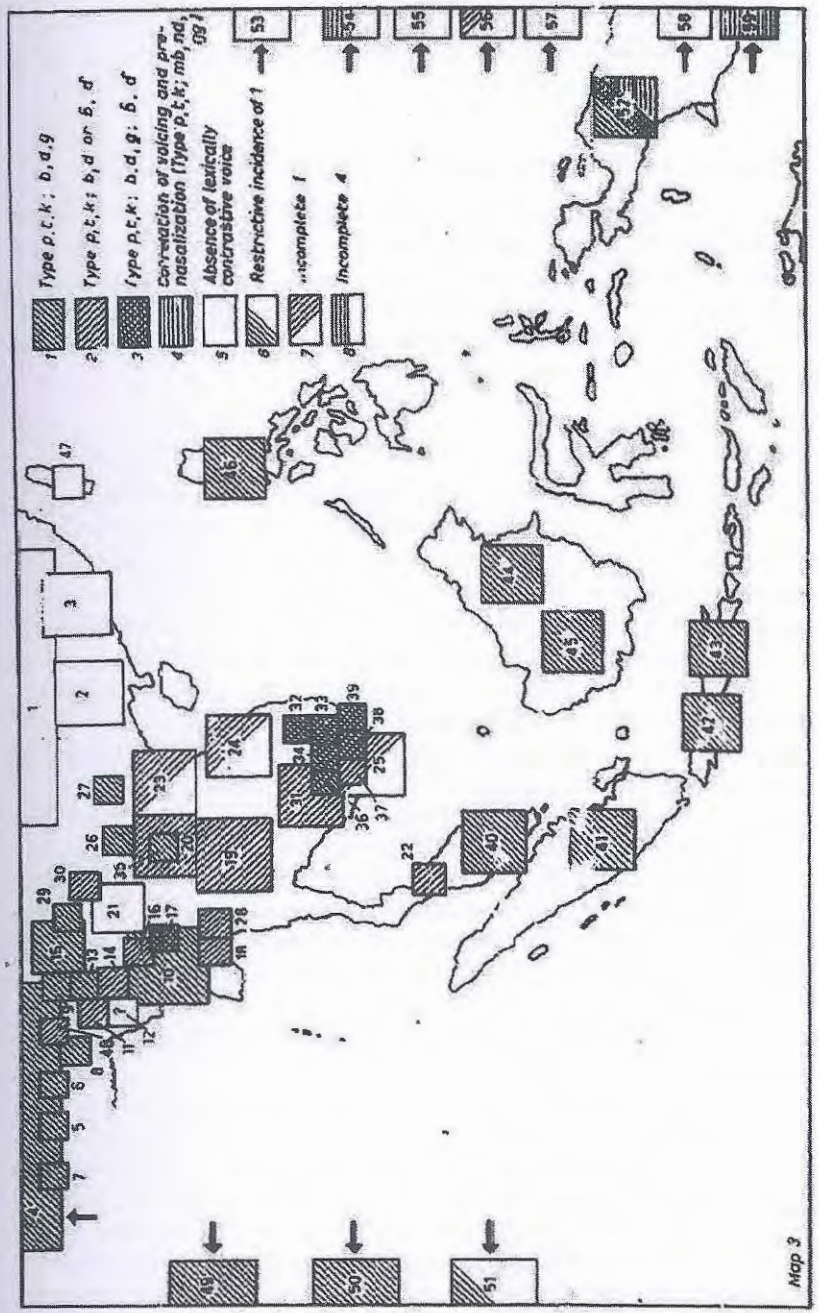
A distinction is drawn between languages with the type-pattern *p, ph*; *t, th*; *k, kh* (see above) and those with the type pattern *p, ph, b, bh*; *t, th, d, dh*; *k, kh, g, gh*. Among the latter are included the languages of North India and the Munda languages except Sora, which is represented by the small circle within the Munda square. If I interpret Condominas correctly,[30]) Rhadé has both voiced and voiceless aspirated initial plosives, and the Rhadé/Jarai square has been hatched accordingly, although Jarai is not of this type, as far as I am aware. Khasi is shown as making use of the voiced : voiceless aspiration contrast, but it should be noted that the pattern is incomplete, being *p, ph, b, bh*; *t, th, d*; *k, kh*; (*j, jh*). Words with initial voiced aspirates all appear to be either loans or 'affective', with the exception of the word *jhur* 'vegetables', which shows signs of a morphological use of aspiration (see below) in that the compounding form is *hur*.[31])

2.4. Morphological use of aspiration

Singled out once again are those languages which make grammatical as well as lexical use of the aspiration contrast. Among such languages are included languages like Khmer in which the aspirated plosives are phonologically clusters made up of two separable units (cp. Khmer *khɤŋ* 'to be angry', *kɔmhɤŋ* 'anger'), and languages like Burmese, Northern Chin and Limbu, in which the aspiration : non-aspiration contrast is sometimes used to express transitive : intransitive relations. The marking for Northern Chin indicates both that use is made of the contrast grammatically and that the pattern is phonetically an incomplete one, viz. *p, ph*; *t, th*; *k*, –.[32]) The marking for Limbu indicates both that limited grammatical use is made of the contrast and that the voiced (or more commonly, lenis) aspirate initials *bh, dh, gh* are restricted to a few loanwords, all nouns.

2.5. Lexically contrastive aspiration of prenasalized plosives

The unusual co-occurrence of contrastive aspiration and contrastive prenasalization is exemplified by Miao and Chrau. The type-pattern for the former is *p, ph; mp, mph*; etc., that for the latter *p, ph, b*; *mp, mph, mb*; etc.[33])



Map 3. Lexically contrastive voicing of initial plosives

Special attention is drawn to the aspiration contrast found again, after a large intervening area without it, in Kapingamarangi and Ellice,[34]) and in some languages of New Caledonia.[35]) Milner's convincing argument for the morphological origin of the contrast in Ellice and Kapingamarangi is of particular interest in throwing light upon innovation processes.

Map 3 – Lexically contrastive voicing of initial plosives

In this map an attempt is made to plot the use made of the opposition of voiced and voiceless plosives in tonic syllables in utterance-initial position. It may well be that it might be more useful to regard the opposition as being a fortis : lenis one, which would give a rather different distribution, but on the whole it has seemed easier to interpret the existing materials in languages of which I have no first hand knowledge in terms of voice and absence of voice.

3.1. Type-patterns

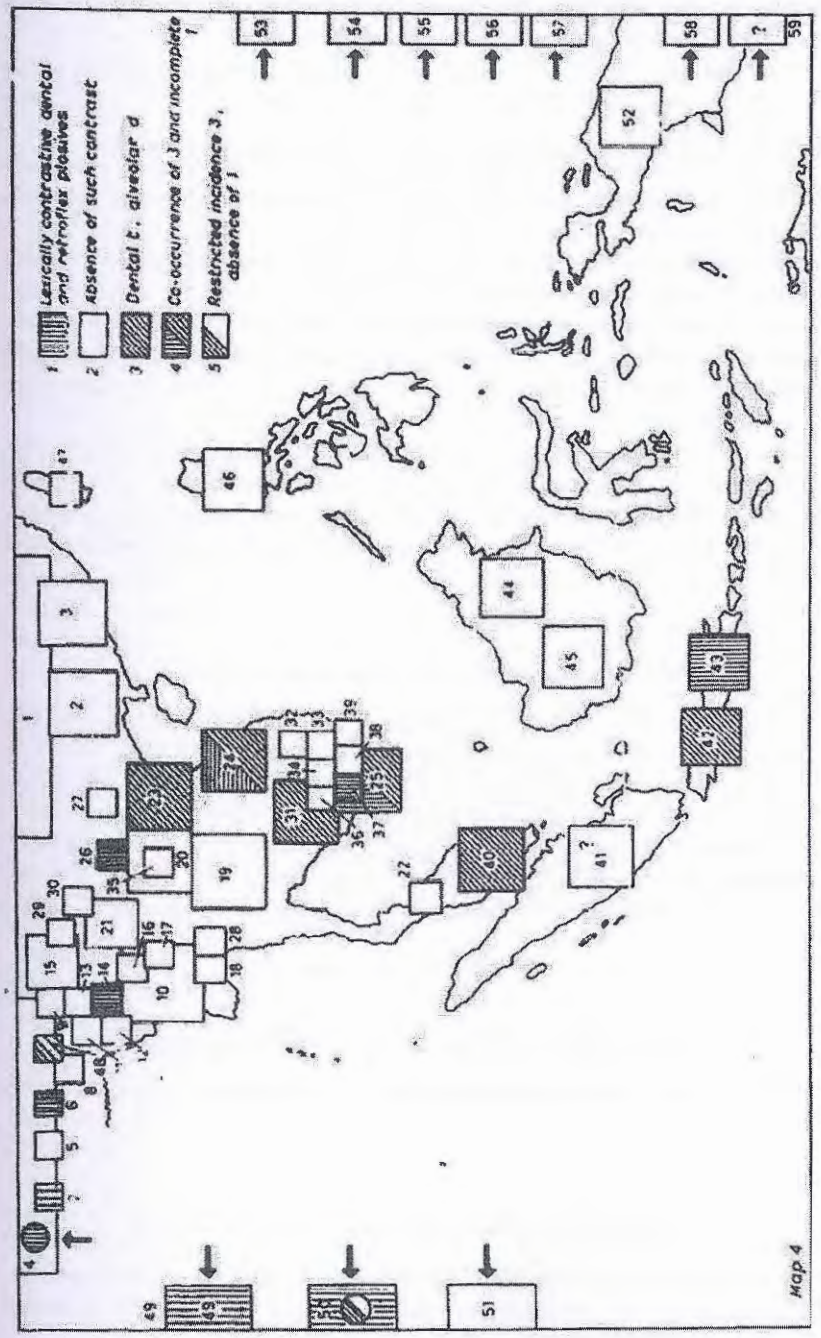
It is important to distinguish here between languages with the type-pattern *p, t, k; b, d, g*, i.e. those making a straight contrast between a voiced and a voiceless series, and those in which *g* is absent. The latter type is very widespread and of such importance in the area that it is not to be regarded as an 'incomplete' *p, t, k; b, d, g* but as a type in its own right. The voiced pair in this type are preglottalized in some languages, not in others, so that two sub-types may be stated, *p, t, k; b, d* and *p, t, k; ɓ, ɗ*. In Map 3 we are, however, only concerned with the general type-pattern *p, t, k; b, d*, or *ɓ, ɗ*. The published evidence for Marma and Khyang is insufficient to decide whether these are *p, t, k; b, d*, or *p, t, k; b, d, g* languages. Only *b* and *d* appear to be recorded for Khyang, but this may be accidental.

Languages in which there are preglottalized plosives *ɓ* and *ɗ* in addition to a full voice contrast are stated as having the type-pattern *p, t, k; b, d, g; ɓ, ɗ*. Bwe Karen is of this type, so are Bahnar, Hrê, Mnong, Chrau and Rhadé/Jarai. Haupers' Stieng material[36]) suggests the unusual type-pattern *b, d, g; ɓ, ɗ* but a note received from R. L. Phillips implies the more likely pattern *p, t, k; b, d, g; ɓ, ɗ*.

The marking for Dravidian indicates that voiced plosives in Tamil (and possibly other languages of the group) only contrast initially with voiceless ones in the 'learned' style of pronunciation of Sanskritic loans, the indigenous and non-learned type pattern being simply *p, t, k*.

It should be noted that Limbu also has voiced initial plosives only in loanwords, and is otherwise a *p, t, k* rather than a *p, t, k; b, d, g* type. The comparative rarity of voiced plosives in absolute initial position in Burmese is also noteworthy.

The Miao picture is a little difficult to interpret, and is probably an example of a language which might be better served by the postulation of a fortis : lenis contrast. There appears, however, to be an opposition which may be interpreted as voiced vs. voiceless. In Downer's preferred transcription the initial labial plosives of White Miao are as follows : *p, ph, p̂h̄* (see also below).



Map 4. Lexically contrastive retroflexion of initial plosives

The marking for Vietnamese is in recognition of the incompleteness of the voice contrast, the type-pattern here being *t, k; ɓ, d*, with an initial *p* pronounced by some speakers in a few recent loan-words from French. (Vietnamese orthographic 'g' and 'gh' are pronounced [ɣ], with a plosive variant possible for some speakers in certain juncture contexts.) Note that Thompson favours a fortis : lenis contrast for Vietnamese.[37])

As far as I can judge from the very meagre material I have been able to consult, the pattern of Gilbertese is odd and asymmetrical as regards the voice : voiceless, contrast, namely: *t, k, b*.

Khmu? is marked as a *p, t, k; b, d, g* type language since, although initial nasals may be preglottalized, it appears that plosives are not.

Javanese is also classed provisionally as a *p, t, k; b, d, g* language, but if the postulation of contrastive phonation-type is confirmed for this language, with the phonation-type regularly correlated with a lenis (but not necessarily voiced) plosive series, it should be re-classified.

It will be seen that there are a variety of type-patterns in New Guinea: *p, t, k; b, d, g* patterns, *p, t, k; b, d* patterns and *p, t, k; b, d, g; ɓ, d* patterns.

Among the languages without a contrasting voiced plosive series Samoan presents an interesting sub-type in that one style of utterance has the pattern *p, t, k*, another simply *p, k*.[38])

3.2. Correlation of voice and prenasalization

In languages such as Fijian and Nemi in New Caledonia[39]) voicing of initial plosives is regularly correlated with prenasalization. The standard type-pattern for such languages may be stated as *p, t, k; mb, nd, ŋg*. Fijian, however, has only an incomplete pattern of this type since *p* is absent. There is irregular correlation of prenasalization with voicing in Bahnar, in which a prenasalized voiced plosive is a non-contrastive variant of the oral voiced labial plosive.[40]) Contrastive prenasalization of plosives is dealt with in Map 5 and in the accompanying section of the text.

3.3. Lexically contrastive aspiration of preglottalized plosives

Mnong-Bunor appears exceptional in having a type-pattern *p, ph, ɓ, ɓh, b* etc. (but no *bh*).[41])

3.4. Morphological use of the voice : voiceless contrast

There are isolated instances here and there in the area of what might be regarded as grammatical as well as lexical use of the voice : voiceless contrast. Sprigg

reports one for Tibetan, Shorto one for Wa, a few pairs of semantically linked but grammatically differentiated words in Burmese could also be cited. By and large, however, it is true to say that little or no use is made of this particular phonetic contrast for purely grammatical purposes.

Map 4 – Lexically contrastive retroflexion of initial plosives

Any attempt to plot the distribution of this feature in utterance-initial position is fraught with problems of interpretation, since we at once become involved in the wider problem of initial clusters. It is often difficult to decide whether a retroflex articulation in a given language is to be regarded as a plosive, an affricate or a cluster. In view of the potential importance of this feature as an isogloss delimiting the Indian from other linguistic areas, however, it seems worthwhile to make the attempt.[42])

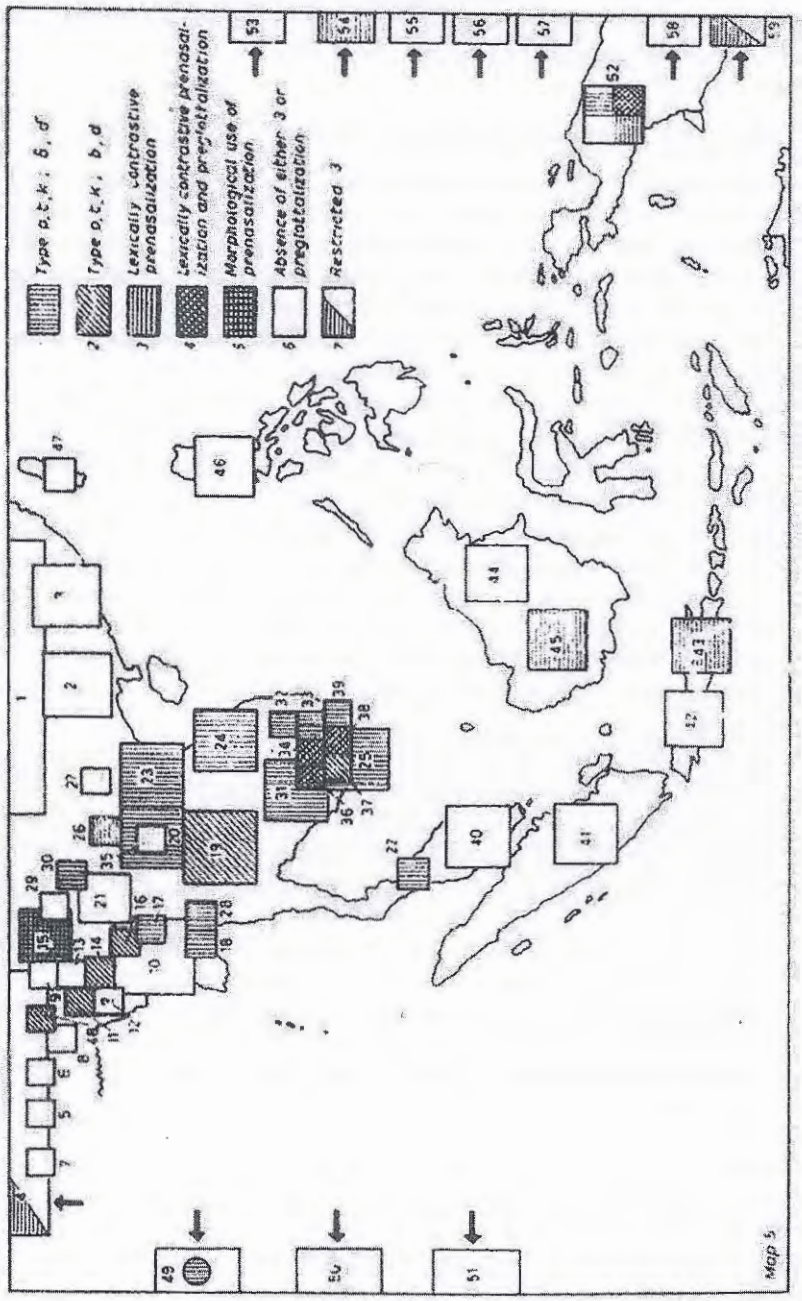
It seems to me a matter of some interest, possibly not unconnected ultimately with other features such as retroflexion and preglottalization, that in a number of languages of the area, while there is no lexical contrast between a dental and a retroflex series, nevertheless there is a contrast, correlated with voice, and sometimes with both voice and preglottalization, between an initial dental *t* and an initial alveolar (or even postalveolar) *d*.[43]) Such languages are accordingly also shown on the map. It is probable that the number of such languages is greater than indicated here, since it may be expected that many observers, especially those used to European languages where *t* and *d* pattern together, have failed to observe differences in articulation of *t* and *d* or, if they have observed a difference, have not thought it worth mentioning.

The hatched circle in the Tibetan square is for the retroflex series reported by Sprigg for Sikkimese speakers of Tibetan. It is worth noting in this connection that the contrast in Lepcha is a dental : alveolar one, the words with alveolar initial all appearing to be loans from Sikkimese Tibetan. The retroflexes in Gurung appear to be confined to Nepali loans and are distinct in pronunciation and use from clustered *tr-*.

The circle in the Munda square indicates that though Sora and Korku lack contrasting dental and retroflex plosive series, Sora *t* is dental, and *d* alveolar.[44])

The marking for Southern and Central Vietnamese indicates both that *t* is dental, *d* alveolar (and glottalized), and that there is an initial retroflex articulation, written *tr-* but only occasionally affricate in pronunciation, which contrasts with these.[45]) There is a series of very similar articulations commonly written *tr, thr*, in Lushai and Central Chin.

The position of the Dravidian languages needs clarification. It is commonly assumed that retroflexion as such spread to the Indo-Aryan languages of India from the Dravidian group, and yet as far as my preliminary and admittedly superficial enquiries go, there appears to be no contrast between dental and retroflex plosives initially in such languages as Tamil and Telugu, except perhaps



Map 5. Lexically contrastive prenasalization and preglottalization

in Sanskritic loans in certain styles of utterance. Within the terms of reference of this paper, therefore, such languages must be shown as without lexically contrastive retroflexion, until I have had an opportunity of investigating the position further.[46])

Cham, which is reported as having a 'phonemic contrast between [t] and [t]',[47]) is here treated as having contrastive retroflexion, although Blood decides on grounds of 'patterning' to interpret the retroflex plosive as phonemically a cluster, */tr/*.

So far as I am aware, no languages make grammatical, as opposed to lexical, use of the retroflex : non-retroflex distinction.

Map 5 – Lexically contrastive prenasalization and preglottalization

Map 5 indicates the distribution in utterance-initial position of the features commonly referred to in the linguistic literature of the area as 'prenasalization' and 'preglottalization'.[48]) The inclusion of both on the same map is a matter of practical convenience, since they are mutually exclusive on the whole. It is not proposed in this paper to examine in detail what is meant by these labels in articulatory terms. For our purpose a 'prenasalized plosive' is a complex articulation of homorganic nasal and following plosive, or a cluster of heterorganic nasal and following plosive. A 'preglottalized plosive' is a complex articulation of a voiced stop with secondary constriction at the larynx, frequently lightly implosive in character.

5.1. Type-pattern p, t, k; 6, d

Note that some phonemic accounts of *p, t, k; 6, d* languages treat initial *6* and *d* as clusters, e.g. */ʔb, ʔd/*.

The circle within the Northern Indian square draws attention to the 'recursives' of Sindhi.[49])

For Khyang and Marma see p. 417.

5.2. Lexically contrastive prenasalization

Languages which have contrastive series of oral and prenasalized plosives are included under this head, even when the prenasalization is regularly correlated with voice, as in Fijian (see above).

The hatched area of the Tibetan square draws attention to the fact that Tibetan reading style has prenasalized initial groups, *mb-, nd-, ŋg*, which are absent in the spoken style except in intervocalic position.

5.3. Lexically contrastive prenasalization and preglottalization

Stieng, Mnong, Srê, Chrau and some of the New Guinea languages appear to have contrastive series of oral, preglottalized and prenasalized consonants. If I interpret the Condominas and Thomas accounts correctly, Mnong Gar and Chrau share the distinction of having prenasalized preglottalized plosives, *nd*, *mb*.[50])

Attention is drawn once again to the variety of type-patterns reported for New Guinea, in which there are languages with preglottalization but no prenasalization, others with prenasalization but no preglottalization, others again with both, and yet others with neither.

5.4. Morphological use of prenasalization

This appears to be rather rare. Phillips reports such forms as *duh* 'hot', *nduh* 'to heat' 'and many other examples' from Mnong Bunor.

Kachin is tentatively marked as having distinctive prenasalization and as using this feature morphologically. Information is incomplete, however, and it is possible that we are concerned here with the operation of a single prefix. It should be noted that many other languages of the area in some styles and speeds of utterance pronounce certain unaccented form-words as syllabic nasals, which one might be justified in regarding as 'prenasalization' of the following initial consonant. Such occurrences, however, appear to differ from Kachin usage in that they are not utterance initial and so fall outside the scope of the present investigation. Gilbertese, on the other hand, appears to have such initial clusters as *mt-*, *mk-*, *mb-*, for which there may be a morphological explanation.

It should be noted that in the context of this paper morphological alternation between an initial plosive and an initial nasal (e.g. as in Sea Dayak) does not count as morphological use of prenasalization in phonetic terms.

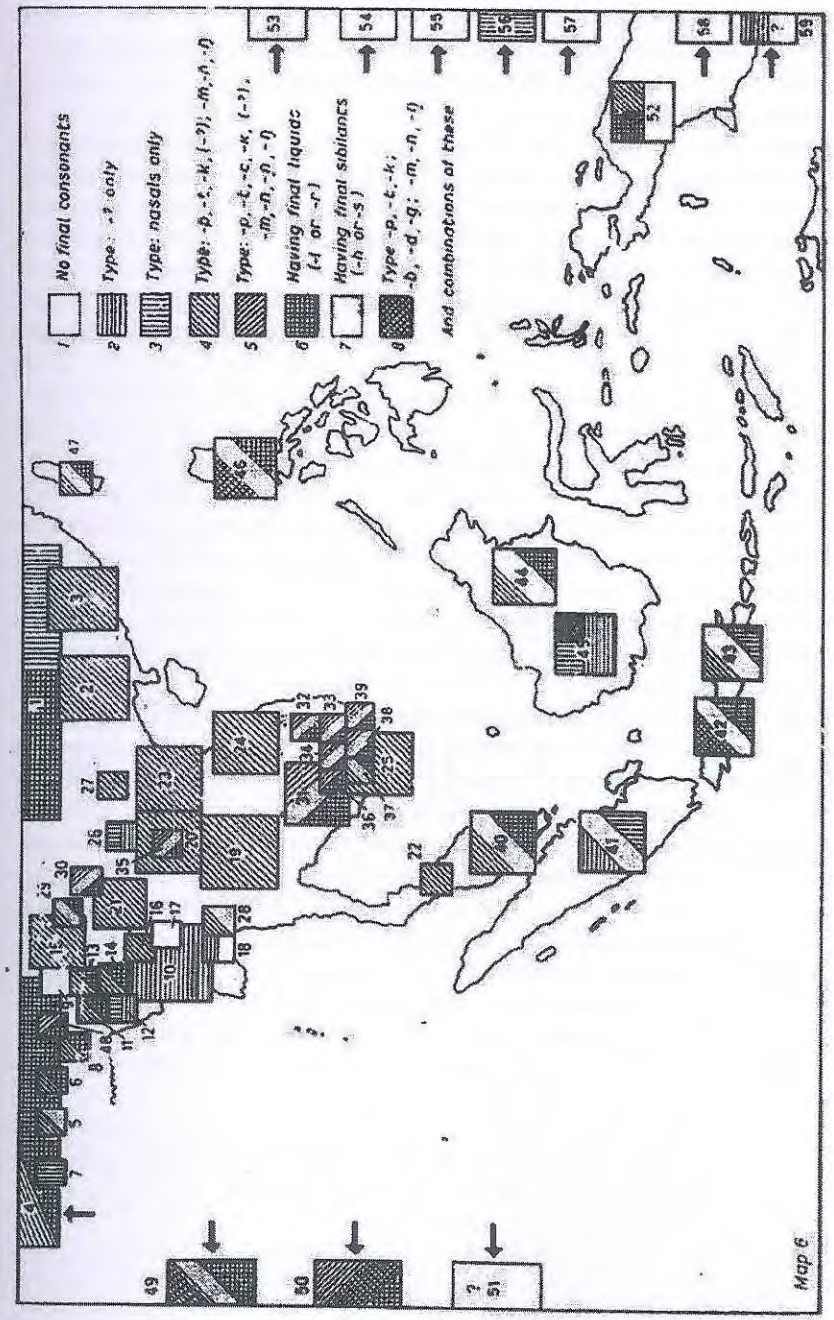
There is no record, as far as I am aware, of a language in which preglottalization is used morphologically.

5.5. Prenasalization and retroflexion

Javanese appears to be the only language with contrasting prenasalized dental and retroflex plosives.

5.6. Co-occurrence of prenasalization and postnasalization

Haudricourt has drawn attention to a rare pattern in Nemi, in New Caledonia,[51]) in which there are contrastive series of oral, prenasalized and what he calls 'postnasalized' initial plosives, for which the type-pattern *p*, *pm*, *mb* etc. may be stated. Postnasalization appears sometimes to have a morphological function.



Map 6. Final consonant patterns

Map 6 – Final consonant patterns

Since the contrastive consonant alternance in utterance-final position is everywhere in the area very much more restricted than that in utterance-initial position,[52]) we shall cast our net wider here to include nasals, liquids and sibilants as well as stops.

Problems of the interpretation of the phonetic data here centre upon final glottal constriction and the glottal stop, and upon such features as final nasal plosion. Where there are other final stop consonants, a final glottal stop offers no special difficulty since it will behave like them as regards tonal restrictions and may be subsumed with them. Where there are no other stop consonants, however, the question may arise as to whether a final glottal stop is to be regarded as the solitary example in the language of a final stop consonant or whether it is to be interpreted as a concomitant feature of the tone or tones with which it occurs. Burmese is a case in point. Final glottal constriction, weaker than that associated with the glottal stop, presents similar problems (when it has been recorded) and some scholars have chosen to regard it as an allophone of a laryngeal phoneme of some sort. Where there is a range of final consonants in the language, glottal constriction of this kind may, unlike the full glottal stop, be associated with tones other than those proper to syllables ending in final stops. Here the solution proposed has sometimes been to postulate final clusters of nasal + *ʔ* etc., just as some scholars have wished to regard initial glottalized consonants as clusters with initial *ʔ*.[53]) Similar interpretations have also been put forward of the final nasal or lateral plosion which is found as a stylistic or contextual variant of final consonants in some languages of the area, e.g. Mon, Khmer, Songkhla, and Stieng. For the purposes of this study, since such variants are not lexically contrastive they do not require separate plotting on the map. In Land Dayak, however, final nasal plosion does contrast lexically with a simple final nasal articulation (as in such pairs as [kənaŋ] 'posterior', and [kənagŋ] 'Straits robin'),[54]) and is accordingly shown on the map with a special blacked-in section on the relevant square.

The various type-patterns and combinations of patterns are plotted on Map 6, and should be readily followed with the key supplied. The following notes and comments may, however, be helpful:

The marking for Southern Karen indicates a 'partial' or 'debateable' type-pattern *-ʔ*, since these languages may or may not be regarded as having a final consonantal *-ʔ* according to one's interpretation of the relationship of the final glottal stop and tone.

The shading of the Mandarin square is intended to indicate the presence in that language, which otherwise has final nasals only, of syllabic [r] in final position.

Among the languages with *nasals only* patterns, Gurung appears to have final *-ŋ* only, Gilbertese only final *-m* and *-n*.

The type-pattern *-p, -t, -k, (-ʔ); -m, -n, -ŋ* indicates a final contrast between stops and nasals. An interesting sub-type here would comprise those languages in which there is phonetic alternation between *-k*, and *-ʔ* in some contexts. Note that some scholars, like Haas and Egerod, use the symbols *-b, -d, -g* rather than *-p, -t, -k* for the final unexploded stops of Tai languages. There is, however, no contrast between final voiced and unvoiced stops in such languages.

Alone among the languages plotted Atayal has contrastive final velar and uvular stops. This is not specifically indicated by the hatching.

The type-pattern *-p, -t, -c, -k, (-ʔ); -m, -n, -ɲ, -ŋ*, refers to languages in which there is a contrast between a final apico-dental (or, usually, alveolar) stop or nasal and a dorso-palatal one. Many scholars class Northern Vietnamese as of this type. The reasons I have not done so have been given elsewhere.[55])

Marma appears to have an asymmetrical type-pattern which is a combination of types 2 and 3 on the map, namely: *-ʔ, -m, -n, -ŋ*. Miao, which is shown in the same way on the map, has a restricted final pattern in which the only contrasting final consonantal articulations are the glottal stop and a nasal, either *n* or *ŋ* depending on the preceding vowel.

Tibetan requires special comment. There are currently three different final consonant patterns here, *-p, -t, -k, ʔ; -m, -n, -ŋ; -r, -l* for the spelling style; *-p, -k, -ʔ; -m, -ŋ; -r* for the reading style; and a much more restricted pattern, *-p* (and rarely *-k*); *-m* for the colloquial style.[56])

A variety of patterns is described for the New Guinea languages, *-p, -t, -k; -m, -n, -ŋ; -l* for some of the Dani languages, and a somewhat erratic pattern for Yabẹm/Bukawac': *-p, -ʔ; -b; -m* (*-n* rare); *-ŋ*.

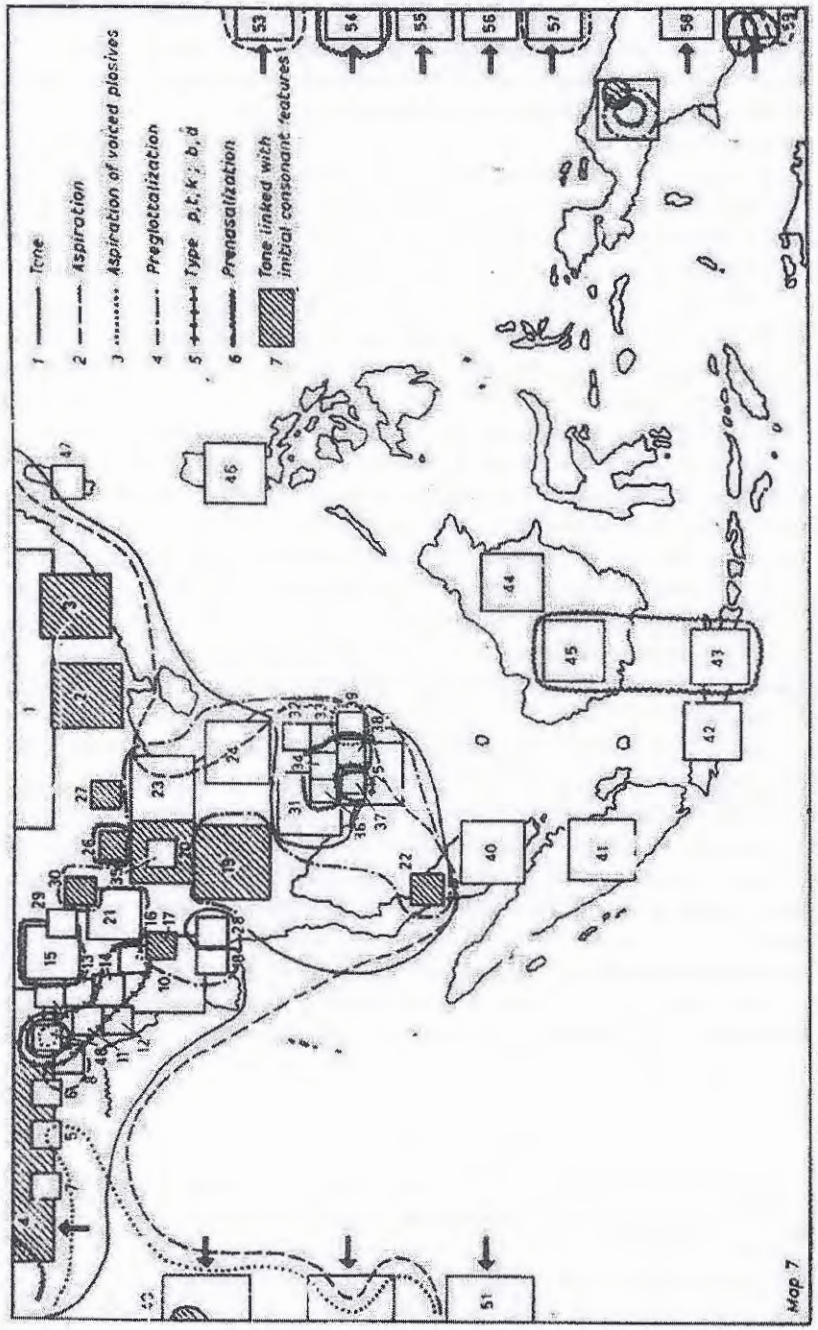
The position in New Caledonia is also mixed. Haudricourt reports a series of final nasals for the northern group of languages whereas Houailou appears only to have final *-ʔ*.[57])

The marking for Munda indicates that the general picture appears to be of the type *-p, -t, -c, -k, (-ʔ); -m, -n, -ɲ, -ŋ* with final liquids, but that Zide assumes an additional final voiced series, and apparently, a final unchecked voiceless series distinct from the voiceless checked series, for Hindi loans in Santali. It is not clear to me, however, how far this assumption is based upon observations of pronunciation and how far upon the orthographic forms in Santali dictionaries and grammars.[58])

The special case of contrastive simple final nasals and final nasal plosion (perhaps the latter might in this context be thought of as an instance of final postnasalized plosives) in Land Dayak has already been mentioned.

Map 7 – Isoglosses

From the contemplation of maps 1–6 one may discern the provisional outlines of a number of areal isoglosses, a few of which it is attempted to show in map 7. 'Aspiration : non-aspiration' splits the area into two, and includes on one side roughly the whole North Indian linguistic area and the Sino-Tibetan area on the mainland, and on the other the South Indian languages and the languages of the Islands, with pockets of 'aspiration' in the Pacific, and pockets of 'non-aspiration' within



Map 7. Isoglosses

Munda and in Assam. This isogloss overruns accepted language-family boundaries, therefore, in that it includes the Sino-Tibetan, Indo-Aryan, Mon-Khmer and most of the Munda languages within one large linguistic area. This area may be further subdivided by the voiced aspirate : voiceless aspirate isogloss, but here again, though we appear to succeed in separating a North Indian linguistic area from the larger one, we are left with pockets of 'voiced aspirate' languages in Rhadé, Lepcha, and Khasi, in the last two of which the feature may be regarded as an encroachment from the neighbouring North Indian linguistic area. The apparently secondary development of a distinctive series of voiceless aspirates in widely separated locations in the Pacific area is particularly interesting.

It is, of course, a commonplace that the 'tone' isogloss corresponds closely with the boundaries of what is generally accepted as the Sino-Tibetan family of languages, with extensions into some of the encircled Mon-Khmer languages and to Vietnamese on the eastern fringe of the mainland.[59]) It is surely significant that disagreement as to which languages of the area are tonal and which are not should centre upon just these encircled languages and upon certain others (e.g. Limbu) on the borders of the Indian linguistic area. The outcrop of tone in both fringe areas, in New Guinea and New Caledonia on the one hand, and Panjabi (and possibly Korku) on the other, should be noted, while the typological affinity with tone languages outside the area, such as those of Africa and America, must not be forgotten. Of especial interest is the fact that in both Panjabi and New Guinea tone is linked to phonetic features associated with initial consonants, with aspiration in the former and with the voice : voiceless contrast in the latter. Similar linkage with initial consonant features is fairly widespread on the South East Asian mainland and is shown by hatching on the map. The isogloss for such linkage delimits a fairly large slice of the mainland extending from Hakka and Cantonese through Miao, Yao and Rianglang southwards to Lao and Thai (central and south) and including Bwe Karen in Burma; there is then a leap to Tibetan, with Shan, Burmese, Chin, most of the Karen dialects, and Vietnamese excluded. As far as I know, no correlation between initial consonants and tone is reported for the tone languages of Africa and America. It may be noted that in attested 'register' languages like Khmer and Mon, and, according to Catford, Javanese, there is always a link between register and initial consonant, though the pattern may sometimes be blurred, as in Modern Mon, by loanwords. 'Register' appears also to be stateable for some of the contiguous tribal languages of South Vietnam, Bahnar, Mnong, Brou, etc. It is noteworthy, however, that no regular correlation between initial consonants and tone can be stated for modern Vietnamese, though such a correlation may have existed in the past.[60])

One of the most characteristic features of the South East Asian mainland area is the incidence of the so-called 'preglottalized' consonants. *ɓ* and *ɗ* are probably the most widespread, but preglottalized nasals and semivowels are also reported in some areas. We shall be concerned here only with the plosives, an isogloss for whose occurrence, as far as can be determined from existing accounts, is shown on the map. The whole problem of the distribution of these

sounds is bedevilled by the fact that one can often not be certain that the record is accurate. Many plosive systems in the area are of the asymmetrical type, *p, t, k; ɓ, ɗ,* with no *g*. Many such systems may, upon further investigation, turn out to be of the type *p, t, k; ɓ, d*. Others certainly are not so at the present time. The isogloss for languages exhibiting the type-pattern *p, t, k; b, d,* – which may in some cases represent more accurately *p, t, k; ɓ, ɗ,* – is also shown on the map and will be found, significantly surely, to be by-and-large contiguous to the attested preglottalized area proper, the area of greatest concentration being in the Indo-Chinese peninsula, with fingers reaching up towards Rianglang and Khasi. Karen and Central Chin represent pockets of *p, t, k; ɓ, d* or *p, t, k; b, d* languages in a relatively large area, represented by Burmese, Shan, Palaung and Kachin, which are either *p, t, k; b, d, g* or *p, t, k* languages. Northern Chin appears to have 'gone over' to the type-pattern *p, t, k; b, d, g,* the *g-* forms in the language being cognate with *r-* forms in Central Chin and Lushai. Those who incline to the view that the *p, t, k; b, d/ɓ, d* pattern is a Tai one which has spread to contiguous non-Tai languages must find some way to account for the fact that Khasi, entirely without contact with any extant Tai language or with other Mon-Khmer languages, is nevertheless of this type. Is Ahom assumed to be the link here, or is the Tai dissemination theory one which will not hold water? The sporadic outcrop of *p, t, k; b, d* patterns recently reported from certain New Guinea languages must also be taken into account.

A striking feature of this preliminary investigation has been the seeming concentration of putative areal characteristics in the New Guinea group of languages and in the tribal languages of South Vietnam. In the present state of our studies it would be premature to speak either of 'confluence' or of 'dissemination' in this connection, but it may be helpful to think in terms of 'concentration areas'. Fuller investigation may well locate other such areas. The available date on the Miao languages, for example, and recent reports on the New Caledonian languages suggest that these may constitute two additional concentration areas.

Notes

1. R. H. Robins, 'Linguistic comparison', *LCSEAP*, 9–10.
2. I particularly regret and apologize for inability to take into account more than a fraction of the wealth of material new to me that has been incorporated in the other papers to the conference, as for example in those of Li, *IPLS*, 1, Morse, *IPLS*, 2, Constantino, *IPLS*, 2, Lopez, *IPLS*, 1–2. Time and space have also prevented me from including relevant data from the large amount of unpublished but invaluable firsthand material on the lesser known languages of Burma recently made available to me by Professor G. H. Luce, and from the interesting recent work on typology in the area by Russian scholars, notably V. M. Solntsev: 'Typological Characteristics of Isolating languages' (paper submitted to the 26th Int. Congr. Orient., Delhi, 1964), and two papers contained in: *Languages of China and South East Asia*, Moscow, 1963: Solntsev, Rozhdestvenskiy et al., 'Some general features of Sino-Tibetan and typologically close South East Asian Languages', and Y. A. Gorgoniev, 'The position of Khmer amongst the languages of South East Asia'.

I have, however, taken advantage of the kindness of Professor Egerod in supplying me with an advance copy of an article on Atayal phonology still in the press, to fill in tentatively the Atayal square in my maps. In the course of the conference further information was also received from the following: R. L. Phillips of Cornell, via R. B. Jones (Mnong Bunar, Hrê-Sedang, Vietnamese etc.); L. C. Thompson (Vietnamese); I. Dyen (Javanese); G. Condominas (Mnong Gar, Bahnar); A. Haudricourt (New Caledonian).

3. For the term 'register', see Eugénie J. A. Henderson, 'The main features of Cambodian pronunciation', *BSOAS*, 14, 1, 1952. In that paper 'voice quality' is named as the salient phonetic characteristic of 'register'. In a forthcoming book on general phonetics Professor David Abercrombie of Edinburgh accepts 'register' as an appropriate phonological term but suggests that 'phonation-type' is a more suitable term for its phonetic realization, thus reserving the expression 'voice quality' for more general use. This seems to me a valid and useful distinction and one which I have accordingly adopted in this paper.
4. For the terms 'major' and 'minor' syllable, see Henderson op. cit., and H. L. Shorto, 'Word and syllable patterns in Palaung', *BSOAS*, 23, 3, 1960.
5. E. M. Uhlenbeck, *De structuur van het Javaanse morpheem* (VBG, 78), Bandoeng, 1949.
6. E.g. M. B. Emeneau, 'India as a linguistic area', *Language*, 32, 1, 1956; P. J. Honey and E. H. S. Simmonds, 'Thai and Vietnamese: Some elements of nominal structure compared', *LCSEAP*; R. H. Robins, op. cit.; and Hla Pe, and L. C. Thompson on pp. 167, 185, and 29 respectively in this volume.
7. E. M. Uhlenbeck, 'The comparative study of the Austronesian languages', *LCSEAP*.
8. C. E. Bazell, *Linguistic typology* [inaugural lecture], London, 1958.
9. Laboratory experiments with Khmer suggest that the perceived 'lower pitch' of chest register syllables does not always correspond to physical fact as measured in terms of fundamental frequency.
10. Cf. Bazell, op. cit., 19.
11. Robins, op. cit.
12. See H. J. Pinnow, 'Personal pronouns in the Austroasiatic languages: a historical study', *IPLS*, 1.
13. Cf. W. A. Smalley, 'Srê phonemes and syllables', *JAOS*, 74, 1954. In a personal communication at the conference M Condominas gave it as his view that since the pitch features described by Smalley are clearly phonetically conditioned they are not to be regarded as lexically contrastive in any case.
14. See A. Capell, 'Two tonal languages of New Guinea,' *BSOAS*, 13, 1, 1949.
15. See A. G. Haudricourt, 'The languages of New Caledonia', *LCSEAP*,
16. Cf. J. R. Firth, 'Phonological features of some Indian languages', *Proc. 3rd Int. Cong. of Phon. Sciences*, London, 1935; T. Grahame Bailey, 'The Sindhi Implosives', *BSOS*, 2, 4, 1923.
17. Cf. N. H. Zide, 'Final Stops in Korku and Santali', *Indian Linguistics*, Turner Jubilee volume, 1, 1958. I am not clear whether what Zide regards as 'tone' in Korku is to be referred to lexically contrastive pitch or lexically contrastive phonation-type. Certainly the phenomenon he reconstructs for Proto-Munda in his contribution to this conference sounds very much like 'register' (see his paper, 'Gutob-Remo vocalism and glottalised vowels in Proto-Munda', *IPLS*, 1).
18. This has now been confirmed by information received personally at the conference from R. B. Jones, and, indirectly, from R. L. Phillips. It seems quite clear from what they tell me that from the phonetic point of view contrastive phonation-type is present in Hrê, Sedang, the Mnong dialects, Jeh, Brou and, possibly, Bahnar. In some of these the statement of 'register' at the phonological level appears self-evident, but since there is always a certain correlation with differences of vowel quality and sometimes

(e.g. in Mnong) with the preceding consonant, differences of phonemic treatment might suggest themselves.

19. See J. C. Catford, 'Phonation Types' in: *In Honour of Daniel Jones*, ed. D. Abercrombie et al., London, 1964.
20. Elinor C. Horne, *Beginning Javanese*, New Haven. London, 1961, xxix: 'The light consonants are sharp and clear, while the heavy consonants have a murmured, fuzzy quality. In addition, the heavy consonants affect the vowel after them by making it a bit lower in pitch and giving it a breathy sound'.

    At the conference Professor I. Dyen confirmed personally that there is in Javanese a contrast of phonation-type of the kind under investigation here.
21. See J. R. Firth, 'Phonetic observations on Gujarati,' *BSOAS*, 20, 1957, and P. B. Pandit, 'Nasalization, aspiration and murmur in Gujarati', *Indian Linguistics*, 17, 1957.
22. See Eugénie J. A. Henderson, 'Tonal exponents of pronominal concord in Southern Vietnamese', *Indian Linguistics*, 22, 1961, and R. B. Jones and H. S. Thong, *Introduction to spoken Vietnamese*, Washington, 1957, 17, 29, 120–121. Cf. also the 'subsyllabic morphemes' referred to by Thompson in his paper 'The problem of the word in Vietnamese', *Word*, 19, 1, 1963.
23. For the absence of 'creaky voice' in syllables with final stops see Jean Donaldson, 'A study of the "nặng" tone in the northern dialect of Vietnamese', *Van-Hoa Nguyet-San*, 12, 7, 1963.
24. See S. Egerod, 'Essentials of Shan phonology and script', *Bulletin of the Institute of History and Philology, Academia Sinica*, 29, 1957.
25. Note that the high tone in Bwe is associated with a final breathy off-glide in pre-pause position, never with the glottal stop.
26. Cf. the treatment of Karen in R. B. Jones' *Karen linguistic studies*, and his detailed discussion of the association of tone and glottal constriction in Thai dialects in his contribution to this conference, 'On the reconstruction of Proto-Thai', *IPLS*, 1.
27. As L. C. Thompson has pointed out, the 'nặng' tone in Southern Vietnamese is not characterized by 'creaky' phonation throughout, as in the north, but by a final glottal constriction; but since, according to my personal notes, the 'hói' (or 'ngã') tone in that dialect is accompanied by breathy phonation, Southern Vietnamese is marked on the map as correlating contrastive pitch and phonation-type.
28. Unless, of course, one adopts Sprigg's view that phonation-type is the contrastive feature in Burmese attributive constructions (see p. 27 above), in which case Burmese would stand alone in the area as making grammatical as opposed to lexical use of phonation-type contrasts. It may be remarked in passing that the grammatical use of contrastive phonation-type is quite common in some other parts of the world, e.g. in parts of East Africa and the Sudan.
29. L. C. Thompson, however, considers the contrast *t:th* as fortis: lenis rather than non-aspiration:aspiration. For a detailed exposition of his point of view see his forthcoming *Vietnamese grammar* (in the press).
30. See G. Condominas, 'Enquête linguistique parmi les populations montagnardes du Sud indochinois,' *BEFEO*, 46, 2, 1954.
31. *j, jh*, which are not phonetically plosives, are strictly speaking outside the scope of the present paper (see p. 406) but are introduced here since *jh* affords the only example I have been able to discover of vestigial plosive + aspirate clusters in Khasi, such as are found elsewhere in Mon-Khmer. Khasi aspirated voiceless plosives correspond to unaspirated voiceless plosives in such languages as Mon and Khmer, and must be interpreted as monophonemic phonologically, not as clusters.
32. N. Chin (Tiddim) orthographic *kh-* is pronounced [x].

33. A possible interpretation of the Miao data as recorded by Downer seems to be that there is also contrastive *voiced* aspiration. Downer's notation of the whole set of labial plosives is as follows: *p, ph, p̂h; mp, mph, mp̂h.*
34. Cf. S. H. Elbert, *Grammar and comparative study of the language of Kapingamarangi, texts and word-lists*, Washington, 1950, and G. B. Milner, 'Aspiration in two Polynesian languages', *BSOAS*, 21, 2, 1958.
35. Cf. Haudricourt, op. cit.
36. Cf. R. Haupers, 'Word-final syllabics in Stieng', *Van-Hoa Nguyet-Son*, 9, 7 and 8, 1962.
37. See n. 29.
38. See J. E. Buse, 'Two Samoan ceremonial speeches', *BSOAS*, 24, 1, 1961.
39. See A. G. Haudricourt, 'Les consonnes postnasalisées en Nouvelle Calédonie', *Proc. 9th Int. Cong. Ling.*, The Hague, 1964.
40. See Condominas, op. cit., n. (2) on p. 589.
41. Information supplied by R. L. Phillips.
42. Cf. Emeneau, op. cit., and H. L. Shorto, 'The structural patterns of northern Mon-Khmer languages', *LCSEAP*.
43. In this connection, see F. B. J. Kuiper's contribution to the conference, 'Consonant variation in Munda', *IPLS*, 1.
44. This latter feature is found in other Munda languages also. See Kuiper. op. cit.
45. Also in some Tonkinese dialects, as verbally reported by Thompson.
46. The Dravidian material in this paper is everywhere weak and in need of revision. The heavy Sanskritic overlay, together with the wide contextual variation of phonemes within the indigenous languages themselves, make it peculiarly difficult to elicit from the written accounts the information required without personal consultation with scholars expert in this field.
47. See D. Blood, 'Applying the criterion of patterning in Cham phonology', *Van-Hoa Nguyet-San*, 13, 4, 1964.
48. It should be borne in mind that not all accounts of languages with a *p, t, k; b, d* pattern make it clear whether the *b* and *d* are preglottalized or not.
49. See R. L. Turner, 'The Sindhi recursives or voiced stops preceded by glottal closure', *BSOS*, 3, 1923–1925.
50. Phillips confirms the presence in Mnong of prenasalized preglottalized plosives.
51. See 'Les consonnes postnasalisées en Nouvelle Calédonie', n. 39 above.
52. If one's theoretical standpoint allows one to extract from one's data, for treatment at another level, all features marking syllable boundaries, it is often quite easy to present a *phonological* statement in which the initial and final phoneme inventories are the same (see Eugénie J. A. Henderson, 'Prosodies in Siamese', *Asia Major*, NS. 1, 1949), or very nearly so. Hence it seems to me that David Thomas's comment that Richard Watson's 'Pacoh' is the 'first reported Mon-Khmer language with no major differences in inventory between initial and final consonant phonemes' (see R. Watson, 'Pacoh phonemes', *Mon-Khmer Studies 1*, 1964, and Thomas's Introduction to the volume) has no relevance to typological comparative studies. Watson achieves his near-symmetry by deciding to treat final [-uʔ] and [-iʔ] as 'word-final allophones' of phonemes whose initial allophones are ['b] and ['dʒ]. This procedure, while perfectly defensible from the point of view of a statement of the internal structure of Pacoh, would, if applied to other Mon-Khmer languages, very frequently result in similarly symmetrical, though different, inventories. From the typological point of view it seems less misleading to stick closer to the phonetic substance.
53. Khasi, which cannot by any reckoning be regarded as tonal, is interesting and unusual in that the final consonants pronounced in most contexts as *-p, -t, -c, -k* are frequently pronounced as post-glottalized nasals in pre-pause position, viz. *-mʔ, -nʔ, -ɲʔ, -ŋʔ.*

Khasi is, however, here classified as having the type-pattern *-p, -t, -c, -k, -ʔ; -m, -n, -ɲ, -ŋ*. For comment upon the secondary character of final *-k*, see my paper to this conference, 'Final *-k* in Khasi: a secondary phonological pattern', *IPLS*, 1.

54. See N. C. Scott, 'Nasal consonants in Land Dayak' in: *In Honour of Daniel Jones*, ed. D. Abercrombie et al., London, 1964.
55. In a paper entitled 'The articulation of final *-nh* and *-ch* in Vietnamese' submitted to the 5th International Congress of Phonetic Sciences, Münster, 1964, and to be published in the proceedings of the Congress.
56. Information by personal communication from R. K.Sprigg.
57. S. Kasarhérou, 'Prosodèmes de la langue mélanésienne de Houailou', *BSL*, 56, 1961.
58. See Zide, 'Final stops in Korku and Santali', cited above.
59. Such a view is dependent, of course, upon the belief that Vietnamese is an Austroasiatic language that has adopted tone, rather than a Tai language with a puzzling number of Austroasiatic words in its everyday vocabulary.
60. See A. G. Haudricourt, 'Sur l'origine des tons en vietnamien', *Journal Asiatique*, 1954.

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Further information was supplied verbally by my colleagues G. B. Downer (Cantonese, Mandarin, Hakka, Miao-Yao; R. H. Robins (Sundanese); N. C. Scott (Malay, Land Dayak, Sea Dayak); H. L. Shorto (Palaung, Riang-lang); E. H. S. Simmonds (Siamese, Shan, Lao); and R. K. Sprigg (Tibetan, Lepcha, Limbu).

All the information on Hrê and Sedang was supplied by R. L. Phillips of Cornell, at whose suggestion the Hrê/Sedang square was added to the maps. Much useful information was also received from him on other tribal languages of Vietnam, e.g. Mnong, Srê, Bahnar, Stieng.

For Gilbertese I have referred to recordings made some years ago by H. G. A. Hughes.

18

LANGUAGE DIFFUSION ON THE ASIAN CONTINENT

Problems of typological diversity in Sino-Tibetan

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Source: *Computational Analyses of Asian and African Languages* (National Inter-University Research Institute of Asian and African Languages and Cultures, Tokyo) 3, 1976, 49–66.

1. Introduction

In analyzing the languages and discussing the linguistic situation in mainland Asia, linguists ordinarily take it for granted that there are at least three or four mutually unrelated major groups—possibly "families"—of languages, namely, besides Afro-Asiatic, Altaic from the west to the east across the northern part, Austroasiatic from the west to the east across the south, and Sino-Tibetan in the middle.[1]) This is highly biased by the 19th century's view on the typological/geneological classification of languages. Since the term "family" implies different geneological origin, and consequently different typological structure to some extent at least, it is not surprising that very few linguists analyzed and described these Asian languages beyond the scope of each "group" (or "family", though most of them are aware that much has to be done before they can talk about "family" in the scientific sense), unless they happen to be interested in the problems of language contacts or word equation among Asian languages.

This is largely due to the lack of systematic, scientific information on these languages, in addition to the heavy concentration of linguists' attention to the geneology of languages, which underlies even the purely descriptive studies of these languages.[2]) However, an enormous amount of scientific data has been accumulated for the Sinitic languages since the establishment of Academia Sinica, and for the Altaic, Austroasiatic and, in particular, Tibeto-Burman languages in the past few decades. This has made the above-mentioned "isolationism" in Asian linguistics very much outdated. The present study endeavors to

demonstrate how indispensable it is to consider linguistic problems at the "inter-family" level, not merely for diachronic studies but also even for synchronic ones, and what kind of new insight we can obtain by studying Asian languages from such an angle.

Another problem we want to pursue in this study is the typological diversity among these languages, examined from the viewpoint of what we want to call "typo-geography".[3]) Possible cognates among Sino-Tibetan, for example between Chinese and classical Tibetan in particular, have been earnestly sought by various linguists. The drastic typological—syntactic in particular—diversity of the linguistic structure among these languages has drawn little attention, however, and very little has been done toward a systematic exposition of how and why such diversity came about. We want to demonstrate in this study that the structural diversity of Sinitic languages for example, can be best accounted for as the result of the diffusion of Altaic and Austroasiatic languages.

2. The typo-geography of Chinese

The regional variants of Chinese constitute a near perfect continuum of a transitional linguistic structure within a geographical span as large as, if not much larger than, the entire Europe. The only exception is found in dialects like Hakka which spread across certain areas as a result of large scale migration of the speakers.[4]) This fact has not drawn enough attention, perhaps because the type of linguistic geography developed by G. Wenker, F. Wrede, J. Gilliéron, etc. in Europe was very short-lived in China.[5]) To my knowledge, it was Wang Li and Jerry L. Norman who first gave a general characterization of Chinese dialects, based not merely on phonological features, but also on both morphological and lexical criteria.[6]) Their main concern was, however, to contrast the southern dialects with the northern and draw a line between them. Examining similar data, however, we can also see another aspect of the geographical distribution of Chinese dialects, namely the continuous transition of linguistic features among dialects according to the geographical distance.

2.1. Phonological features

Among the continuum of numerous phonological features, we here choose the following two: tones and syllable structure.

2.1.1. Tonal distinction

Chinese dialects show very clear regional features to tonal distinction. That is, the more toward the south one goes, the greater tonal distinction one can find, and the more toward the north a dialect spreads, the fewer tonal categories the dialect maintains, as can be seen from Table 1.

Table 1

Shensi/Kansu	3
Sian	4
Chi-nan	4
Ch'eng-tu	4
Yang-chou	5
Nan-ch'ang	6
Foochow	7
Ch'ao-chou	8
Cantonese	9

The variant with the least number of tonal distinctions is the Shensi/Kansu dialect spoken by the Dungans who have spent most of their life among the Altaic people. The dialect with the greatest tonal distinction is Cantonese, whose sound system so much resembles that of Tai languages that it has even tonal distinction conditioned by vowel length, a feature which is unique for the Tai languages but which can be found in no other dialects of Chinese.[7])

One can naturally find many exceptions. The K'un-ming dialect of Yunnan has, for example, four tones only, though it is spoken farther to the south than for example the Ch'ang-sha dialect of Hunan which has as many as six tones. But we know that this is due to the rather recent settlement of Mandarin speakers in the southwestern part of the continent—as recent as the Ch'ing dynasty. The Wenchow dialect has eight tones, but half of them are conditioned by the voicing of the initial consonants—four of them cooccur with the voiced ones only, and the other four with the voiceless ones. Then what we really have there is only four tones. One can also point out many other individual exceptions, if one really measures the exact geographical location. But no one can ignore the general tendency mentioned above. Then one would naturally associate this phenomenon with the presence of tone languages like Tai to the south, but Altaic languages to the north which do not have the type of syllabic musical tones like those of Chinese, Tai, etc.[8]) To be sure, many students of Chinese linguistics have been aware of the continuum of regional variation in Chinese dialects, and of the general tendency of the variation mentioned above. However, few have ever seen this in the context of the Altaic and the Tai connection.[9])

2.1.2. Syllable structure

Another feature which clearly constitutes a continuum between the Altaic and the Tai languages is the syllable structure. As is shown in Table 2, one can find the simplest syllable structure among Chinese dialects in the north, where we find either CV or CVn/ng, if we exclude the so-called "retroflex endings", a diminutive morpheme. Phonetically speaking, one can find dialects with simpler syllable structure, namely CV, either with or without nasalization of the vowels.Phonologically, however, these nasalization elements can be reduced to the endings -n and -ng.[10]) The syllable structure gets the more complex, the farther south one goes. To the southern end, we can find Cantonese which has CV, CVm/n/ng or CVp/t/k.

Table 2

Manchu	CV, CVn/ng
Shensi/Kansu	CV, CVn/ng
Sian	CV, CVn/ng
Chi-nan	CV, CVn/ng
Ch'eng-tu	CV, CVn/ng
Yang-chou	CV, CVn/ng
Nan-ch'ang	CV, CVn/ng, CVt/k
Foochow	CV, CVng/jng/wng, CVk/jk/wk
Ch'ao-chou	CV, CVn/jn/wn/ng, CVt/jt/wt/k
Cantonese	CV, CVm/n/ng, CVp/t/k

It is by no means an accident that Manchu in the north, for instance, has the syllable structure CV or CVn/ng, while most of the Tai languages gave CV, CVm/n/ng or CVp/t/k. Phonetically speaking, again, one can easily point out exceptions. Sibö, one of the few living dialects of Manchu, for example, has a greater variety of consonantal endings. Except /n/, however, all of them may be interpreted phonologically with a shwa following these consonants.[11]) Vietnamese have palatal nasal endings and their stop counterparts, but for this, too, some linguists argue that they can be interpreted as "fronted velars".[12])

2.2. Morphological features

What we observed in the preceding section are of course purely surface phenomena. If they remain to be a few isolated features, they themselves may not be of much significance. These phenomena are, however, closely related to the similar tendency of the geographical distribution of other features, both morphological and syntactic.

2.2.1. Classifiers and monosyllabism/polysyllabism

One of the characteristic features of Sino-Tibetan is that many a language of this group have the so-called "classifier", and very few linguistic introductory books fail to mention this. With respect to this classifiers, too, the geographical distributional pattern of the modern Chinese dialects clearly shows that the farther south one goes, the greater variety of classifiers he can find in the local dialects, and the farther north one moves, the less variety he will observe in the speech of the local people.

Simplification of the classifiers in this case is carried out by the "neutral" classifier ko or its cognates, substituted for the individual classifiers. There is a very famous episode reported by Aleksandr A. Dragunov in this connection.[14]) Practically every manual of Peking Mandarin lists classifiers t'iao and ker for something slender and long. Now, Yü Min, a famous Chinese linguist, made inquiries with twenty native Pekinese speakers whether they use t'iao or ker for i-pa(tail).

To his total surprise, nineteen out of the twenty replied that they use ko, the most neutral classifier.[15]) As can be seen from Table 3,[16]) this substitution of ko for various classifiers increases when one travels from the south to north. In the Ch'eng-tu dialect, both chih and ko are used for 'chicken'; in Chi-nan, ko is substituted for classifiers for 'needle' and 'cow', and in the Sian dialect, for 'chicken', 'boat', and 'bridge'. In the Shensi/Kansu dialect spoken by the Dungan, ko has been substituted for all other classifiers. In other words, Dungan has only one noun classifier ko; since there is no other classifier, the Dungan ko has already become a kind of unique morphological marker for nouns.[17]) A sharp observer will also notice in Table 3 that the Nan-ch'ang dialect shows that it represents, as its geographical location does, a mixed type between the Ling-nan (south of the South Range) and the Ling-pei (north of the South Range) groups.

Table 3

Noun	*'cow'*	*'chicken'*	*'boat'*	*'bridge'*	*'needle'*
Shensi/Kansu	ko	ko	ko	ko	ko
Sian	t'ou	ko/chih	ko	ko	ken
Chi-nan	ko	chih	chih	tso	ko
Ch'eng-tu	ken/t'iao	chih/ko	chih	tso	ken
Yang-chou	t'iao	chih	t'iao	tso	ken
Nan-ch'ang	chih	chih/t'iao	chih/t'iao	tu	ken/kuan
Mei-hsien	t'ou	chih	t'iao	t'iao	mei
Foochow	t'ou	t'ou	t'iao	t'iao	t'iao
Ch'ao-chou	chih	chih	chih	t'iao	chih
Cantonese	chih	chih	chih	tu/t'iao	yen

When we discuss the classifier, we are talking about a set of morphemes unique to each noun, not about measure words. One of the clearest grammatical differences between classifiers and measure words consists in the fact that, being ordinary nouns merely used to measure the amount of an object, measure words can take modifying adjectives, while such is impermissible with the classifiers:

{ i(one) ta(big) -ch'ün(herd) yang(sheep) 'a large herd of sheep'
{ * i(one) ta(big) -chih(classifier) yang(sheep)

{ i(one) hsiao(small) -wan(bowl) fan(rice) 'a small bowl of rice'
{ * i(one) hsiao(small) -ko(classifier) fan(rice)

{ san(three) man(full) -pa(grab) yen(salt) 'three full grabs of salt'
{ * san(three) ta(big) -pa(classifier) tao -tzu(knife)

Also, since measure words are after all measure words, there is no restriction on the occurrence of nouns following the words as long as the nouns express something measurable, whereas the classifiers can take only those small group of nouns which share common semantic/syntactic features and which are unique to each classifier. Thus the noun that follows the measure words wan(bowl), for example, could be

fan(rice), but it could also be t'ang(soup) or even yen(salt). On the other hand, except for the case of the neutral classifier ko, each classifier has a certain limited number of nouns which are unique to each classifier. Thus the classifier t'iao can be used for 'thread', 'road', 'snake', or even for 'dog' or 'fish', but neither 'box' nor 'book'.

Here one will naturally recall that it is the Tai languages which have the greatest variety of classifiers (and measure words), while the Altaic languages have measure words but not classifiers in the sense defind above. It is interesting to witness that the Dungan language has, as mentioned above, only one classifier ko, but has all sorts of measure words like any other Chinese dialect.

Again, one can point out individual exceptions to the above generalization. The Yang-chiang dialect, spoken to the southwest of Canton, for example, has ko substituted for the classifiers for 'cow', 'chicken', etc. However, the dialect has some other features common among northern Chinese. One will therefore naturally suspect that the settlement of population in such a coastal port town as Yang-chiang may have a very different history from others, and also a dialect spoken in such a town could have had much closer contact with the cultural center of the country than those of inland towns.

One thing which has not yet drawn enough attention among linguists is that the variety and the occurrence of the classifiers are closely related to the morpheme structure (monosyllabic or polysyllabic) of the language. In short, the more monosyllabic nouns a language has, the greater variety of classifiers one can find in the language, and the more polysyllabic the words tend to be, the simpler the classifier system becomes. The substitution of the neutral classifier ko for various classifiers mentioned above is thus closely paralleled by the polysyllabicity of the dialects in question, as can be seen in Table 4.

Again, somewhere around Nan-ch'ang and Foochow one can find a clear transition from the southern monosyllabic type to the northern polysyllabic type. All of this seems to support James Matisoff's view that the Sino-Tibetan classifiers are primarily to give redundancy to monosyllabic nouns.[18])

Table 4

Word	*'tail'*	*'crab'*	*'house'*	*'desk'*
Shensi/Kansu	wei-pa	hsieh-tzu	fang-tzu	cho-tzu
Sian	wei-pa	p'ang-hsieh	fang-tzu	cho-tzu
Chi-nan	wei-pa	p'ang-hsieh	fang-tzu	cho-tzu
Ch'eng-tu	wei-pa	p'ang-hsieh	fang-tzu	cho-tzu
Yang-chou	wei-pa	p'ang-hsieh	fang-tzu	cho-tzu
Nan-ch'ang	wei-pa	p'ang-hsieh	fang-tzu	cho-tzu
Mei-hsien	wei	lao-hsieh	wu	cho-tzu
Foochow	wei	p'ang-hsieh	ts'o	cho
Ch'ao-chou	wei	hsieh	ts'o	ch'uang
Cantonese	wei	hsieh	wu	t'ai

2.2.2. Negative and plural suffix

Among other numerous morphological or morpheme-structure features that constitute the continuum of transition from the southern type to the northern, we want to point out two more here, the negative word and the plural suffix.

Table 5

Word	*negative*	*plural suffix*
Shensi/Kansu	pu	mu
Sian	pu	men
Chi-nan	pu	men
Ch'eng-tu	pu	men
Yang-chou	pu	men
Nan-ch'ang	pu	li
Soochow	fe	ni
Wenchow	fu	le
Mei-hsein	m̩	teu
Foochow	ŋ̩g	/[19])
Ch'ao-chou	m̩	/
Cantonese	m̩	tei

In short, for the negative words we can observe a transition from labial stop of the north to labial nasal of the south through labial fricative in between, as shown in Table 5. For the plural suffix to pronouns, one can recognize an unmistakable transition from the labial nasal in the north to the dental stop in the south through the intermediate stage of dental lateral/nasal in between as shown in the same table.

While we do not see any clear relationship between these morphemes and those of the Altaic languages, we do have some suspicious cognates in the languages spoken to the south of Chinese. It is well-known that the northern Tai dialects have a syllabic nasal for the negative, and the Thai (Siamese) negative may may not be totally unrelated to this. Tai has some different word formation for the plural expression. Nishida Tatsuo suspects that the plural suffix of the Hakka dialect teu might be related to the Burmese/twei/.[20]) Among the Yüeh dialects known to us, the Kuei-hsien dialect has the suffix tui; both Cantonese and Shun-te have tei.[21]) It is then reasonable to reconstruct *tuei as a first approximation toward the Proto-Yüeh plural suffix.

There are many more individual morphemes that connect Chinese with Altaic and Tai. The genitive particle in northern Chinese is either ti or ni (Cf. Manchu ni), but ke or kai in southern Chinese (Cf. Chuang ke, Bê ke, Thai khong). The third person pronoun in northern Chinese is t'a; li or tsi around the Yang-tzu basin, but ki or ʔi in southern Chinese. Bê has ke, and Thai has klaw, both of which look highly probable cognates.

2.3. Syntactic features

Let NP be noun phrase, N noun, NU numeral, CL classifier, and DM demonstrative. The noun phrase structure of the four major subgroups of Sino-Tibetan is normally characterized as follows:

a) Chinese — NP = NU + CL + N, DM + CL + N
b) Miao-Yao — NP = NU + CL + N, CL + N + DM
c) Tibeto-Burman — NP = N + NU + CL, N + DM + CL
d) Kam-Tai — NP = N + NU + CL, N + CL + DM

What we can observe here is a clear tendency that the northern subgroup tends to place modifying constituents before the head noun, whereas the southern subgroup after the head noun. This is exactly what we find in the modern Chinese dialects—the order given above as of Chinese is merely of Peking Mandarin.[22])

2.3.1. Compounds containing noun modifiers

The syntactic feature that best shows the above mentioned tendency is a kind of "fossilized" compound, as given in Table 6.

Table 6

Shensi/Kansu	chien(male) -niu(cattle) 'ox'
Sian	kung(male) -niu(cattle)
Chi-nan	chien(male) -niu(cattle)
Ch'eng-tu	ta(big)-ku(male) -niu(cattle)
Yang-chou	kung(male) -niu(cattle)
Soochow	hsiung(male) -niu(cattle)
Wenchow	hsiung(male) -niu(cattle), or niu(cattle) -ku(male)
Ch'ang-sha	niu(cattle) -kung(male)-tzu(suffix), or ku(male) -tzu(suffix)
Nan-ch'ang	niu(cattle) -ku(male), or kung(male) -niu(cattle)
Mei-hsien	niu(cattle) -ku(male)
Foochow	niu(cattle) -kung(male)
Ch'ao-chou	niu(cattle) -ku(male)
Cantonese	niu(cattle) -kung(male)

It is so clearly observable that northern Chinese all have the morpheme order MALE + CATTLE, while southern Chinese consistently shows the order CATTLE + MALE. What is of paramount interest here is the order in the dialects of Ch'ang-sha, Wenchow and Nan-ch'ang. Just as the location of these dialects shows, these three dialects have alternative word-formation—an exact mixture of the northern and the southern type. Besides 'ox', Nan-ch'ang has the following alternative forms for 'cock':

chi(chicken)-kung(male) / yang(male)-chi(chicken)

Wenchow has many more:

ts'ao(female) -chi(chicken) / chi(chicken) -niang(female) 'hen'
hsiung(male) -chu(pig) / chu(pig) -ku(male) '(male) pig'
ts'ao(female) -chu(pig) / chu(pig) -niang(female) 'sow'
ts'ao(female) -niu(cattle) / niu(cattle) -niang(female) 'cow'
ts'ao(female) -ma(horse) / ma(horse) -niang(female) 'mare'
ts'ao(female) -kou(dog) / ts'ao(female) -kou(dog)-niang-erh(female) 'bitch'
ts'ao(female) -mao(cat) / mao(cat) -niang(female) '(female) cat'

The border line between the southern and the northern type moves according to individual words. In the case of 'cow', '(male) horse', 'mare', and '(male) pig', it comes between Ch'ang-sha and Nan-ch'ang; the former belongs to the southern type, while the latter belongs to the northern type. The reader may be puzzled here, since the Ch'ang-sha dialect belongs to the southern type despite the fact that it is spoken to the north of Nan-ch'ang. (It may not be appropriate to choose Nan-ch'ang here, since, being the capital of Kiangsi, the dialect of Nan-ch'ang is much influenced by the national language (northern Mandarin). The I-ch'un dialect, another prominent dialect of Kiangsi, belongs to the southern type in this respect; the I-ch'un words for 'ox', 'cow', 'cock', 'hen', '(male) pig', 'sow', '(male) horse', 'mare', '(male) dog', 'bitch', 'tomcat', '(female) cat', 'jack' and 'jenny' all have the morpheme order ANIMAL + MALE/FEMALE). In the case of '(male) dog' it comes between Wenchow and Ch'ang-sha; the former of course belongs to the northern type, and the latter to the southern type. Ch'ang-sha belongs to the southern type with respect to 'cow', 'bitch', 'cock' and 'hen', too.

We suspect that the southern type once must have spread further to the north; the Ch'eng-tu dialect has chi(chicken)-kung(male) and chi(chicken)-mu(female) for 'cock' and 'hen' respectively. It is then not surprising to find the Chi(chicken)-kung(male)-ling(range) 'Cock Range' in the Hupeh Province.[23]) Naturally the further south one goes, the more compounds with the morpheme order NOUN + MODIFIER one can find. In the southernmost dialect, Cantonese, Ts'en Ch'i-hsiang reports the following instances:[24])

jen(man) -k'o(guest) 'guest'
ts'ai(vegetable) -kan(dry) 'dried cabbage'
chi(chicken) -kung(male) 'cock'

Incidentally, both jen(man) -k'o(guest) and ts'ai(vegetable) -kan(dry) can be found in Mei-hsien, too. Both Amoy and Foochow have, besides jen(man) -k'o(guest), the following:

Amoy:
ts'ai(vegetable) -su(edible) 'edible green'
hsieh(shoe) -t'o(drag) 'slipper'
feng(wind) -t'ai(typhoon) 'typhoon'
li(calendar) -jih(daily) 'calendar'

Foochow:
hsieh(shoe) -t'o(drag) 'slipper'
feng(wind) -t'ai(typhoon) 'typhoon'

Anne O. Yue provided the following Cantonese compounds to the present author:

yü(fish) -sheng(raw) '(a raw fish dish)'
fan(rice) -chiao(burned) 'burned rice'
hsiung(bear) -jen(man) 'bear' (Cf. T'ai-shan: jen(man) -hsiung(bear))
nang(skin) -chi(chicken) 'goose flesh' (nang is very possibly from Tai: Chuang nang 'skin', Bê nang 'skin')

Tai-shan:
pak(mouth) -lio(many) 'talkative' (Cf. Chuang ʔ6a : k(mouth)-la : i (many) 'talkative', Bê ʔ6ak(mouth) -liau(many) 'talkative')

While these words are more or less "fossilized", the morpheme kan(dry) in Cantonese still remains productive. In addition to ts'ai(vegetable) -kan(dry) 'dried cabbage', li-chih(litchi) -kan(dry) 'dried litchi', lung-yen(lungan) -kan(dry) 'dried lungan', etc., they coined ping(pastry) -kan(dry) 'biscuit' when the western biscuit was introduced to China, and niu(cattle)-jou(meat) -kan(dry) 'dried beef' when they invented processing dried beef for confectionery.[25])

2.3.2. Adverbials

The same type of word order difference among dialects can be found for verb phrase also. The most conspicuous one can be found in the standard Chinese (primarily northern Chinese) expressions:

a) wo(I) tao(to) shang-hai(Shanghai) ch'ü(go) 'I go to Shanghai'.
b) wo(I) ch'ü(go) shang-hai(Shanghai) 'I go to Shanghai'.

Although both of them have alreadyy been incorporated into the standard language, the former clearly sounds like northern Chinese (Pekinese, Sian, etc.), while the latter unmistakably southern Chinese (the word order found in Wu, Hakka, Min and Yüeh).

One will of course recall here that in the Altaic languages all the adverbial phrases (including constituents like object, complement, etc.) precede the verb. For example, in Manchu:

hūdun(quickly) alin(mountain) ci(from) wasifi(come down) usin(field-accusative) tari(cultivate) 'Quickly come down from the mountain to cultivate the field'.
amin(Amin) beile(prince) be(accusative) amba(great) beile(prince) i(together) adame(side by side) tebuhe(sit-causative) 'Let Amin prince sit together with the Senior prince'.

On the other hand, in Tai, they always follow the main verb. For example, in Thai:

klāb(return) ma(come) cak(from) pra't'es(country) t'ai(Thai) 'come back from Thailand'.
chān(I) ca'(would like to) pai(go) kāb(together with) t'an(you) 'I want to go together with you'.

This is exactly what we find among the modern Chinese dialects from the north to the south. In Shensi/Kansu, Peking, etc., the adverb hsien(first, ahead) can only precede the verb:

ni(you) hsien(first) ch'ü(go) 'You go ahead!'

Down to the south in Amoy, this order can be reversed:

ni(you) hsien(first) hsing(go) 'You go ahead!', or:
ni(you) hsing(go) tsai(in) hsien(first) 'You go ahead!'

Further to the south in Cantonese, one can only say as follows:

ni(you) ch'ü(go) hsien(first) 'You go ahead!'

just as in Bê, for example:

me(you) ʔɓoi(go) kua-na(first) 'You go ahead!'

In Cantonese the position of this adverb hsien(first) is not affected even if the verb has some other adverbials:

ni(you) pei(give) pen(classifier) shu(book) wo(me) hsien(first)
'Will you give me a book first?'

In the comparative construction of northern Chinese, the comparing phrase can only precede the verb:

ni(you) pi(than) t'a(him) kao(tall) 'You are taller than him'.

In Hakka and northern Min, the pi(than) phrase still has to precede the main verb, but the verb needs a prefix kuo(exceed):

ni(you) pi(than) ch'ü(him) kuo(exceed) -kao(tall) 'You are taller than him'.

Coming down south to Amoy, a prefix chiao(in comparison) suffices to construct a comparative senetence:

ni(you) chiao(in comparison) -kao(tall) i(him) 'You are taller than him'.

Notice here that the compared object follows the main verb. Further down south among the Min dialects, both Ch'ao-chou and Hainan have the comparing phrase following the main verb, with the preposition kuo(exceed):

ni(you) kao(tall) -kuo(exceed) i(him) 'You are taller than him'.

This is exactly what we find in Cantonese, Chuang, Bê and Thai.

We then can summarize the above discussion in the following way:

in the north, both noun-modifying and verb-modifying constituents tend to precede the head noun and the main verb respectively as in the Altaic languages, while in the south they both tend to follow, just as in the Tai languages.

Similar phenomena in the double object construction and the tense/aspect categories of verbs have already been discussed elsewhere.[26])

3. The historical development of Chinese

What we summarized above precisely reflects the historical development of the syntactic structure of Chinese.

3.1. Noun phrase

What is recorded as follows in the oracle bone inscriptions:

ch'iu(mound) -shang(Shang) 'The Shang mound'
ch'iu(mound) -lei(thunder) 'The Thunder mound'

appear in classical Chinese documents as follows:

shang(Shang) -ch'iu(mound) 'The Shang mound'
lei(thunder) -ch'iu(mound) 'The Thunder mound'

Chinese philologists of pre-modern China were already aware that their ancestors of the pre-Ch'in period often "reversed the word order".
For instance, instead of saying:

ta(big) -yu(road) 'a great road'
ku(valley) -chung(middle) 'in the valley'

pre-Ch'in writers wrote as follows:[27])

yu(road) -ta(big) 'a great road'
chung(middle) -ku(valley) 'in the valley'

In other words, the Chinese language has been undergoing a continuous change from the Tai type to the Altaic type from the very beginning of its history. Among the various sentence constituents, the noun phrase underwent change first, so that in the modern period we can find trace of the NOUN + MODIFIER structure only in the southern dialects. Since people avoided adding too many modifying constituents to the head noun, and since, therefore, the subject NPs tend to be a monosyllabic noun,[28]) the Chinese language maintained a variety of classifiers for nouns until it developed polysyllabism in the north.

On the other hand, the verb phrase apparently underwent the same change much later than the noun phrase. The famous sentence of the Shih-chi:

wu(Wu) pai(defeat) yüeh(Yüeh) yü(at) fu-chiao(Fu-chiao)
'Wu defeated Yüeh at Fu-chiao'.

has all verb-modifying elements following the verb. It was only after the northern Chinese became mixed with the northern "barbarians" that these postverbal elements were "transposed"[29]) to the preverbal position as in modern Pekinese:

wu-kuo(Wu kingdom) tsai(at) fu-chiao(Fu-chiao) pa(accusative)
yüeh-kuo(Yüeh kingdom) ta(hit)-pai(defeat) la(perfective)
'The Wu country defeated the Yüeh country at Fu-chiao'.

And even in Cantonese, where we still find postverbal modifiers, at least the locative is transposed:

wu-kuo(Wu kingdom) tsai(at) fu-chiao(Fu-chiao) ta(hit)-pai(defeat)
yüeh-kuo(Yüeh kingdom)
'The Wu country defeated the Yüeh country at Fu-chiao'.

3.2. Verb "classifier"

Now, if we need classifiers for nouns in monosyllabic languages, it is not surprising to find classifiers for verbs, too, though it may not be appropriate to call them "classifiers".

In the Bê language,[30]) the citation form of the verb does not need any such constituents. But if one wants to describe an action as a specific, concrete one, he always needs a postverbal morpheme, unique to each verb, as in:

kon(eat) p'ia(rice) ʔɗa(at)-ʔɓak(mouth) 'eat(ing) rice (there/here/now)'
suan(sleep)-ɜeu(continuitive) ʔɗa(at)-leng(bed) 'sleep(ing) (there/here/now)'
ʔɗek(read) sek(book) ʔɗa(at)-moʔ(hand) 'read(ing) a book (there/here/now)'

Those postverbal phrases have already lost their cognitive meaning. This can be seen from the fact that ʔɗa(at)-moʔ(hand) has become a kind of neutral "classifier" and can be used for any verb which has nothing directly to do with hands. In other words, this is a kind of unique marker for verbs, just as the Mandarin ko is for nouns. The noun classifiers can also be used as measure words. Then what we normally regard as verbal measure words like the Mandarin t'ang in tsou(walk) i(one)-t'ang(time?), tun in ma(scold) i(one)-tun(time?), hsia in ta(hit) i(one)-hsia(time?), etc. could be traces of the once flourished verbal "classifiers". They are nowadays used only as measure words, but since each verb takes a unique measure word (though the variety in the modern language is already much limited), they must have been more than mere measure words. Since verbs usually take object, complement, auxiliary verb, tense/aspect markers, etc., the VPs (verb phrases) as a whole tend to be polysyllabic. This must be the reason why verbs lost their "classifiers" much earlier than nouns in monosyllabic languages. The dialectal variants of Chinese also confirm this assumption, since the further south one goes, again the more variety one can find in the local dialects, as shown in Table 7.

Table 7

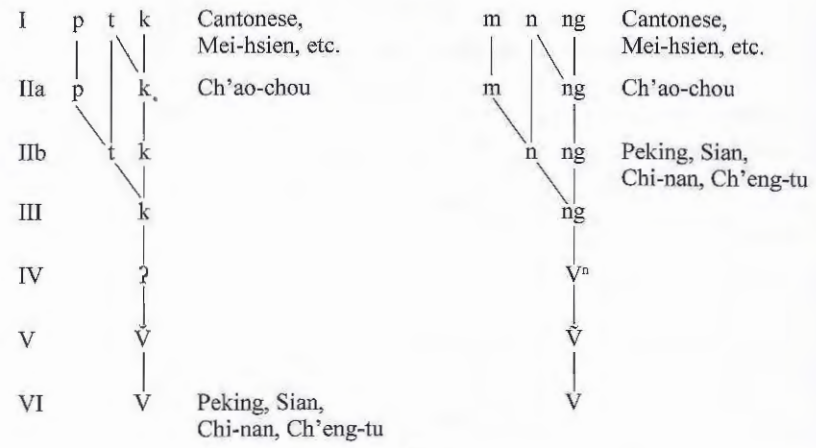
Word	*'(open one) time'*	*'(hit one) time'*
Shensi/Kansu	hui	tun
Sian	hui	tun
Chi-nan	hui	tun
Ch'eng-tu	hui	tun
Yang-chou	hui	tun
Soochow	chuan/t'ang	tun
Wenchow	hui	pien
Ch'ang-sha	hui	tun
Nan-ch'ang	hui	tun
Mei-hsien	pai	tun
Foochow	lun	hui
Ch'ao-chou	tsa	hsia
Cantonese	yün/t'ang	ts'an

5. Concluding remarks

We have examined the typological characteristics of the modern Chinese dialects in connection with the Altaic languages in the north and with the Tai languages in the south, and concluded that the Chinese language has been undergoing a consistent "Altaicization" since the very beginning of its history. This is also confirmed by evidence from historical documents. Without consideration of these surrounding languages, these typological diversities of the modern Chinese dialects must be hard to comprehend. We want to point out here how and where the lack of such a consideration has been distorting our linguistic analyses.

Charles N. Li and Sandra A. Thompson presented a very clear analysis and generalization on the word order change (in the present author's understanding, from the Tai type to the Altaic type), with the premise that "any change observed in Chinese word order must be originated internally", however.[31]) Their justification for this presumption is that China had "the overwhelming dominace of civilization in pre-twentieth century Asia", and "such cultural dominace preclude the possibility of any external influence on Chinese". However, China has been under almost continuous "barbarian" rule—six out of the past ten centuries, for example. When a historian says the Chin dynasty was destroyed by the Mongolian, he does not mean that all the Tungusic people who once occupied the Central Plains were also exterminated. When the Republic of China toppled the Ch'ing dynasty, very few Manchu people were really kicked out from Peking. Then one will realize how misleading the enthnic labels like "Chinese", "Manchu", etc. are. When C.N. Li and S.A. Thompson talked about the Chinese of pre-twentieth century Asia, they were in fact talking about the Tungusic people, though they were Chinized to a great extent. Thus it is not true that the Chinese "cultural dominance precludes ... any external influence on Chinese". On the contrary, our study revealed some constant Altaicization in the

Table 8



historical development of the Chinese language. Many points both C.N. Li and S.A. Thompson tried to justify should be reexamined from this viewpoint.

This kind of reexamination is particularly necessary for Matthew Chen's illuminating hypothesis of "latitudinal" reconstruction based exclusively on coexisting reflexes in related languages.[32]) While he saw a near parallelism between the change of syllable endings, nasal and stop, for Cantonese, Ch'ao-chou, etc. but neither for Peking nor for Sian, as can be seen from Table 8. If he had considered this "Altaicization", he would have arrived at much neater conclusions.

After examining the consonantal decay of the Tibeto-Burman languages, James A. Matisoff generalizes that:

> the better-preserved the consonantal system, the fewer the vowels and the fewer the tones; the more vestigial the consonant system, the more proliferation of vowels and tones.[33])

We can immediately present counter-evidence. Shensi/Kansu has only 17 consonants and 3 tones, while Soochow still maintains as many as 21 consonants yet has 4—phonetically 7—tones; T'ai-yüan has also 17 consonants and 5 tones, while Shuang-feng still has 24 consonants yet manages to reduce its tone to 5.

It seems that all of the above-mentioned linguists tacitly assume that a family of languages presupposes that the languages belonging to the family (or group) have a more or less homogeneous, closed system. This is true with respect to many natural languages to some extent. We are, however, nowadays discovering more and more heterogeneous aspects, after achieving certain generalization on the deep syntactic structure. It is our conviction that the time has come for us to observe the reality of natural languages, and to uncover the underlying regularities of the linguistic structure without "idealizing" the natural languages.[34]) Noam A. Chomsky once stated that "insofar as attention is restricted to surface

structures, the most that can be expected is the discovery of statistical tendencies" in connection with the type of inquiry into the universals of language, carried out by people like Joseph H. Greenberg.[35]) However, we want to emphasize here that if we introduce the geographical dimension, we can come upon many more discoveries even though we limit our "attention to surface structures". Let us repeat that it is through the surface structure that more than one language come into contact, and that there is no "canned", "distilled" language in this world which has had absolutely no contact with others.

Notes

1. The present paper was prepared for the 8th Annual Meeting of the International Conference on Sino-Tibetan Language Studies and Linguistics at Berkeley on October 24-26, 1975.
2. Hence expressions like "Altaic linguistics", "Altaist", etc. for example.
3. M.J. Hashimoto 1974a, p.672.
4. For a recent popular exposition in English of this migration, see J. Edge 1973, p.20.
5. I have in mind several articles by W. A. Grootaers, P. L-M. Serruys, etc.
6. Wang Li 1950 and J. L. Norman 1970.
7. For further resemblance between these languages, see M.J. Hashimoto 1974a, pp.680-3. See in this connection Sören C. Egerod's very interesting remark, recorded as a comment on Paul Kratochvil's article (Inga-Lill Hansson 1971, p.34).
8. J.D. McCawley 1964.
9. The few exceptions being J.L. Norman & T.L. Mei 1970. M.J. Hashimoto 1974a, 1974b and 1975ab, and T.L. Mei & J.L. Norman 1975.
10. M.J. Hashimoto 1956, pp.70-272.
11. Hattori Shiroo & Yamamoto Kengo 1956.
12. E.J.A. Henderson 1964.
13. W.L. Ballard 1969 convincingly argues that the two distinct nasal endings /n/ and /ng/ can be construed for Proto-Wu, though phonemically we need only one nasal phoneme for most of the modern Wu dialects. For Ch'ao-chou, "n" represents nasalization of the preceding vowels, and "t" a glottal stop.
14. A.A. Dragunov 1952, p.52.
15. Yü Min 1949, p.320.
16. for convenience of identification, unless necessary, dialectal words in this paper are all given the corresponding Mandarin pronunciation in the Wade-Giles transcription.
17. A.A. Dragunov 1952, p. 50 and A.A. Kalimov 1955, p.79.
18. J.A. Matisoff's opinion expressed at the 7th Annual Meeting of the International Conference on Sino-Tibetan Language Studies and Linguistics, held in Atlanta on October 18-19, 1974.
19. The Min dialects adopt different word-formation for plural pronouns, of which we do not want to go into detail here.
20. Nishida Tatsuo 1973, p.438. For the syllabic /m̩/ of Tai, see John F. Hartmann: "Syllabic m̩ in Tai-Lue and neighboring Tai dialects" (Paper read at the 7th Annual Meeting of the International Conference on Sino-Tibetan Language Studies and Linguistics, held in Atlanta on October 18-19, 1974).
21. Data collected by A. O. Yue during her field work in 1973, sponsored by the SSRC/ACLS.
22. Mandarin compound nouns with such word formation as N + CL (like chih(paper)-chang(classifier) 'paper', ch'uan(boat)-chih(classifier) 'ship', etc.) could be a trace of this ancient word order. For the similar word formation in Min, see Yüan Chia-hua et al 1960, pp.272 and 308.

23. A. O. Yue pointed this out to me.
24. Ts'en Ch'i-hsiang 1953, p.10.
25. The male-female distinction is extended to vegetation, too: mu(tree)-kua(melon)-kung(male) 'male quince' and mu(tree)-kua(melon)-na(female) 'female quince'.
26. M.J. Hashimoto 1974a, 1974b, 1975a and 1975b. See also W. Wang 1965, p.460.
27. Toodoo Akiyasu 1959, p.106.
28. The Chinese language lacks the type of relative pronoun many Indo-European languages have (except. perhaps, so in classical Chinese).
29. To say "transpose" here is merely for the convenience of synchronic description. For the exact linguistic mechanism that caused this "transposition", see C.N. Li and S.A. Thompson 1974a or Eric C. So's unpublished paper: "BA-construction and the V-final drift in Chinese" (1973).
30. The Bê data in this paper are all from my field notes, collected in 1973 during my field trip to the Far East.
31. C.N. Li. & S.A. Thompson 1974b.
32. M. Chen 1973.
33. J.A. Matisoff 1973, p.81.
34. Nishida Tatsuo suspects that the language spoken by the Chou people must have had a close tie with Tibeto-Burmese. See Nishida Tatsuo 1975.
35. N.A. Chomsky 1965, p.118: J.H. Greenberg 1963.

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19

ORIGIN OF THE EAST ASIAN LINGUISTIC STRUCTURE

Latitudinal transitions and longitudinal developments of East and Southeast Asian languages

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1. Introduction

The 18th to 19th century's view on the genealogy of human languages gave us the fixed idea, still very much prevalent and persistent among contemporary linguists, that there are at least three major groups of mutually unrelated languages in the East Asian continent – Altaic from the north, Sino-Tibetan in the middle and Austroasiatic in the south. Despite the strong belief, much enthusiasm, tireless efforts and repeated attempts, it still remains to be established that these groups constitute three language-families.

On the other hand, scholars in the field of East Asian linguistics are fully aware that regional variants of languages and dialects of the East Asian continent constitute a near perfect continuum of a transitional linguistic structure – not merely within each language group but also, in many respects, these languages as a whole. When we examine the structure of these languages and dialects in the context of this structural continuum, therefore, we come to face the most fundamental question to modern linguists: what is the notion of 'linguistic genealogy'?

2. In defiance of the monolithic myth

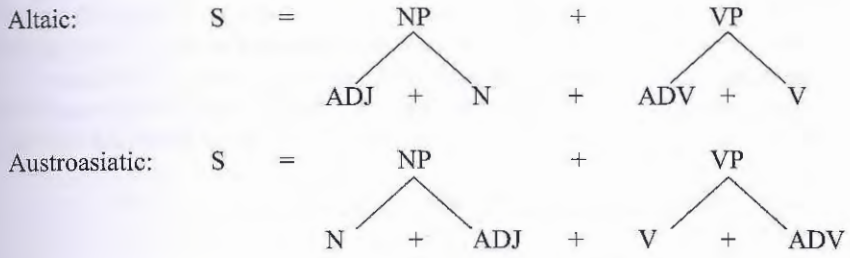
Take the Chinese language as an example. Despite its monolithic-looking label 'the Chinese language', this largest language in the Sino-Tibetan group is by no means as much homogeneous in its linguistic structure as this label implies.

Toward the northern end of its regional variety we find so many linguistic features in common with the Altaic group, while at its southern end no clear line really divides the Chinese and the Tai structure, phonological, morphological, syntactic or lexical.

2.1 Tibetan being the middleman

Among numerous features in the syntactic structure of East Asian languages, we here choose the word-order of major sentential components in order to illustrate the heterogeneity, as word order constitutes one of the major syntactic means in the majority of those languages.

Let S stand for sentences, ADJ for adjectivals, N for nouns, ADV for adverbials (i.e. all the syntactic components concatenated with verbs, thus including not merely ordinary adverbs but also other components such as objects, complements, locatives, instrumentals, etc. etc.). Then the typical Altaic and Austroasiatic word-order can be summarized as follows:



To link these northern and southern extremities, the northern variety of modern Chinese dialects is dominated by the ADJ + N and ADV + V structure, while the southern variety maintains a lot of traces of N + ADJ and V + ADV structure. For example, 'raw fish' is sheng(raw) + yu(fish) in Peking, but yu(fish) + sang(raw) in Canton [though this Cantonese word is a kind of fossilized expression and nowadays means a dish, consisting of uncooked fishmeat fillets and hot rice-gruel poured on them]. Thus the above summary can be revised as follows:

Altaic:		S	=	ADJ	+	N	+	ADV	+	V
Chinese	Northern:	S	=	ADJ	+	N	+	ADV	+	V
	Southern:	S	=	N	+	ADJ	+	V	+	ADV
Austroasiatic:		S	=	N	+	ADJ	+	V	+	ADV

The dividing line between the ADJ + N and N + ADJ groups of Chinese dialects is roughly the Yangtze River.

To make things more interesting, Tibetan, exactly reflecting its geographical location, comes between these north-south groups of Chinese and has the following structure:

Tibetan:		S	=	N	+	ADJ	+	ADV	+	V

In other words, the NP part shares the same structure with the southern group of Chinese, while the VP with the northern group. Thus the summary revised above should be rearranged as follows:

Altaic:	S	=	ADJ	+	N	+	ADV	+	V
Chinese: Northern:	S	=	ADJ	+	N	+	ADV	+	V
Tibetan:	S	=	N	+	ADJ	+	ADV	+	V
Chinese: Southern:	S	=	N	+	ADJ	+	V	+	ADV
Austroasiatic:	S	=	N	+	ADJ	+	V	+	ADV

2.2. "Une triste histoire" or "une histoire triste"?

Students of Chinese history will find the well-known problem of gudai daozhuang (inverted [word] order in the ancient times) extremely relevant here.

It has been well established by a series of typological surveys of the world languages that the ADJ + N languages place the PROPER NOUN before the COMMON NOUN[1]) [thus, Mao (Mao) + zhuxi (chairman) 'Chairman Mao' in (northern) Chinese, while the N + ADJ languages place the same sentential components the other way round (thus, le + president + DeGaule in French).

Incidentally, English is in this respect structurally very heterogeneous. In the fairly limited area of the same Pacific Northwest in the North American continent, they allow both:

Ozette Lake, Wynoochee Lake, Sammamish Lake, etc.

and:

Lake Crescent, Lake Washington, Lake Chelan, etc.

So, even those who were born in that corner sometimes find it awfully difficult to determine whether it was 'Lake Crescent' or 'Crescent Lake'.

Grammarians' ordinary excuse for this type of fluctuation in English is that the latter set represents the oppositional construction, while the former the attributive. The underlying principles related to this type of fluctuation is that the English language has the idiosyncrasy of allowing both ADJ + N and N + ADJ structures. In other words, the language places adjectivals after the head noun when the speaker found them (the adjectivals) too long, while maintaining them before the head nouns if they are short – or, strictly speaking, English has its adjectivals after their head nouns, but when and only when the adjectivals happen to be fairly short, the language places them before the head nouns. Thus,

> "He solved the above-mentioned problems" [the hyphen should be there between 'above' and 'mentioned', otherwise the pretense that these two words constitute a single word will be lost, and the condition "short adjectivals" will be violated.]

but:

> "He solved the problems mentioned above quite often and most enthusiastically." [If one is determined to place all of these adjectival words before the head noun, it is not impossible, though a pretense will be needed that these words in fact constitute a single component, thus having to hyphenate all of them, like: "He solved the quite-often-and-most-enthusiastically-mentioned-above problems."]

To return to the problems of Chinese history, Yin-(Western) Zhou seems to be the turning point for ancient inverted (word) order. As listed in the Ben-ji of Sima Qian's Historical Records, names of Pre-Zhou rulers after the Yellow Emperor are, legendary or historical, all of the same word order: COMMON NOUN + PROPER NOUN. Thus,

Di (Emperor) Yao(Yao)
Di (Emperor) Shun(Shun)
Di (Emperor) Jia(First Heavenly Stem)
Di (Emperor) Yi(Second Heavenly Stem), etc.

while Zhou and post-Zhou kings are all of the PROPER NOUN + COMMON NOUN order. Thus,

Wu(Wu) Wang(King)
Cheng(Cheng) Wang(King)
Kang(Kang) Wang(King)
Zhao(Zhao) Wang(King), etc.

Of paramount interest here is the use of Heavenly Stems for personal names as withnessed since the end of the legendary Xia dynasty and the beginning of Yin (around 1500 B.C.):

Zu(Grandfather) Yi(Second Heavenly Stem)	"Grandfather Yi"
Fu(Father) Ding(Fourth Heavenly Stem)	"Father Ding"
Bi(Deceased mother) Jia(First Heavenly Stem	"Deceased Mother Jia"

It is a fortunate coincidence that this type of heavenly stems' use for personal names revives, after almost ten centuries, in the State of Qi during the Spring and Autumn period (770–404 B.C.), where the offsprings of founder Tai-gong are all named with heavenly stems, but this time always having them before, not after, the common noun gong(duke):[2])

Yi(Second Heavenly Stem) Gong(Duke)	"Duke Yi"
Ding(Fourth Heavenly Stem) Gong(Duke)	"Duke Ding"
Jia(First Heavenly Stem) Gong(Duke)	"Duke Jia"

The exactly same trace of ancient word order can also be found with respect to place names. Thus, the modern place name:

Shang(Shang)-qiu(mound)

in Henan is:

Qiu(mound)-shang(Shang)

as it occurs in the oracle bone inscriptions.

Cheng(Town)-pu(Pu)

of the State of Wei during the Spring and Autumn period corresponds to modern:

Pu(Pu)-cheng(town)

of Shandong.

Doesn't it then occur to us that Bo-yi and Shu-qi of Yin should in fact be:

Yi(Eastern Barbarian)-bo(elder uncle or first brother)
Qi(Qi State)-shu(younger uncle or third brother)

respectively, if we are to attempt a modern translation to such proper nouns?

Most Asian historians agree that the social changes from Yin to Zhou constitute the turning point of the history of China, since we believe that the Han race as we know nowadays appeared in the history in this period. Prior to that, the Yin people seem to have already emerged as a people having the basic features of the Han race, judging from the fact, among others, that we find no fundamental discrepancy between the Zhou-Qin uses of xie-sheng characters and those in the oracle bone inscroiptions. But that is something to be established in the future.

In any event, we believe that the NP part of the Chinese language underwent the change from the N + ADJ to ADJ + N structures in the very early part of the history and imperial names like Di(Emperor) Yao(Yao) or the Pre-Qin place names like Qiu(Mound)-Shang(Shang) are the last remnants of these older structures.

2.3. "Lisez-le" or "(Je) le lis"?

On the VP side, we find exactly the same type of regional transitions and historical changes.

The grammatical construction of the sentence "You are taller than him" in Peking and canton can be contrasted as follows:

Peking: ni(You) + bi(than) + ta(him) + GAO(IS+TALL).

Canton: ney(you) + GO(IS+TALL) + guo(than) + koy(him).

where the main verb 'is tall' is capitalized just in order to make the two different placements of adverbials more conspicuous. This is an instance of comparative adverbials, but one can find the same contrast with respect to many other adverbials.

Exactly the same change can be observed in the history of the Chinese language. The famous phrase from one of the Chinese classics:

Wu(Wu army) + BAI(DEFEATED) + yue(Yue army) + yu(at) + fujiao(Fujiao).

"The Wu army defeated the Yue army in Fujiao."

can be translated into modern (northern) Chinese as follows:

Wu(Wu) + jun(army) + zai(at) + fujiao(Fujiao) + ba(accusative) + yue(Yue) + jun (army) + DA(HIT) + BAI(DEFEATED) + le(perfective).

where we find what was previously before the verb all transferred to the post verbal position. This change on the VP side seems to have followed that on the NP side and took place in our historical times.

It seems that, when a language undergoes word-order changes of this sort, its NP's undergo first, and VP's seem to follow the same track, just like English lost practically all the former inflections of nouns, but verbs still maintain some trace of their older inflection system.[3])

The same type of south-to-north transitions, paralleled by the ancient-to-modern changes can be observed in practically every aspect of the linguistic structure of East Asian languages. To list a few of them:

1. General structure: Monosyllabic, isolating languages in the south, exemplified by numerous Tai languages and dialects and some of the Austroasiatic languages, are contrasted to the polysyllabic, agglutinative languages of the

Altaic group in the north. Interlinking these two groups, modern Chinese dialects show a beautiful transition from the monosyllabic, postpositionless southern group to the polysyllabic, postpositional northern group. The polysyllabicization of some of the basic words whose number sharply increases as we move to the north, is truly remarkable, exactly parallelled by the ancient to modern changes in Chinese. To cite a few nouns for body parts:

	Ancient Chinese	Cantonese	Pekinese
'head'	shou	tau-hok	nao-dai-gua-r
'forehead'	(ng)e	ngak-tau	nao-men-zi
'finger'	zhi	shau-chi	shou-zhi-tou-r
'knee'	xi	shi-tau-go	bo-leng-gai-r

But between Cantonese and Pekinese, there is still a very sharp contrast of monosyllabism and polysyllabism, as shown below:

	Cantonese	Pekinese
'eye'	ngan	yan-jing
'tongue'	lei	shou-tou
'neck'	geng	bo-zi

2. Sound system: Numerous Tai and Miao-Yao languages in the south maintain 10 to 15 tones, contrasted to only three or at most four syllabic intonations in some Altaic languages in the north. Placed between these two extremities, a Chinese dialect spoken in Guangxi at the southern end of the Chinese speaking territory, distinguishes 10 tones,[4]) while up in the north in Ningxia a dialect is reported to have only three tones.[5]) Between these two, again, we find a gradual decrease of tones from the south to the north.

   If we count those tonal distinctions due to the voicing of intial consonants, Ancient Chinese should have maintained a system containing at least 8 tones, which is now reduced to 4 in modern standard Chinese.

3. Prosody: Because of its non-alphabetic writing system, we have no way of determining the precise nature of ancient Chinese prosodic features. But judging from the use of Chinese characters, we have very good reasons to believe that ancient Chinese was a typical isolating language, just as we nowadays find at and beyond the southern end of the Chinese-speaking territory.

   It is hard to believe that a language could be purely monosyllabic and isolating, as this implies that sentences in the language remain to be mere successions of monosyllabic words, with no other elements marking boundaries of phonemic phrases. Without such marks, it is not easy to decipher [or 'parse'] the hierarchical structures underlying any sentence of any language. It has been assumed by some linguists that in typical isolating languages like Thai or Cantonese, rhythm of each sentence gives us the clue for this kind of parsing. This immediately reminds us that what was most valued in composing fine sentences in ancient China was to maintain its rhythm, like successions of four syllable phrases, or five which, in turn, could be subdivided into three plus two or two plus three. As a clue to this division into

four or five syllable phrases, abundant use of antitheses can be found in any fine sentences. Thus, for example, a succession of words with absolutely no declension or concord:

qing(blue) + shan(mountain) + heng(lay) + bei(north) + guo(suburb) + bai(white) + shui(river) + rao(surround) + dong(eastern) + cheng(town).....

can be first divided into two between the fifth word, guo(suburb), and the sixth word, bai (white), as it is easy to see the first word, qing(blue), is contrasted with the sixth word, bai (white); so is the second word, shan(mountain), with the seventh word, shui(river), etc. etc. A close structural tie between ancient Chinese and modern dialects of Chinese in the south is unmistakable.

As we move to the north, we notice a gradual overlapping of the stress accent on Chinese phonemic phrases. In Amoy, one step north from Canton, we already detect that the end of each phonemic phrase loses its prominence and receives certain tonal modification. One more step up to the north, in Shanghai, we find the tone in the initial syllable dominating tones of any other syllable within each phonemic phrase. Further up in the north in Pekinese any phonetic configuration of tones is strictly conditioned by the stress accent overlapping on each word, and the overwhelming majority of single word stress is of the initial stress pattern — the exact replica assumed for proto-Altaic by Nicholas N. Poppe.[6])

3. Conclusion

In the preceding section, we have seen, taking the Chinese language as an example, toward the northern end of its regional variety we find so many features in common with the Altaic group, while in its southern end no clear line divides the Chinese from the Tai structure, phonological, morphological, syntactic or lexical.

It is the genealogical position of a language that we are truly concerned with here, not a mere grouping or subgrouping of existing languages. If such a position is not something to be predetermined by its speakers' existence in this word as an ethnic group, as large as a nation or as small as a minority group of a few hundred within a multi-ethnic society, we then have to come to an absurd conclusion that there does not exist a unique linguistic structure to be characterized as Chinese, just as we have to conclude that what does exist there are 'blue' and 'yellow', when we are given the color continuum from 'blue' to 'yellow' through 'green', and asked about its genealogical constituents.

Needless to say that it is totally absurd to question the very existence of the Chinese language — it is there in the East Asian continent, having a speakers' population perhaps larger than any other language and having a history, comparable to that of Indo-European.

It is truly intriguing here what these regional transition [latitudinal developments] and these historical evolutions [longitudinal developments] imply. If these structural developments along these two mutually independent axes coincide as a whole if not in minute details, we have to conclude that the proto-type of the the

East Asian linguistic structure must be nothing but the a) monosyllabic, b) isolating, c) N + ADJ, V + ADV structure. Then in so far as the linguistic structure is concerned, the East Asian languages must have come from the south, definitely not from the north, judging from the contemporary distribution of linguistic types in the continent.

In view of the recent developments in the archaeological and anthropological studies on East and Southeast Asia, this conclusion from the field of linguistics should be extremely intriguing to anybody in the field of East and Southeast Asian studies. We feel a greater need for closer cooperation between linguists and anthropologists-archaeologists, or specialists in any field of social sciences for that matter.

Notes

1. Greenberg 1963, p. 89. This study is supported by the Japan Society for the Promotion of Sciences with its travel and research grant for specific countries for the academic year 1982–1983.
2. Toodoo 1959, p. 109.
3. Bever-Langendoen 1972.
4. Wang 1932.
5. Gao 1983.
6. Poppe 1965, pp. 180—181.

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20

SOME OLD CHINESE LOAN WORDS IN THE TAI LANGUAGES

Li Fang-kuei

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In recent years the reconstruction of Archaic Chinese,[1] roughly of the *Shih-ching* period, has progressed far enough to allow us to seek some confirmation of the results in the cognate languages such as Tibetan and Siamese. The study of the *Shih-ching* rimes, of phonetic compounds, and of phonetic loans has enabled us to determine with increasing confidence the phonological system of Archaic Chinese, but there are still many difficult problems which cannot be solved satisfactorily from the Chinese sources alone. We are justified to expect that the comparative study of the Sino-Tibetan Languages will help us to disentangle some of the problems and will confirm some of the results already obtained. Walter Simon's *Tibetisch-chinesische Wortgleichungen* (Berlin 1930) is an attempt along this line. Unfortunately our knowledge of the Tibeto-Burman phonology and morphology remains meagre, and in spite of the abundant comparative data gathered by earlier as well as recent authors, we still cannot apply standards demanded by the more rigorous methods of a modern philologist.[2]

Another line of attack would be the study of loan words. It does not matter whether it is Chinese loan words in other languages or words borrowed from other languages into Chinese. If they are sufficiently old, they will throw light upon our reconstructions, and, as we shall see later, arouse interesting problems. In this study we shall confine ourselves to a limited number of Chinese loan words in the Tai languages.

As the Tai group of languages is generally recognized to be related to Chinese, extreme care must be exercised in selecting words that are surely loans. There are many words which may be considered either as loans or as cognate words.[3] Failure to distinguish them in our study may give rise to hopeless confusion in our results. As the comparative study of Chinese and Tai has hardly begun, we have no phonological criterion to discriminate loans from cognate words as we have, for instance, in the Indo-European languages. For this reason a series of cyclic terms, namely *ti-chich* 地支, is chosen which appears in the earliest Chinese inscriptions (2nd millennium

B. C.) and which is still found in use in some Tai languages. The advantage of these terms is that, being highly specialized cultural terms, they are definitely loans, and, being a series of terms, they are homogeneous in regard to the date of the loan.

The meaning of the cyclic terms, both *t'ien-kan* 天干 and *ti-chih* 地支, is practically unknown. As early as the Han dynasty there were philosophical speculations about their meanings, usually by way of paronomastic definitions, e. g., *shên* defined as *shên* 申身也. Such seems to be the fashion of explaining characters, particularly in the work *Shih-ming* 釋名, and it is a method adopted by most authors of that period to explain characters whose meaning is obscure, like the cyclic terms. It is evident that such explanations cannot be relied upon, but, if used with care, may be utilized to a certain extent in determining the pronunciation of the cyclic terms in that period.

The cyclic terms were used in the earliest inscriptions, the oracle bones of the Yin dynasty, chiefly to name and to enumerate days. Later, they were also used to enumerate years. In the Dioi 仲家 dialects of Kweichow, *ti-chih* are still the only words used to enumerate days and have the important function of determining the market dates and occasionally of giving names to villages where such markets take place. *T'ien-kan* are not so used, though known undoubtedly to the more sophisticated natives. The Chinese in Kweichow, having as elsewhere associated the cyclic terms with the twelve animals, ordinarily denote market dates by animal names, such as dragon-market day 龍瘍天, ox-market day 牛 瘍天, etc., and we have many place names derived therefrom. The Dioi do not seem to associate the dates with the animal names, although they know perfectly well from the Chinese the animals coresponding to the twelve cyclic terms.

Ahom, an extinct Tai language of Assam, Lao of Indo-China, and Lü of Yunnan employ also the cyclic terms to enumerate years, but no longer use them to denote days. They use both *t'ien-kan* and *ti-chih*. The *t'ien-kan* terms seem to be so different from the Chinese that their origin remains doubtful, and therefore they are not included in this study. The *ti-chih* terms bear a close resemblance to the Chinese forms.

In the following list the twelve *ti-chih* terms are chosen from Chinese, Ahom, Lü and Dioi.[4] The Lao forms are omitted because they seem to come from a dialect slightly different from the main body of the dictionary of Guignard, and for this reason we have no control over their phonology and tones. They do not seem to differ from the Ahom and the Lü forms.

	Animal	Anc. Ch.	Arc. Ch.	Ahom	Lü	Dioi	
1.	子 rat	ˋtsi	tsi̯əg	cheu	tɕai^3	chaeu^3	[ʃaə]
2.	丑 ox	ˋt̂'i̯ə̯u	t'ni̯ôg	˗plāo	pau^3	piaou^3	[piau]
3.	寅 tiger	ˏi̯ĕn	di̯ən	ngi	ji^2	gnien^2	[ɲien]
4.	卯 hare	ʻmau	mlộg	māo	mau^3	maou^3	[mau]
5.	辰 dragon	ˏźi̯ĕn	d̂i̯ən	shi	si^1	chi^2	[ʃi]
6.	巳 snake	ˋzi	dzi̯əg	sheu	sai^3	seu^3	[sə]
7.	午 horse	ˋnguo	ngo	shi-ngā	sa-ŋa^4	sa$_3$	[sa]
8.	未 goat	mjwĕiʻ	mi̯wəd	mut	met^6	fat$_1$	[fat]
9.	申 ape	ˏśi̯ĕn	śi̯ĕn	shān	san^1	san^4	[san]
10.	酉 cock	ˋi̯əu	zi̯ôg	rāo	hrau^6	thou$_3$	[ɚu]

11.	戌 dog	sjuĕt$_2$	(?)	mit	set^5	seut^1	[sət]
12.	亥 pig	ʻɣâi	gʻəg	keu	kai^6	kaeu$_3$	[kaə]

Tone correspondences

The tone-classes of Archaic Chinese are largely unknown. The Ahom tones are not recorded, although they must have existed. We therefore can only compare the tones of Lü and Dioi with the Ancient Chinese tone-classes. Lü has six tones indicated by numerals after the forms quoted: (1) a high tone slightly rising at the end, (2) a low falling tone, (3) a low rising tone, (4) a half-low level tone, (5) a mid-rising tone, and (6) a mid-level tone. Dioi has seven tones indicated according to the dictionary by either raised or subscribed numerals: a^1 a high tone, a_1 a middle tone, a^2 a low and long tone, a^3 a high falling tone, a_3 a low falling tone, a^4 a rising tone, and a^5 a low and short tone (rare).

In Ancient Chinese there are four tone-classes indicated here according to the old Chinese system of making little half circles at the four corners of the character: *ʻa pʻing-shêng, ʻa shang-shêng, aʾ chʻü-shêng*, and *aʾ ju-shêng*. The *ju-shêng* is strictly speaking not a tone-class, but a special class of words which end in a final stop consonant. All such words have only one tone, which the old Chinese phonologists did not associate with any of the other three tones. Thus, a syllable *tan* may have three tones, *pʻing, shang*, or *chʻü*, but the syllable *tat* may have only one tone, which is then taken as a special tone-class. The development of these four tone-classes in the modern Chinese dialects is a complicated affair, but the initial consonant, especially as regards its *manner* of articulation, has a dominating influence on the development: the tone developing in one way with voiceless initials and another with voiced initials, one way with unaspirated surds, another with aspirated surds, one way with nasals, another with fricatives, etc., etc.

In the Tai languages we have almost an identical situation.[5] The Primitive Tai may also be said to have four tone-classes, if we follow the Chinese tradition of considering the syllables ending in a stop consonant as a special class. These four tone-classes are later differentiated into various tones, chiefly depending on the nature of the initial consonant. If we indicate the four classes in Tai by A, B, C, and D, followed by numeral 1 or 2 which we employ to denote respectively the development of tone from a voiceless or a voiced initial, we shall get the following correspondences as exemplified by the cyclic terms.

(Anc.) Chinese		Lü	Dioi	Examples
pʻing-shêng	voiceless	A1	A1	申 No. 9
	voiced	A2	A2	寅 No. 3
shang-shêng	voiceless	C1	C1	子丑 Nos. 1, 2
	voiced	C2	C2	午酉亥 Nos. 7, 10, 12
chʻü-shêng	voiceless			
	voiced	D2	D2	未 No. 8
ju-shêng	voiceless			
	voiced	D1	D1	戌 No. 11

No. 5 辰 with a voiced initial in Chinese should be A2 in Lü as well as in Dioi, but is A1 in Lü; Nos. 4 卯 and 6 巳 with a voiced initial should be C2, but are C1 in both Lü and Dioi; in No. 8 the final *-d*, dropped in Ancient Chinese, is represented by *-t* in the Tai languages, and the tone is therefore represented by D2 instead of B2. It is clear that the variances in tonal correspondence consist chiefly in a few voiced initials in Chinese which are treated, as revealed by the tone, as voiceless in the Tai languages; otherwise the correspondences are exact. The forms *met, fat* (No. 8) are of particular interest, because the Archaic Chinese form *mi̯wəd* is reconstructed purely on circumstantial evidence. The final *-d* is not supported by any direct riming with *-t* in *Shih-ching*, nor supported by any phonetic compounds in *-t*. Here the Tai forms with *-t* definitely confirm the Archaic reconstruction.

Initials

The correspondences among the initials are far more complicated than among the tones. Even in Archaic Chinese we are much less confident about our initials in our reconstructions than we are about our finals, and the Tai forms here give rise to a number of questions we are not able as yet to solve. We shall comment on the initials one by one.

1. Anc. Ch. *ts-* (<Arc. *ts-*) is represented by Ahom *ch-* and Lü *tɕ-*. As there are no dental but palatalized affricatives in Ahom and Lü and there is probably only one series of affricates in the Primitive Tai period, the Tai forms here give no difficulty. Dioi *ch-* is a fricative, regularly representing all Tai affricates; there are no affricates in Dioi except in a few Chinese loan words and in a few cases where they are the results of palatalization of *k-* (written in the dictionary as *ki-*).
2. Anc. Ch. *t̂ʻ-* is represented here by Ahom *pl-*, Lü *p-* and Dioi *pi-*, which all point to a Primitive Tai *pl-*. This suggests for Anc. Ch. *t̂ʻ-* an altogether different origin from the *tʻn-* as reconstructed by Karlgren from Chinese sources alone.
3. Anc. Ch. *(i̯)-* (<Arc. *d(i̯)-*) is represented by Ahom *ng-*, Lü *j-*, and Dioi *gn-*, which all seem to point back to a Primitive Tai palatalized nasal. If this is a good representation of Arc. *d(i̯)-*, it means probably that the Archaic unaspirated *d-* must have a good deal of nasal quality, possibly something like *nd-*.
4. Anc. Ch. *m-* (<Arc. *ml-*) is here represented by *m-* in all three languages. As Ahom regularly preserves an initial cluster such as *ml-*, and as we also expect a trace of it in Dioi (cf. No. 2, where the *-l-* is vocalized into *-i-*), the Archaic form *ml-* is extremely doubtful, unless we can show that *ml-*, different from *pl-*, had been simplified into *m-* before it was loaned into the Tai languages. Furthermore the tone in both languages where tones are known to us indicates a 'voiceless initial.'[6]
5. Anc. Ch. *ź-* is represented by Ahom *sh-*, Lü *s-*, and Dioi *ch-*, which do not seem to tally well with the Archaic reconstruction *d̂-*. Lü *s-*, as indicated

by the tone, points back to a voiceless sibilant, while Dioi *ch-* points back to a voiced affricative. An exact parallel is found in the numeral "ten," Anc. Ch. *źi̯əp* (<Arc. *d̂i̯əp*), Ahom *ship*, Lü *sip*[1], Dioi *chip*$_1$, and in the word "well-cooked," Anc. Ch. *źi̯uk* (<Arc. *d̂i̯ôk*), Lü *suk*[1], Dioi *chouk*$_1$, where the tone of Lü is again that of a voiceless initial and the tone of Dioi that of a voiced. Of course the two words may be true Tai words and not loans from Chinese, but if the parallel is not accidental we may expect that Anc. Ch. *ź-* and its cognate form in Tai differ from the other voiced initials in their influence on tone in Lü and in some other Tai languages such as Siamese, Lao, Shan, etc.

6. Anc. Ch. *z-* (<Arc. *dz-*) is represented by Ahom *sh-* and Lü, Dioi *s-*. As the Primitive Tai *z-* is unvoiced into Ahom *sh-* and Lü, Dioi *s-*, the forms here agree with the Anc. Chinese *z-*, rather than with the Arc. *dz-*. The tone, however, indicates a development from a voiceless initial.
7. Here forms *shi-nga, sa-ŋa*, and *sa* all point back not to a simple guttural nasal but to a compound initial somewhat like zŋ-(not sŋ- which would give us a different set of tones according to tone rules in Tai[7]).
8. Anc. Ch. *m-* is represented here by Ahom, Lü *m-* and Dioi *f-*. The Dioi form may indicate a labio-dental nasal at the time of the loan, but more probably it is a separate development in Dioi, for some strictly Tai words have gone through the same process, for example, Lü *mu* "hand," Dioi *feung*; Lü *mai* "tree," Dioi *fai* (also *mai*).
9. Anc. Ch. *ś-* is represented by Ahom *sh-* and Lü, Dioi *s-*, which all point back to a Primitive Tai *s-* (there is no distinction of *s-* and *ś-* in Prim. Tai).
10. Anc. Ch. (*j*) - (<Arc. *z*(*j*)-) is represented here by Ahom *r-*, Lü *hr-*, and Dioi *th-*, which all point back to a Primitive Tai *r-*. It is significant that Karlgren has reconstructed for the same Anc. Ch. (*j*)- two Arc. initials *d*(*j*)- (cf. No. 3) and *z*(*j*)-. The forms here point to the fact that the *z-* was already sounded like an *r-*, for otherwise it would be represented by Ahom *sh-* and Lü, Dioi *s-*. The Han scholars explain this cyclic character by 老 *lâu* (*Shih-chi, Lü-shu* 史記、律書 and *Pai-hu-t'ung, Wu-hsing* 白虎通、五行) and by 留 *li̯əu* (*Han-shu, Lü-li-chih* 漢書、律歷志), showing that characters with a liquid *l-* were close enough in sound to serve as explanations.
11. Anc. Ch. *s-* is here represented by Ahom *m-* and Lü, Dioi *s-*, It is plain that the Anc. Ch. *s-* cannot be the original initial, for that leaves the Ahom *m-* inexplicable. The Han scholars explain this cyclic character by 滅 *mi̯ät* (*Shih-chi, Lü-shu* and *Pai-hu-t'ung, Wu-hsing*) and it has as phonetic compounds 威 *xi̯wät* and 滅 *mi̯ät* (ordinarily not recognized as having 戌 as their phonetic). All these seem to indicate a compound initial, possibly *sm-* from which Ahom *m-* and Lü, Dioi *s-* may be derived.
12. Anc. Ch. *γ-* (<Arc. *g'-*) is represented by *k-* in all three languages. The Tai *k-* seems to agree more with the Arc. *g'-* than with the later Anc. Ch. *γ-*, for Primitive Tai *γ-* gives *k-* in Ahom and Lü but *h-* in Dioi, while Primitive Tai *g-* gives *k-* in all three languages. For example, Akom *kān* 'a pole for carrying a burden,' Lü *ka:n*[2], Dioi *han*[2] (from Prim. Tai *γ-*); Lü *ku*[6] 'a pair,' Dioi *kou*$_1$ (from Prim. Tai *g-*).

Finals

In Chinese phonology the final consists of a medial element, *i, u*, or *w*, a main vowel or diphthong, and a final consonant. A glance at the Tai forms shows us that the medial element is completely left out, although we may detect here and there some influence of it on the initial or the vowel. For instance, Ahom *mut* (Arc. Ch. *mi̯wəd*) shows a *u* vowel which is probably due to the influence of the medial *-w-*, and the Dioi *fat* has an initial *f-* due to the following medial *-i̯w-* which caused the *m-* to become first a labio-dental, and then unvoiced into *f-*.

As to the final consonant, Anc. Ch. and Arc. *-t* is preserved in the Tai forms, and Arc. *-d*, which is lost in Anc. Chinese, is still preserved as *-t* in the Tai languages. This is an Archaic feature. Final *-n* is sometimes preserved and sometimes lost in the Tai languages for reasons we cannot quite understand. No. 3 *i̯ĕn* has an alternate reading *i* (<Arc. *d̂i̯ər*) which might explain the Ahom *ngi* and Lü *ji*; and we may assume an alternate reading *źi* (< Arc. *d̂i̯ər*) for No. 5 *źi̯ĕn* to explain Ahom *shi*, Lü *si*, and Dioi *chi*, although such a reading is not recorded in ancient dictionaries. But still such alternation of *-r* and *-n* in the same word in Archaic Chinese does not seem to be a purely phonological but rather a morphological problem for which we need further elucidation. The final *-g* which we have reconstructed in Archaic Chinese is nowhere confirmed in the Tai forms, although there are strong indications in Chinese, i. e. 亥 *γâi* is phonetic in 劾 *k'ək*, 勃 *γək*, etc. We may assume then the *-g*, unlike the *-d*, disappeared or was on the point of disappearing when these terms were borrowed in the Tai languages.

While the dropping of *-g* in the Tai forms seems to indicate that the loans were made in a later period than the one for which our Archaic forms are reconstructed, there seems to be closer correspondence with the Archaic as a whole than with the Ancient Chinese forms. If we start from the Ancient Chinese, it is difficult to explain how Anc. Ch. *-i* and *-âi* can be represented by such divergent forms as Ahom *-eu*, Lü *-ai*, and Dioi *-aeu, -eu*. On the other hand the Archaic *-əg, -i̯əg* will give us first *-əγ, -i̯əγ*, and then *-əu, -i̯əu* (*-u*, being unrounded *-u*, is very close to *-γ* acoustically and in tongue position) which are probably the Primitive Tai forms from which Ahom *-eu*, Lü *-ai*, and Dioi *-aeu, -eu* are derived. Similarly Ahom *-āo*, Lü *-au*, and Dioi *-aou, -ou* may be derived from *-o̯u, -i̯ôu* (from *-oγ, -ioγ* < Arc. *-o̯g, -i̯ôg*), rather than from Anc. Chinese *-au, -i̯ə̯u*; for Anc. Ch. *-au* would give us Lü *-a:u* instead of *-au*, and Dioi *-ao* instead of *-aou*.

If the forms Ahom *ngi* and Lü *ji* correspond to Anc. Ch. *i* (< Arc. *d̂i̯ər*), they indicate that *Arc. -i̯ər* first becomes *-i̯əi* from which the Tai forms are derived. Notice the great difference in the development of Anc. Ch. *i* (< Arc. *-i̯əg*).

The vowel *-a* in Ahom *shi-nga*, Lü *sa-ŋa*, and Dioi *sa* is the regular correspondence for Anc. Ch. *-uo*, Arc. *-o*, for example, Anc. Ch. *nguo* 'five,' Ahom, Lü, and Dioi *ha*; Anc. Ch. *nuo* 'cross-bow,' Dioi *na*, etc. These words may however be cognates to rather than loans from Chinese.

The rest of the finals needs no comment, for we cannot as yet go very thoroughly into the strict rules of correspondence on account of the limited material at our disposal.

Conclusion

From the preceding it seems clear that the Tai forms show many Archaic features, such as the preservation of the final *-d* (No. 8 未), the indication of compound initials such as *pl-, zŋ-, sm-* (Nos. 2 丑, 7午, 11戌), and the general development of finals. It is certain that these cyclic terms could not have been loaned later than the period of Ancient Chinese (6th century). While the dropping of the final *-g* may indicate that the borrowing was later than the period of Archaic Chinese, we cannot exclude the possibility that there may be parallel development in Tai resulting also in the dropping of -g, and therefore the borrowing may have been contemporaneous with Archaic Chinese. It is hoped that when we have more data about the phonology of the transitonal period from Archaic Chinese to Ancient Chinese, particularly of the late Chou, Ch'in, and early Han times, we may be able to determine with more precision the date of the borrowing.

Notes

1. Cf. B. Karlgren, *Analytic Dictionary of Chinese and Sino-Japanese*, Paris, 1923, Introduction, pp. 1-33.
   B. Karlgren, Problems in Archaic Chinese, *JRAS*, 1928, pp. 769-813.
   B. Karlgren, Shï-king Researches, *BMFEA* 4, Stockholm, 1932, pp. 117-185.
   B. Karlgren, Word Families in Chinese, *ibid.* No. 5, 1934, pp. 9-120.
   B. Karlgren, Grammata Serica, *ibid.* No. 12, 1940.
   W. Simon, Zur Rekonstruktion der altchinesischen Endkonsonanten, *MSOS*, Berlin, Bd. 30, 31, 1928, 1929.
   F. K. Li, Sources of Ancient Chinese Vowel *a*, *CYYY* 3, pt. 1, 1931, pp. 1-38.
   F. K. Li, Ancient Chinese *-ung, -uk, -uong, -uok*, etc. in Archaic Chinese, *ibid.* 3, pt. 3, 1933, pp. 375-414.
   F. K. Li, Archaic Chinese *-i̯wəng, -i̯wəg*, and *-i̯wək, ibid.* 5, pt. 1, 1935, pp. 65-74.
2. Cf. B. Karlgren, Tibetan and Chinese, *TP* 28, 1931, pp. 1-46.
3. Cf. F. K. Li, *The Tai Dialect of Lungchow*, Shanghai, 1940, p. 20.
4. For the Chinese forms both Ancient Chinese and Archaic Chinese are given according to Karlgren's recent work *Grammata Serica*. Although I do not agree with him in many details of reconstruction, his formulae can serve as a good starting point for our discussion.

The Ahom forms are given in their original transcription from Borua, *Ahom-Assamese-English Dictionary*, Calcutta, 1920. The transcription is an adaption to the English orthography.

The Dioi forms are given in their original orthography from Jos. Esquirol et Gust. Williate, *Essai de Dictionnaire Dioi-Français*, Hongkong, 1908, p. xxviii. As the orthography follows the French, an approximate transcription in phonetic alphabet is given in brackets after the quoted forms.

The Lü forms are my own, gathered in 1936-7 from a native of Chieng-tung 整董, Yunnan.

The Lao forms can be found in T. Guignard, *Dictionnaire Lao-tien Français*, Hongkong, 1912, p. xlix (not quoted in this study).

5. Cf. H. Maspero, Contribution a l'étude phonétique des langues Tai, *BEFEO* 11. 153-169.
   K. Wulff, *Chinesisch und Tai*, København, 1934, pp. 123-166.
   F. K. Li, A Hypothesis of a Series of Pre-glottalized Consonants in Primitive Tai, *CYYY* 11. pt. 2, 1943, §9-14.
6. When we say that the tone indicates a voiceless initial, it simply means that it is a tone ordinarily developed from a voiceless initial. Under special conditions a voiceless initial may give a tone similar to that of a voiced initial and vice versa, cf. Li, *op. cit.*, §9-14.
7. Cf. Li, *op. cit.*, §6.

21

SINO-TAI

Fang-kuei Li

Source: *Computational Analyses of Asian and African Languages* (National Inter-University Research Institute of Asian and African Languages and Cultures, Tokyo) 3, 1976, 39–48.

The purpose of this paper is an examination of a number of lexical items which have been suggested or are now being suggested to be related to Chinese. The problem of proving these items to be Chinese loans to Tai of Tai loans to Chinese, or to be otherwise related is a difficult one. The vocabulary of a proto-language may be established by selecting those words which are wide spread in the different languages and dialects. By using this method we may be fairly certain that these words existed in the proto-language. Nevertheless it is quite possible that some items may spread through a wide area in fairly recent times without being in the proto-language, and some isolated forms in one or two obscure dialects may be old relics. Furthermore items that can be thus established to have existed in the proto-language may still be loans from one source to another, but we know so little about the character and sources of a proto-vocabulary that we have to leave these problems open.

In my study of Chinese loan words in Lungchow (1940) and Wu-ming (1956), two Tai dialects in Kwangsai, a distinction is made between words which show regular correspondence among the different Tai languages, but show phonological discrepency with Chinese forms, and words which disagree with those in the Tai languages, but agree with the Chinese forms. For instance, Lungchow kau B1 'old, ancient' has regular correspondences in all Tai dialects, showing an original voiceless velar initial, but the form kau B2, with a different tone, differs from other Tai dialects, but agrees with the Chinese forms, Mandarin chiu, Cantonese kau, etc., which all show a development from an Archaic Chinese voiced velar initial. It can be demonstrated that the latter form is a loan from Chinese, because it is used only in certain stereotyped Chinese phrases such as jiin kau (仍舊) 'as before'. I tentatively accept that the former form is a real Tai word in the Proto-Tai vocabulary, but not the latter form. For one who beleives that the former word must be also a loan from Chinese, albeit irregular, I can see no reason to support the fact that a voiceless initial is substituted in Tai for the voiced one in Chinese,

since Proto-Tai had also a corresponding voiced consonant. Other irregularities in consonants or tones appear also in the following list, and words showing such irregularities can only be lamely accepted as loans.

The comparison of Chinese and Tai is as complicated as that of Chinese and Tibetan. While the genetic relationship of Chinese and Tibetan is generally accepted, at least, as a working hypothesis, the relation of Chinese and Tai is assumed to be that of borrowing by some scholars. It seems to me that the problem should be examined without prejudice. This is not to deny the eventual genetic relationship of Tai with other family of languages, such as Austronesian or Austroasiatic, but rather to offer some material for the consideration of Sino-Tai relationship. It does not merely consists of typological similarities such as the tone system and the syllabic structure.

The Tai forms are chiefly quoted from Siamese and given the Proto-Tai reconstruction of the initial, with the proper tone marks used in the reconstructed tone system of the Proto-Tai such as A1, A2, B1, B2, C1, C2, D1S, D2S, D1L, and D2L. We recognize four tone classes in Proto-Tai, A, B, C, and D and each is followed by the numeral 1 or 2 indicating the high or low register (Li, 1966). The Chinese forms are usually common words or words attested in old texts, or at least given in old dictionaries, followed by their Archaic Chinese reconstructions according to the system proposed by me in 1971. We recognize also four tone classes in Archaic Chinese, generally known to sinologists as p'ing, shang, ch'ü, and ju. The p'ing is not marked, the shang is marked by the letter x at the end of the reconstructed form, the ch'ü by the letter h at the end, and the ju by the final consonant -p, -t, or -k. Occasionally Tibetan forms are appended to show possible relationships.

I shall give, first, some comparisons which show regular correspondence between Tai and Chinese in their finals (vowel + final consonants), and then to the more complicated correspondence in the initial consonants. For example:

Siam. thɔɔŋ < *d- C2 'stomach' : Ch. 肚 tu < *dagx 'stomach' also < *tagx 'animal's stomach used as food': cf. Tib. Ito-ba 'belly, stomach'.

Siam. nɔɔŋ < *n- C2 'younger sibling' : Ch. 孥 nu < *nag 'wife and children'; cf. Tib. nu-bo 'a man's younger brother' and nu-mo 'younger sister of a female'.

Siam. klɔɔŋ < *kl- A1 'drum' : Ch. 鼓 ku < *kagx < **klagx; cf. Tib. skrog-pa 'to beat the drum' and 'khrol-ba, dkrol, khrol 'to cause to sound, to beat a gong'.

Siam. pɔɔŋ < *p- C1 'to protect, cover up' : Ch. 補 pu < *pagx 'to mend, repair, assist'.

If these etymologies are acceptable, it does not seem that they are loans. The general assumption that Tai words, that can be related to Chinese, usually form a series or a group of certain semantic or cultural area, such as the numerals, commerce, etc., and are likely due to borrowing cannot be maintained here. In

the examples above, we have a body part, a kinship term, a common noun, and a common verb.

There is another set of correspondences which show Tai * -aa and Archaic Chinese * -ag, namely:

Siam. thaa < *d- B2 'wharf', landing'. This word has regularly the meaning 'river' in most other Tai languages: Ch. 途 *tu < *dagh 'to ford a river; a ford', cf. Tib. 'da-'ba, das 'to pass over'.

Siam. thaa < *d- A2 'to smear, paint' : Ch. 途 *t'u < *dag 'to plaster, soil'.

Siam. raa < *r- A2 'we'. This is an archaic word in Siamese, rarely used now : Ch. 余 yu *rag 'I'.

Siam. thaa < *d- C2 'to challenge, dare' : Ch. 謄 tu < *tagx 'to gamble, bet'.

Siam. haa < *hŋ -? C1 'five' : Ch. 五 wu < *ngagx 'five', cf. Tib. lnga.

Siam. klaa < *kl- C1 'young rice plant' : Ch. 稼 chia < * kragh 'grain, to sow'.

Siam. khaa < *g- B2 'price' : Ch. 價 chia < *kragh.

Siam. khaa < *g- C2 'to trade, to do business' : Ch. 賈 ku < *kagx 'merchant, to do business'.

White Tai xaa < *x- B1 'to give a girl in marriage' : Ch. 嫁 chia < *kragh 'to give a girl in marriage'.

Wu-ming k1a < *g1- C2 'orphan'. Siamese has kamphraa < *br- C2 with a prefix kam- : Ch. 孤 ku < *kwag 'orphan'.

A few case of Archaic Chinese *-jag becomes -ɔɔ after labials in Siamese, for example:

Siam. phɔɔ < *b- B2 'father' : Ch. 父 fu < *bjagx 'father', cf. Tib. pha.

Siam. mɔɔ < *hm- A1 'doctor, socerer' : Ch. 巫 wu < *mjag 'magician' cf. Tib. 'ba-po.

As we can see from the above examples, what has been reconstructed as final *-g in Archaic Chinese, is lost both in modern Chinese and in the Tai languages but there are cases where final *-g appears in Siamese as -k:

Siam. mɔɔk < *hm- D1L 'fog, mist' : Ch. 霧 wu < *mjəgwh 'fog', cf. Tib. rmu-ba 'fog', rmugs-pa 'a dense fog'.

Siam. muak < *hm- DIL 'hat, cap' : Ch. 冒, 帽 mao < *məgwh 'to cover, hat' cf. Tib. rmog 'helmet'

Siam. plïak < *pl- < *pl- D1L 'husk, bark' : Ch. 膚 fu < *pljag 'skin', cf. Tib. pags, -lpags < *-plags 'skin'.

Siam. (naa-) phaak < *phl/r- D1L 'forehead' : Ch. 顱 lu < *blag 'skull', cf. Tib. dpral-ba 'forehead'.

In an exploratory attempt, as it is done here, we cannot go into the details of all the Chinese finals and their correspondences in Tai, nor can we, at the moment, formulate any theory to account for the complexities involved. In the following examples we shall concentrate on the initial consonants.

The initial consonants may be divided into what may be called simple initials namely p-, ph-, b-, m-, etc., and what may be called clusters, namely, pl-, pr-, kl-, kr-,

etc. Both Proto-Tai and Archaic Chinese show both types of initials, and therefore can be compared, although the reconstruction of clusters in Archaic Chinese is less certain. In both Proto-Tai and Archaic Chinese, there are cases where we cannot reconstruct a cluster on the basis of Tai or Chinese material alone. We do not attempt to reconstruct clusters in such cases on the basis of the comparative material presented here. We therefore have cases where Tai shows clusters but not Chinese, and vice versa.

We shall first examine some cases of perfect fit as far as the consonants are concerned, namely, Proto-Tai *b-, *p-, *ph-, etc. corresponds to Archaic Chinese *b-, *p-, *ph-, etc.

Proto-Tai *b-, *p-, *ph-, *m- : Archaic Chinese *b-, *p-, *ph-, *m- :

Siam. phɔɔ < *b- B2 'father' : Ch. 父 fu < *bjagx.

Siam. (sa-) phai < *b- C2 '(daughter)-in-law' : Ch. 婦 fu < *bjəgx 'woman, wife'.

Siam. phaa < *b- A2 'to take along' : Ch. 扶 fu < *bjag 'to support, assist'.

Siam. pan < *p- A1 'to divide into shares' : Ch. 分 fen < *pjən 'to divide' cf. *bjənh 'a share'.

Siam. pok < *p- D1S 'to cover; book-cover' : Ch. 保 pao < *pegwx 'to preserve, protect'.

Siam. phaa < *ph- B1 'to split, cut' : Ch. 跛 pho < *pharh 'to split, break'.

Siam. mɛɛ < *m- B2 'mother' : Ch. 母 mu < *məgx; cf. Tib. ma.

Proto-Tai *d-, *t-, *th-, *n-, *ʔd- ; Archaic Chinese *d-, *t-, *th-, *n- :

Siam. thaa < *da- A2 'to smear, paint' : Ch. 塗 thu < *dag 'to plaster, to soil'.

Siam. thaa < *d- B2 'wharf, landing' : Ch. 渡 tu < *dagh 'to ford a river, a ford'.

Siam. thɔɔŋ < *d- C2 'stomach' : Ch. 肚 tu < *dagx 'stomach'.

Siam. thop < *d- D2S 'to fold', perhaps related to thap < *d- D2S 'to overlay, superimpose' : Ch. 摺 tieh < *diəp 'double, lined (garment)', cf. also 摺 che < *tjiep 'to fold', cf. also Tib. ltab-pa 'to fold', ldab-pa 'to do again, to repeat'.

Siam. tak < *t- D1S 'to dip up water' : Ch. 倒 cho < *tjakw 'to dip up water'.

Siam. tok < *t- D1S 'to fall down' : Ch. 倒 tao < *tagwx 'to turn over, fall down'.

Siam. thɛɛp < *th- D1L 'classifier for long, flat, narrow objects' : Ch. 帖 t'ieh < *thiap 'tablet', also 牒 tieh < *diap 'tablet', cf. Tib. ldeb 'leaf, sheet of paper';

Siam. thuuk < *th- D1L 'right, cheap, to touch' : Ch. 觸 ch'u < *thjuk 'to butt, to knock against' cf. Tib. thug-pa 'to touch', also gtug-pa.

Siam. nɔɔŋ < *n- C2 'younger sibling' : Ch. 孥 nu < *nag 'wife and children'. Related is also Siam. naa < *n- C2 'younger sibling of one's mother'.
Siam. nĭa < *n- C2 'flesh, meat' : Ch. 肉 jou < *njəkw 'flesh, meat'.
Siam. nai < ʔ 'inside'. This word is found to have a nasal initial in the Southwestern group of Tai languages, but ʔd- (or its equivalent) in other languages. : Ch. 內 nui, nei< *nəbh 'inside', related to 入 ju < *njəp 'to enter'.
Siam. dɛɛ t < *ʔd- D1L 'sun light' : Ch. 曰 jih < *njit 'sun', cf. Tib. nyi-ma 'sun', nyi-'od 'sunshine'.
Siam. dĭat < *ʔd- D1L '(a liquid) to boil, to be boiling (mad)' : Ch. 熱 jeh < *njat 'hot'.
Siam. dai < *ʔd- C1 'to get, to be able to' : Ch. 能 neng, nai < *nəng, *nəgh 'to be able, ability'.

Proto Tai *g-, *ɣ-, *k-, *ŋ -, *hŋ - : Archaic Chinese *g-, *k-, *ng-, *hng- :

Siam. khuu < *g- B2 'pair' : Ch. 俦, 仇 ch'iu < *g(w)jəgw 'mate', also 友 yu *gwjəgx 'friend', cf. Tib. grogs 'friend'.
Siam. khɔɔ < * ɣ - A2 'neck, throat' : Ch. 喉 hou < *gug 'throat', cf. Tib. mgul 'throat'. We reconstruct in Archaic Chinese only *g- and no *ɣ.
Siam. khaa < *ɣ - A2 'straw, thatch grain' : Ch. 禾 ho *gwar 'plant(of grains)'.
Siam. kai < *k- B1 'chicken' : Ch. 鷄 chi<*kig 'fowl'.
Siam. kaan < *k- C1 'stem, stalk' : Ch. 幹 kan<*kanh 'stem'.
Siam. kau < *k- C1 'nine' : Ch. 九 chiu<*kjəgwx, cf: Tib dgu.
Siam. kuut < *k- D1L 'a kind of fern' : Ch. 蕨 chüeh<*kwjat 'fern'.
Siam. ŋua < *ŋ - A2 'ox' : Ch. 牛 niu < *ngwjəg 'ox'. This word is not found in the Northern dialects where one would expect it if it is a Chinese loan. In the Central dialects, it appears as mo (< *ŋɷ -ʔ)
Siam. hai < *h-< **hŋ-C1 'to give, to have (someone do something)' : Ch. 許 hsü < *hngjagx 'to allow, to promise (to give).

Proto-Tai *s-, *z-, *č-, *ǰ - : Archaic Chinese *s-, *dj-, *tj-, *tsj-, *dzj- :

Siam. saam < *s- A1 'three' Ch. 三 san < *səm, cf. Tib. gsum.
Siam. sii < *s- B1 'four' : Ch. 四 szu < *sjidh, cf. Tib. bzhi.
Siam. soŋ < *s- B1 'to send' : Ch. 送 sung < *sungh.
Siam. suuŋ < *s- A1 'high' : Ch. 嵩 sung < *sjəngw 'high'.
Siam. sĭï < *z- C2 'to buy' : Ch. 市 shih < *djəgx 'market, to deal, to trade'.

Siam. (ruu-) čak < *č- D1S 'to be acquainted with, know' : Ch. 識 chih < *tjəgh 'to remember', also read shih < *sthjək 'to know'.
Siam. čum < *č- B1 'to soak' : Ch. 浸 chin < *tsjemh 'to soak, make wet'.
Siam. chum < *ǰ- B2 'soaked, wet' : Ch. 潛 chien < *dzjiem 'to lie on the bottom of water, sink in, soaked in'.
Siam. čhaaŋ < *ǰ- B2 'to be skilled at, artistic' : Ch. 匠 chiang < *dzjangh 'carpenter, skillful'.

Proto-Tai *l-, *hl-, *r- : Archaic Chinese *l, *r-. There are occasional confusion of *l-, and *r- between the two language; similarly Tibetan and Chinese show some confusion also.

Siam. lin < *1- B2 'pangolin' : Ch. 鱗 lin < *ljen 'scale of a fish or a reptile'.
Siam. lia < *h1- A1 'to be left over' : Ch. 餘 yu < *rag 'remains, surplus, cf. Tib. lhag 'more, beyond', lhags 'remains'.
Siam. raa < *r- A2 'we' : Ch. 余 yü < *rag
Siam. rai < *r- B2 'field, dry field' : Ch. 畬 yü *rag 'field' in the third (second) year of cultivation'.
Siam. rua < *r- B2 'to leak' : Ch. 漏 lou < *lugh 'to leak'.
Siam. rua < *r- C2 'fence' : Ch. 籬 li < *ljar 'fence', cf. Tib. ra-ba 'fence, wall'.
Proto-Tai *ʔ-, *ʔj- : Archaic Chinese *ʔj- :
Siam. juu < *ʔj- B1 'to be at, stay' : Ch. 於 yü < *jag, *jagh 'at'.
Siam. jaa < *ʔj- A1 'medicine' : Ch. 醫 i<*ʔjag 'physician, potion'.
Siam.ʔau < *ʔj- A1 'to take' : Ch. 要 yao < *ʔjiagwh 'to seek, demand'.

There are alternations of voiced and voiceless consonants, and of aspirated and unaspirated consonants in the comparison of Tai and Chinese forms. Such alternations can be easily observed in Classical Tibetan, particularly in the verbal inflections. Whether they are voicing and deaspiration prefixes, which cause such alternations, scholars differ in opinion. Such alternations are observed also in Chinese such as 見 chien < *kianh 'to see' versus hsien<*gian 'to appear', 敗 pai<*pradh 'to defeat' versus pai<*bradh 'to be defeated', etc. Similar phenomenon can also be observed in Tai, although this aspect of Tai linguistics has not been sufficiently studied. For example, Siam. čum<*c- B1 'to soak' versus čhum *ǰh- B2 'soaked, wet', Siam. khot<*kh- D1S 'to coil, curled up' versus khot<*g- D2S 'to bend, crooked', etc. (see Li, 1970). The following are some examples, classified into labials, dentals, velars, etc.

Labials:

Siam. pat < *p- D1S 'to wipe off', brush off : Ch. 拂 fu <*phjət 'to brush off, shake off'.

Siam. pɔɔt < *p- D1L 'lung' : Ch. 肺 fei < *phjadh 'lung'.
Siam. phua < *ph- A1 'husband' : Ch. 夫 fu < *pjag 'man'.
Siam. mɔɔ < *hm- A1 'doctor, socerer' : Ch. 巫 wu < *mjag 'magician'.
Siam. muak < *hm- D1L 'hat, cap' : Ch. 冒, 帽 mao < *məgwh 'to cover, hat'. cf. Tib. rmog 'helmet'.
Siam. mɔɔk < *hm- D1L 'fog, mist' : Ch. 霧 wu < *mjəgwh 'fog', cf. Tib. rmu-ba 'fog', rmugs-pa 'a dense fog'.

Dentals:

Siam. thĭk < *th- D1S 'young male animal'. This word appears in the Central and Northern Tai dialects with a tone and an initial which indicate *d- : Ch. 特 the < *dek 'male animal'.
Siam. thua < *th- B1 'bean'. The Northern Tai dialects have forms derived from *d- : Ch. 荳 tou < *dugh 'bean'.
Siam. thaa < *d- C2 'to challenge, dare' : Ch. 賭 tu < *tagx 'to gamble, challenge'.
Siam. naa(-mai) < *hn- C1 'cross bow' : Ch. 弩 nu < *nagx.

Velars:

Siam. kau < *k- B1 'old' : Ch. 耆 chiu < *gwjəgh 'old, ancient'.
Siam. kɛɛ < *k- B1 'old' : Ch. 耆 ch'i < *gjid 'old'.
Siam. khaa < *kh- A1 'leg' : Ch. 股 ku < *kagx 'thigh'.
Po-ai. haaŋ < *x- A1 'steel' : Ch. 鋼 kang < *kang 'steel'.
Siam. khot < *g- D2S 'to bend, crooked' : Ch. 屈 ch'ü < khwjət 'to bend'. Cf. also Siam. khot < *kh- D1S 'to coil', a related word. Cf. Tib. dgu-ba 'to bend' dgur 'crooked', 'gugs-pa 'to bend'.
Siam. khut < *x- D1S 'to dig up; : Ch. 掘 chüeh < *gwjiət 'to dig', Cf. Tib. rko-ba 'to dig', also rkod-pa(?).
Siam. khaan < *ɣ - A2 'pole' : Ch. 竿 kan < *kan 'a bamboo pole'.
Siam. haa < *hŋ- ʔ C1 'five' : Ch. 五 wu < *ngagx, cf. Tib. lnga

Sibilants and palatals:

Siam. sip < *s- D1S 'ten', but Northern dialects have forms derived from a voiced initial : Ch. + shih < *djəp, cf. Tib. bcu.
Siam. suk < *s- D1S 'ripe', but Northern dialects have forms derived from a voiced consonant : Ch. 熟 shou < *djəkw.
Siam. čet < *c- D1S 'seven' : Ch. 七 ch'i < *tshjit.

Siam. čhaŋ < *ǰ- B2 'to weigh' : Ch. 稱 ch'eng < *thjəng 'to weigh', also read thjəngh 'scale, balance'.
Siam. čhaŋ < *ǰ- A2 'to hate, detest' : Ch. 憎 tseng < *tsəng 'to hate'.

There are cases where the Tai languages show initial clusters or initial clusters can be reconstructed, and they correspond to clusters which can be reconstructed in Archaic Chinese.

Labial clusters:

Siam. plïak < *pl- D1L 'husk, bark' : Ch. 膚 fu < *pljag 'skin', cf. Tib. pags, -lpags 'skin'.
Siam. phaa < *phl/r- A1 'cliff, rock' : Ch. 璞 p'u < *phruk 'unworked precious stone', cf. Tib. brag 'rock'.
Siam. (naa-)phaak < *phl/r- D1L 'forehead' : Ch. 顱 lu < *blag 'skull', cf. Tib. dpral-ba 'forehead'.
Siam. phïak < *phl/r-? D1L 'white, albino' : Ch. 白 pai < *brak or *briak 'white'.
Siam. ma-lɛɛŋ < *ml/r- A2 'insect'. There is a doublet mɛɛŋ 'insect, used also in some aquatic invertibrates' : Ch. 蠅 ying < *rəng 'fly', 黽 meng < *mrəng 'toad', 蟲 meng < *mrang 'gadfly'. Probably also related is 螟蛉 ming-ling < *ming-ling, reduplicated from **mling 'insect on mulberry leaves', cf. Tib. sbrang 'fly, insect'.

Dental clusters:

Siam. hak < *thr- D1S 'to be broken (stick)' : Ch. 磔 che < *trak 'to rip open'.
Siam. (kra-)duuk < *ʔdl/r- D1L 'bone' : Ch. 髑髏 tu-lou < *duk-lug 'skull', reduplicated from **dlug, cf. Tib. rus 'bone, family'.

Velar clusters:

Siam. klaa < *kl- C1 'young rice plant' : Ch. 稼 chia < *kragh 'grain, to sow'.
Siam. kliau < *kl- A1 'to be twisted' : Ch. 交 chiao < *kragw or *kriagw 'to cross', also 絞 chiao < kragwx or kriagwx 'to twist, strangle'.
Siam. klɔɔn < *kl- A1 'bolt, latch' : Ch. 關 kuan < *kwran 'bar, barrier, to close'.
Siam. khlɔɔŋ < *g1 - A2 'canal, watercourse' : Ch. 汀. chiang<*krung 'river'.
Siam. khrua < *gr- A2 'kitchen, family' : Ch. 家 chia<*krag 'house, family'.
Siam. khraat < *gr- D2L 'to rake, harrow' : Ch. 刮 kua < *kwrat 'to scrape, polish'.

Wu-ming klop < *k1 - D1S 'bamboo hat' : Ch. 笠 li < *gljəp
Siam. khraam < *gr- A2 'indigo' : Ch. 藍 lan < *glam 'indigo, blue', cf. Tib. rams 'indigo'.
Siam. hok < *xr- D1S 'six' : Ch. 六 liou < *gwljəkw, cf. Tib. drug.

There are cases where the Tai languages show initial clusters or initial clusters can be reconstructed, but Chinese shows no cluster or not enough material is available to reconstruct a cluster.

Labials:

Siam. ploŋ < *p1 - A1 'to lay down, relinguish' : Ch. 放 fang< *pjangh 'to put down, release', cf. Tib. spong-ba 'to give up, renounce'.
Siam. malet < *m1 - D2S 'seed', also met 'seed, kernel', and let 'seed, kernel' : Ch. 米 mi < *midx 'rice', cf. Tib. 'bras 'rice', also 'bru' grain, seed'.
Siam. (nam-)laai < *m1 - A2 'saliva" : Ch. 涎 hsien < *rjan 'saliva', cf. Tib. zlan 'moisture, liquid'.
Siam. taak < *pr- D1L 'to expose to the sun, to dry' : Ch. 暴 p'u < *buk 'to expose to the sun'.

Dentals:

Siam. taa < *tr- A1 'eye' : Ch. 睹 tu < *tagx 'to see', cf. Tib hta-ba 'to look, inspect'.
Siam. tem < *t1 - A1 'full' : Ch. 斟 chen < *tjəm 'to pour in (< to fill up)'. Perhaps also related is 甚 shen < *djəmh 'excessive, much'.
Siam. thai < *th1 - A1 'to plough' : Ch. 犂 li < *lid 'plough, to plough'.
Siam. thuŋ < *th1 - A1 'bag, sack' : Ch. 籠 lung < *ljung 'basket, cage'.
Siam. haam < *thr- A1 'to carry (by two or more persons)' : Ch. 掂 tan < *tam 'to carry on the shoulder', also < *tamh 'load'.
Siam. hua < *thr- A1 'head' : Ch. 頭 t'ou < *dug 'head', cf. Tib. thog-pə 'upper part'.
Siam. rïa < *dr- A2 'boat' : Ch. 舟 chou < *tjəgw 'boat', cf. Tib. gru.
Siam. rïat < *dr- D2L 'bed bug' : Ch. 蝨 shih < *srjit 'flea, louse', cf. Tib. 'ji-ba < *'dyi-, also lji-ba < *ldyi- < * dlyi-'flea'.
Siam. lep < *d1 - D2S 'finger or toe nail' : Ch. 甲 chia< *krap 'shell, nail, armor, etc.', cf. Tib. khrab 'shield, scale'.
Siam. dïan< *ʔdl/r- A1 'earthworm' : Ch. 蠙蚓 yin < *rinx 'earthworm' cf. Tib. srin 'worm'.

Velars:

Siam. klua < *kl- A1 'to fear' : Ch. 懼 chü < *gwjiagh 'to fear', cf. Tib. 'gul-ba 'to tremble'.
Siam. klat < *k1 - D1S 'to button, pin together' : Ch. 結 chieh < *kit 'to tie, a knot', cf. Tib. rgyud-pa 'to fasten, string'.
Siam. klïa < *k1 - A1 'salt' : Ch. 鹽 ku < *kag, < *kagx 'salt, salty marsh' cf. also 鹵 lu< *lagx 'salty'.
Siam. klan < *k1 - C1 'to restrain, to suppress' : Ch. 緊 chin < *kjinx 'to bind, to tight, to press'.
Siam. klaau < *k1 - B1 'to say, declare' : Ch. 告 kao < *kəgwh, also *kəkw 'to announce, to inform', cf. Tib. gleng-ba 'to say, talk'.
Siam. klɔɔŋ < *k1 - A1 'drum' : Ch. 鼓 ku< *kagx.
Wu-ming kla < *g1 - C2 'orphan', but Siam. has kamphraa < *br- with a prefix: Ch. 孤 ku < *kag 'orphan'.
Siam. kraat< *kr- D1L 'to drive in a wedge, a peg for tightening' (pallegoix)' : Ch. 楔 hsieh < *skiat 'wedge'.
Siam. khɛɛŋ < *kh1/r- A1 'hard, strong', cf. Wu-ming kleŋ 'hard, solid' : Ch. 彊 ch'iang <*gjang 'strong'.

There are also cases where the Tai languages show no cluster, but clusters can be reconstructed in Archaic Chinese.

Labials:

Siam. paa < *p- B1 'meadow' : Ch. 埧 pa < *prarh 'flat valley' (a Szechuanese word still current in Southwest China).
Siam. pɔɔk < *p- D1L 'to peel' : Ch. 剝 po < *pruk 'to peel, cut', cf. also 梟 lu < *bluk 'to carve wood'.
Siam. pɛɛt < *p- D1L : Ch. 入 pa < *priat, cf. Tib. brgyad < *bryad.
Shan pak < *p- D1L 'hundred' : Ch. 百 pai < *prak or *priak, cf. Tib. brgya < *brya.
Siam. phaa < *ph- C1 'cloth' : Ch. 帛 po < *brak 'silk', also 布 pu < *pagh 'cloth', cf. Tib. phrug 'cloth'.
Siam. phɛɛ< *b- C2 'to be defeated, lose' : Ch. 敗 pai *bradh 'to be defeated', also read pai < *pradh 'to defeat'.

Velars:

Siam. kaau < *k- A1 'glue' : Ch. 膠 chiao < *krəgw 'glue, to glue together'.
Siam. kɛɛ < *k- C1 'to untie, explain' : Ch. 解 chieh< *krigx 'to cut up, dissolve, explain'.

Siam. kɛɛm < *k- Cl 'cheek' : Ch. 瞼 lien, older reading chien < *kljamx 'face', related is 頰 chia< *kiap 'cheek, face', cf. Tib. 'gram-pa 'cheek'.

Siam. (phak-) kaat<*kr- D1L 'cabbage, mustard plant, seed' : 芥 cheeh < *krath <*hriadh 'mustard plant'.

White Tai xaa <*x- B1 'to give a girl in marriage' : Ch. 嫁 chia <*kragh.

Siam. khaa < *g- B2 'price' : Ch. 價 chia < *kragh 'price', cf. Tib. gla 'pay, wages'.

Siam. khaa <*g- C2 'to trade, business' : Ch. 賈 chia< *kragx 'merchant, to do business', also read ku <*kagx.

Siam. khau <*kh- A1 'horn' : Ch. 角 chiao < *kruk 'horn', cf. Tib. ru.

Siam. khem < *g- A2 'salty; " Ch. 瘟 yen <*gryam 'salt', also 鹹 hsien < *grəm or *griəm 'salty', cf. Tib. rgyam-tswa< *gryam- 'a kind of salt'.

Siam. haan< *hŋ - B1 'goose' : Ch. 雁 yen < *ngranh 'wild goose', cf. 鵝 o< *ngar 'goose'; cf. also Tib. ngang-pa 'goose'.

The preceding list is but a sample of possibly related words. The first serious attempt at comparing Chinese and Tai words was done by Wulff (1934), and more recently by Nishida 1960 and by Benedict 1967. There is no attempt here to incorporate extensively their findings, or to criticize their etymologies. Undoubtedly scholars in Austronesian and in Austroasiatic fields will find many forms here which may be compared with their languages. We have as yet no critical apparatus to decide what etymologies are acceptable and what are not, and no criteria to judge what are loans and what are not. Some words which are extremely similar in meaning, such as the numerals (included here), etc., show irregular correspondences with Chinese. For example, why has the numeral '5' an initial h- (<*hŋ -?) which is regular throughout all the Tai languages instead of ŋ- as in Chinese and Tibetan? Why has the numeral '6' an initial h- or r- (<*xr-) in the Tai languages instead of l- (<*gwl-) as in Chinese? Why has the word 'to give a girl in marriage' (highly suspicious as a loan because of its cultural implications) an x- in White Tai and h- in Po-ai (<*x-) instead of k- (<*kr-) as in Chinese, which is borrowed in the Central Tai dialects such as kjaa in Lung Chow? These can hardly be construed as sound substitutions in borrowing, as the modern Tai languages, as well as the Proto-Tai, have ŋ -, l, k- etc. Loans such as Swatow loan words in Siamese, studied by Egerod (1959), show much more phonological regularity than is the case of numerals in Tai.

The comparison of Tibetan and Chinese shows no less complicated problems as we have here, cf. the summary in Benedict (1972), pp. 195-197, or conveniently the index of Chinese words in Chou (1972), pp. 203-229. This state of affairs originated from several causes, the most important of which is that there were morphological processes in the derivation of words, such as prefixes, suffixes and vocalic alternations which are abundantly clear in Classical Tibetan, but leave

very little trace in Chinese and Tai. Even in Tibetan the functions of these processes are hardly known. In Chinese we have alternations of initial consonants and tones – no longer active – as possible traces of original prefixes and suffixes. In Tai the problem has been hardly studied. I have shown that in the Tai languages we have also traces of alternations of initial consonants and of tones in the derivation of words, as we find in Chinese. For example, the alternation of initial consonants čan be illustrated by such pair of words as Siam. čum (<*č- B1 or C1) 'to soak', but chum (<*ǰ- B2) 'soaked wet' : khiau (<*x- C1) 'canine tooth', but khiau (<*g- C2) 'to chew' : khot (<*kh- D1S) 'to coil, to roll into a coil' but khot (<*g- D2s) 'to bend crooked', etc. For the alternation of tones, we have Siam. khaa (<*g- B2) 'price' and khaa (<*g- C2) 'to trade'; siam (<*s- A1) 'a pointed instrument' and siam (<*s- C1) 'to sharpen a point', etc. (Li, 1970).

These processes are grammatical processes which show strong resemblances between Tai and Chinese, and are not likely, though not impossible, to be borrowed from one language to the other like the lexical items.

The other cause of complication is when these grammatical processes are specialized, generalized or reformulated in different ways by different languages. There are some cases of this happening even in the modern languages, such as Lao kiau (<*k- B1) 'to reap; a sickle', while Siamese has kiau (<*k- B1) 'to cut with a sickle', but khiau (<*g- A2) 'sickle'; apparently Lao has generalized the form with the original voiceless initial.

The correspondence of tones between Chinese and Tai words as established by Wulff (1934), is as follows:

Tai		Chinese
A1, 2	:	P'ing (unmarked)
B1, 2	:	Ch'u (marked by -h)
C1, 2	:	Shang (marked by -x)
D1, 2	:	Ju (marked by -p -t -k)

These correspondences between the tone classes are maintained in various dialects such as in Wu-ming and Lungchow, although the phonetic values such as high or low rising or falling, etc. are different. Modern borrowings do not follow these rules as the Swatow loans in Siamese. In our examples listed above, about 70 percent follow these rules.

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22

SOUTHERN CHINESE DIALECTS

The Tai connection

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1. Introduction

Affinity between the southern Chinese dialects – mainly Yüeh and Min[1] – on the one hand and the Tai languages (now spoken in southwestern China and mainland Southeast Asia but believed to have had a much wider sphere geographically in earlier times) on the other has often been observed by linguists with respect to certain phonetic features and especially with respect to morphological formations and syntactic characteristics. For example, the tense versus lax phonetic distinction of vowels in Cantonese (seldom found in even other Yüeh dialects) has been pointed out as possible influence from Chuang (Tai dialects spoken in southwestern China), which, like most Tai dialects, distinguishes between long and short vowels. The occurrence of lateral fricatives in the Sei–yap (consisting of four prefectures southwest of Canton) and the Nan-lu (area west of Sei-yap in southwestern Kuangtung) dialects of Yüeh is also common among the Chuang dialects.[2] In morphology, the most commonly cited example is the so-called "reverse" order of word formation found in these dialects. In the northern Chinese dialects the normal order of compounds is qualifying elements preceding the qualified, but sometimes the reverse is the case in the southern dialects. Thus, while the gender marker is prefixed to animal terms in the north – male + chicken, it is suffixed in the south – chicken + male, exactly as in the Tai dialects (this formation, however, is not limited to the Min and Yüeh dialect, it is prevalent among the Hakka, the Kan and the Hsiang groups too). Syntactically speaking, the most conspicuous similarity between the southern dialects and the Tai languages is the structure of the comparative construction, in which the comparative degree is expressed just as in English : 'A + is taller + than + B' whereas in the northern dialects : 'A + than + B + is taller' is the acceptable form.[3]

As a matter of fact, many of the lexical items normally considered to be characteristic of Yüeh or Min – so-called colloquial words with no congnates with northern Chinese – readily find related forms in Chuang. Among the dozen or so

vocabulary items which Norman listed as particular to Min[4] we find the following related to words in various Chuang dialects:[5]

(FC = Foochow, AM = Amony, KY = Kienyang, a western Min dialect, FT = Futing, an eastern Min dialect, SC = Sui-chi, LM = Lung-ming, LC = Lungchow, a southern Min dialect sopken in southwestern Kuangtung, the latter two being Chuang dialects spoken in Kuangsi)[6]

	FC	AM	KY	FT	SC	LM	LC
foot	k'a^{1}	k'a^{1}	k'a^{1}	k'a^{1}	k'a^{1}	k'a^{1}	k'a^{1}
kill	t'ai^{2}	t'ai^{2}	hoi^{2}	t'ai^{2}	t'ai^{2}	t'ai:i^{1}	(='to die')
many(7)	sa^{6}	tsue^{6}	lai^{6}	se^{6}	tsoi^{1}	la:i^{1}	la:i^{1}
saliva	laŋ^{3}	nua^{4}	lueŋ^{5}	—	nua^{3}	na:i	na:i^{2}(='dew')

Another interesting item, though not listed by Norman, is:

(FA = Fu-an, NT = Ning-te, all eastern Min dialects)[8]

	FT	FA	NT	SC	LM
wet	taŋ^{2}	tam^{2}	tA:m^{2}	tam^{2}	tom^{2}

Between the Yüeh dialects and Chuang, even more such items can be found:

(Cant. = Cantonese, TS = Tai-shan, YC = Yang-ch'un, HH = Hua-hsien, the latter two are spoken in southwestern Kuangtung, WM = Wu-ming, Kuangsi Chuang dialect)[9]

	Cant.	TS	YC	HH	WM
pronominal plural	tei^{6}	(10)	tei	?de^{6}	tɸi^{6}(='team')
frog	kap^{7}	ka:p^{7}	kap^{7}	kuop^{7}	kop^{8}
pomelo	luk^{7}jau*	pu^{3}louk^{7}	puk^{8}tsei^{3}	lo^{1}jau*	luk^{9}puk^{9}
to blow the nose	saŋ^{5}	ɬin^{5}	ɬaŋ^{5}	laŋ^{5}	θaŋ^{5}
to push	uŋ^{3}	ouŋ^{3}	uŋ^{3}	uŋ^{3}	ŋoŋ^{4}
to shake	ŋou^{2}	ŋo^{2}	ŋou^{2}	ŋou^{2}	ŋau^{2}
hot	na:t^{7}	na:t^{7}	nak^{7}	la:t^{7}	?dat^{5}

2. Aspiration and tones

Up to now we have summarized and presented only fragmentary examples illustrating the close relationship between the southern Chinese dialects and the Chuang dialects. It now remains for us to point out a more widespread phenomenon common to both groups. One of the most prominent phonetic features of Chuang (and most Tai dialects) is the exclusive occurrence of unaspirated stops and affricates in the so-called yang-tone categories.[11] This correlation between aspiration and tone, or rather, in terms of historical development, the evolution of the Ancient Chinese voiced stops and affricates into aspirates and nonaspirates in general in the yang-tone categories in the modern dialects, has been adopted as an important criterion for classitying these dialects. For example,[12] Mandarin is characterized accordingly as having aspirated surds for these Ancient sounds in the level or p'ing-tone[13] but unaspirated ones in the oblique tones; the Wu dialects, having aspirated voiced sounds as reflexes for these initials in all tones; the Hsiang dialects, having nonaspirates as reflexes in all tones; the Kan-Hakka dialects, having aspirates as reflexes in all tones; the Yüeh dialects, having aspirated

surds as reflexes in the level tone and a number of them in colloquial words in the rising or shang-tone but unaspirated ones in the departing (or ch'ü-) and the entering (or ju-) tone; while the Min dialects, having both aspirated and unaspirated surds as reflexes in all tones.[14] While there are exceptions under each dialect group — for example, Yüeh dialects like Hua-hsien, Lien-chou, Po-pai, etc. may be classified as Kan-Hakka under this criterion, since the reflexes of these Ancient sounds have all become aspirated surds regardless of tones — this characterization still holds as a general guideline. A recent study of some Yüeh and Min dialects in connection with the concept of layer distinction suggests however, that the description of these two dialect groups with respect to the said phonetic development should be reviewed from a different angle, and that as a result these two dialect groups are found to present exactly the same phonetic phenomenon in their deepest or oldest layer as that found in the Chuang dialects.

3. The Min problem

As already stated in the preceding section, the development of Ancient voiced stops and affricates into Min aspirates and nonaspirates is not conditioned by tones. In addition, this division into aspirates and nonaspirates does not correlate with any known distinction in Ancient or in Archaic Chinese. For example:

(KO = Kienow, a western Min dialect, CC = Chaochow, a southern Min dialect)[15]

	FC	KO	KY	FT	AM	CC	SC
terrace 臺	tai^{2}	to^{3}	lai^{2}	—	tai^{2}	—	tai^{2}
moss 苔	t'ai^{1}	t'ai^{2}	hai^{1}/the^{2}	—	t'i^{2}	—	t'ai^{2}
skin 皮	p'ui	p'y^{2}	phui^{2}/hui^{2}	p'oi^{2}	p'e^{2}	p'ue^{2}	p'ue^{2}
fat 肥	pui^{2}	py^{5}	py^{2}	pui^{2}	—	pui^{2}	pui^{2}

Generally speaking however, the majority of the reflexes of the Ancient voiced stops and affricates are nonaspirates; moreover, among the aspirated reflexes nouns are more numerous than for example verbs or adjectives.

Another point to be remembered is that although in general there is considerable agreement among the various Min dialects with respect to aspiration in such reflexes, one can also find not a few cases of disparity. For example:

	FC	KO	KY	AM	CC	SC
navel 腊	tse^{2}	ts'e^{2}*	the^{2}	tsai^{2}	tai^{2}	tsi^{2}
to stand 椅	k'ie^{6}	kyɛ^{4}	kye^{5}	k'i^{3}	k'ia^{4}	k'ia^{3}
to carry in the arms 抱	po^{6}(16)	p'au^{6}	phau^{5}	p'au^{6}	p'au^{4}	p'o^{6}
front 前	(seiŋ^{2})	ts'ieŋ^{5}	tshieŋ^{2}	tieng^{2}	tsõĩ^{2}	tsai^{2}
wall 牆	ts'ioŋ^{2}	tsioŋ *	tsioŋ^{2}	ts'iouñ^{2}	ts'ĩẽ^{2}	ts'io^{2}
to sink 沉	t'eiŋ^{2}	tɛiŋ^{2}*	toiŋ^{2}	tiam^{2}	tim^{2}	t'iam^{2}
flower petal 瓣	paiŋ^{6}	p'aiŋ^{6}	phaiŋ^{5}	pan^{6}		paŋ^{3}
to read 讀	t'ɸi?^{8}		lo^{8}	t'ak^{8}	t'ak^{8}	t'ak^{8}
to float 浮	p'eu^{2}		peu^{2}	p'u^{2}	p'u^{2}	po^{2}
to earn 賺	tsaŋ^{5}	t'ɛiŋ^{5}*	hoiŋ^{5}			tsuaŋ^{6}
temperament 脾	pi^{2}	pi *	phui^{2}/hui^{2}	pi^{2}	p'i^{2}	p'i^{2}

*(These forms are taken from T-C. Huang)

3.1 Pulleyblank's assumption

Recently Pulleyblank made the assumption that Ancient Chinese voiced initials originate from a prefix [ɦ-], basing his argument on the fact that many lexically related words in Chinese are distinguished as transitive versus intransitive by means of voicing.[17] For example:

Mandarin	Ancient	Proto
(level tone)	p'-	ɦp
被(departing tone)	b- (or Pulleyblank's ph-)	

He thinks that his assumption can explain the split into aspirates versus nonaspirates in the Min dialects. Thus:

Proto		Min		Proto	Other dialects
ɦp	>	p	cf.	ɦp' > b/pɦ	< p' (level tone)
ɦp'	>	p'		ɦp'	< p (oblique)

While his assumption is extremely interesting, only three sets of his examples apply to Min. Apart from the pair cited above. they include:

帆 (cf. 沉 *p')	>	Min	p'
浮 (cf. 桴 *p')	>		p'

Although the word for 'a sail' does carry an aspirated initial in the various Min dialects, as can be seen from examples given in the last section, not all the Min dialects agree in aspiration with respect to the word 'to float'. The difficulty with Pulleyblank's assumption as applied to the Min dialects is that the set of such lexically related words do not necessarily agree with the sets of aspirates versus nonaspirates in Min.

In this connection we may also mention the possibility of explaining the said phenomenon in Min — aspiration versus nonaspiration, as a word derivation device of nominal versus non-nominal, since most of the words with aspirated initials are nouns. For example, while the Min dialects carry an aspirated initial for the words 'hammer' and 'nose', in the Ch'i-Lin Pa-yin, a Foochow rime dictionary, an unaspirated initial is indicated for the words 'to hammer' and 'to smell' (the latter also unaspirated in Kienow). Similarly, while these dialects give an aspirated initial for the word 'walking stick' (杖), they give an unaspirated one for the word 'to lean on' (仗). Again this can give only piecemeal explanation to the phenomenon in question. Together with Pulleyblank's assumption, it may indicate some archaic residue of word formation in Min, but we still need an overall satisfactory explanation to account for all cases.

3.2 Norman's proto-Min reconstruction

Based on his research on the development of tones in the western Min dialects (Kienyang, Kienow, Shaowu), Norman reconstructed a three-way distinction for the voiced stops (and affricates) in proto-Min, unaspirated, aspirated and lenis, all of which being derived from the Archaic Chinese voiced aspirated stops (and affricates):

b	d	g
bh	dh	gh
-b	-d	-g

It will be outside the scope of this paper to go into details of Norman's proposal and its implications here,[18] especially his reconstruction of a set of lenis voiced stops, which anyway he suggested may be derived from prefixes. We shall concern ourselves only with the feasibility of reconstructing both an aspirated and an unaspirated set of voiced initials for proto-Min. If the proposal is accepted without modification, it will imply that a two-way distinction must be set up for the Archaic Chinese voiced aspirated stops (and affricates), which will be in contrast with a set of voiced unaspirated stops established on other grounds. Thus, for the labial stops we shall have for example:

Archaic	**b-	
	**bh_1-	(proto-Min *b-)
	**bh_2-	(proto-Min *bh-)

The problem lies not in the phonetic feasibility of setting up such a distinction but in the fact that apart from the Min evidence, so far the distinction has not been supported by similar correlations in other dialect groups or in the so-called hsie-sheng materials indicating groups of riming characters.

3.3 Review of the Min situation

In section 3 we have pointed out that aspirated reflexes of the Ancient voiced stops (and affricates) in Min are among the minority. However, they contain many colloquial words, a list of which is given below:

	FC	KO	KY	FT	AM	CC	SC
firewood 柴	ts'a^2	ts'ɔ^{3}*	thau^2	ts'a^2	ts'a^2	ts'a^2	ts'a^2
skin 皮	p'ui^2	p'yɛ^5	phui^2/hui^2	p'oi^2	p'e^2	p'ue^2	p'ue^2
covering 被	p'ui^6	p'yɛ^6	phui^5/hui^5	p'oi^6	p'e^6	p'ue^4	p'ue^3
nose 鼻	p'ei^5	p'i^6	phoi^6/hoi^6	p'i^5	p'iñ^6	pĩ^6	p'i^6
market 市	ts'ei^6	ts'i^{6}*	tshi^6	—	ts'i^6	ts'i^4	ts'i^3
hammer 錘	t'ui^2	t'y *	hy^2	—	t'ui^2	t'ui^2	t'ui^2
head 頭	t'au^2	t'e^5	heu^2	t'au^2	t'o^2	t'au^2	t'au^2
pincers 甜	k'iŋ^2	k'iŋ^2	khiŋ^2	—	k'iñ^2	k'iam^2	k'iam^2
a sail 帆	p'uŋ^2	p'oŋ^{2}*	phoŋ^2	p'uŋ^2	p'ang^2	p'aŋ^2	p'aŋ^2
sugar 糖	t'ouŋ^2	t'oŋ^5	hɔŋ^2	t'oŋ^2	t'ng^2	t'ɣŋ^2	t'o^2
hail 雹	p'øi?^{8}	p'au^6	pho^8	—	p'auq^8	p'ak^8	p'au^1
thief 賊	ts'ei?^{8}	ts'ɛ^6	the^8	ts'e?^{8}	ts'at^8	ts'ak^8	ts'ak^8
worm 為	t'øiŋ^2	t'oŋ^5	hoŋ^2	t'eŋ^2	t'ang^2	t'aŋ^2	t'aŋ^2
pillar 柱	t'iu^6	t'iu^6	hiu^5	—	t'iau^6	—	t'iau^3
moss 笞	t'ai^2	t'ai^{2}*	hai^1/the^2	—	t'i^2	—	t'ai^2
to sun 爆	p'uo^8	p'u^6	—	p'uo?^{8}	p'ak^8	p'ak^8	p'ak^8
hoe 働	t'y^2	ts'u^5/ty^5	hy^2	—	t'u^2	t'ɣ^2	ts'o^2
field	ts'eiŋ^2	ts'aiŋ^5	lieŋ^2/thaiŋ^2	ts'eŋ^2	ts'an^2	ts'aŋ^2	ts'aŋ^2

*(These forms are taken from T-C. Huang)

Notice in the last two items that either Kienow or Kienyang has an alternative form with an unaspirated initial. The form for 'thief' also carries an aspirated instead of the expected unaspirated initial in the Yüeh dialects.

Based on such data, it is but logical that the reconstruction for such forms should contain aspirated initials.

The so-called literary versus colloquial pronunciation of words is well-known in Min. While the difference usually involves the difference of finals (portion of a syllable minus its initial consonant), there are cases where the difference lies also in the aspiration of the initials. For example, in Chaochow, the words 平 'level', 瓶 'vase', 齊 'orderly', 長 'long', 重 'repetitive', 全 'complete', 綴 'to mend' bear aspirated initials in the literary pronunciation but unaspirated ones in the colloquial pronunciation.[19] In the Sui-chi dialect, such difference in aspiration is even more common in pairs of literary versus colloquial forms. For example:

Literary	Colloquial
婆 p'o (as in 'grandmother')	po (as in 'midwife')
臺 t'ai (as in 'stage')	tai (as in 'steps')
桃 t'o (as in 'peach')	to (as in 'willow-peach')
齊 ts'i	tsoi
k'i for 麒 'unicorn'	ki for 棋 'chess', 旗 'flag'
盤 (as in 'tray')	pua (as in 'abacus')
盆 p'un (as in 'vase')	pua (as in 'seedling bowl')
t'i for 提 'carry', 啼 'to crow'	toi for 蹄 'hoof', 題 'topic'
p'ui for 陪 'accompany'	pue for 賠 'compensate'

In the last five cases, the finals also indicate that words in the right column are more colloquial. All of the above forms bear tone 2.

If we take this layer distinction into consideration, aspiration in the type of Min words under consideration may be interpreted in a different light. What we mean by layer distinction is not confined to the dichotomy of literary versus colloquial. In fact, such a dichotomy is misleading, for the term 'literary' is often associated with 'reading pronunciation'. While it is of course true that such reading pronunciation does exist as one of the layers, there may be multiple layers, in fact there must be, in a language or dialect. We shall be talking about layers in terms of time and language contact. In Min and Yüeh, one of these layers is doubtless connected with Chuang and Tai. We would like to propose here that this is in fact the oldest layer in both of these dialect groups. In this layer, Min and Yüeh (the Yüeh case will be discussed in the next section) have unaspirated stops and affricates corresponding to Ancient Chinese voiced stop and affricates and Archaic voiced aspirated stops and affricates. Since reflexes of Ancient and Archaic voiced stops and affricates in general occur in the yang-tone categories in the modern dialect, this situation exactly parallel that in Chuang and Tai.

One of the oldest vestige of Archaic Chinese in Min is a group of words whose initial can be traced to what is commonly reconstructed as Archaic **[ɾ][20] which later developed into the Ancient *[ɾ][21] and whose initial has become an unaspirated voiceless velar stop in the colloquial forms of the modern dialects:

	FC	KO	KY	FT	AM	CC	SQ
paste 糊	ku^2	ku^3/u^3	o^9	—	ko^2	kou^2	keu^2
monkey 猴	kau(22)	ke^3	eu^9	—	kau^2	kau^2	kau^2
thick 厚	kau^6	ke^4	eu^5	kau^6	kau^6	kau^4	kau^6

to hold in 含 the mouth	k-(23)	aŋ^3	aŋ^9	—	kam^2(24)	kam^2	kam^2
salty 鹹	keiŋ^2	keŋ^3	kiŋ^9	keŋ^2	kiam^2	kiam^2	kiam^2
cold 寒	kaŋ^2	kueŋ^3/ueŋ^3	—	—	kuañ^2	kũã^2	kua^2
slippery 滑	kou?^{8}	ko^4	kui^8	ko?^{8}	kut^8	kuk^8	kuk^8
cunning 猾	—	—	kui^8	—	kut^8	kuk^8	kuk^8
tall 懸	keiŋ^2	—	—	keŋ^2	—	kũĩ^2	kuai^2
prefecture 懸	kaiŋ^6	kyeŋ^6	kyeŋ^6/yeŋ^6	keŋ^6	kuaiñ^6	kũĩ^6	kuai^1
to walk 行	kiaŋ^2	kiaŋ^3	iaŋ^9	kiaŋ^2	kiañ^2	kĩã^2	kia^2

In all other dialects than Min, the reflex for the initial of such words is generally [x.] or [h]. In fact, the literary reading of such words in Min also bears the initial [h]. It is by no means accidental that the colloquial reading bears [k] and not [k']. This seems to confirm our assumption that in the oldest layer of Min only unaspirated stops and affricates occur in the yang-tone categories.

The introduction of aspirated stops and affricates in the yang-tone must be due to northern influence. Such aspirated colloquial words listed above may have been borrowed at quite an early date and might have replaced some earlier native forms. For example, in Yüeh the word for 'skin' is a cognate form with the northern dialects — [p'ei^2] in Cantonese, [p'i^2] in Tai-shan, etc., but the same word of Tai origin is preserved in such colloquial expression as [naŋ^1 ('skin') kai^1 ('chicken')] 'goose flesh'. The fact that such borrowed words later acquired literary counterparts is not surprising, since borrowings can occur at different periods of time.

4. The Yüeh case

The Min situation is not unique. Although the so-called literary versus colloquial reading in the Yüeh dialects is, like in Min, generally distinguished by the difference of finals, there are cases where aspiration plays an important part. The most well-known one is that a number of colloquial words with initials derived from the Anciant voiced category still remain in the yang-rising tone with aspirated surds as initials in the modern dialects, while the majority (about two-third in Cantonese, for example) of words with similar derivational history are pronounced now with the (yang-) departing tone and voiceless unaspirated initials, just like in the northern dialects. For example (all of the following forms bear the yang-rising tone -- tone 4 unless specified otherwise, except that Yang-ch'un does not distinguish between yin and yang in the rising tone):[25]

	Canton	Nan-hai	Yang-ch'un	Kao-chou
rudder 蛇	t'a:i	ha:i	t'a:i	t'o
to sit 坐	ts'o	t'o	ts'o	ts'ø
stomach 肚	t'ou	hau	t'ou	t'ou
twice as much 倍	p'ui	p'ui	p'ui	p'ui
covering 被	p'ei	p'ai	p'ei	p'ei
to stand 椅	k'ei	k'i	k'ei	k'ei
to resemble 似	ts'i	t'y^3	ts'ei	ts'i
to hold in the arms 抱	p'ou	—	—	—
bride (新)婦	p'ou	(fu^3)	p'ou	(fu)
uncle 舅	k'au	ts'au	k'ieu	(kau^6)

insipid 淡	t'a:m	ha:m	t'a:m	t'a:m
company 伴	p'un	—	—	—
broken 断	t'yn	hyn	t'uŋ	t'yn
near 近	k'an	—	(kaŋ)	k'an
mussel 蚌	p'oŋ	—	—	p'oŋ
heavy 重	ts'uŋ	t'uŋ	ts'uŋ	ts'uŋ

It then seems that aspiration in Yüeh plays exactly the opposite role as in Min, at least with respect to the rising tone — aspirates for colloquial forms and nonaspirates for literary forms. However, there are Yüeh dialects in which aspiration correlates with tone in the Min manner. We find that in Shun-te (directly southwest of Canton in the Pearl River delta area), Kao-yao and Kao-ming (west of Canton along the West River), reflexes of the Ancient voiced stops and affricates (examples of Kao-yao and Kao-ming are limited to labials and dentals only) display unaspirated instead of the expected aspirated initials in some colloquial words in both the level and the rising tone.[26] The following are examples with the yang-level tone (tone 2) unless specified otherwise:[27]

(KY = Kao-yao, KM = Kao ming; HL = Huang-lien, TL = Ta-liang, YP = Yüeh-pu, CT = Ch'en-ts'uen, the latter four being subdialects of Shun-te)

	KY/KM	TS	HL	YP	CT
grandmother 婆	po	po	po	po	—
to compensate 賠	pui	pui	pui	pui	pui
skin 皮	pei	pei	pei	pi	pi
tray (托) 盤	pun	pun*	pun*	pun*	pun
table 檯	toi	toi*	toi*	toi*	toi
head 頭	tau	tau	tau	tau	tau
sweet 甜	tim	tim	tim	tim	tim
copper 銅	tuŋ	tuŋ	tuŋ	tuŋ	tuŋ
sausage (腺) 腸	—	tsøŋ*	tsøŋ*	tsiøŋ	

with rising tone words, there is disagreement among the subdialects: the following examples all bear tone 4 unless specified otherwise:

	KY	KM	TL	HL	YP	CT
rudder 蛇	t'a:i	ta:i	t'a:i	t'a:i	ta:i	—
stomach 肚	tou	tou	tou	t'ou	tu	tu
twice as many 倍	(not used)	p'ui	p'ui	p'ui	pui	pui
to hold in the arms 抱	p'a:u	pa:u	p'o	p'o	p'ou	pou
bride (新) 婦	pu	pu	p'u	p'ou	mou	—
insipid 淡	ta:m	ta:m	t'a:m	t'a:m	ta:m	—
company 伴	(not used)		pun[3]	—	(not used)	—
broken 断	tyn	tyn	tyn	t'un	tyn	—
mussel 鮮	—	—	poŋ	—	—	poŋ

Although the set of nonaspirates in these Yüeh dialects do not all coincide with the same in Min, it is not accidental that aspiration plays such a similar role in relation with tones in both dialect groups. And naturally one would think of the

phenomenon in terms of the Tai connection, and consider it as a common phonetic feature of these southern languages.

As for dialects of the Cantonese type, they may represent a different subgroup of Yüeh dialects. In addition, Canton being the provincial capital and cultural center for ages, northern influence must be much stronger. We would therefore rather consider the Shun-te group representing the oldest layer in Yüeh with respect to the problem under discussion.

5. Concluding remark

While both Min and Yüeh preserve many traits of Ancient Chinese — to mention just one, they often show an [h] or [ɦ] or traces of a guttural for the Ancient Yüinitial, while other dialects generally have a glide for the same —, as we have outlined above, they also share many features with the neighboring Chuang and Tai languages, which differentiate them from northern Chinese. In pursuing the study of southern Chinese dialects, we feel that it is indispensable to take into consideration layer distinction and areal linguistics. Hopefully in the future, these dialects will be studied in an even wider context which will provide us with an ever deeper perspective.

Notes

* I am indebted to the Social Science Research Council and the American Council of Learned Societies for a research grant which enabled me to carry out field work with various southern Chinese dialects as well as a Chuang dialect in Hong Kong in the first half of 1973. The data of these dialects have provided a basis for my assumptions in the present paper.

1. Hakka is often included as one of the southern groups; however, the settlement of the Hakka from the north to the south is later than either the Yüeh or the Min, and the Hakka language contains far fewer elements aboriginal to the south; therefore, we would like to exclude it in our following discussions.
2. See Ts'en Ch'i-hsiang 1953.
3. In northern Min, some dialects, like Foochow, have both forms.
4. See Norman 1970, p. 29.
5. Numerals designate the categories of the tone corresponding to the Ancient Chinese categories of p'ing (1, 2), shang (3, 4), chü (5, 6) and ju (7, 8); odd numbers signify the yin category and even numbers the yang category found in the modern dialects. In general, but not exclusively, the yin category has a higher tone register than that of the yang in these dialects. An asterisk indicates pienyin or the morphological change of tone.
6. Data for Foochow, Amoy, Kienyang and Fu-ting are taken from Norman 1970 and 1972, those for Lungchow taken from F-K. Li 1940, while those for Lung-ming and Sui-ch'i are from my field notes.
7. This item also occurs in the Tai-shan dialect of Yüeh: pak^{7} liau^{6} tsa* (pak^{7} = 'mouth', cf. LM pa:k^{7} 'mouth') 'garrulous person' as well as the Lin-kao dialect (spoken in Hainan, investigation carried out by M. J. Hashimoto) of Li: ʔbak^{7}liau^{5} 'talkative'.
8. Data of Fu-an and Ning-te are taken from Norman 1972, P.33.
9. Data for Wu-ming are taken from F-K. Li 1956, and other from my field notes.
10. Tai-shan, like other Sei-yap dialects, forms the pronominal plural by the change of tone, which is also observed in Yang-jiang, prefecture adjacent to Yang-ch'un.
11. According to Prof. F-K. Li, some Tai dialect in northern Thailand does possess aspirated initials in the yang-tone category; however, this is very rare.
12. See F-K. Li 1973.
13. Usually yang-p'ing, unless the dialect does not distinguish between a yin and a yang category, such as found in some northern Shansi dialects.

14. This description of Min follows Norman's revision of F-K. Li's earlier account which describes Min as having unaspirated surds as reflexes in all tones.
15. Data of Foochow, Kienyang, Kienow and Fu-ting are based on Norman 1971a, 1971b and 1972 unless specified otherwise, those on Amoy on C-P. Lo 1956, of Chaochow on Y-M. Li 1959, and those of Sui-ch'i on my own field notes. Only colloquial forms are given here.
16. Two eastern Min dialects, Fu-an and Ning-te, also have [p] for this form.
17. For details of his argument, see Pulleyblank 1973.
18. See Norman 1973. Some preliminary thoughts on the subject are given in my paper "Phonological distinctions among Old Chinese initials" read at the November monthly meeting of the Chinese Linguistic Society of Japan Meeting of the Tokyo Branch in 1973, which will appear in the Bulletin of the Society in late 1975 or early 1976.
19. Cases of exactly the opposite situation are very rare; but 匠 as in 'carpenter' and 企 as in 'corporation' are given with unaspirated initials in the literary pronunciation but aspirated ones in the colloquial pronunciation in Chaochow.
20. Except for a few marginal cases, Archaic **[ɣ] is in complementary distribution with Archaic** [g'], the latter occurring only in Division III of the rime tables.
21. So-called Hsia-mu words occurring in Divisions I, II and IV of the rime tables.
22. Form taken from Y-M. Tao 1956.
23. An unaspirated velar initial is designated for the word in Ch'i-Lin Pa-yin.
24. The word listed in C-P. Lo 1956 is 衡.
25. Data all taken from my field notes. The Nan-hai dialect recorded here is that of Chiu-chiang. It is spoken to the direct southwest of Canton, while Kao-chou is one of the Nan-lu dialects.
26. The T'eng-hsien dialect of Kuangsi has nonaspirates corresponding to the Ancient initials in question despite of tones. However, the case is not as interesting as that of Shun-te, Kao-yao and Kao-ming, since T'eng-hsien may have been influenced by the Hsiang dialects, and since the settlement of Yüeh speakers in T'eng-hsien is later than that of the other three.
27. Except for Shun-te Ch'en-ts'uen, which is taken from Ball 1900, data for all dialects are based on my field notes.

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23

THE AUSTROASIATICS IN ANCIENT SOUTH CHINA

Some lexical evidence*

Jerry Norman and Tsu-lin Mei

Source: *Monumenta Serica* 32, 1976, 274–301.

It is well known that ancient South China was almost exclusively populated by non-Chinese peoples whose identity and location, however, remain to be determined. The purpose of this paper is to contribute some lexical evidence towards the solution of this problem. In particular, we will try to show that the Austroasiatics inhabited the shores of the middle Yangtze and parts of the southeast coast during the first half of the first millennium B.C., and that the Chinese borrowed the name of the Yangtze from them. Other words indicating early contact between these two peoples will also be discussed.

The Austroasiatic (hereafter AA) family of languages includes the following groups: Munda in northeast India; Khasi in Assam; Palaung-Wa in Upper Burma and southern Yünnan; Mon-Khmer in Lower Burma and Cambodia, as well as in parts of Vietnam, Laos, and Thailand; and Vietnamese-Muong in Vietnam.[1] Here we accept Haudricourt's view that Vietnamese is a Mon-Khmer language which came under the influence of Tai and Chinese.[2] A recent study by Ruth Wilson shows that Muong occupies an intermediate position between Vietnamese and Mon-Khmer, thus lending support to Haudricourt's thesis.[3]

The present location of the AA languages is strictly to the south of China, with two possible exceptions. The Miao-Yao languages, whose tonal system is similar to that of Chinese, are usually classified as Tibeto-Burman. But according to Davies, Forrest, and Haudricourt Miao-Yao is AA.[4] The genetic affiliation of Tai remains a problem. Traditionally, Tai and Chinese were regarded as constituting a sub-family under Sino-Tibetan.[5] But Benedict proposed some thirty years ago that Thai, Kadai, and Indonesian belong together in an Austro-Thai family.[6] In a recent series of papers, Benedict has further suggested an AA sub-stratum in Austronesian, which he now calls Austro-Thai.[7] While the AA relationship to Miao-Yao and Thai are both still in dispute, there are other reasons for believing that AA once extended far into the present borders of China.

The evidence consists of loan words into Chinese. If the word in question is also a place word, then once the fact of borrowing has been established, it is possible to tell not only which two peoples were involved but also where the contact was made. Archaic loans between AA and Chinese have previously been proposed by Pulleyblank, Forrest, and Benedict.[8] We have in some cases incorporated their proposals and added philological and historical details. Another impetus to our endeavor is the recent publication of several studies in AA linguistics, particularly Pinnow's work on Kharia, the volume of the essays edited by Zide, and dictionaries on various modern languages.[9] In addition to supplying valuable information on many hitherto inaccessible AA languages, these studies also provide the means by which the time depth of an AA word may be estimated via its geographic distribution. Admittedly we are on rather shaky ground here, since we have no records of the AA languages which we believe were once spoken in South China. We must depend on modern AA evidence such as the forms contained in Pinnow and Zide, and the languages consulted are probably not the direct descendents of the source of the Chinese loans. Under these circumstances, it seems to us, we cannot expect too great a rigor in making phonetic equations; nonetheless, we have tried to avoid extravagant or totally unsupported claims. Obviously part of the difficulty is the inadequacy of the available reconstructions of Old Chinese (hereafter OC).

Before proceeding to discuss loan words, we wish to present some evidence for the fact that the Yüeh people was at least partly AA. The term Yüeh 越 has always had an intimate connection with the peoples of South China; Yüeh is the name of a state that flourished during the fifth and sixth century B.C. in Chekiang and Fukien; it is also part of the name Vietnam, anciently Nan-yüeh, whose territory then extended into Kwangtung and Kwangsi and included Hainan.[10] During the Ch'in and Han dynasties the term Pai-yüeh 百越 'the hundred Yüeh' was used to refer to the various "barbarians" inhabiting South China. Earlier, in the oracle bones and bronze inscriptions, the graph was simply the pictograph of an axe.[11] Here we may mention the fact that the rectangular axe and the shouldered axe were respectively associated with the Austronesians and the AA's.[12] The supposition that the Yüeh peoples were Austronesian or AA is highly attractive, but no convincing proof has yet been offered. The only piece of linguistic evidence previously studied is the Yüeh song contained in Liu Hsiang's *Shuo-yüan*, which, according to Izui Hisanosuke, is in a language resembling Cham.[13] But the Chinese translation accompanying the Yüeh original gives little indication as to which transliterated syllable corresponds to which Chinese word. Consequently, Izui's claim is difficult to evaluate. On the other hand, a number of Yüeh words were preserved in various ancient texts.[14] In what follows, we will show that two items represent the AA words for "die" and "dog."

(1) 札 ***tsɛt*[15] 'to die'

In Cheng Hsüan's commentary on the *Chou-li*, the gloss 越人謂 死爲札 "The Yüeh people call 'to die' 札" occurs.[16] Cheng Hsüan lived during the Eastern Han (127–200 A.D.) and there seem to be no grounds to doubt the authenticity of this gloss. According to Karlgren's *Grammata Serica Recensa* the OC reading of the character 札 was **tsăt*.

This is Karlgren's group II. There is good reason to believe that his reconstruction is erroneous. Tuan Yü-ts'ai assigns this character to his group twelve, which corresponds most nearly to Karlgren's group V.[17] Chiang Yu-kao places it in his 脂 group which also corresponds most nearly to Karlgren's group V.[18] How do we explain this discrepancy? There are several ways to assign a given character to an OC rhyme group. It may be assigned on the basis of its occurrence in a rhymed text, but if it does not appear as a rhyme word, then there are only two alternative methods for determining its proper membership: a few Middle Chinese (hereafter MC) rhymes all go back to a single OC category; this is the case, for example, with the MC rhyme 唐 which derives from the OC 陽 group in its entirety. For such MC rhymes, the assignment to an OC rhyme category is mechanical. Frequently, however, a given MC rhyme has more than one OC origin. This, in fact, is true of the character in question. 札 belongs to the MC 酷 rhyme; this rhyme derives from three different OC rhyme categories: 祭, 微, and 脂 corresponding roughly to Karlgren's II, V, and X. The only way to determine which OC rhyme category such words as this belong to is to examine their *hsieh-sheng* connections. In the *Shuo-wen,* 札 is defined as follows: 札牒也，从木乙聲. In *GSR* 505 a reading **iĕt* is given for 乙; this is Karlgren's group V. And in the *Shih-ming,* written by Liu Hsi, a younger contemporary of Cheng Hsüan, the sound gloss is 札，摘也 (櫛**tṣiĔt,* OC脂 group).[19] Clearly 札 should belong to the same group as 乙; the proper reconstruction is **tsĔt* and not *tsăt* as given in *GSR* 280b. Tung T'ung-ho does not give this character in his *Shang-ku yin-yün piao-kao,*[20] but it is simple enough to place it where it belongs—viz. on page 215 in Tung's 微 group; the proper form in Tung's system is **tsət.*

There can be no doubt that this word represents the AA word for 'to die': VN *chêt*; Muong *chít, chét*; Chrau *chu't,* Bahnar *kɣcit*; Katu *chet*; Gua *test*; Hre *ko'chit*; Bonam *kachet*; Brou *kuchêit*; Mon *chɒt*. More cognate forms can be found in Pinnow, p. 259, item K324f. The Proto-Mon-Khmer form has been reconstructed by Shorto as *kcət,*[21] which is extremely close to our OC form. There is even the possibility that Proto-MK **k-* is reflected in the glottal initial of the phonetic 乙.

"To die" in other east and southeast Asian languages are: Chinese 死 **sịər*; Tib '*chi-ba, šhi*; Lolo-Burm **šei*;[22] Proto-Tai **tai*;[23] Proto-Miao **daih.*[24] Here Chinese goes together with Tibeto-Burman, and Proto-Tai goes together with Proto-Miao. None of these forms has any resemblance to **tsət.*

(2) 猓 **ṣịô(g)* 'dog'

The *Shuo-wen* says 南越名犬英獲 "Nan-yüeh calls 'dog' **nôgṣịôg.*" This explanation occurs under the entry for 猓, which implies that the meaning "dog" is attached to this character. The first character of the compound probably represents a pre-syllable of some kind. Tuan Yü-ts'ai mentioned in his Commentary to the *Shuo-wen* that this word was still used in Kiangsu and Chekiang, but did not give any further detail.

Karlgren gives *ṣịôg* as the OC value for 猓 (*GSR* 1097h). At the time of the *Shuo-wen* (121 A.D.), *–g* had probably already disappeared; in Eastern Han poetry, MC open syllables (OC *–b, –d, –g*) seldom rhyme with stopped syllables (OC *–p, –t, –k*); in old Chinese loan words in Tai (specifically, the names for twelve earth's

branches 地支 *ti-chih*), probably reflecting Han dynasty pronunciation, Proto-Tai *–t* corresponds to OC *–d,* but no trace can be found for *–g*. The proper value for our purpose is therefore *ṣịô*.

This is the AA word for "dog," as the following list shows:
"dog": VN *chó*; Palaung *shɔ:*; Khum, Wa *so*ʔ; Riang *s'o*ʔ; Kat, Suk, Aak, Niahon, Lave *có*; Boloben, Sedang *có*; Curu, Crau *fŏ*; Huei, Sue, Hin, Cor *sor*; Sakai *cho*; Semang *cû, co*; Kharia *sɔ'lɔʔ, fɔ'lɔ*ʔ; Ju *solok*; Gutob, Pareng, Remo *guso*; Khasi *ksew*; Mon *klüw*; Old Mon *clüw*; Khmer *chkɛ*.

The forms after VN represent almost all the major groups spoken in the Indo-China and Malay Peninsulas, as well as the Palaung-Wa, Khmer, and Malakka groups. The proto-form for these languages appears to be *so*ʔ or *co*ʔ, preceded perhaps by *k-* (cf. Khasi, Gutob, etc.). On the basis of Mon, Haudricourt suggested that VN *ch-<kl-*.[25] But there is another possibility, namely, VN *ch-<kc-*; "to die" **kcət,* VN *chết*, Kuy *kacet*, Kaseng *sit*. And even if VN *ch-* did come from *kl-*, this change must have occurred quite early, since in all the AA languages except Mon, the initial is either a sibilant fricative or affricate.

"Nan-yüeh" refers to North Vietnam and parts of Kwangtung and Kwangsi. With this piece of evidence, we know that the language spoken there in the second century A.D. was AA. This is also the earliest record of the language of Vietnam.

We now come to old AA loan words in Chinese.

(3) 江 ***krong / kang / chiang* 'Yangtze River', 'river'**

"river" in Mon-Khmer: VN *sông*; Bahnar, Sedang *krong*; Katu *karung*; Bru *klong*; Gar, Koho *rong*; Laʔven *dakhom*; Biat *n'hong*; Hre *khroang*; Old Mon *krung*.
Cf. Tib. *kluṅ* 'river'; Thai *khlɔ:ŋ* 'canal'.

Chiang has a Second Division final in MC, and according to the Yakhontov-Pulleyblank theory, this implies a medial *-r-* or *-l-* in OC.[26] The OC reading for this word in Li Fang-kuei's system is **krung.*[27] Further evidence for *-r-* consists of the fact that some words with 工 as their phonetic have disyllabic doublets, whose first syllable has a velar initial and whose second syllable is *lung*: 空 = 窟 籠 'hole, empty,' 項 = 喉嚨 'neck, throat,' 鴻 = 屈龍 'wild goose.'[28] The final has been reconstructed as *-ung* by Karlgren and Tung T'ung-ho, *-awng* by Pulleyblank, and *-ong* by Yakhontov.[29] In spite of these minor differences, it is clear that the final had a rounded back vowel in OC.

It is immediately clear that the Mon-Khmer forms are related to the Chinese form. What remains to be discussed is the direction of the loan.

There are several reasons for thinking that the Chinese borrowed this word from the AA's. OC has four common words for names of rivers: 水 *shui*, 川 *ch'uan*, 江 *chiang*, 河 *ho*. The first two are general words; the last two are proper names, *chiang*

'Yangtze River' and *ho* 'Yellow River.' On the other hand, *krong* etc. is a general word for 'river' in AA. In borrowing, a general word or a descriptive term often becomes a proper name in the receiving language; witness *Mississippi* and *Wisconsin*, 'big river' and 'big lake' in Algonquin, which became proper names in American English.

The two general words for 'water' and 'river' in OC, *shui* and *ch'uan*, occur in the oracle bones and can be traced to Sino-Tibetan: 'water' Tib.*ch'u*; Bara, Naga *dui*; Kuki-chin *tui*; Chinese 水 **siwər/świ/shui,* 川 **t'i̯wen/tś'i̯wän/ch'uan.* The nasal final in *ch'uan* probably represents the vestigial form of a plural ending, and there is a phonological parallel in the sound gloss in the *Shuo-wen* 水,,準也 (準**t̂ńi̯wən*); *shui* and *ch'uan* are therefore cognates. OC 河 *ɣa/g'â* earlier **g'al* or **g'ar*, we suspect, is a borrowing from Altaic.[30]

Chiang is of relatively late origin. It did not occur in the oracle bones.[31] The bronze inscriptions contain one occurrence of this word, and the *Book of Odes*, nine occurrences, in five poems. When the word *chiang* acquired the general meaning of 'river,' its use as names of rivers was limited to south of the Yangtze. Both these facts again suggest that *chiang* was a borrowed word.

Other etymologies for *chiang* are less plausible. Tibetan had *kluṅ* 'river.' But a Sino-Tibetan origin of *kluṅ/krong* is ruled out because *chiang* is a late word with a restricted geographic distribution, and because MC 2nd Division generally corresponds to Tib. *-r-* but not to *-l-*. Similarly, the basic word for 'river' and 'water' in Tai is *na:m*; *khlɔ:ŋ* is a secondary word restricted in its meaning to 'canal', with limited distribution in the Tai family; it is unlikely to be the source of Chinese **krong*. The most plausible explanation is that both Tibetan and Thai also borrowed *kluṅ* and *khlɔ:ŋ* from AA.

We will now try to show that the Chinese first came into contact with the Yangtze in Hupei, anciently part of the Ch'u Kingdom. This must be the region where the Chinese first came into contact with AA's and borrowed *chiang* from them.

The Han River has its source in Shensi whence it passes through Honan and joins the Yangtze in Hupei. As the Chinese came down from their homeland in the Yellow River valleys, it was natural for them to follow the course of the Han River. This general conclusion is also supported by textual evidence. The word *chiang* 'Yangtze River' occurs in five poems in the *Book of Odes*. In Ode 9, 204, 262, and 263, *chiang* occurs in conjunction with *han* 'Han River,' either in the compound *chiang-han* or in an antithetical construction with *han* in the other part. The only poem containing *chiang* but not *han* is Ode 22. But this poem belongs to the section Chao-nan 召南, and this term is also what the Chou people used for the region which formerly belonged to Ch'u.[32] Moreover, according to several authorities, the term 江南 (literally 'south of the River') as used during the Han dynasty refers to Ch'ang-sha 長沙 and Yü-chang 豫章, in present Hunan and Kiangsi.[33] The implication is that *chiang* in *chiang-nan* refers to the middle section of the Yangtze and not the entire river.

The notion that the Chinese met the AA's in the Middle Yangtze region of course does not exclude their presence elsewhere; it just gives a precise indication of one of their habitats. It is perhaps pertinent to mention that the Vietnamese

believed that their homeland once included the region around the Tung-t'ing Lake 洞庭湖 which is in that general area.[34] Another Vietnamese legend states that their forefather married the daughter of the dragon king of Tung-t'ing Lake.[35]

Textual and epigraphic evidence indicates that the word *chiang* came into the Chinese language between 500 and 1000 B.C. Mao Hang's Commentary to the *Odes* also assigned all poems celebrating the southern conquest to the reign of King Hsüan (827–781 B.C.). The first half of the first millennium B.C. can therefore be taken as a tentative date for the AA presence in the Middle Yangtze region. Recently, however, archaeologists are increasingly inclined to the view that contact between North China and South China occurred as early as the Shang dynasty: artifacts showing strong Shang and early Chou influence have been discovered in the lower Yangtze region, and according to some scholars, also in the Han River region.[36] If further investigations show that pre-Chou traffic between the North and the South was extensive and bi-directional, we may have to revise the date for *chiang* upward.

(4) 鑊 *****riwəi/i̯wi/wei* 'fly'**[37]

'fly' in Mon-Khmer: VN *ruõi*; Camb. *ruy*; Lawa *rue*; Mon *rùy*; Chaobon *rúuy*; Kuy *ʔaruəy*; Souei *ʔarɔɔy*; Bru *rúay*; Ngeʔ, Alak, Tampuon *rɔɔy*; Loven, Brao, Stieng *ruay*; Chong *rɔ́ɔʔy*; Pear *roy*.
Cf. Proto-AA **ruwaj* (Pinnow, p. 268, item 356).

The word 鎂 *wei* 'fly, gnat' occurs in the Ch'u-yü 楚語 section of the *Kuo-yü* 國語: "It is as if horses and cattle were placed in extreme heat, with many gnats and flies (on them) 宝儘之既多, and yet they are unable to swish their tails." *GSR* 575 defines *wei* as 'gnat' and gives its OC value as **di̯wər*. Karlgren's definition 'gnat' (or our 'fly') fits the above passage, the locus classicus of this word. It is further substantiated by old dictionaries; the *Kwang-ya* 廣雅 defines 蠵 as 蛘, and the *Fang-yen* 方言 states that 羊 (蛘) is a dialect form of 蠅 'fly.' Karlgren's OC value, however, requires revision.

The OC value of 蠵 can be ascertained via its phonetic 維 *wei*; the form of the character indicates that it is the name of an insect pronounced like 維. The initial of *wei* in MC is 喻四, the *yü* initial. Li Fang-kuei has argued convincingly that the OC value of *yü* IV is a flapped *r-* or *l-*, somewhat like the second consonant of *ladder* in American English; he writes it as **r-*.[38] 烏弋山離 'Alexandria,' a Han dynasty transcription, has 弋 MC *i̯ək* (with a *yü* IV initial) matching *-lek(s)-*. The word 酉, one of the twelve earth's branches, has **r-* in Proto-Tai, still attested in several modern dialects. Sino-Tibetan correspondences point to the same value, for example, 'leaf' Chinese 葉 ***rap / i̯äp / yeh*; Tib. *lob-ma, ldeb* (**dl-*).

The final of *wei* has been reconstructed as *-d* by Tung T'ung-ho and Li Fang-kuei, and as *-r* by Karlgren. These are values for the earlier stage of OC. By the time of the *Kuo-yü*, which is relatively late, *-d* or *-r* had probably already become *-i*.

The Mon-Khmer forms have a wide distribution. More cognate forms, including some in the Munda branch, can be found in Pinnow, p. 268, item 356. VN *ruõi* etc., then, is a very old word in AA; it is also the general word for 'fly.' The standard word for 'fly' in OC is 蠅 ***riəng*, which was already attested in the *Odes*. The word 蠻 *wei* 'fly,' on the other hand, is a hapax legomenon. Clearly, *wei* 'fly' was borrowed from the AA's into the ancient Ch'u dialect.

In Li's system, the distinction between *ho-k'ou* and *k'ai-k'ou* (with or without *-u-/-w-*) is non-phonemic in OC, and the OC value of 維 in his system is **rəd*. In terms of our problem, there are two possibilities. Either OC had no *-w-* at all, phonemic or non-phonemic, in which case the best the Chinese could do to approximate the AA form (which has a rounded back vowel is **rəi*<**rəd*; or else, OC had a non-phonemic *-w-*, in which case the OC form is **rwəi*. We have chosen the latter alternative.

The two loan words, *chiang* 'Yangtze River' and *wei* 'fly', suggest the following sequence of events. The Chinese came to the middle Yangtze between 1000 and 500 B.C., and there met the AA's. Subsequently, some of the AA's migrated toward the south, and some were absorbed into the Ch'u population. That is why this word shows up in the Ch'u-yü section of the *Kuo-yü* and nowhere else.

It seems appropriate to mention in this connection that the Ch'u people clearly contained non-Chinese elements. King Wu of Ch'u acknowledged that he was a southern barbarian; the poet Ch'ü Yüan lamented, "I was sad that the southern tribesmen could not understand me"; and the *Lü-shih ch'un-ch'iu* stated that "Ch'u was derived from the barbarians."[39] In view of what has just been said, we know that one of the ethnic groups constituting the Ch'u people was AA.

(5) 虎 'tiger' ***k'la(g) / Xuo / hu*

'tiger' in AA: **kala*ʔ; Munda *ki'ɽɔʔ, kul, kula, kilo*, etc.; Old Mon *kla*; Mon *kla*; Bahnar, Sedang *kla*; Sue *kala*; Brou *klo*; Old Khmer, *klā*; Khmer *khla* 'felines'; Khasi *khla*; VN *khái*; Muong *k'al, k'lal, kanh*, etc.

Pinnow reconstructs the Proto-Munda form as **kala* (Pinnow, p. 142, item 281), and we propose an alternate Proto-AA form, **kala*ʔ. Let us now turn to the Chinese side.

虎 *hu* belongs to the OC 魚 *yü* group. According to Yakhontov, Pulleyblank, and Li, this group had *-a* as its main vowel. It may or may not have had a final voiced consonant of some sort in OC; Yakhontov has none, and Li would have *-g*. In Li's system 虎 MC *Xuo* would derive from an OC ***Xag*. Now, 虎 serves as the phonetic in some words with MC *l-* initial: 盧 MC *luo*, 慮 MC *liwo*, etc.[40] Therefore, in Li's system, *hu* 'tiger' could be reconstructed as **Xlag*, since his OC medial *-l-* simply drops in MC; *-r-* on the other hand yields the Second Division vowels. Further, certain Western Min dialects have an initial aspirated *k'* in the word for tiger: Kienyang *k'o*[3], Shaowu *k'u*[3]. This is not an isolated phenomenon in Min; for example, 許 Amoy *k'ɔ*[3], but MC *xi̯wo;* 火 Kienyang *k'ui*[3], MC *Xuâ;* 壑

Foochow *k'au*ʔ[7], MC *Xuât*. From this we can see that MC *x-* (in some cases) may go back to a stop **k'-*. Since 虎 is one of the words involved in this change, we are justified in reconstructing it as ***k'la(g)*. This form is very close to Pinnow's Proto-Munda reconstruction **kala*.

Our reconstruction of the Proto-AA form as **kala*ʔ is motivated by the fact that *-*ʔ* is present in the word for tiger in several Munda languages. The Chinese word *hu* 'tiger' is in the rising tone, and one of the present authors has argued elsewhere that the MC rising tone derives from a final glottal stop.[41] If so, the correspondence between Proto-AA **kala*ʔ and OC ***k'la*ʔ is even closer.

Two other considerations may be offered. There is no plausible Tibeto-Burman etymology for 虎 *hu* 'tiger'; Tib. has *stag* 'tiger,' a totally unrelated word; Old Burmese has *kla*, but in all probability it was a loan from Mon. The present habitats of the tiger (*Panthera tigris*) in China are the Southwest, the Southeastern coastal area, the Yangtze valleys, and Manchuria, with South China as the area of highest concentration.[42] Appearances of the tiger in historical records coincide with the above, but also include northern Hopei and Shansi. Skeletal remains of the tiger were also found at the site of An-yang, in Honan.[43] The distribution of the tiger is noteworthy in two respects: the heaviest concentration is in South China, presumably the habitats of the AA's, and the area of total absence includes the steppes and loessland of northwest China, the probable homeland of the Sino-Tibetan ancestors of the Chinese. From this perspective, it is easy to see why there is no word for tiger in Sino-Tibetan, or in the oldest stage of Chinese. To be sure, the word was attested as a pictograph in the oracle bones. What this means is that small bands of AA's occupied parts of the Yellow River basin before the arrival of the Chinese. The AA's had the word for tiger in their language and transmitted it to the Chinese.

It is possible that 虎 had a disyllabic doublet, derived from the same AA source. The *Tso-chuan* says 楚人謂乳穀，謂虎於菟, "The Ch'u people call 'to nurse' 穀, and 'tiger' 於菟." The initial of 於 has the value ʔ- in MC, but there is some reason to believe that its OC value is *k-* or *k'-*. 於 is a variant of 于, and the latter was used to transcribe "Khotan" in the *Shih-chi*: 于闐. 於菟 also has a variant 狗賨; Kuo P'u's 郭璞 commentary to the *Fang-yen* states under 於應 'tiger': 今江南山夷呼虎爲應，音狗賨 "Nowadays the hill tribes in the south of the Yangtze call 'tiger' 趙, pronounced as 狗寶 (MC *kəu-təu*)." The OC form of the Ch'u word for 'tiger' was therefore something like ***kat'a*.

The only difference between AA **kala*ʔ and Chinese is *-l-* versus *-t'-* or *-t-*, which may conceivably be explained as follows. Some AA forms have a dental stop: Pinnow regards Khmer *khla* 'felines' as a cognate of *dho* (*thom*) 'tiger royal,' and according to Kuhn, Karia *kiɽɔʔ*<**kil-dɔʔ* (Pinnow, p. 142). Kuiper has noted that there is a variation among Munda *d, t*, and *l* in initial position.[44] It may be that AA **kala*ʔ had a dialect form *kata*ʔ, and the latter was represented by the Ch'u word for 'tiger.' The above two paragraphs were offered merely as a speculative conjecture, since much remains uncertain on both the Chinese and the AA side.

(6) 牙 ***ngra/nga/ya* 'tooth, tusk, ivory'

AA: VN *ngà* 'ivory'; Proto-Mnong (Bahnar) **ngo'la* 'tusk';[45] Proto-Tai **nga*.

Chinese *ya* has a 2nd Division final in MC, which, according to the Yakhontov-Pulleyblank theory, calls for a medial *-r-* in OC. And it is our belief that OC **ngra* was derived from an AA form similar to Proto-Mnong **ngo'la*.

Our theory that Chinese *ya* was a loan is based upon the following considerations. (1) The oldest Chinese word for 'tooth' is *ch'ih* 齒, which once had an unrestricted range of application, including 'molar,' 'tusk,' and 'ivory.' (2) *Ya* is of relatively late origin. When it first appeared, it was only used for 'animal tooth' and 'tusk,' which was and still is the meaning in AA. (3) While North China once had elephants, they became quite rare during the Shang and Chou dynasties, and ivory had to be imported from the middle and lower Yangtze region. Imported items not infrequently bear their original names, and by our previous argument, the Yangtze valley was inhabited by the AA's during the first millennium B.C.

Ch'ih 齒 consists of a phonetic 止 and the remaining part as a signific. The latter is a pictograph showing the teeth in an open mouth. Ancestral forms of the pictograph occurred frequently in the oracle bones. Since adding a phonetic is a standard method for creating new graphs for old words, we can be reasonably certain that the oracle bone forms cited represented *ch'ih*. The graph of *ya*, however, has no identifiable occurrence in the oracle bones and only one probable occurrence in the bronze inscriptions. This statement is based upon the fact that *ya* is listed neither in Li Hsiao-ting's compendium of oracle bone graphs nor in Yung Keng's dictionary of bronze graphs.[46] Karlgren cited a bronze form for *ya* in *GSR* (37b). But Kuo Muo-jo marked this occurrence of *ya* as a proper name, which makes it impossible to ascertain the meaning further.[47]

There are reasons to believe that the absence of *ya* from early epigraphic records was not merely accidental. The oracle bones contained many records of prognosis concerning illness, and among them tooth-ache.[48] The graphs used were always ancestral forms of *ch'ih*. The oracle bones also contained a representative list of terms for parts of the body, including head, ear, eye, mouth, tongue, foot, and probably also elbow, heel, buttock, shank[49]. The absence of *ya* under such circumstances is quite conspicuous.

A graph must first exist before it can become a part of another graph, and the older a graph, the more chances it has to serve as part of other graphs. By this criterion, *ch'ih* is much older than *ya*. In the oracle bones, *ch'ih* occurs as the signific of three graphs. In the *Shuowen, ch'ih* occurs as the signific of forty-one graphs, all having something to do with tooth; *ya*, only two graphs, one of which has a variant form with *ch'ih* as the signific. The *Shuo-wen* also tells us that *ya* has a *ku-wen* form in which the graph for *ch'ih* appeared under the graph for *ya*. What this seems to indicate is that when 牙 first appeared, it was so unfamiliar that some scribes found it necessary to add the graph for *ch'ih* in order to remind themselves what *ya* was supposed to mean. 牙 also occurs as the phonetic of eight graphs (six according to Karlgren). But none of these graphs is older than 牙, and our conclusion is not affected.

The meaning of *ch'ih* in the oracle bones is primarily 'human tooth', including 'molar.' On one shell, there occurred the statement....允有來入齒 which has been interpreted, "Yün came to send a tribute of elephant's tusks."[50] But other interpretations are also possible. The use of *ch'ih* as 'tusk, ivory' is most clearly illustrated in Ode 299 憬彼淮夷，來獻其琛，元龜象齒 "Far away are those Huai tribes, but they come to present their treasures, big tortoise, elephant's tusks"; and not quite so clearly in two passages in the 禹貢 "Yü kung," both of which listed 齒, 革, 羽, 毛 as items of tribute. Here *ch'ih* can mean either 'ivory' or 'bones and tusks of animals,' all used for carving. Lastly, *ch'ih* also applies to tooth of other animals, 相鼠有齒 "Look at the rat, it has its teeth" (Ode 52).

Beginning with the *Book of Odes* we have unambiguous evidence for the use of *ya*. But in the pre-Han texts *ya* still did not occur frequently, and an analysis of this small corpus reveals that *ya* was never used for human tooth. Hence the *Shuo-wen's* definition of *ya* as 牡齒, usually interpreted as 'molar,' seems to reflect a later, probably post-Ch'in, development.[51] The most frequent occurrence of *ya* in the sense of 'tooth' is in the compound 爪牙 'claw and tooth,' and there the reference to animal tooth is quite clear. The *Yi-ching* contains a line in which the meaning of *ya* was 'tusk': 繯豕之牙吉 'the tusk of a castrated hog: [the sign is] propitious.' The line in Ode 17 誰謂鼠無牙 probably means 'Who says the rat has no tusks?' but some scholars prefer to interpret *ya* simply as 'teeth (incisors).'

Elephants once existed in North China; remains of elephants have been unearthed in neolithic sites as well as in An-yang.[52] Ivory carving was also a highly developed craft during the Shang dynasty.[53] These facts, however, should not mislead us into thinking that elephants had always been common in ancient North China. Yang Chung-chien and Liu Tung-sheng made an analysis of over six thousand mammalian remains from the An-yang site and reported the following finding: over 100 individuals, dog, pig, deer, lamb, cow, etc.; between 10 and 100 individuals, tiger, rabbit, horse, bear, badger (獾) etc.; under 10 individuals, elephant, monkey, whale, fox, rhinoceros, etc.[54] The authors went on to say that rare species such as the whale, the rhinoceros, and the elephant were obviously imported from outside, and their uses were limited to that of display as items of curiosity. This view is also confirmed by literary sources. In the *Han Fei-tzu*, it is said that when King Chou of the Shang dynasty made ivory chopsticks, Chi Tzu, a loyal minister, became apprehensive – implying that when as rare an item as ivory was used for chopsticks, the king's other extravagances could be easily imagined.[55] Importation of ivory in the form of tribute was also reported in Ode 299 and in the "Yü-kung," both of which were cited above.

The history of *ya* and *ch'ih* can now be reconstructed as follows: The people of the Shang and Chou dynasties have always depended upon import for their supply of ivory. But during the early stage, ivory and other animal tusks and bones were designated by *ch'ih*, which was also the general word for 'tooth.' Items

made of ivory were also indicated by adding a modifier 象 *hsiang* 'elephant' before the noun, for example 象褆, 象弭, 象箸 'ivory comb-pin,' 'ivory bow tip,' 'ivory chopsticks.'[56] Then *ya* came into the Chinese language in the sense of 'tusk.' Because a tusk is larger than other types of teeth, *ya* gradually acquired the meaning of 'big tooth, molar' by extension, thus encroaching upon the former domain of *ch'ih*. When later lexicographers defined *ya* as 'molar' and *ch'ih* as 'front tooth,' they are describing, though without clear awareness, the usage of the Han dynasty and thereafter. By further extension, *ya* also became the general word for 'tooth,' while retaining its special meaning of 'ivory.'

Some Min dialects still employ 齒 in the sense of tooth. The common word for tooth in Amoy is simply $k'i^3$. Foochow has nai^3 which is a fusion of $ŋa^2$ plus $k'i^3$, i.e. 牙齒. This strongly suggests that in Min the real old word for 'tooth' is 齒 as in Amoy, the implication being that this was still the colloquial word for 'tooth' well into Han when Fukien was first settled by the Chinese. The Japanese use 齒 as *kanji* to write *ha* 'tooth' in their language; 牙 rarely occurs. Both these facts provide supplementary evidence for the thesis that the use of *ya* as the general word for 'tooth' was a relatively late development.

In a note published in *BSOAS*, vol. 18, Walter Simon proposed that Tibetan *so* 'tooth' and Chinese *ya* 牙 (OC **ngå*) are cognates, thus reviving a view once expressed by Sten Konow. Simon's entire argument was based upon historical phonology; he tried to show (a) OC had consonant clusters of the type *sng-* and C*ɣ-*, (b) by reconstructing 牙 as *sngå>zngå>nga* and 邪 as *zɣå>zịå*, one can affirm Hsü Shen's view that 邪 has 牙 as its phonetic, and (c) Chinese *sngå* can then be related to a Proto-Tibetan **sngwa* and Burmese *swa:>θwa:*.

Our etymology for *ya* 'tooth' implies a rejection of Simon's view; if *ya* is borrowed from AA, then the question of Sino-Tibetan comparison simply does not arise. And even if our theory is not accepted, there is no reason to adopt Simon's analysis; *ya* is clearly a word of relatively late origin, and the fact that 邪 has 牙 as its phonetic can be explained by assuming that the *z-* of 邪 resulted from the palatalization of an earlier *g-*.[57]

(7) 弩 ***na / nuo / nu* 'crossbow'**

'crossbow' in AA: VN *ná*; Proto-Mnong **so'na*;[58] Proto-Tai **hnaa*.

Cf. Mon, Old Mon *tŋa*; Palaung $kaŋ^3$, *kaŋa*?; Tibeto-Burman: Nung *the-na*; Moso *ta-na*.

The crossbow is at present widely used by the tribes in southwest China and Indo-China. The cover of *Mon-Khmer Studies* II,[59] for example, shows a picture of the crossbow. Early references to the crossbow in Chinese texts also point to that general region as the place of origin. The *Han-shu* explicitly mentioned the crossbow as one of the weapons used by the tribes inhabiting Hainan Island, and implied that it was also used by other tribes farther south.[60] The *Shih-chi* stated that the crossbow produced in the state of Han 韓 was called "Hsi-tzu" 雞子,

which is also the name of a southern tribe.[61] Szechuan was famous for its crossbow. Both the *Hua-yang-kuo chih* 華陽國志 and the *Hou-han-shu* reported that when a white tiger roamed the area of Ch'in and neighboring states, a man from Pa (巴郡閬中人) had to be called in, and he killed the tiger with a crossbow made of white bamboo. King An-yang, a prince from Szechuan, is said to have brought along the crossbow as he entered Vietnam when Chao T'o tried to conquer Vietnam at the end of the Ch'in dynasty; he was for a time stymied by King An-yang's archers using crossbows.[62]

The fact that the crossbow has a southern distribution, past and present, suggests that it was acquired by the Chinese. Phonology provides another reason. The Tai and Vietnamese, because of their proximity to Chinese speaking peoples, were the most likely points of contact. The Tai form implies voiceless initial *-ŋ-*. VN *ná* is in the *săc* tone, which comes from a voiceless initial. Proto-Mnong **so'na* indicates that perhaps the Proto-AA form should be **s-na*. Now, under the hypothesis that Chinese borrowed this word from AA, we only need to assume that **s-* (or the voicelessness of the initial **n-*) was lost in the process of borrowing. Under the contrary hypothesis that the loan was in the opposite direction, none of the AA or Thai forms can be easily explained.

The crossbow was widely used during the Han dynasty. The character 'crossbow' and the terms for the trigger of the crossbow (機栝, 發機) appeared in texts written during the Warring States Period, but not earlier.[63] The third and fourth century B.C. seems to be the time when the crossbow and the term for it were introduced into China.

The Japanese scholar Fujita Toyohachi believes that the Chinese crossbow came from India, on the strength of the Sanskrit word *dhanu* 'bow' and the fact that India already used the crossbow in warfare during the fourth century B.C.[64] The Sanskrit word may have something to do with Mon and Old Mon *tŋa,* Nung *thə-na,* Moso *ta-na,* but is unlikely to be the direct source of 弩; 弩 belongs to the MC 魚 rhyme, and as Chou Fa-kao has shown, Sanskrit *-o* and *-u* were regularly transcribed before the T'ang dynasty by words belonging to 尤, 侯, 虞, 模 rhymes but seldom by words belonging to the 魚 rhyme.[65] Whether the ultimate origin of the crossbow is to be sought in India or elsewhere is a question lying beyond the scope of this paper.

We would now like to consider the possibility of the survival of AA forms in some modern Chinese dialects spoken in areas occupied by the ancient Yüeh peoples.

The Min dialects spoken in Fukien and northeastern Kwangtung represent the most aberrant group of dialects in China. While most of the vocabulary found in these dialects can be traced back to early Chinese sources, there remains a residue of forms which cannot be explained in this way. A possible explanation of such words would be to consider them relic forms from the non-Chinese language spoken in this region before the Chinese began to settle there in the Han dynasty. The pre-Han inhabitants of Fukien were the Min Yüeh; they appear to have been a semi-civilized state which was finally destroyed by Han Wu Ti in 110 B.C.[66]

Above we have demonstrated that the language of the Nan Yüeh was most likely Austroasiatic. Might we not go one step further and suppose that all the

various Yüeh peoples of ancient southeastern China were AA speaking? In other words, we would propose that the term Yüeh was essentially linguistic. If this supposition is correct, then the present day Min dialects have an AA substratum, and we should expect to find a certain number of relic words of AA origin in these dialects. We believe that this is indeed the case, and below we list and discuss such forms as we have been able to identify up until now.

It is noteworthy that the forms we discuss are best represented in Vietnamese. This is not surprising since the modern Vietnamese are the descendants of the ancient Yueh and their present territory represents the AA-speaking region closest to Fukien and northeastern Kwangtung.

In discussing Min words we will give the forms in Foochow (FC hereafter) and Amoy (AM hereafter); other dialects will be cited where relevant. Dialect forms will be given in a broad IPA transcription; tones will be indicated by superscript numerals.[67]

(8) FC *tɸyŋ*^{2} / AM *taŋ*^{2} 'shaman, spirit healer, medium'

It is not entirely clear whether the word in question is basically a nominal or verbal root since it occurs in constructions of both types. Thus in FC dialect we have *tɸyŋ*^{2}-*tsi*^{3} 'shaman,' *tɸyŋ*^{2}-*siŋ*^{1}'id.,' *phaʔ*^{7}-*tɸyŋ*^{2} 'to shamanize,' *tɸyŋ*^{2}-*thau*^{2} 'shaman's assistant'; in Amoy we have *taŋ*^{2}-*ki*^{1} 'id.,' *taŋ*^{2}-*sin*^{1} 'id.,' *tio*^{2}-*taŋ*^{2} 'to dance under the influence of spirits,' *thiau*^{5}-*taŋ*^{2} 'id.' (note: both *tio*^{2} and *thiau*^{5} mean 'to leap, to dance'), *the*^{5}-*taŋ*^{2} 'the spirit leaves the shaman', *liaʔ*^{8}-*taŋ*^{2} 'to become possessed.' In the Kienyang dialect (northwest Fukien) we have *loŋ*^{9}-*si*^{1} 'shaman' and *kyeŋ*^{1}-*loŋ*^{9} 'to become possessed.' Yungan (Central Fukien) has *tiɯ*^{5} - *tãɯ*^{2} 'to shamanize' (*tiɯ*^{5} 'to jump, to dance'), *tãɯ*^{2}-*tsã*^{3} 'shaman.' The common element in all these expressions is Foochow *tɸyŋ*^{2}, Amoy *taŋ*^{2}, Kienyang *loŋ*^{9}, and Yungan *tãɯ*^{2}; these forms point back to a Proto-Min **doŋ* in the tonal category corresponding to the classical *p'ing* tone. All of the dialects show lower register (*yang*) tones indicating that the protoform had a voiced initial. The word in question is sometimes written with the character 童 (MC *d'ung*) which means 'boy, lad, child'; but it is hard to see what relationship the two words have, since a shaman is always an adult and never a young boy.

In Vietnamese we find a word which both semantically and phonologically corresponds to the unexplained Min etymon perfectly: *đồng* 'to shamanize, to communicate with spirits,' *đồng cậu* 'male shamanistic spirit,' *đồng bóng* 'to shamanize, to communicate with spirits,' *bà đồng* 'shamaness,' *đồng cô* 'female shamanistic spirit,' *đồng cõt* 'shaman, sorcerer.'[68] This word is not confined to Vietnamese within Austroasiatic. In Written Mon the cognate is *doṅ* 'to dance (as if) under daemonic possession,' *dảṅ* 'trance or ?shaman.'[69] In Modern Mon the corresponding form is *tòŋ* 'to leap with the feet together, to proceed by leaps, to dance while under daemonic possession, to climb'; Shorto also lists a derived meaning 'shaman (?).'[70] Further AA connections can be adduced: Shorto links the Written Mon form with Khasi *lyngdoh* 'priest'; to support this equation, one can

cite similar examples of Mon final -ŋ corresponding to Khasi *-h*: Spoken Mon *pɔ̀ŋ*, Written Mon *buṙ* 'belly,' Khasi *kə-poh* 'id.' On the Munda side, there are at least three good cognates: Santali *doṙ* 'a kind of dance, drumming and singing connected with marriage'; Ho *dong* 'a wedding song'; Sora *toŋ*-'to dance.'[71]

(9) 囝 FC *kiaŋ*^{3} / AM *kiã*^{3} 'son, child'

This word like the preceding one is attested for all Min dialects. From the conservative dialects of northeastern Fukien, we can see that the word originally ended in *-n*: Fuan *kiɛ* ŋ^{3}, Ningteh *kian*^{3}. The Proto-Min form was probably something like **kian* with the tone which corresponds to the classical *shang* or rising tone. This word is attested textually quite early. The T'ang poet Ku K'uang 顧況 (?725 -?816) composed a poem when he was serving in Fukien in which he used the word in question. In the poet's own preface to the poem he explains the word 囝 : "it is pronounced like the word 蹇 (MC *kịɒn~kịän–shang* tone); in Fukien 'son' is called 囝 in the popular language."[72] This word is clearly the same as the modern Min words for 'son, child.'

We would like to suggest that the Min word is related to the AA etymon represented by VN *con* 'child.' This etymon is very widely distributed throughout Austroasiatic: Khmer *koun*, Spoken Mon *kon*, Written Mon *kon, kwen*, Bru *kɔɔn*, Chong *kheen*, Wa *kɔn*, Khasi *khu:n*;[73] it is also well represented in Munda: Kharia *kɔnɔn* 'small,' Santali *hɔn* 'son, child,' Ho *hon* 'child.'[74] The Min form agrees with the AA forms which have mid back rounded vowels whereas the Min forms predominantly show low to mid unrounded vowels. The Min form of Kienyang *kyeŋ*^{3}, however, has a rounded medial which may indicate that the Min forms derive from some type of earlier rounded vowel.

(10) AM *tam*^{2} / Fuan *tam*^{2} 'damp, wet, moist'

These forms which are attested in most eastern Min dialects except Foochow can be related to VN *đẳm, đãm* 'wet, moist.'

(11) FC *siŋ*^{2} / AM *tsim*^{2} 'a type of crab'

These forms may bear some relationship to VN *sam* 'king crab.' The VN form is probably further related to Mon-Khmer forms such as Bahnar *kytam,* Written Mon *khatham,* etc.[75]

(12) FC *paiʔ*^{7} / AM *bat*^{7} 'to know, to recognize'

AM *b-* generally corresponds to FC *m-*; the upper register tone with a voiced initial is also incongruous. Douglas gives a Tung-an form *pat*^{7} for Southern Min, so we regard the AM form as irregular. We can compare all these forms with VN *biết* 'to know, to recognize.'

(13) FC *p'uo?*[8] / AM *p'e?*[8], cf. Fuan *p'ut*[8] 'scum, froth'

Compare VN *bọt* 'scum, bubbles, froth.'

(14) FC *p'iu*[2] / AM *p'io*[2] 'duckweed'

This word is recorded in Kuo P'u's (AD 276 – 324) commentary to the *Erh-ya* where he states that *p'iao* was the *chiang-tung* (southeastern China south of the Yangtze) word for 'duckweed.'[76] VN *bèo* 'duckweed' is obviously related to all these forms. The VN form is probably further related to Spoken Mon *pè*, Written Mon *bew* 'to ride low in the water.'

(15) FC *kie*[2] / AM *kue*[2], cf. Kienyang *ai*[3] '(small) salted fish'

Baldwin and Maclay define the Foochow word as follows: "a kind of salted seafish; it is small varying from one to four or five inches in length." There is a VN word *kè* which is defined as a 'type of fish; it is small and resembles the gecko.' The primitive Yüeh etymon probably meant a small fish of some sort, and the specialization of meaning took place in the various languages later.

We will conclude with two general observations.

Until the 1950's, archaic loans into Chinese have not been seriously studied. Part of the reason is quite understandable. As alluded to before, the languages of China's neighbors and ethnic minorities were not sufficiently known, and without such knowledge, it was impossible to estimate the time-depth of a non-Chinese word suspected as the source of a loan, or to reconstruct its old form. But this handicap is rapidly being removed. There is, however, another reason – in fact, a prejudice – that is blocking progress in the field. We have in mind the widely held belief that the Chinese culture was so superior that there was no need for her to borrow anything, linguistic elements included.[77] When a Chinese word shows similarity to a non-Chinese word, it was automatically assumed that Chinese was the donor, and not the receiver. With the recent discovery of cereal grains and bronze artifacts at archaeological sites in Northern Thailand, we now know that Southeast Asia had a highly developed culture in remote antiquity, quite capable of serving as the originator and donor of cultural inventions. Leaving aside the question of relative cultural superiority – which can never be subject to precise scientific proof – it seems evident that when two peoples are in contact, borrowing is almost always a two-way street. Witness the large number of American Indian words in English and vice versa. A people may have given more than what she receives. But to assert that a certain people in principle cannot and need not receive anything seems to go against common sense and all known instances of cultural contact. The evidence presented

above, we hope, will help to undermine that ancient myth whose downfall is long overdue.

Chinese is one of the major languages of the world without an adequate etymological dictionary,[78] and we may take a moment to consider what sort of preparatory work is necessary to bring it into existence. Obviously one of the basic unresolved questions is the linguistic affiliation of Chinese. If Chinese is related to Tibetan or Tibeto-Burman, as most scholars believe to be the case, then the origin of a Chinese word is ascertained once its cognates in these languages are found. The same applies to Tai if Tai also turns out to be related to Chinese. Here already we encounter a problem, for the assumption is that we are dealing with an original Chinese word. How can we be sure? Phonological regularity provides one test. If, for example, a Chinese word and a Tibetan word in the same semantic range show regular phonological correspondence, then this fact provides strong evidence that both are derived from the proto-language. Even here there is the possibility that both words are loans from a third language, witness Chinese ***krong* and Tibetan *kluṅ*. Further, in the present state of Sino-Tibetan studies there is much uncertainty concerning phonological matters, and therefore this test has only limited application.

Another often followed procedure is to look up *GSR* and see if the word is included. This, we submit, is only the first step and not the last. The *GSR* includes words from the oracle bones up to texts written before the Ch'in dynasty, a period of over a thousand years, during which time many things could have happened to the lexicon. To ascertain whether a word is old, or new and therefore possibly a loan, we need to ask a number of questions. Is it attested in the oracle bones or bronze inscriptions? Does it have a skewed geographic distribution? Does it have many synonyms or few? Is its meaning unusually restricted, as loan words tend to be when first introduced into a language? Finally, there is always one way to show the relative recency of a word, that is, to establish the fact that it is a loan. In this sense, the study of loan words is complementary to the comparative reconstruction of words in the proto-language, and provides the peripheral vision without which no etymological work can proceed safely.

Notes

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1. We follow the scheme set forth by Norman Zide in his Introduction to Zide ed., *Studies in comparative Austroasiatic linguistics* (Hague, 1966), hereafter *SCAL*; H. J. Pinnow's *Versuch einer historischen Lautlehre der Kharia-Sprache* (Wiesbaden, 1959) has a convenient linguistic map of the AA languages, but he did not include Vietnamese-Muong.

2. A. Haudricourt, "La place du vietnamien dans les langues austroasiatiques," *Bulletin de la Société de Linguistique* 49 (1953), 122-28, and "L'origine des tons vietnamiens," *JA* 242 (1954), 69-82.
3. Ruth Wilson, "Muong and some Mon-Khmer languages," in *SCAL*.
4. H.R. Davies, *Yun-nan, the link between India and the Yangtze* (Cambridge, 1909), p. 341; R. A. D. Forrest, *The Chinese language* (second edition, London, 1965), p. 95; A. Haudricourt, "Austroasiatic in the northeast," in *SCAL*, p. 54 ff.
5. A. Meillet and M. Cohen, *Les langues du monde*, 1st ed. (1924), K. Wulff, *Chinesisch und Tai* (Copenhagen, 1934).
6. Paul Benedict, "Thai, Kadai and Indonesian: a new alignment in Southeastern Asia," *Am. Anthr.* 44 (1942), 576-601.
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10. L. Aurousseau, "La première conquête chinoise de pays annamites," *BEFEO* 23 (1924), 137-266.
11. Lo Hsiang-lin 羅香林, 百越文化與源流 (Taipei, 1955), p. 10; on the oracle bone form of *yüeh*: Jung Keng 容庚, 鳥書考, *Yen-ching Hsüeh-pao* 16 (1934); on the bronze form of 戊(=越): Paul Serruys, "Five word studies on *Fang Yen* (second part)," *Monumenta Serica* 21 (1962), p. 279, no. 35; Serruys thinks that *yüeh* was a stepped adze, but that may be going too far.
12. L. Finot, "L'Indochine préhistorique," *Bull. Comité Asie française*, Feb./July, 1919; also G. Coedès, *Les Peuples de la péninsule Indochine* (Paris, 1962), p. 32. Chang Kwang-chih, *Archaeology of Ancient China* (New Haven, 1963), p. 123, note 40, and p. 129.
13. Izui Hisanosuke 泉井久之助, "劉向'說苑' 卷十一の越歌について," *Gengo Kenkyū* 22/23 (1953), pp. 41-5.
14. Lo Hsiang-lin, *op. cit.*, pp. 151-172 has a convenient collection of such words.
15. The sign **means our reconstruction of OC; *means Karlgren's OC reconstruction as given in *GSR*.
16. *Chou Li, SPTK* 4, 21a; Cheng's commentary is attached to 國凶札, 則無關門.
17. Tuan Yü-ts'ai 段玉裁, 說文解字注, Yi-wen reprint, Taipei (1965), p. 268.
18. Chiang Yu-kao 江有誥, 諧聲表 (in音韻學叢書, 二十一部, 11b).
19. N. Bodman, *A linguistic study of the Shih-ming* (Cambridge, Mass., 1954), p. 100, no. 779.
20. Tung T'ung-ho 董同龢, 上古音韻表稿, reprinted 1967, Academia Sinica.
21. H. L. Shorto, "Mon labial clusters," *BSOAS* 32, part 1 (1969), p. 8.
22. R. Burling, *Proto Lolo-Burmese* (= *International Journal of American Linguistics*, 33, no. 2, part II, [April 1967]), p. 78.
23. Benedict, "Austro-Thai studies III; Chinese and Austro-Thai," cited above.
24. A. Haudricourt, "Introduction à la phonologie historique des langues miao-yao," *BEFEO* 44 (1954), 2, p. 568, item no. 56.
25. A. Haudricourt, "Austroasiatics in the northeast," *SCAL*, p. 55.
26. S. E. Yakhontov, "Consonant combinations in Archaic Chinese," *XXV International Congress of Orientalists*, papers presented by the USSR delegation (Moscow, 1960); E. Pulleyblank, "The consonantal system of Old Chinese," part 1, *Asia Major* (new series) 9 (1962), pp. 59-144.

27. Li Fang-kuei 李方桂, 上古音研究, *Tsing Hua Journal of Chinese Studies* (new series) 9.1 & 2 (1971), 1-61.
28. See Wen I-to 聞一多, 聞一多全集 II, p. 206.
29. Tung T'ung-ho, *op. cit.*; E. Pulleyblank, "The consonantal system of Old Chinese," part 2, *Asia Major* 9 (1963), 206-65; S. E. Yakhontov, "Fonetika kitaiskogo yazyka I tysyacheletiya do n.e. (sistema finalei)" in two parts, *Problemy vostokovedeniya* 2 (1959), 137-47, (1960), 102-15, English translation by Jerry Norman in *Chilin* (Publication of the Chinese Linguistic Project, Princeton University), nos. 1 & 6.
30. Cf. Mongolian *yool* 'river'; but it may have some connection with Tibetan *rgal* 'a ford,' *rgal-ba* 'to cross, to ford.' In a future article we hope to set forth evidence for final *-l* in 歌部 of OC.
31. Li Hsiao-ting 李孝定, 甲骨文字集釋, 16 volumes, Academia Sinica (Taipei, 1965). All subsequent reference to the oracle bones, unless otherwise noted, is to this work.
32. Fu Ssu-nien 傅斯年, 周頌說, *BIHP* 1 (1928), 107-108.
33. Tuan Yü-ts'ai, 說文解字注 under 芙; Ch'ien Ta-hsin 錢大昕, 十駕齋養, 新錄, *chüan* 11. For the opposite view, see Jao Tsung-yi 饒宗頤, 楚辭地理考 (Shanghai, 1946), 78-83.
34. L. Aurrouseau, *op. cit.*, p. 263.
35. 大越史記外紀全書卷一鴻賺記.
36. Chang Kwang-chih, *op. cit.*, 249-255.
37. We are indebted to Professor Nicholas Bodman of Cornell University for pointing this out to us. The Mon-Khmer data is taken from Franklin Huffman, "An examination of lexical correspondences between Vietnamese and some other Mon-Khmer languages," a paper presented to the Cornell Linguistics Club, April, 1974 and also to the 8th Sino-Tibetan Conference.
38. Li Fang-kuei, *op. cit.*, p. 10.
39. 史記楚世家, 熊渠曰："我蠻夷也, 不與中國之號謚"； 楚辭九章涉江, "哀南夷之莫吾知也"。；呂氏春秋', "楚變於蠻者也"。
40. We have presented more detailed arguments in Tsu-lin Mei and Jerry Norman, "*Cl->s-* in some Northern Min dialects," *Tsing-hua Journal of Chinese Studies* (new series) 9,1 & 2 (1971), 96-105.
41. Tsu-lin Mei, "Tones and prosody in Middle Chinese and the origin of the rising tone," *HJAS* 30 (1970), 86-110.
42. Shou Chen-huang 壽振黃主編, 中國經濟動物誌；獸類 (Peking, 1962); G. M. Allen, *The Mammals of China and Mongolia* (New York, 1940).
43. Yang Chung-chien and Liu Tung-sheng 楊鍾健, 劉東生, "安陽知墟之哺 乳動物群補遺, "考古學報 4 (1949), 145-153.
44. F. B. J. Kuiper, "Consonant variation in Munda," *Lingua* 14 (1964), 85-87.
45. Henry Blood, *A reconstruction of Proto-Mnong* (Summer Institute of Linguistics, 1966), p. 9 & p. 72.
46. Li Hsiao-ting, *op. cit.*, Yung Keng 容庚, 金文編.
47. Kuo Muo-jo 郭沫若, 兩周金文大系考釋, p. 196.
48. Chang Ping-ch'üan 張秉權, 殷虛文字丙編, 上輯 (二) (Academia Sinica, 1959), p. 132 ff.; Hu Hou-hsüan 胡厚宣, "殷人疾病考." 甲骨學商史論叢初集 (1944).
49. Chang Ping-ch'üan, *ibid.*
50. Li Hsiao-ting, *op. cit.*, p. 0625.
51. Tuan Yü-ts'ai, *op. cit.*, see Tuan's note under *ya*.
52. Hsü Chung-shu 徐中舒, 殷人服象及象之南遷, *BIHP* 2 (1930), 60-75; Yang Chung-chien and Liu Tung-sheng, *op. cit.*
53. Kuo Pao-chün 郭寶鈞, 中國青銅器時代 (Peking, 1963), p. 77.
54. Yang Chung-chien and Liu Tung-sheng, *op. cit.*
55. 韓非子, 喻老, "昔者衬爲象箸而箕子怖."

56. 象摘 *Ode* No. 107, 象弭 *Ode* No. 167, 象塞 *Han-fei-tzu*.
57. For example, S. E. Yakhontov, *Drevne-Kitaiskii Yazyk* [The Old Chinese language], (Moscow, 1965), pp. 30-31.
58. Henry Blood, *op. cit.*
59. *Mon-Khmer Studies* 2 (1966), Publications of the Linguistic Circle of Saigon.
60. 漢書地理志.
61. 史記蘇秦傳.
62. 舊唐書卷四十一.
63. See the quotations cited from *Mo-tzu, Chuang-tzu, Sun-tzu, Huai-nan-tzu* in Hsü Chung-shu 徐中舒,"'弋射與弩之淵源及關於此類名物之考釋," *BIHP* 4 (1934), p. 427. Hsü asserts that 续 (a graphic variant of 弯) appeared in a Western Chou bronze vessel, 農卣, and goes on to argue that the crossbow already existed during that Western Chou. Without other supporting evidence, Hsü's case seems doubtful.
64. Fujita Toyohachi 藤田豐八, "支那石刻之由來," Tōyō Gakuhō 16, 2 (1927), pp. 170-171.
65. Chou Fa-kao 周法高, "切韻魚虞之音讀及其演變 *BIHP* 13 (1948), 119-152.
66. Fan Wen-lan 范文瀾, 中國通史簡編 (Peking, 1964), part II, p. 90.
67. Foochow forms are based on R. S. Maclay and C. C. Baldwin, *An alphabetic dictionary of the Chinese language in Foochow dialect* (Foochow, 1870); Amoy forms are taken from Carstairs Douglas, *Chinese-English dictionary of the vernacular or spoken language of Amoy* (London, 1899). Forms from other Min dialects are from J. Norman's field notes. For Proto-Min, see Jerry Norman, "Tonal development in Min," *Journal of Chinese Linguistics* 1.2 (1973), 222-238; and "The Initials of Proto-Min," *JCL* 2,1 (1974), 27-36.
68. VN forms are taken from Ho Ch'eng 何成 et al., 越漢辭典 (Peking, 1966). Hereafter all VN forms will be cited from this source.
69. H. L. Shorto, *A dictionary of the Mon inscriptions* (London, 1971), p. 200.
70. H. L. Shorto, *A dictionary of modern spoken Mon* (London, 1962), p. 117.
71. Munda forms are taken from the following sources: Santali – P. O. Bodding, *A Santal dictionary* (Oslo, 1934); Ho – Lionel Burrows, *Ho grammar* (Calcutta, 1915); Sora – Rao Sahib G. V. Ramamurti, *Sora-English dictionary* (Madras, 1938).
72. For the quotation from Ku K'uang, see The Institute of Literature of the Chinese Academy of Sciences, 中國文學史 (Peking, 1963), vol. II, p. 414.
73. See Franklin Huffman, *op. cit.*
74. Pinnow, *op. cit.;* pp. 111-112.
75. Pinnow, *op. cit.*, p. 77.
76. This definition is discussed at length by Wang Nien-sun 王念孫 in his *Kuang ya shucheng* 廣雅疏證, *ch.* 10a.
77. The latest example of this belief is found in Charles Li and Sandra Thompson, "An explanation of word order change SVO>SOV," *Foundations of Language* 12:2 (1974), where it is stated that China had "the overwhelming dominance of civilization in pre-twentieth century Asia...." and "such cultural dominance precludes the possibility of an external influence on Chinese."
78. One way to measure the distance future etymological work has to advance is to examine the work by Tōdō Akiyasu 藤堂明保, 漢字語源辭典 [An etymological dictionary of Chinese characters].

24

THE LINGUISTIC POSITION OF RONG (LEPCHA)

R. A. D. Forrest

Source: *Journal of the American Oriental Society* 82, 3, 1962, 331–5.

Sten Konow, in the *Linguistic Survey of India,* assigned Rong to the "unpronominalised Himalayan group" of Tibeto-Burman languages, though he did indeed note certain traits (vigesimal numeration, vestigial classification of nouns into animate and inanimate, etc.) which point to an ancient influence of tongues of Munda type. He is followed by Schmidt in his *Sprachfamilien und Sprechenkreise der Erde* (Heidelberg, 1926), who however, assigned to Rong a position apart from the other unpronominalised languages, justified by its sharp differences from the dialects with which Konow had ranged it; and the *Langues du Monde* (1952 edition) likewise follows Konow's classification. So far as classification goes this is probably as accurate as one may expect; but in calling Rong a Tibeto-Burman language without qualification we are giving too little weight to its peculiar features.

The principal sources of our knowledge of Rong are G. B. Mainwaring's *Grammar* (Calcutta, 1876) and *Dictionary* (Berlin, 1898), a work generally satisfactory. In it the author has marked those words which he recognised as being of Tibetan derivation, i. e., plainly traceable to the Tibetan written language or to the modern Lhasa pronunciation; omissions are few, and questionable inclusions among those marked words are uncommon. As examples of this stratum we may quote the following:

R. *ća,* 'bird': Tib. *bya*
R. *ćhak,* 'hand': T. *phyag*
R. *ćho,* 'religion': T. *chhos*
R. *khuk,* 'bag': T. *khug*
R. *khyek,* 'freeze': T. *ṅkhyag*
R. *thop,* 'find, get': T. *thob-pa*
R. *thók,* 'string': T. *thag*
R. *do,* 'stone': T. *rdo*
R. *lo,* 'learned': T. *slob*
R. *saṅ,* 'straighten': T. *sroṅ-ba*

R. *khe,* 'tax': T. *khral*
R. *śap, śóp,* 'foundation': T. *źabs*
R. *sŭk,* 'joint': T. *tshigs*
R. *śók,* 'cut': T. *gśag-pa*

It is to be noted i) that among these asterisked forms there are none with initial dentals (including *l-*) + *-y-*; ii) that asterisked forms constitute a much larger proportion among words with initial aspirate consonants than elsewhere; and iii) that compound initial consonants are very rare among the asterisked forms, though common elsewhere. The significance of these facts will appear later.

There is, however, a much older TB stratum in Rong which bears witness to a phase of TB development anterior to that preserved in the oldest written Tibetan. Many of the features here preserved in something like their original forms had been already reached by comparison of the modern TB dialects; some throw light on the forms restored in Karlgren's "Archaic" stage of Chinese. Among these are the following:

1. The metathesis of **kr-*, etc., to *rk-*, etc., of written Tibetan had not yet taken place when these words came into Rong:

   R. *kryók,* 'to throw down': T. *rgyag-pa*;
   R. *lók,* 'to lick': T. *ldag-pa*;
   R. *rón, tă-ryón,* 'net': T. *rkon-pa*;
   R. *grya-lă,* 'thin': T. *rke-ba* < **krya*;
   R. *dyóp,* 'throw' (< **dryóp*; Rong rejects the initial combination dental + *-r-*, *-l-*): T. *rdeb-pa* < **dryab*;
   R. *bryuk,* 'stout': T. *rgyags-pa* < **g-ryag-s* (with change of prefix);
   R. *len,* 'near': T. *ldan-pa.*

2. The Tibetan developments **ly-* > *ź-*, **tly-* > *ch-*, etc., and not yet occurred, and Rong remains at the stage of most other TB dialects:

   R. *klak,* 'end': T. *gźug, mjug* (*mdźug*), in which latter form *-d-* probably arose directly in the *-l-* stage, as in T. *mda,* 'arrow,' < **mla*;
   R. *fa-lí,* 'four': T. *bźi* < **b-lyi*;
   R. *lyaṅ,* 'land, field': T. *źiṅ* < **lyiaṅ;*
   R. *tŭk-liṅ,* 'neck': T. *ńjiṅ* < **ndlyiaṅ;* cf. Burmese *laṅ* < **lyaṅ*;
   R. *a-klyam,* 'sweet': T. *źim* < **lyiam*;
   R. *lyo,* 'take': T. *ńju-ba* < **ndlyu-*;
   R. *a-lí,* 'tongue': T. *ltse* < **trya*;
   R. *hlyot,* 'twist': T. *ltsud-pa* < **tryuad*; cf. Burmese *rwat.*

3. Tibetan had not yet resolved final *-ts* into *-s*:

   R. *bát,* 'to swell': T. *sbos*;
   R. *nyat,* 'two': T. *gńis* < **g-nyiat-s;* cf. Burmese *hnac* < **nyat.*

4. Enigmatic are the cases in which the Tibetan prefix appears to be represented in Rong by *h-*, whereas in other occurrences of the same consonanantal sequence Rong preserves the Tibetan prefix. Such cases may be due to a later borrowing, at a stage when the Tibetan prefix was being weakened in pronunciation prior to its ultimate loss:

   R. *hryăn,* 'distance': T. *dgyaṅ-ba* < **gry-* (The final *-n* in Rong may be due to assimilation to the type of Rong verbal nouns in *-n*);
   R. *kă-hryak,* 'pheasant': T. *sreg-pa*;
   R. *hlap,* 'learn': T. *slob-pa*;
   R. *a-hryol,* 'to loose, set free': T. *ṅgrol-ba*;
   R. *hryup,* 'to suck': T. *ńjib-pa* < **ndriap* < **ndryup.*

5. In a few cases the prefix has remained syllabic in Rong:

   R. *tă-răk,* 'six': T. *d-rug*;
   R. *să-ryóm,* 'otter': T. *s-ram.*
   Cf. also the word for "four" in para. 2 above.

6. Rong *f-*, *v-* arise in circumstances not clearly definable from a labial followed by *-ry-*, *-ly-*, *-y-*:

   R. *vyăr,* 'quick': T. *myur-ba*;
   R. *vyón,* 'call, invite': T. *s-bron-pa*;
   R. *fat,* 'to do': T. *byed-pa*;
   R. *fraṅ,* 'firm': T. *brliṅ-ba* < **b-rliaṅ*;
   R. *fót,* 'to open': T. *m-byed-pa*;
   R. *fren,* 'a sore, ulcer': T. *rmen-pa* < **mryan;* cf. Burmese *mraṅ*;
   R. *flut,* 'to slip': T. *mbyid-pa* < **mblyut*;
   R. *fleṅ,* 'to stretch': T. *rmyiṅ* < **mriaṅ*;
   R. *a-fo,* 'taste': T. *bro*;
   R. *fik,* 'to tear': T. *bźag-pa* < **blyak.*

   In *fróṅ,* 'to reckon': T. *bgraṅ,* Burm. *khraṅ,* and in R. *vól,* 'to carry': T. *ṅkhrol-ba,* it is possible that Rong took over a form with labial prefix which has not been preserved in the other languages.

7. Finally, a few words show isolated evolution in Rong. R. *bryaṅ,* name, is not derivable from T. *miṅ* nor even from its preclassical forms **miaṅ* or *myiṅ,* the former of which we may infer from Burmese *amaṅ.* For the loss of *-r-* in T.*ntshag-pa,* 'to sift': R. *rók,* see my article "On Certain Tibetan Initial Consonant Groups," in *Wennti,* 3 (Yale, 1952).

   It will be observed that in the above lists a few Rong forms are quoted with syllabic prefixes (*tă-, tŭk-,* etc.) which have no counterparts in Tibetan. These prefixes, used fairly freely with words of Tibeto-Burman but pre-Tibetan affinities, appear also, though rarely, with the modern borrowings asterisked by Mainwaring:

R. *ćă*, 'to do mischief' (T. *skyo-ba*) > *nŭṅ-ćă*, 'annoyance';
R. *jít*, 'splendour' (T. *brjid-pa*) > *nŭṅ-jít*, 'speckled, bright';
R. *bar*, 'middle' (T. *bar*) > *tŭṅ-bar*, 'half.'

We turn now to an examination of these syllabic prefixes.

In the table which follows, I have set out the commonest prefixes in Rong for comparison with those in three Austroasiatic languages where the prefixal system survives as a living process of word-formation. Two of these prefixes, *kă-* and *să-*, seem to have equivalents in Tibetan, where they have ceased, of course, to form syllables or to be used freely in new formations; in both Rong and Tibetan they appear conspicuously in the names of animals, as they do in Austroasiatic dialects: R. *kă-li*, 'squirrel,' *kă-śer* 'hedgehog'; T. *gzig*, 'leopard,' *gyag*, 'yak'; Khasi *ksi*, flea,' *ksâr*, 'fox,' etc.; R. *să-ćăk*, 'leopard,' *să-na*, 'bear'; T. *sbal*, 'frog,' *stag*, 'tiger'; Khasi *skáin*, 'fly,' *sniang*, 'swine.' The remainder of the prefixes appear to have equivalents, if anywhere, only among the Austroasiatic dialects. The TB prefix having the most evident function, T. *s-* of causative force, is totally absent from Rong, where its place is taken by a *-y-* infix; on the other hand, it has not been possible to identify in Rong the Austroasiatic instrumental *-n-*.

Rong	Palaung	Khasi	Khmer
kă- animals, plants	*ka-* animals, parts of the body	*k-* animals, relations, parts of the body	*kh-* animals, esp. insects, parts of the body, etc.
kŭn-, kŭm-, &c. animals, plants	*kan-* verbs, adjectives	*kyn-, kyr-* intensive	*kâm-* instrumental, causative
luk-, lun- animals, plants	. . .	*lyng-* animals	. . .
nŭṅ-, nŭm- abstract nouns, adjectives	. . .	*nong-* agentive	. . .
pă-, pŭr- instrumental, adverbial	*par-*, agentive *p-*, causative	*pyn-, pyl-* causative	*bâm-, bân-* causative
mă-, mŭṅ- abstract nouns	. . .	. . .	*m-* abstracts
să- animals, abstracts	*s'a-* ?	*s-*, animals *sa-*, possessive	. . .
sŭṅ-, sŭm- instrumental	. . .	*syn-, syr-, syng-* instrumental	. . .
tŭṅ- abstract nouns	. . .	*tyng-* abstracts	. . .

Other important Austroasiatic prefixes, such as Palaung *ra-*, causative, Khasi *jym-, jyn-, jyng-* instrumental, *tyn-, thyn-, thyl-* diminutive, cannot be equated with anything in Rong. Nevertheless it will be seen that Rong has in common with Austroasiatic languages as large a proportion of its phonetically identifiable prefixes as those languages have in common with each other. If there remains any doubt as to the reality of the Austroasiatic provenance of this feature in Rong, the probability of its affinity is corroborated by a plentiful series of lexical correspondences:

Ask: R. jăt, Bahnar jēt, Khmer ćōt
Backbone: R. glyaṅ, Palaung löng, Biat kluṅ
Barn: R. klyón, Khmer khlāṅ
Bear, endure: R. kyón, Bahnar chón, W. gun, Miao ćaṅ
Belly: R. bak, Khasi kpoh, Khmer pūḥ
Burn: R. dyak, Bahnar tōk, Stieng dúk
Bury: R. lap, Khmer lap, Bahnar lăp, Khasi khyllap
Come: R. lat, Stieng luh, Sre lot, Lave leć
Copulate: R. kut, Riang kot
Cover: R. kap, Biat kôp, Khmer kăp
Cut: R. ṅar, Khasi ngór
Devil, spirit: R. blyak, Khmer braḥ, Stieng brah, Chrau m'brāh
Dog: R. kă-ju, Khasi ksew, Stieng sõu, Biat ćho, Riang sho, etc.
Dung: R. ít, Khasi eit, Khmer āć, Bahnar ik, Stieng ech, Biat ăć, etc.
Eat: R. fyóm, Khasi bâm, Palaung bām (chew), etc.
Fat (adj.): R. pak, Bahnar bēk
Flesh: R. ćók, Khasi pa-soh, Khmer săch, Bahnar xek
Frog: R. tă-kryuk, Khasi hyn-roh, HuaMiao qa, Bahnar drŏk, Riang rɔk, etc.
Foot: R. dyaṅ, Khmer jöṅ, Bahnar & Stieng jong, Riang tsɔŋ, etc.
Hard: R. króṅ, TsaKhmu grăng, Mon krɔŋ, etc.
Hawk: R. kă-lyuṅ, Khasi klīng,, Bahnar klāng, HuaMiao klaṅ (The word has been borrowed into TB, e.g. Kachin kalang, and even into Chinese: *Grammata Serica*, series 890, ʔjəŋ < *qluŋ, where the restoration of *-l-* is warranted by comparison of other words in the phonetic series).
Heap: R. t'yul, Khmer tuol
To heap up: R. bok, Khmer ph-n-ôk, Riang buic
High: R. króṅ, Khasi jīrong, Riang tsərɔŋ
Hinder: R. k'aṅ, Khasi khang, Bahnar, etc., kaṅ
Hook, fishhook: R. vór, Khasi woh, Palaung kavɔ
Horn: R. ron, Khasi reng, Riang kəm-rəŋ,.Wa run
Illness: R. a-dāk, Niahön deh, Sò tić
Jaw: R. kam, Khmer thkéam, Stieng gam, Sre & Biat kang, etc.
Kindle: R. ćăp, Palaung tsap, Bahnar ćoh, Stieng ćhu, Wa tsāp, etc.
Knife: R. ban, Mon ʔbun
Left (side): R. ví, Palaung ivē, Wa kave, TsaKhmu vê
Light (noun): R. a-óm, Bahnar, Sre, Biat ang

Middle: R. diṅ, Khasi pdeng, HuaMiao ntaṅ
Midge: R. dyŭm, Palaung ta-dʒo:m, Sò rāyuṅ, ChuanMiao joŋ
Monkey: R. dŭk, Khmer dōć, Bahnar dŏk, Stieng duk, Biat dôk
Mouth: R. a-boṅ, Mon pāṅ, Biat m'bung
Needle: R. ryŭm, Bahnar jòrum, Sre jurum
Net: R. hróp, Riang rup, Wa rup, Palaung rarɑp
Pestle: R. tiṅ-rí, Khasi syn-rei, Riang rɛ, Palaung gre:
Pull out: R. dot, Bahnar duòt, Riang tɛt plɛ, Sre dus
Reach (vb.): R. lat, Bahnar klech, Riang laic, Palaung hlæ:x
Ring (noun): R. vyaṅ, Khmer vông, Bahnar uāṅ, Mon wuiṅ
Round: R. pum, Bahnar apom
Scratch: R. kor, Khmer kōs, Bahnar khôr
Sharp: R. let, Khasi lit (sharpen), Palaung lat (sharpen)
Shoulder: R. pă-li (scapula), Stieng po'lik, Biat m'lik
Shut: R. hap, hyup, Palaung hjɔ:p, Khasi khap
Skin: R. a-kap, Stieng kup
Skin: R. kan-du, Bahnar ködoh (bark), Sò andōk (bark), Khasi dop (bark), Sre göl-tau (leather), Biat n'tou
Sow (vb.): R. frót, Biat m'brać, Mon gra:t, Khmer prūḥ, Palaung p'rat
Spit (vb.): R. ćóp, Stieng ćōh, Biat r'ćhŏh, Sò kućō
Split: R. bík, Khmer pek, pāk, Bahnar păk, Stieng bêk, păk, Mon pāk, ChuanMiao mbai
Split: R. blok, Sre blah, Riang plɔk, Biat plăh, Palaung plo:x
Squeeze: R. pít, Riang piɛt, Bahnar pēt, Stieng păt, Mon pat, ChuanMiao mbai
Stab: R. tsăt, Boloven and Stieng chat, Bahnar śat, Mon ćat, Palaung ʃʌt, ChuanMiao tʃ'ʌu
Stick, adhere: R. krap, Bahnar krāp, Biat krêp
Stop up: R. dáp, Khmer kdōp, Riang tap, Sre köl-dop
Strength: R. fraṅ, blăṅ, Khasi khlain, Khmer khlàṅ, Bahnar prān, Sre praṇ, Riang kraŋ, Palaung pʌnrɛ:ŋ, etc.
Take: R. kít, Mon ket
Thread: R. a-bram < bră, Boloven, Biat, Stieng brai, Sre brac
Stretch out: R. daṅ, Khmer daṅ, Bahnar tăng, Mon dāṅ
Throw: R. nók, Khasi noh, Boloven norr
Twist: R. nyók, Palaung ŋɔk
Twist: R. vuṅ, Khmer vînh, Biat wăñ
Under: R. să-gram, Khmer krōm, Bahnar rom, Palaung kru:m, ChuanMiao qɑŋ
Water: R. uṅ, Khasi um, Riang om, Palaung om, HuaMiao au
Water: R. dă, Khmer dīk, Stieng dāk (Possibly identical with Archaic Chinese *dŋk, Gram, Ser. series 790)
Wrap: R. gryóm, Khmer rum, Bahnar lôm, Biat n'klom
Year: R. nam, Khasi snem, Bahnar hanâm, Sre (sö)nam, etc.

The above list excludes all ambiguous cases, i. e., where the same or a phonetically similar root exists in both Tibeto-Burman and Austroasiatic. It is clear that we have in Rong a very mixed form of speech, even if the very large number of vocables showing no resemblance to those of similar meaning in two major groups of languages does not indicate a third stratum. But it is much less easy to determine whether the Austroasiatic or the older Tibeto-Burman (or Tibetan?) stratum is the more fundamental. The word order, part of the basic vocabulary, the use of modification of finals in word-formation, and the agentive suffix all tell in favour of Tibeto-Burman affinity; while the extensive use of syllabic prefixes, many of them close to corresponding forms in Khasi, etc., and a large part of the basic vocabulary are equally clearly Austroasiatic. There is no trace of the *-n-* infix denoting the instrument in many Austroasiatic dialects, while on the other hand the *-y-* regularly used in Rong to form the causative of verbs has a parallel only in Chinese, where it is employed sparingly. It is possible that the phonetic tendencies of Rong may be a truer index of its fundamental type; here, an antipathy to aspirated initials (which seem to arise in Austroasiatic generally as a result of composition) and to palatalisation (far commoner in Tibeto-Burman than in Austroasiatic, though by no means unknown in the latter), as well as the richer vocalism and the development of labial fricatives (cf. Riang, Palaung, Miao, etc.) all point to an Austroasiatic substratum. However the Rong language be classified (and in such a case this must be a matter of practical convenience rather than of objective fact), there is no doubt as to its great importance as an aid towards recovery of earlier phases of Tibetan and Tibeto-Burman languages in general.

25

ON THE PLACE OF LEPCHA IN SINO-TIBETAN

A lexical comparison[1]

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This is very much a data-oriented study. After a brief outline of Lepcha [Lep.] phonology and a discussion of influences from other languages, I place Lepcha firmly as a member of Tibeto-Burman, despite lexical resemblances from such a distantly related language as Chinese or by borrowing from Austroasiatic languages (like Khasi). Most of the Tibeto-Burman languages most similar in lexicon to Lepcha (like Adi) lie somewhat to the east. The exception is Tibetan itself which stretches east and west to the north. There are different levels of relationship here -- some cognates with Tibetan belong to a rather recent body of borrowings; many of course may be older borrowings, and a rather large number belong to the common Tibeto-Burman stage. Such relationships are often manifested as doublets. Examples are **nyí** and **nyăt** 'two': both forms are to be related to Written Tibetan **gnyis**, one as a relatively recent borrowing, and the other at the cognate level. The Lepcha forms cited here are in the orthography of the Mainwaring-Grünwedel Dictionary. (In the comparative tables following I cite first the 'dictionary' spellings and below these I give my phonological representation.)

Lepcha **nyăt** 'two' represents Tibetan (and Tibeto-Burman) **-s** as **-t**. The same correspondence can be seen in Tib. **bkres-pa** 'hunger, hungry' and Lep. **krít** id. and in Tib. **zas** 'food (for man or beast)' and Lep. **zót** 'food, fodder'. Lep **-t** in these examples (and others) is to be traced back to PTB ***-s.** (See Morphological Table 2 [below] where Lep. **-t** is a suffix alternating with vocalic finals in word families). There are less obvious cases where Lep. **-t** may go back to TB ***-t.** In the following we have to do with borrowings from Tibetan: Lep. **dút-muń** from Tib. **bdud** 'demon, evil spirit' and Lep. **dot** from Tib. **dod** 'equivalent, indemnity'.

Lepcha is especially rich in initial consonant clusters. Here (as elsewhere) I write **ng** rather than **n** when not using Dictionary spellings. I do not represent the weak glottal onset before vowels, but since **y** and **'y** are in contrast the onset must be

represented here. Where the dictionary writes **ts** and **ts'**, I substitute **c** and **ch**, where **h** stands for aspiration as it does elsewhere: **kh, th, ph**. Where the dictionary has **ć, ć'** and **j** (all palatals), I write **cy, chy** and **zy**. Similarly I write **sy** for **ś. ny** also occurs.

Table 1 Initials and clusters

p	ph	b	m	f	v	k	kh	g	ng	'y	h	t	th	d	n	c	ch	z	s
py	phy	by	my	fy	vy	ky	khy	gy		y	hy	ty	thy	dy	ny	cy	chy	zy	sy
pr		br	mr	fr		kr		gr	ngr	r	hr								
pry		bry	mry	fry			kry	gry		ry	hry								
pl		bl	ml	fl		kl		gl		l	hl								
ply		bly	mly	fly		kly		gly		ly	hly								

The aspirated initials cluster only with **-y-. ng** clusters only with **-r-.** The dentals and affricates cluster only with **-y-. ph, phy, kh, khy-** are rather rare. They seem to occur predominantly in loanwords from the recent Tibetan stratum or in native Lepcha reduplications. I have indicated in some of the comparative tables, especially the Lepcha-Rawang and Lepcha-Jinghpaw tables, that Lepcha **h-** may come from earlier ***kh-** and Lepcha **f-** may come, at least in part, from earlier ***ph-.** Thus, Lepcha **kh-** and **ph-** may have been introduced in rather recent borrowings. Lepcha lacks **-s** and **-s** clusters which occur in Written Tibetan, but is otherwise equally as rich as Tibetan in final consonants, having **-p, -t, -k, -m, -n, -ng, -l** and **-r.**

Lepcha vowels have been organized as follows:

Table 2

Sprigg's Phonetic Symbols	*Grünwedel Spelling in 'Dictionary'*	*Phonemic Orthography Adopted Here*
i ɯ u e ɣ o a ɔ	i u ú e á o a ó	i ụ u e ọ o a ɔ

We owe much to R. K. Sprigg for knowledge of Lepcha and its borrowings from Tibetan. His works of 1983 and 1986 deal largely with this matter and his analysis of Lepcha vowels. Phonetic [ɛ] occurs with dental codas: I analyze it as /ya/, thus /myal/ 'hair' which is phonetically [mɛl] or [myɛl]. The high back unrounded vowel before stops may be more central or even lowered to schwa: 'child' is [kɯp, kip, kəp]. For ease in transcription I write /ụ/ and for the lower vowel /ọ/. The vowel occurring unstressed in prefixes can be regarded as an allophone of /a/; in the examples it is written as schwa, a 'luxury' notation: thus **fəli** 'four' rather than /fa-'li/ where stress on the main syllable has to be marked.

Apart from unstressed prefixes, vowels in my present view may be either short (as **fo** in **a-fo** 'tooth') or long (as in **fo:** 'bird'). Of the many words with two or three syllables, perhaps the majority have an unstressed prefix; equally stressed compounds are largely bisyllabic. 'Accent', which sometimes sounds like 'tone', comprises features of vowel length, pitch and stress. Sprigg's 1966 work posits two pitch levels such that a form if emphatic may be stressed differently than in the

normal case. Sprigg likens this to a contrast possible in English, like 'Burmése' and 'Búrmese'. The second type is much less common. There are hardly any minimal pitch contrasts such as one might expect in a tonal language. The words for 'tongue' and 'seed' may be homophonous - both are **li.** One wonders if a former tonal system has broken down. Perhaps more likely are emergent tonal features, but whatever the case, the widespread use of Nepali (even as a first language among many Lepchas) and Nepali intonational features has helped to bring about the present situation.

Forrest's 1962 work 'The Linguistic Position of Rong (Lepcha)' lists many good examples of Lepcha words cognate to Tibetan. He goes on to list over sixty Austroasiatic forms which are startlingly also obviously related to Lepcha. I give below some of the most convincing comparisons, using Forrest's transcriptions:

Table 3

		Lepcha	*Austroasiatic*	
barn, granary	klyóṅ	Khasi	khläṅ	[wrongly entered as
dog	kâ-ju	Khasi	ksew	Khmer]
hard	króṅ	Mon	krɔng	
knife	ban	Mon	ʔbun	
mouth	a-boṅ	Biat	m'bung	
needle	ryŭm	Sre	jurum	
stick, adhere	krap	Bahnar	krap	
under	sa-gram	Khmer	krom	
yeár	nam	Khasi	snem	

Forrest also finds some correlation between prefixes in Lepcha and Austroasiatic. I find this much less convincing, since related prefixes and lexical roots hardly occur together; however, we do have a good example in the Lepcha and Khmer words for 'dog'. One would expect more similarities between Lepcha and Khasi since they are closer geographically. Khasi happens to be isolated from most of the other Austroasiatic languages, but it is most closely related to the northern subgroup including Khmu? and Palaung-Wa. Nevertheless I cannot see a closer relationship to Lepcha in this subgroup. Some of the Austroasiatic examples given by Forrest occur in various Tibeto-Burman languages; are these then to be regarded as genuine borrowings, and if so, in what direction has the borrowing gone? Examples from his 1962 article include:

Table 4

	Lepcha	*Austro-asiatic*	*Tibeto-Burman*		蓋
bury	lap	Khmer	lap	Limbu	lup
		Bahnar	läp	Tib.	rlubs 'grave'
cover	kap	Biat	kôp	T bkab	OC keps 'cover, lid'
		Khmer	kăp	PTB	*klup (STC #479)
skin (covering)	a-kap	Stieng	kup		
dung, feces	it	Khasi	ęit	Kuki-	*e.k
		Khmer	ać	Naga	
		Bahnar	ik	Pwo, Sgo	e (STC p. 146. n. 399)
horn	róṅ	Wa	ruṅ	Konyak	əruŋ (STC #85 *ruŋ)
				Garo	groŋ

We can see that Lepcha and other Tibeto-Burman languages have borrowings from Austroasiatic, but whether the number of such items is significantly larger in Lepcha is unclear. It may be so, of course. However, for sheer numbers, the Tibeto-Burman element in Lepcha wins out. This is apparent in the various tables that follow. Lepcha, like all languages, has unique items that are unrelatable to other languages. As a matter of fact, Lepcha is pretty much unlike other Tibeto-Burman languages whose subgroups show clear relationships such as Tamang, Bodo, Kuki and many others. The tables show that those most similar in lexicon to Lepcha are Adi, Rawang, Jinghpaw and Ao, but even these relationships are not very close. Mikir also appears in my general comparison. Bauman's work, scheduled for the 1976 Sino-Tibetan Conference (Copenhagen) but not presented, contains much valuable material.

The Lepcha personal pronouns **go** 'I', **hɔ** 'thou' and hụ 'he, she' are untypical for Tibeto-Burman languages. The closest relatives may be Sunwar **go** 'I' and **ge.goy** 'thou'. Sunwar is spoken three hundred miles or so to the west in Nepal. The Khasi word for 'I' is **ŋa,** which could well be a borrowing from Tibeto-Burman, where a form **ŋa** is most widespread.

Lepcha is indeed valuable for an illustration of word family morphological relationships. A word family meaning 'old' can vary by having infix **-y-,** suffix **-m** and suffix **-t.** Note that ṅ is the velar nasal as in Tibetan, but the sequence **ṅ** and **y** does not occur--instead we find **ny:**

a-ṅo	'old'	tă-ṅot	'old, white-haired'
a-nyo	'old (of vegetables)'	pă-nyóm	'old man'

A related Tibetan word family is **rga-ba,** pft. **rgas** 'be old, aged,' **rgad-po** 'old man', **rgas-ka** 'old age'. Since Tibetan has the sequence **rṅ-,** the occurrence here of **rg-** instead is unexplained. (Tibetan does not have **ṅr-**). Chinese has a cognate here with the velar nasal initial: 艾 ***ngas** 'white-haired, old' (represented by the homophonous character for 'artemisia', Grammata Serica 347, Karlgren's ng âd/ng âi-). The correspondence here with Lepcha tă-ṅot 'old, white-haired' is remarkably close. One would not expect many such correspondences between two distant areas--it may be due to phonological conservatism in the reconstructed oldest stages of Chinese. At any rate, there is a fair number of such correspondences. Some interesting ones are listed here. In the next example, Chinese has a doublet, probably due to dialect differences.

Lepcha
tă-gryu 'cheek'

Chinese
賴 **Chinese**
**gwryu 'bones of the face'
*gwrju, gwrjə/ gwji[3] [GSR 988a]
頰 **gwyu 'cheekbones; face'
*gwju / gjəu [GSR 992e]

Lepcha
tă-lyoṅ 'young blades of corn, rice'

Tibetan
ljaṅ-pa 'green corn in first stage of growth'
**d-lyaṅ
>*ldyaṅ > ljaṅ

秧 **Chinese**
*ʔlyang? 'rice shoot, ʔjang/ʔjâng sprout'
(Not in GSR. Phonetic is GSR 718.)

The above example shows that the Lepcha form is the most conservative. For the Tibetan, one must assume a similar sequence of dental plus **ly-** and then a

metathesis; finally the sequence **-dy-** is palatalized. For the Chinese initial, a reconstruction of ***ʔly-** is reasonable, but this may not correspond exactly to the assumed prefix occurring in the Lepcha and Tibetan forms.

The next example assumes a semantic shift that is not unreasonable: from an original meaning of 'double' to the narrower meaning in Chinese of 'steamer', which is a double cooking vessel. Lepcha exhibits also a word family and Chinese has a doublet form:

Lepcha		**Chinese**	
ṅrel	'have recourse to again'	鬳瓦 *ngràls, ngrjans/ngjăn³	'steamer' (double vessel)
a-ṅel	'repetition'	also:	
nyel	'to repeat'	*ngyals	
(*ṅy-)		ngjans/ngjen- [GSR 252d]	" "

Lepacha	**Tibetan**	**Chinese**	
kil 'a screw'	ḥkhyil 'twist, wind'	糾 *k(r)jiw:/kɨĕu: [GSR 1064b]	'strangle'
kíl	ḥkhril 'wind, coil'	*krjiw / kɨĕu	'twist'
kyŭl 'wind around'		繆 *mrjiw / miĕu [GSR 1069]	"
myil 'to wind'			

The Lepcha forms for 'screw' and 'wind around' may be recent borrowings from Tibetan. The Tibetan forms for 'twist' and 'wind' show a contrast in medial of **-y-** and **-r-**, two members of a word family. Chinese has two related words, one with **k-** and one with **m-**, written with the same character, and in parallel fashion, Lepcha also has two forms with the two initials. Sino-Tibetan **-l** corresponds frequently to OC **-w**. although OC -n is a more common reflex.

Finally, the following group of correspondences shows related words in both Lepcha and Chinese with either vowel finals or **-m**. In Lepcha, **-m** is a common suffix (see the Morphology Table preceding the Bibliography); **-m** may also have been a derivational suffix in early Chinese.

Lepcha		**Chinese**	
prya, pryo	'honorary title'	叟 *p(r)ja:/piu: [GSR 102n, 102a]	'honorific second part of name'
prya, pryo	'celebrate in song, sing of'	賦 *p(r)jas/ piu- [GSR 104g]	'ballad, to chant'
pryóm	'be in tune, in harmony'	賦 *p(r)jim/ping [GSR 625h]	'(wind), air, tune'
a-pryóm	'time, tone of a song'	also compare: 諷 *p(r)jims/piung- [GSR 625o]	'to recite'
		泛 *b(r)jim [GSR 625p]	'easy flowing (of sound)'
myă	'affirm, take an oath'	盟 *mrjang/mjwong [GSR 760e]	'covenant'

For the very last item we unfortunately lack an attested Lepcha form with **-m**. In Chinese when labial initials occurred in conjunction with final **-m**, this final regularly dissimilated to **-ng** (Bodman 1980 pp. 120-1). Compare also the negatives meaning 'not have' 無 mja/mju and 亡 *mjang/mjwang, where the alternation may be explained similarly.

The reconstructions of Old Chinese, (and Proto-Chinese) are in what we call the Bodman/Baxter system. Baxter is chiefly responsible for detailed work on Old Chinese, while I have largely worked from the comparative Sino-Tibetan aspect. The last seven groups of examples come from my own research, but the reconstructions have been checked with Baxter and we are in general agreement here.

Notes on the tables

The first table consists of three pages of lexical comparisons, all of which involve common, high-frequency words. For most of these there is no doubt of their cognate relationship, though the differences in many items show how distant the relationship may be. Where there seems to be no plausible relationship I have left the space blank. An attempt is made to show the degree of relatedness by ordering the forms according to their apparent closeness; this refers to lexical similarity only and it cannot help but be somewhat arbitrary. Thus it seems that Adi (Abor-Miri), Rawang, Jinghpaw, Ao Naga, and Mikir may be the living languages most closely related to Lepcha, although they show considerable differences in morphology among themselves.

Some reconstructions of subgroups appear among the 'proto-languages'. Proto Bodo is taken from Burling 1959 (see Bibliography). *PLB (Proto-Lolo-Burmese) comes from Nishida 1969. Proto-Karen is according to Jones 1961. WTibetan refers to Written Tibetan. *STC stands for Benedict 1972 (*Sino-Tibetan: a Conspectus*). (I have taken the liberty of representing his *iy/*-əy category as *iy which accords with Baxter's *-ij Old Chinese category) (see Baxter 1985). Near the bottom of the sheets appear Karlgren's reconstructions for Old and Middle Chinese, which he termed Archaic and Ancient Chinese. The last line refers to the so-called Bodman-Baxter reconstruction system for Chinese (see under Baxter and Bodman in the Bibliography).

A number of the entries are taken from my own field notes which included Lepcha, Adi, Rawang, Jinghpaw, Ao, Mikir, Kanauri, Magar, Chepang (and long ago even Tamang). However, I have substituted forms from Hale 1973 for Magar, Chepang, and Tamang, since it is a readily accessible source and more complete than my own work. For Jinghpaw I have used Burling 1965 and for Lushai Bright's works of 1957. For Written Tibetan, I use Jäschke 1881.

For Ao, I use ˊ to mark rising or high tone and ˉ to mark falling or low tone. High and mid central vowels are transcribed with ị and ẹ respectively. The same vowel notations are also used for Adi (which has no tones). For Rawang I use the superscripted ë for a mid back unrounded vowel. For the Nokmung dialect of Rawang the three tones are high, low and mid level; they are represented by ˊ, ˋ and ¯ accents, respectively. Mikir also has high, low, and mid tones marked ˊ, ˋ, and ¯. See also Grüssner 1978.

Following the lexical list, there are three comparative lists (arranged by initial consonants of Lepcha) with Adi, Rawang, and Jinghpaw respectively. Next is a section on Lepcha morphology derived from the 'Dictionary' and written in the dictionary spelling. The Bibliography appears at the end.

All the above materials were originally used in my Sino-Tibetan classes on handwritten mimeographed sheets from 1967 and later. The present typed version has been slightly augmented and revised.

	leaf (1)	leaf (2)	stone	sky	heavy	seed	tongue	four	fire	eye
Lepcha(Dict.)	lóp		lăṅ	tă-lyaṅ	‘a-lím	‘a-li	‘a-li	fa-li	mí	‘a-mik
" (NCB)	lɔp		lɔng	talyang	‘alim	`ali	‘ali	fəli	mi	amik
Adi			eling	taleng		ali	(ayo)	appi	ɕmɕ	amik
Rawang	śəláp		lúng		ali		phəlè	api;apli	thəmì	mèk
Jinghpaw	làp		n̩lúng		lī	n̩lī	šinglèt	məlī	(myì?)[2]	myi?
Ao (Chungli dialect)			lòng		(tɐ̀rɐ̀t)		tɐ̀mɐ̀lì	pɐ̀zi̱	mì	tɐ́nɐ́k
*PBodo			lo?ng			–li	lai	brəi		m(ɔ)k
Mikir		lò	arlòng		ardí		adé	phìlì	mè	mék
Lushai			lūng		(rìt)		láy	pà-líi	měy	mìt
Kanauri					li:g		le	pç	me	mig
Limbu			lung		li:pma		lesopa	lisi	mi	mik
Magar		lfia	lfiung		li:scə		milet	buli	mfie	mi?
Chepang		lo					le	play-jo?	hme?	mik
Burmese					lêi		(śa)	lêi	mî	myc?sí
*PLB			lung[1]				(hlya)	liy[2]	mi[2]	myaktši
*P-Karen		láq	lóng			khlwìh	phrè’	lwíT	míK	
Tamang			[1]yungpā				[1]le	[1]plih	me	[1]mi:
WTibetan	[1]dab-ma	lo-ma			léi-ba		lće	bźi	me	mig
*STC Benedict	lap	(s-)la	r-lung		s-liy[1]		m-lay,	b-liy	mey	mik/myak
							s-lay			
Karlgren	di̯ap/i̯ăp			t’ien/t’ien			d’iat/	si̯əd/si-	xwâr/	mi̯ôk/
*OC/MC							dź’i̯ät		xuâ:	mi̯uk
*OC Bodman-Baxter	1 àp 			th-, hl-, hn-,in, or -eng 			?lyet 	?s(pl)yis 	hmij: 	mikw 

The usual Jinghpaw word for ‘fire’ is ?wàn. The morpheme myi? occurs in the first syllable of myi?-phrân ‘lightning’.

	bird	tooth	fish	five	blood	salt	bone	wood	snake	give
Lepcha(Dict)	fo	a-fo	ńo	fā-ńo	vi	vóm	a-hrāt	śaṅ	bū	byi
"(NCB)	fo:	afo	ngu:	fəngu	vi:	vɔ:m	ahrɐt	syọng	bụ:	bi:
Adi			ongo	pilngo	iyi			esing	tabwi̱	bi
Rawang		sà	ngà	phəngà	sǐ śəwì		śərə̀	śëng	bĭ	
Jinghpaw	ù	wā	ngá	məngā	sày	cùm	n̩rā		láp?ù	
Ao		tɐ́pù	ángò	phùngngà			tɐ̀rɐ́t	śɐ̨́ng	pɐ́r	
*PBodo		hwa	na?	b(ang)a	təi?				-bəu	
Mikir		sò		phòngò	aví		arèpì			pì
Lushai	sà-vâa	háa	sà-hngáa	pángáa	thĭi		rù?	thĭng		pèc
Kanauri	pya	swa		nga	świ			śing		
Limbu	pu	hebo	nga	ngasi		yum	yet	sing		pi:ma
Magar	gwā			bā	yu:		mi-firus			
Chepang			nga?		way?		hrus	sing		
Burmese	[pyâ ‘bee’]	θwâ	ngâ	ngâ	θwêi		ayôu	θi?		pêi
*PLB		swa[2]	nga[2]		suy[2]		arui[2]	sik		piy[2]
*PKaren	’		(njáq)	ngáT	swíq			séngq		phéq
Tamang		swa,	tarnga				(nakhru)		pu-	pimpa, pin
		sā								
WTibetan	bya	so	nya	lnga		?yum	rus	śing	'bu	sbyin
*STCBenedict	pya,	s-wa	ngya	l-nga,	s-hwiy		rus	sing	buw	biy
	(b)wa			b-nga						
Karlgren			ngi̯o/ngi̯wo	ngo/	xiwet/	?di̯wən/	kwət/	si̯ĕn/		b‘i̯əd/b‘ji-
*OC/MC				nguo	xiwet	źi̯wen	kuət	si̯ĕn		
*OC Bodman-Baxter			ngya 	nga: 	hwi? 	?dyum 	?k-rut 	sing 		byis 

		body	pubic									
	belly	hair	hair	mouth	name	stand	star	one	ice, snow	fall, drop	two	three
Lepcha (Dict.)	tă-băk	myal	măt	aboṅ	abryaṅ	diṅ	să-hór	kat	să-nóṅ	glo, klo	nyăt	sam
" (NCB)	təbɔk	myal	mat	abung	abryang	ding	səhɔ:r	kat	sənɔ:ng	glu, klu	nyat	sam
Adi			amwịt	nappung			takar				annvi	a-um
Rawang		myil			bĕng,					acà, akyà,		
					brĕng					akrà	aní	asīm
Jinghpaw		mūn					šəgān				nī	məsūm
Ao	tȩ̀bùk			tȩ̀pàng							ànnà	àsȩ̀m
*PBodo	(Vk)	mVI									ni	taʔm
Mikir	pók	angmi								klò	hinî	kàthàm
Lushai	(bŭk)	hmûl				díng	ʔaár-sìi	pà-khàt		tlàa<*kl-	pà-hnìiʔ	pà-thúm
Kanauri							skar		śanəng		niś	śum
Limbu	sapok								nang		neči	su:msi
Magar								kat			ni:s	som
Chepang							kār				nis.joʔ	sum.joʔ
Burmese		mwêi							hnîn	ćà	hniʔ	θôun
WBurmese										kya', khya'	hnač	sum[2]
*PKaren											(ni)	(sòm)
Tamang	[1]pho						[1]sā:r				[1]nyi:h	[1]som
WTibetan							skar-ma				gnyis	gsum
*STCBenedict	pu:k,	-mul,			s-brang		s-kar	kat		kla, gla	g-nis	g-sum
	buk	-mil										
Karlgren	pi̯ôk/	mog/ mâu				d'ieng/			?si̯ang/	g'a/ɣa-	ni̯ər/	səm/
*OC/MC	pi̯uk					d'ieng-			si̯ang		ńźi	sâm
*OC Bodman -Baxter	pùk 服	mal 毛				dings 定			?snrang 霜	glas 下	nyis 二	sim 三

Lepcha - Adi (1)

	Lep.	Adi		Lep.	Adi		Lep.	Adi
	p	p		ph	p		b	b
abdomen	pŭp	kipop	crumb	p'yol	pimpil	carry on	bŭ	bụ
breast	pap	nyenpŭm nyunpum				back	bụ	
leech	ninpəm	sŭm-păt	tapat			cockscomb	a-byen	po-bin
raft	səmpət	să-pó	supp̣ụ			dappled	a-bók	abuk are
railing	səpɔ:	tŭk-pól	sopel,			dig up	bol, byol	dubur(?)
to sow	tək-pɔl	sopon				to double, fold	byil	pil-, pir
squeeze,	pat	pit				give	"	(pil-, pir)
come between	pa:t	pet				idiot	bi	bi
throw down	pi:t	pak				male (of animals)	bŏ	monbang
	pok					side	bụ	-bụ
						snake	a-byặn	robeng
							bŭ	abyong
	p	b					bụ:	tabbụ
spirit	a-pil	abụn ayo (shadow)				beetle	b	p
to break	pán	bẹn				blossom, flower	bŭt	yepụt
change	pat	ban				bottom, base	bor	appun
	pa:t	bat-				buttocks	a-băn	tapong
enclose, wrap, cover	pyăl	bil (encircle)				increase	abong	apong
	pyal					inflate	băr	par-
						insert	buhak	pu
							băt	pẹt
							bat	
(Lepcha f- and v- initials are given below.)						mouth	aboṅ	neppang
						scatter	brán	pan
						swollen	bróm	pom-
							brɔm	
						together	bóm	pum
							bom	

Lepcha - Adi (2)

	Lep.	Adi		Lep.	Adi		Lep.	Adi
	t	**t**		**th**	**t**		**d**	**d**
flat	tam	atam	drink	t'ăn	tịng	dig	du	du
	ta:m			thɔng			"	
spotted	tak-kă					a length	adaṅ	adong
	takkə						adang	
						together	dom	dumsu
							"	
	t	**d**		**th**	**d**		**d**	**t**
	(no examples)		elbow	ká-t'u	lagdu	steep	dóp	tap-
				kẹthu				
	c		**ch**				**zy**	**i**
	(no examples)		(no examples)			flat	jóp	ăjep
						(T. ljab)	zyɔp	
	r	**r**				kind of rat	sŭk-jăk	keǰak
afraid	ro(-m)	lero				to split	jur	jer
	"						zyur	
cane	rŭ	tarụ						
	rụ:						**z**	**d**
god	rŭm	urom (ghost)				assemble	zum	dum
	rəm						"	
girdle	a-rek	mag-rek				be close to	zap	adap
	are:k						"	
horn	a-róṅ	arẹng				eat	zo	do
	arɔ:ng						"	
odor	a-rí	arị				bright	zár	dor
	ari:						zər	
otter	să-ryóm	siram				split	zat	dat
	səryɔm						za:t	
pheasant	ta-ryok	fo:						
	"	pẹrik, pẹrịk						
sunshine	so-riṅ	do-reng (sunshiny, clear)						
	"							
stripe	a-rí	rị-						
	ari:							
(s- and l- initials given below)								

Lepcha - Adi (3)

	Lep.	Adi					Lep.	Adi
	k	**k**		**kh**			**g**	**g**
to cover	kyóm	kom		(no examples)		bent, crooked		
	kyɔm						gar	gịr
				Lep.	Adi			
dry	kak	sankak		h	k	to bow	găp	gịp
	"						gap	
finger	aká	lakke	closed	hap	kap	lift	gár	gur, kur
	akẹ			"			go:r	
a ring	a-kyŭp	lakkap	cry	hryóp	kap (Dafla khrab)			
	akyəp			hryɔp				
side, direction	kón	-kon	entangle	hyol	ikul, ikin			
	kɔ:n			hyul				
				hil				
spiral	karkar	kelker	sew	hrap	omkap			
	"			hrap				
			star	sa-hór	takar			
				səhɔ:r				
			crab	tă-hí	take			
				təhi				
	k	**g**					**g**	**k**
adhere, stick	krap	gap				lift	gár	kur, gur
	krap						go:r	
circuit	a-kor	gurgong				bag	tă-gíp	so-kiap
	akur	(circle)					təgip	
							təngkip	
embrace	kom, gom	gom						
	"							
to ladle	kuk	eguk (a ladle)						
	"							
wooden stalk	kuṅ	a(n)gung, angong						
	kung							
	ɳ	**ɳ**			**y**	**y**		
divide, distribute	ór	or		decay	ya	ya, yang		
	ɔr				ye			
to shoot	óp	ap		descend	yŭ(-t)	tayot		
	ɔp				yụ(-t)			
sweat (n)	so-'ól	il, ir		slide	yót	yut		
	sə'ɔ:l				yɔ:t			
				sword	pă-yuk	yok-sa		
					pəyuk			
				shade	so'yŭm	mukyum		
					so'yụm			

Lepcha - Adi (4)

	Lep.	Adi		Lep.	Adi		Lep.	Adi
	m	**m**		**n**	**n**		**ng**	**ng**
blow	mŭt	mut-	ear	a-nyor	nyorung	a stick	aṅal	shingol (club)
	mụt			anyur			angal	
body	mŭ(?)	amụl, amụr	milk	nyen	anyun	fish	ṅo	engo, ongo
	mụ			nin			ngu:	
dream	món	im-mang	to smell	nóm	nam-	five	fă-ṅo	pilngo, ango
	mo:ng			no:m			fəngu	
eye	amik	amik	omen,	nyo	nyo-			
	"		taboo	"				
fire	mi	ẹmẹ	two	nyăt	a-nyi			
	"			nyat				
foggy	muk	muksup	poison	a-nyiṅ	a-nying			
			(aconite)	aning				
public	măt	amụt						
hair								
ripe	myăn	min-						
	myan							
son-	myók	magbo						
in-law	myo:k							
	f	**sh ~ s**		**fl**	**l**		**l**	**l**
breeze	fár	ashar,	graze,	flók	lok	a bow	să-li	iyi, iye
	fər	eshar	barely	flok			səli	(Dafla illyi)
			touch					
deadly	fi	shi (die)	slip	flut lut		exchange	lyăk	lịk
	fi:		from	"			lyək	
splinter	flek	shek, shik		**s**	**s, š**	flash	lyóp	lip-lop
	flik		dry	són	san-		lyo:p	
cut into	faṅ			so:n				
lengths	"		wood	šaṅ	esing	four	făli	appi
piece,	ta-faṅ,	ashong		syang	(eshing)		fəli	(Dafla apl)
log	a-faṅ		stench	mŭṅ-siṅ	nàmsing,	return,	lót	-lat
					nàmshing	(give) back	lo:t	
						heaven,	tă-lyaṅ	taleng,
	f	**j**		**s**	**Ø**	sky	təlyang	tayeng
chew	fóm	jam	three	sam	a-um	road	lóm	lam-be
	fo:m			"			lo:m	
to scoop	fok	juk						
	fuk					stone	lăṅ	ẹling
	v	**y ~ Ø**					long	
blood	ví	iyi, ui				seed	ali	ali
	vi:						"	
	l	**y**						
tongue	ali	ayo						
	"	(Dafla ailyi)						

Lepcha - Rawang (1)

	Lep.	RW		Lep	RW		Lep.	RW
	b	**p**		**b**	**p**		**p**	**p**
fill	blyăn	bĕng (full)	bud,	bŭ	nampū (flower)	finish	pal	pal
	blyan	dəbĕng (fill)	blossom	bụ			"	
incubate	bom	bĭm (to lie)	pox	brít	mapit	heap	a-pŭṅ	póng
(eggs)	bum			brit			apəng	
name	a-bryaṅ	bĕng (<bl-	bottom	a-băṅ	langpang	knee	tŭk-păt	pangpit
	abryang			abong			təkpat	
snake	bŭ	bĭ				leech	sŭm-pat	təpàt
	bụ						syəmpat	
putrid	byep	bĭp						
	byap							
	d	**d**	**d**	**t**		**t**	**t**	
burst	dek	dek	(no examples)	big	tí	tè		
						ti:		
come	dí	dī			run,	tor	čəto:r	
	di:				flee	tur		
dig	du:	dù						
	"							
wasp's	pŭn-daṅ	dàng (nest)						
nest	pəndəng							
above	tuk-dam	mədàm						
	təkdam							
	Lep.	**RW**		**Lep.**	**RW**		**Lep.**	**RW**
	z	**dz**		**z**	**c**		**c**	**c**
to live	zu					to hold,	tsam	cĭm
	zu:					seize	cam	
raw	azu		urinate	jí:mat		liquor	či	nĭčī
	azu:			zi:				
alive	azum	adzĭm (raw)	urine	jit	cī	roof	ačap	čĭp
				zit			acya:p	
	g	**g**		**g**	**k**		**k**	**k**
to notch	góp	gàp	collect	gom	dəkĭm	armpit	păkíp	kìp (Daru)
	gop						pəkip	
protect	gor	gā:r	a span	góm	kàm	pillow	tŭk-kam	məkĕm
	go:r			"			təkkam	
stem,	a-glí	gī:	chin	gá	maká			
root				gẹ				
							ky	**c**
						a ring	a-kyŭp	ūrtəčàp
							akyəp	

Lepcha - Rawang (2)

There are no examples of initial correspondences between Lepcha p and Rawang b, nor between Lep. ph and RW p, nor between Lep. c and RW dz, nor between Lep. ch and RW c. The following new stop correspondences do occur, but are sparse:

	Lep.	RW		Lep.	RW	
	t	**d**		**th**	**t**	
flat	tam	adām	sever	t'át	tót	
				thẹt		
			near	t'ól	tal	
				thɔ:l		
	k	**g**	(*kh >)	**h**	**k**	
mosquito	mŭńkóń	məgàng	bee	hŭ	ká	(both seem
	məngkɔ:ng			hụ		rather doubtful)
			hollow	kă-hór	dungkír	
				kəhɔ:r		

[If we assume that kh- in Lepcha occurs only in Tibetan loans, then the hypothesized development in native words from *kh- to h- may be valid.]

Correspondences with voiceless spirant initials

	f	š		s	s
blue	afiń	măšing	kill	sót	sát
	afing			sɔ:t	
charcoal	tŭk-fyól	šir	disposition	sak	sak (breath)
	təkfyɔ:l			"	
mortal,	fí	ši	cork,	šŭ	məsī
fatal	fi:		stopper	syụ	angsī̃
conduit,	tŭk-fŭl	šòr	become	šoń	
pipe	təfəl	(to bore)	dry	syɔ:ng	
ridicule	fá	dəšáwā	dry	asón	sóng
	fa			asɔ:n	
green	a-fŏń	məšéng	be fat	šu	sū fat (adj.)
	afɔ:ng			syu	sú " (noun)
	s	**š**	rain	so	sĩ̀
wood	šań	sẽ́ng		"	
	syang		three	sam	asĩ̀m
				h	**h**
stench	mŭń-šìń	pušẽ̄ng	hollow	hoń	hŏ:ng
	məngsing	angà		hong	
			to yawn	hŏm	ahă:m
				hɔ:m	

Miscellaneous:

	v	w		ɸ	w		kr	r
blood	ví	səwī	to shoot	óp	wáp	to winnow	króp	rap
	vi:			ɔp			krɔ:p	
						(Compare Tib. k'rab, skrab)		

Lepcha - Rawang (3)

Nasal and resonant initials:

	Lep.	RW		Lep.	RW
	m	**m**		**l**	**l**
to blow	mŭt	mòt (Daru mĩ̀t)	bury	lap	lip
	mət			"	
eye	amik	mèk	to flash	lyóp	làp
	"			lyɔ:p	
ripe,	myăn	mìn	heavy	alím (ali-m)	alī
cooked	myan			alim	
dream	móń	ʔépmá:ng	leaf	lóp	šalap
	mɔ:ng			lɔ:p	
fire	mí	təmu	stone	lăń	lúng
	mi			lɔng	
hair	myal	myìl	to substitute	lám	dəlàm
	"			lẹm	
			to warm	lyam	līm
	n	**n**		"	
to knead	ne	anè	a bow	să-li	təlī
	"		(archery)	səli	
day	sŭk-nyí	ní	tongue	ali	pəlè
	səknyi:			"	
two	nyăt	aní			
	nyat			**hl**	**l**
elder	anăm	anàm	to dry	hlóm	lām
brother	anəm			hlɔ:m	
	ng	**ng**		**r**	**r**
fish	ṅo	ngà	cane	rŭ	təri
	ngu:		(calamus)	rụ	
five	fă-ṅo	pəngà	gather	rát	ràt
	fəngu			rẹ:t	
			horn	róń	arẽ̀ng
	y	**y**		rɔ:ng	
descend	yŭt	yit	otter	să-ryóm	səràm
	yət			səryɔ:m	
flow	yŭ	yĭ			
				hr	**r**
			gather	hrăp	rĭp
				hrəp	
			bone	ahrăt	šərẽ̄
				ahrẹt	

Lepcha - Jinghpaw (1)

	Lep.	JP	Lep.	JP		Lep.	JP
	p	**ph**	**ph**	**ph**		**b**	**p [b]**
bark	a-pi	phyi?	(no examples)		abundant,	bá	pō
(of tree)	"				to swell	bę:	
deaf	póṅ	ləphāng			to bellow	bu	nəpò
	pɔ:ng					bu:	
fence	tūk-pól	məphān			blossom	bor	nampān
	təkpɔ:l					"	
knee	tūk-păt	ləphùt			load	bŭ	lítpò
	təkpət					bụ	
plump	pŭm-pram-bo	phūm			muddy	bop	khūmpúp
	pəmprambu					bup	
					repeat,	bal	pāy
					again	ba:l	
					wear,	bŭ	pù
					carry	bụ	
	p	**p? [p]**	**ph**	**p? [p]**		**b**	**p? [p]**
come out,	plă	p?ū	(no examples)		bud	bŭ	p?ù
appear	plọ					bụ	
interval	a-pról	lə́p rān (between)		burst		bu	kəp?ò
	aprɔ:l					"	
straight	plóṅ	p?rēng, p?yāng		snake		bŭ	ləp?ú
						bụ:	
					to whistle	bí	sump?ī (n.)
						bi:	

	p	**w**					
bamboo	po	k?áwá				**b**	**ph**
	"				bottom	a-băṅ	nəphāng
leech(1)	šŭm-pat	wòt				abɔng	
	səmpat				to fill	blyăn	cəphríng
leech(2)	fót					blyan	phring (full)
	fɔ:t				erupt (of large pustules)	brut	a-phùt (measles)
p	**p [b]**	**ph**	**p [b]**		(id. but of	brít	
(no examples)		(no examples)			smaller ones)	brit	

Lepcha - Jinghpaw (2)

	Lep.	JP	Lep.	JP		Lep.	JP
	t	**th**	**th**	**th**		**d**	**t [d]**
above	ta	ləthà?	(no examples)	hearth	pun-dap*	tàp	
	"				*(obsolete, superseded by		
shrink	tăn	thūn			/thɔ:p/ from Tib. t'ab)		
(short)	tan						
	ta:n				length	adaŋ	tingtùng
						adaŋ	
					lose	dot	tàt
						dut	
					put	da	tá
						da:	
	t	**t?[t]**		**th**	**t?[t]**	**d**	**t?[t]**
fist	ká-tap	lət?úp	to plant	t'yaṅ	t?īng	(no examples)	
	kę-tap			thyang			
			right,	at'áṅ	t?èng		
			correct	athęng			
	ty	**č?[č]**		**th**	**t[d]**		
dark	tyaṅ	č?āng	weave	t'ók	tà?		
	tyang			tɔ:k			
	"			(Tib. t'ag)			
	t	**t[d]**		**d**	**th**		
egg	ati	ti	to dig	du	thù		
box	pătek	sətèk					
	pətek						
	c	**ch**	**ch**	—		**z**	**č[ǰ]**
	(no examples)		(no examples of		altogether	ǰam-lă	čòm
			Lepcha ch-)		zyamla		
	c	**th**			a pair	zam	čùm
mortar	tuk-tsam	thùm				"	
	təkcəm				thorn	aǰŭ	čú
	c	**č?[č]**				azyụ	
	(no examples)			tickle(1)	ǰak	čúk	
	c	**č[ǰ]**				zyak	
hold,	tuk-tsam	čūm			tickle(2)	yak	
seize	cam					"	
	tsu	čú			urine	ǰit	čit
to prick	cu					zyit	
			z	**č? [č]**		**z**	**s**
		arrange	jíp	səč?íp	eat	zo	šá
			zip				
		udder	jut	č?ú (breast)	fodder,	zót	šàt
			zyut		food	zɔ:t	
			z	**ch**			
			(no examples)				

Lepcha - Jinghpaw (3)

	Lep.	JP		Lep.	JP		Lep.	JP
	k	**kh**		**h**	**kh**		**g**	**k [g]**
astringent	a-krup	khùp		(*kh- > Lep. h)			to hidegrop	kòp
	"		yawn	hóm	kəkhàm		grup	hɔ:m
				hɔ:m				
bitter	krí-m	khrī (bile)	weep	hryóp	khràp			
	krim	məkhrī (bitter)		hryɔ:p				
pickle	să-krí-t			**hly**	**k? [k]**			
	səkrit			(*khy- > hly)			**g**	**k? [k]**
directly	kră-kră	khrê	pod	ahlyap	k?òp	branch	gryóṅ	
	krọ-krọ			ahlya:p			gryɔ:ng	ləkʔyîng
fall, drop	klo, glo					ladder	tă-gróṅ	
	klu, glu		**(*khy- > hly-)**		**č?[č]**		tənggrɔ:ng	ləkʔāng
let fall	klet, glet khràt		expel	hlyát	šəčʔút			
	klyat, glyat (fall)			hlyọt				
parrot	kriṅ-fo		hurry	hlyaṅ	čʔàng			
	kring-fo:	ù khrīng		hlyang				
pillow	tŭk-kam							
	tək-kam	-khúm						
	k		**k? [k]**					
to stick,	krap		kʔáp					
adhere	"							
bare	kŭn-krán-lă		akʔrĭn					
	kən-krọn-la							
branch	a-kóṅ		ləkʔûng					
	akɔ:ng							
join (1)	kóp		šəkʔáp					
	kɔ:p							
join (2)	klap							
	"							
	k (r) y		**č? [č]**					
a ring	a-kyŭp		lá?čʔóp					
	akyụp							
suck dry	kryup		čʔùp					
	"							
	k	**k [g]**		**ʔ*gh > h**	**k [g]**		**g**	**kh**
theft	kŭt-mo	ləkùt	star	să-hór	šəkān	chin	tă-gá	ngəkhá
	'kọtmu						təgọ	
cover over	kap	kàp	bazaar	hat	kát	a step	tŭṅ-gum	ləkhām (n)
	"			ha:t			təng-gum	ləkhám (vb)
drag, pull	krŭt	kəròt		(loans from Indic hāṭ)				
	krọ:t			⃠	**k [g]**			
hill, ridge	kŭṅ	kòng	to shoot	óp	kàp			
	kọng			ɔp				
			that	o-re	wo, wóra			
				"				

Lepcha - Jinghpaw (4)

	Lep.	JP		Lep.	JP
	f	**w**		**v**	**w**
bird	fo	ù (*wù)	husband	avo	-wá
	fo:			avo:	
leech	fót	wòt		**v**	**š (< * šw-)**
	fɔ:t		before,	kŭr-voṅ	šōng
	(see sŭmpăt)		front	kərvɔ:ng	
tooth	afo	wā	enter	vón	šōn
	"			vɔ:n	
	f	**ph**		**v**	**p**
enemy	fyăn	phyēn	damp	vóm	pàm
	fyan			vɔ:m	
escape	flyaṅ	phrōng			
	flyang				
	f	**c?[ts]**		**s**	**c?[ts]**
husk,	fup	kəcʔàp (vb)	nest	a-šap	cʔíp
sheath	"			asya:p	
			slough	a-sop	cʔòp
	y	**y**	(snakes)	asup	
chew	ye	məyá	louse	šák	cʔìq
	"			syọ:k	
day	să-ʔyak	yáʔ			
	səkyak			**s**	**s**
descend	yŭ	yúʔ	brush	pŭr-šit	məsit
	yụ			pərsit	
female	tă-ʔyŭ	yíʔ	be fat	šu	sāw (vb), sáw (n)
	təʔyụ			syu	
			kill	sót	sàt
				sɔ:t	
			three	sam	məsūm
				"	
			a track	a-sur	məsòn
				"	
			vein	a-so	ləsá
				"	

Lepcha - Jinghpaw (5)

	Lep.	JP		Lep.	JP
	m	**m**		**r**	**r**
blow	mŭt	wùt (<*mw-?)	cane	rŭ	rī
	mət˙			rụ	
dream	móṅ	māng	terraced	ari	šərí (overgrown
	mə:ng		field	"	field)
eye	a-mik	myì?	fountainhead,	a-ram	rūm
	a-mik		spring	"	
fire	mí	(myì?)	otter	sá-ryóm	sərām
	mi	(in compounds)		səryɔ:m	
hair	myal	mūn	horn	a-róṅ	ṇrūŋ
	"	(same word family)		arɔ:ng	
ripe	a-myăn	myīn	roll	rŭl/rụl/	tərin
	amyan				
wound	mó	məmà		**l**	**l**
	mɔ:		bury	lap	lùp (sink down; grave)
	(Tib. loan)				
			heavy	alí-m	lī
	n	**n**		alim	
daughter-	nyóm	nām	leaf	lóp	làp
in-law	nyɔ:m			lɔ:p	
day	sŭk-nyi	səni	road	lóm	lām
	sək-nyi			lɔ:m	
slow	nyól-bo	la?nyèn	seed	alí-	nálī
	'nyɔ:l-bu			ali	
smell	nóm	mənàm	slice	líp	kálèp
	nɔ:m			lip	
			eagle	kă-lyŭṅ	kəlāng
	ṅ	**ng**		kəling	
fish	ṅo	ngá	four	fă-lí	málī
	ŋgu:			fəli	
five	faṅo	məngā			
	fəngu				
reside	ṅan (?)	ngà			
	ŋga:n				

Lepcha (Rong) morphological processes (1)

(Dictionary spelling)

Reduplication

Type 1: Reduplication of initial consonant only

kă-kyăr-bo	uneven, oblique
kă-kyok-lă	winding
kă-klyal-lă	long and thin
kă-klyóp-lă	flat: a-klyóp flat piece
kŭn- " "	(and see type 2 below)
kŭp- " "	" " "
kă-grám-bo	quick (grám 'hasten')
tă-t'át-bo	pale (t'ăt 'be pale')
pă-plap-lă	blunt
pă-plyăk-lă	round
pă-flí-lă	separately (flí 'separate')
pă-byap-lă	rotten (byap 'rotten')
pă-bryu-lă	puffed out (bryu 'large')
yă-yŭr-bo	pale yellow (ŭr 'brown', a'yór, pă-'ayór 'yellow')
lă-lyóm-lă	bell-shaped
lă-lyól-lă	wide-mouthed
fă-vap-lă	shrunk (vap, fă-vap 'shrunk, shrivelled')

Type 3: Near identity with vowel change

kyăr-ră kyer-ră	zigzag (kar, kyăr 'twist')
krŭt-tă krót-ta	jagged
klup-pă klop-pă	clumsy
gar-ră gor-ră	shilly-shally (gor 'spend time')
čh'al-lă čh'ol-lă	confusedly
nyar-nă nyor-ră	flabby
t'an-nă t'yen-nă	irregular
dŭṅ-ṅă dóṅ-ṅă	spotted
fŭk-kă fyŭk-kă	whizzing
flyaṅ-ṅă flyuṅ-ṅă	staggering, reeling
mlyŭk-kă mlyuk-kă	indistinctly (of vision)
yep-pă yap-pă	gropingly, slowly
yap-pă yop-pă	staggering
ryíl-lă ryól-lă	lukewarm
hyil-lă hyol-lă	cracking (from dryness)
hlŭt-tă hlyót-tă	hodge-podge

Type 2: C ŭ C

kŭr-kar-ră	wriggling (kar 'twist')
kŭr-krán-lă	bare, scanty
kŭm-krom-lă	projecting (of teeth)
kŭm-gram-lă	broken (gram 'break')
kŭṅ-gryaṅ-lă	slender
nŭm-nyím	purple (nyím 'purple')
nŭk-nók	black, dirty (nók 'black')
pŭm-pam-lă	short and stout
pŭt-pryŭt-lă	squeezing out
pŭm-plóm-bo	long-faced
fŭṅ-fịṅ-bo	clear (fíṅ 'clear, blue')
pŭn-brán-lă	thinly spread (brán 'scatter')
kŭṅ-hóṅ-lă	open (hóṅ 'spacious')
rŭṅ-hryoṅ-lă	slack
fŭṅ-vaṅ-bo	wide

Type 4: Identical reduplication

kăl-lă kăl-lă	upside down
kar-kar	spiral (kar 'twist')
kyak-kă kyak-kă	sticky
kyeṅ-ṅa kyeṅ-ṅa	shrill
kyón-kyón	adhesive
krul-lă krul-lă	tall
krek-kă krek-kă	brittle
kryóm kryóm	together, concordantly
gór-ra gór-ră	up and down
gryát-tă gryát tă	trailing along
glat-glat	with breast thrust out
čin-čin	twinkling
nyot-tă nyot-tă	babbling
t'il-lă t'íl-lă	successive
a-pról a-pról	by degrees
să-bár să-bár	panting

Lepcha morphology (2)

Infix -y-			
dop	burn (intr)	dyop	burn (tr)
kor	encircle	kyor	encompass
a-ńo	old	a-nyo	old
kom	embrace	kyom	wrestle
kóp	harmonize	kyóp	fix, join
gál	break (intr)	gyăl	break (tr)
t'ór	escape	t'yór	set free
băt	insert	byăt	load, pack
bam	remain, dwell	byam	locate, situate
bol	to sprout	byol	hoe, cultivate
brom	fall down	bryóm	cause to fall
róp	stick to	ryóp	attach, apply
lám	to fly	lyám	cause to fly
vón	enter	vyón	invite, have enter
ŭm	nice, agreeable	a'yŭm	soften
ăt	generate	a'yăt	create
Suffix -m			
kí	sue, claim	kím-bo	claimant
t'am-krí	bitter item	a-krím	bitter
(see -t să-krít 'pickle')			
krŭ	be firm	a-krŭm	strong, firm
k'ŭ	be able	a-k'ŭm	possible
		k'ŭm-bo	able (of people)
kă-gryo-bo bent down, infirm			
		kŭm-gryom-bo	crouched
ču	flow out	tŭk-čum	channel
a-nyo	old (a-ńo 'old')	pă-nyóm	old man
tí	be great	a-tím	great
pryo, prya celebrate in song		a-pryóm	in tune
plă	to issue	a-plám	source
pli	to deny	a-plim	denial
bŭ	to bud	a-bŭm	bud
mya	be versed in	myam-bo	a sage
zo	to eat	a-zóm	food
(see a-zót 'fodder', with -t)			
yá	to know	a-yám	knowledge
rŭ	be far	a-rŭm	far
ryu	be good	aryum	good, healthy
lí	be heavy	a-lím	heavy
hru	be hot	a-hrum	hot
(see a-hrun 'heat', with -n)			
vă	prolong a note	vám	song
sŭ	stop up	a-šŭm	stopper, plug
-m marks object in personal pronouns, as in:			
kă-nyí	we two	kă-nyím	us two
hŭ	he, she, it	hŭm	him, her, it
but hó thou, hó mŭm thee. Compare mŭ 'body' and mŭm article 'a, the.' The fact that Adi marks nominal and pronominal objects by -m after vowels or -em after consonants may be fortuitous.			

Suffix -t			
ryu	be good	ryut	rejoice
(see a-ryum under -m)			
a-ńo	old	ta-ńot old, white-	
(see a-nyo and pă-nyóm)			haired
ńo	boil	ńot-bo	boiled
ńo	be thirsty	ńot	thirsty
nyo	be ominous	t'am-nyót	omen
(also a-nyom portentous)			
blŭ	weak, worthless	tŭk-blŭt	sport, game
yú	descend	yŭt	let down
		a-yŭt	descent
	(šŭ)	a-šŭt	fat, tallow
(also a-šŭm fat, greasy)			
zo	to eat	a-zót fodder, pasture	
(also a-zóm food)			
Suffix -n			
fli	to separate	să-flín	separation
(pă-flí-la separately, flím separation)			
byi, bí	give	byin, bín (ger)	id.
bŭ	to carry	bŭn	load
tsŭ	to flow	a-tsŭn	confluence
u	to parch	a-un	parched
hru	be hot	a-hrun heat (a-hrum hot)	
pí	there	a-pín	other side
Alternation between -ń and -n			
fliń	turn face aside (see să-flín separation),		
	shy (as a horse)		
t'yań	set in, to plant	a-t'yan	transplanting
dań	to run	a-dán	running
t'ań	to drink	a-t'án	a drink, fluid
		a-t'yán	give to drink
nóń	go, proceed	nyón	to let go
		a-nón	departure
fróń	calculate	a-frón	number
váń	to put aside	a-ván	single
móń	a dream	móń myón to dream	
Prefixes: tă-, a-, să (all very common)			
klak	be surrounded	tă-klak	periphery
klep	join (as bamboos)	tă-klep	binding
t'í	to come	a-tít	arrival
tí	be large	a-tím	great
zo	eat	a-zóm	food
ví	blood	a-ví	menses
vyeń	door	a-vyeń	mountain pass
să is prefixed to many items, especially names of animals and plants (cf. Tib. s-) e.g. să-t'ăń tiger, să-na bear, să-hŭ monkey. Other first syllables may merely be reduplicative elements, as in pă-byap-lă 'rotten'.			

Lepcha morphology (3)

Initial alternations

1. Voiceless / Voiced

a-kok	old, tough	a-gok	old, worn out	kuk	to rake	a-huk	a rake	góń-la	open	k'ŭń-hóń-la	open
kroń	noisy	groń-ňă	noisily	pă-krót	noiched	pŭn-hrót	a notch	glań	harden	hlań	hard
klo	to fall	glo	to fall	kyop	to join	a-hyop	joining	dí	come	t'í	arrive
klet	to drop	glet	let drop, fall	kor	encircle	hor	enclose	a-dek	end	t'ek	to end
čak	join	jak	join	kyol	to mix	hyol	mixed,	dek	break	t'ek	broken
čin	twinkle	jin	twinkle				entangled				in two
čir	glitter	jir	glitter			< *ph- (?)					
tyuk	to spit	dyuk	spittle	plut	let slip	flut	slip from				
pok	to fall	bok	fall plump	pán	forgetful,	fán	unconscious				
a-pum	origin	bum	beginning		unaware		of, heedless				
prol	across	brol	to bar	pál	broken off	fál	break off				
tsop	tread, knead	zop	tread, knead	pyul	stir together	fyul	agitate				
				păn	break off	făn	disjoint				
				lyót	release	flyát	relax				
				f		h					
				ta-fyek	a husk	hyek	to husk				
				a-fyók	crossed,	fyók	to cross				
					transverse						
				fyop	alongside	hyop	along				
				(perhaps f ~ h a re dialect alternations)							

2. Voiceless / 'Aspirated'
< *kh- (?)

3. Voiced / Aspirated

Miscellaneous Vowel Alternations

prek, prók	wrap up	om-mă, am-mă	all, complete
nŭk-nek, nŭk-nók	black	čam	clustered
šeń	weave,	a-čom	a cluster
šóń	spider web	flut, flit	to slip from
fań, foń	cut down	pă-brut	rash, eruption
brań, broń	numerous	brít	erupt in a rash
a-tań, a-toń	a bundle	pa-krót, pa-krít	noiched
lyap	turn here and there	ról, ríl	to roll
lyop	turn over	jip, jop	to crush

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26

LANGUAGE CONTACT BETWEEN RELATED LANGUAGES

Burmese influences upon Plains Chin

Theodore Stern

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1.0.

The Plains Chin of Western Burma comprise an ethnic and linguistic enclave within a dominant Burmese milieu.[1] In their accommodation to this role, Plains Chin (/ašou, sainbaun/) speakers have long been placed under the necessity of learning Burmese, a related Tibeto-Burman language which stands beyond the limits of mutual intelligibility.[2] It is the purpose of this paper to examine the manner in which bilingualism in a cognate secondary language has operated to bring about changes in the primary one.

For the country as a whole, the dominance of the ethnic Burmese[3] gains expression not only in their numerical preponderance, comprising as they do almost eighty percent of the population, but in the circumstance that their language is spoken by some ninety percent of Burman nationals (Kyaw Thet: 166). The ascendant body in the urban centers, in the name of the new nation they control schools, newspapers, printing presses, radio stations, and other instruments of communication. While there has been notable recognition of the rights of minorities, the quest for national solidarity has seen Buddhism, Burmese culture, and the Burmese language become the standards of the Union.

Another, and longer-term, expression of Burmese paramountcy is given in the relationship of ecology to dialect-community, here given rough quantification by drawing upon the population figures and linguistic classification of the 1931 Census of India. There the Chin will be seen to have an average dialect-community, expressed by dividing total population by number of dialects, of approximately 7,600, on the same order as those of the Lolo-Muhso and Sak, but only half the size of those of other hill peoples, the Mro, Palaung-Wa, and Kachin. In the plateaus and plains, by contrast, Shan and Karen peoples display dialect-communities some ten times as great. In the plains themselves, the average Mon

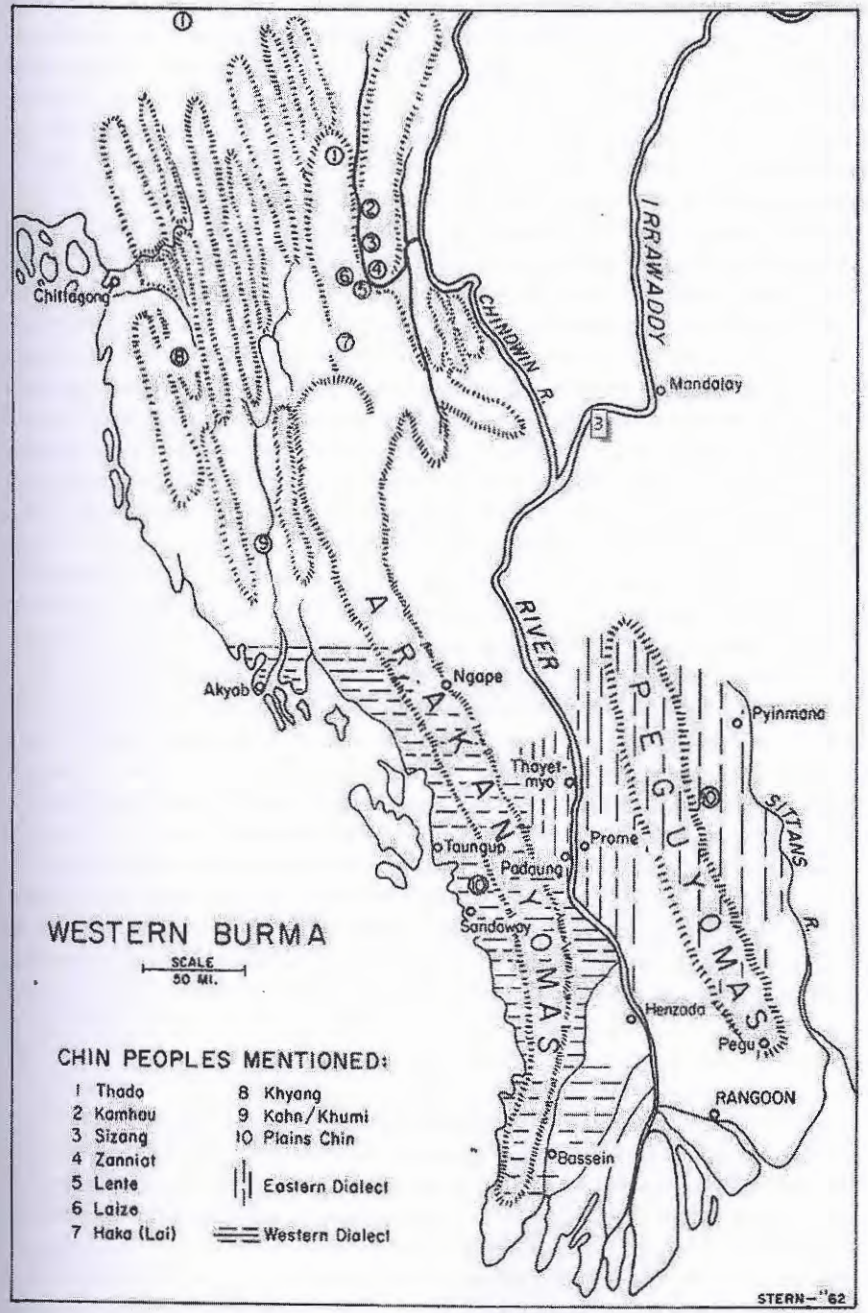
dialect-community has a magnitude almost forty-times as great, while the figure for the Burmese, even averaging in such minor dialects as Intha, is eighty times the size of the Chin. Life in the Irrawaddy Plains for many reasons has fostered intercommunication and in all probability the reduction of number of dialects.

This situation has a correlary. The minority problems which Burma faces today are not those, largely, between cultural equals. With the exception of the Mon, long-time foes but now largely absorbed, and the Shan, no other minority has a long literary tradition. (The Arakanese, being themselves of Burmese linguistic extraction, form an exception which is only apparent.) Hill status entails a stigma of ethnic distance, of geographical and cultural remoteness, and of resultant backwardness. Such past glory as hill peoples invoke is often phrased in terms of former residence in walled cities and of the loss of their birthright which befell them when their writings by mischance were devoured and lost forever. Consequently, for them there is no long literary tradition akin to that of the Dravidian south in India, upon which a contending linguistic claim might be posed. At the same time, language differences may become secondary to other cultural characteristics in setting apart the hill peoples as minorities.

Among the minorities, the Plains Chin form one of the numerous detribalized and somewhat declassé groups dwelling in intimate daily concourse with the Burmese. Unlike their congeners who dwell in the Chin Special Division in the hills to the north, they lack political distinctiveness. They do not come under the control of the Minister for Chin Affairs and are likely to be peripheral to such movements as the Chin Congress Party. The recent extremist demands, which followed the establishment within India of the Nagaland State (Gokhale), for a corresponding Chinland, to be carved out of India, Pakistan, and Burma (Asian Recorder: 4043), can have drawn few Plains Chin adherents. Such sense of ethnic identity as the Plains Chin may possess is more likely to find its focus in such alien institutions as the American Baptist Mission and towards its output of biblical translations and primers, printed in a script revised from that utilized for Pwo Karen, which in turn was adapted from the Burmese alphabet. Today, Plains Chin are likely to stress the fact that theirs is the only Chin language cast in a Burmese font, since the hill Chin all use instead a diversity of romanized scripts. The temper of the times is such that some hill Chin leaders, who scorn the claims of these plainsmen to be true Chin, are nonetheless considering a revision of their own writing systems into Burmese-based alphabets.

1.1.

Contacts between Burmese and Chin are of long standing. Luce, indeed, has recently proposed (1959a: 26) that the two peoples may early have maintained amicable relations in the latter's homeland on the Chindwin, and that their contacts were only disrupted, perhaps in the sixteenth century, when the Chin were forced back into the hills by Shan expansion. In what are generally construed as warlike repercussions that swept the hills, the Plains Chin were driven out of the Chittagong Hill Tracts, where their closest congeners, the Khyang, still dwell (Bernot



and Bernot: cf. Loeffler, 1959: Bessaignet). Loeffler, who is authority for this view, estimates (1960: 556) the date of separation to lie between the seventeenth and nineteenth centuries. Leach (1960: 50f.; personal communication) prefers to see such events as the consequence of culture change, rather than an expression of migration. Plains Chin themselves, drawing to an uncertain extent upon written histories as well as their own traditions, speak of movements southward along the Arakan Yomas, debouching gradually upon the lower slopes to east and west. Of a total numbering somewhat over 40,000 listed in the Imperial Gazetteer of India as of 1901, the largest body, comprising some 28,000, lay between the crest of the Yomas and the Irrawaddy River to the east, concentrated about Padaung, opposite Prome, and in the vicinity of Thayetmyo, Henzada, and Kanaung, with a smaller group in Bassein. A second dialect extended principally east of the Irrawaddy, where some 8,000 had made their way to the Pegu Yomas. On the western slopes of the Arakan range, a movement, perhaps in the wake of the Burmese invasion of Arakan (1785), and certainly antedating the first Burmese War (1824), took settlers from Padaung by way of the Taungup Pass into the Sandoway District. Dacoities, rampant along the border between Burma and the British possessions, accelerated migration in the period just prior to the second Burmese War (1852): and by 1901 there were some 7,000 Plains Chin in Sandoway.

Whatever their total numbers, in the places where the Chin came into contact with the Burmese they found themselves in a position of numerical, as well as cultural, inferiority. Observed Lieutenant Trant of those he encountered along the Man River to the north when, in 1826, he passed over the Arakan Yomas by way of the An Pass, "The Khyéns nearest the plains are inoffensive, and have placed themselves under the Burmese government, and are liable to be called upon for their quota of men in case of war, and pay taxes..." (1828: 262). Those near the town of Ngape dwelt in small hamlets in the valley, where their paddy-fields lay. They may have taken part in the trade by which the hill Chin bartered iron ore, wild honey, dried fish, and cloth for salt, silver, food, and clothing in Arakan and Burma. (Trant, 1827: 428, 430, 437f.) The villages of the Sandoway Chin, apparently in common with those of their non-Chin neighbors, were included in land grants made by the kings of Arakan. Like the Burmese myosa, the proprietor then exercised judicial control and received taxes from those within his grant. (Fryer: 44).

1.2.

The relations of the tributary Chin with their Burmese neighbors were qualified by the distance which the latter tended to maintain. Ordinarily, the situation seems to have been that described by Samou U Aye, my principal linguistic informant. In his ancestral home in Padaung, where his family had held land at least from the days of his great-grandfather, within the eighteenth century, Chin villages were interspersed with those of the Burmese. For the Sandoway Chin, who likewise dwelt apart, ritual practices may have proved obstacles to assimilation, the maintenance of village ceremonies requiring the sacrifice of fowls, pigs, and buffalo

likely proving offensive to Burmese Buddhist neighbors. (Houghton, 1892: xii: cf. his reasons). Even today the distinction is maintained among the Chin themselves, and villages are designated as pagan or Buddhist.

The Plains Chin traditionally aligned themselves in patrilineages, with preferred marriage to mother's brother's daughter, the wife after marriage becoming a member of her husband's patrilineage, while continuing as well to honor her own ancestral spirits (cf. Houghton, 1892: xiv). As against the emphasis on hierarchy intimated in Burmese honorific terms of address – though doubtless less prominent in the villages – Plains Chin tend to be egalitarian, with some emphasis upon reciprocal dualities, as in village moieties of uncertain function and the ceremonial stress (Fryer: 43) upon inside and outside feasters. So long as they were preserved, these differences in alignment may well have conditioned the acculturation of the Plains Chin.

Undoubtedly the most conspicuous aspect of Chin culture for European observers was the pubertal tattooing upon the faces of their girls. Both Trant (1827: 432) and Houghton (1892: xvii) were told it was a measure to prevent their women from being carried off or raped by the Burmese. In Trant's time (433) the facial tattoo was already optional, and Houghton could also testify (1892: 49, sentence 104) to its partial abandonment. The latter could also instance (sentence 106) the marriage of a Buddhist girl of Arakanese extraction to a Chin youth: the girl, who lacked the lineage ancestors her Chin counterpart would have had, adopting those of her mother-in-law. The circumstance that, though Burmese far outnumbered the conquered Arakanese in Sandoway District (Imperial Gazetteer of India, I: 218-221), many of the linguistic influences upon Plains Chin seem to stem from Arakanese, may in part have arisen from the relative closeness in status between the two peoples.

That acculturation has been progressive is not to be denied. While fresh-water fish, say informants, retain Plains Chin names, they know salt-water fish only by their Burmese designations. On the plains, Chin farmers, to judge alike from ethnological and linguistic data, plow with buffalo in wet-rice agriculture and employ a host of utensils and tools associated with that technology: they build houses that in major details of construction resemble those of the Burmese: they carry on as traders among their own and surrounding peoples; and, if Buddhism has required an all-or-nothing surrender of village ceremonials, the humbler worship of nats (spirits and local godlings) has been more easily assimilated.[4] Indeed, the observation of Lowis (Imperial Gazetteer of India, I: 294) for the Chin of the Prome District, that "those near the Burmese villages have adopted Burmese dress and dropped their own language," is expressive of a condition of Burmanization to be found elsewhere as well. Undoubtedly there have been many who in this manner passed progressively from the ranks of Chin to the general body of rural Burmese, in a fashion that Leach (1954) has already outlined for Kachin and Shan. Plains Chin must accordingly be taken to comprise a continuum, ranging from the acculturated residents of town and city through the lowland villagers, and out to the forest folk of the Yomas.

In the acculturation of the Plains Chin, it must be borne in mind that under British rule the distinctiveness of minorities was not only maintained, but often stressed, as witness, for example, the separate administrative status of the Frontier Areas. Within this setting, the American Baptist Union came to play a signal role, as missionaries came, fresh from their successes with the Karen, to work among the Chin. The Anglo-vernacular schools they established at Thayetmyo (Imperial Gazetteer of India, II: 6, 14) and Sandoway (I: 228), together with a number of smaller schools among the rural Chin, did much to give direction to the course of culture change, not least of all in providing an awareness of a common Chin identity.

The sweeping changes which all of Burma experienced under British rule, have paradoxically laid little direct stamp upon the Plains Chin language. Instead, they have been mediated by Burmese and the related Arakanese, the major languages of the region. Direct loans from English are relatively unimportant. In the school at Sandoway, Samou U Aye studied in Burmese through the fifth standard; and it was only at a later time when he was preparing to be a teacher that he took up English at Moulmein and Rangoon. The paucity of English bilinguals like him may, indeed, have been only partially responsible for the failure to draw extensively from English. It may well be that an existing practice of drawing from Burmese may have had continuing weight in dealing with cultural innovations, whatever their source.

That Burmese and European influences may find patterned expression is illustrated by the changes which this man and his family evince in the names they bear. Samou U Aye himself bears a title / samou/ which appears to be an extension on the model of Colloquial Burmese / saya/, while the honorific / ʔu/ is a direct loan. In referential speech he is /èi mya ʔ/, his personal name plus that of his father. Similarly, his grown son, following Plains Chin practice, is / chlʔ èi/. With the little grandsons, born since Burmese independence, there has been a dual departure. In their English names, the boys bear a common family name, being respectively Norman, Robin, and Freddy / chlʔ èi/, a nomenclature found among Anglo-Burmans and Sino-Burmans, but not common among the Burmese themselves. Their Burmese names follow Chin practice in retaining as last name the personal name of their father, to which in Burmese fashion are preposed the Burmese names: thus / khin maun chlʔ tin maun chlʔ maun maun chlʔ/. Of such an interplay of influences is Plains Chin today.

2.0.

In assessing the influences of Burmese upon Plains Chin, difficulties are posed in distinguishing those similarities attributable to genetic linkage from those which are the result of borrowing. It is arguable that Southern Chin languages, among them Plains Chin, may be conservative in some characteristics which place them closer to Burmese, and that in this respect Northern Chin languages, which lack them, may be divergent. Luce has shown (1959a: 27, with his figures converted

into percentages) that of a 700-word vocabulary, Northern and Central Chin languages, which among themselves shared between 79 and 90 percent in common, shared slightly less than 55 percent with Khumi and Plains Chin, two Southern Chin languages. An initial essay at glottochronological testing, using the revised 100-item list (Swadesh: 133-137; Hymes: 6) applied to Burmese, Plains Chin, and Kamhau, a Northern Chin language, yields a Burmese-Kamhau distance of the order of two millenia (on the Gleason nomograph), about twice the interval separating the two Chin languages, while that between Burmese and Plains Chin has an intermediate value.[5]

Other special resemblances which merit notice include morphological features One, a negative verbal proclitic, is shared by Khumi and Plains Chin with Burmese. The possibility that it marks parallel borrowing by the two Chin languages is lessened by the sharing of other, analogous features by the two Chin languages alone (Loeffler, 1960: 549f.). Among Chin languages, Plains Chin is prominent in the wealth of numerical classifiers which it exhibits. While such classifiers are frequent in Central Chin Lai (Newland: 8, 31-33), they seem scantier than in Plains Chin, and in Lente, as well as in Northern Chin Sizang (Siyin) and Zo (Yo), they are both less in evidence and less obligatory. Although some numerical classifiers in Plains Chin appear to be loans, as a grammatical class they follow a characteristically Chin word order which stands in contrast to that reported for Burmese (Cornyn:26-88; Haas).

Under the probability that Southern Chin is in some ways more proximate to Burmese than other segments of Chin, special caution must be observed in dealing with such data as loans in Plains Chin. To be considered a loan from Burmese, a Plains Chin item should fulfill two conditions: a) in phonological terms, it should be regularly derivable from its Burmese counterpart; b) it should lack cognates in other Chin languages (unless it can be shown that it has been borrowed there as well).

Weaker criteria may serve in the first instance to point to possible linguistic innovations. One lies in the statements of informants, the second in the products of acculturation. To arrive at the decision that the foot-powered lever pestle may be associated with a linguistic innovation is not difficult: in the villages of the hill Chin the ordinary hand-pestle is employed in hulling rice, while the lever-pestle is associated everywhere on the plains with paddy cultivation. It is not surprising, then, to discover that here among the Khyang (Bernot and Bernot: 19) the names for the device, as well as those of its component parts, follow faithfully the Burmese terms.

Useful as these criteria are when dealing with possible linguistic loans, they are essential in identifying such linguistic innovations as do not involve loans, for unless they assume special forms, such as periphrastic constructions, they cannot otherwise be isolated.

The innovations considered in the following sections stem from two sources. The first is the study of Houghton (1892), in his texts and lexicon. In the Chin-English section of the latter, Houghton customarily adduces comparative forms

from other languages, in these instances preceded by the notation, cf. When, in 198 entries, he cites only the Burmese cognate, that notation is omitted, suggesting that something more than comparison may be implied. It has been hypothesized that these items, comprising some 12 percent of the total vocabulary, were deemed by Houghton to constitute loans. When, along the lines to be developed immediately below, they are submitted to the minimal criteria for loans, the large majority are found to be sustained. A few items, which must either be rejected or reserved as doubtful, are approximately balanced by such entries as 'looking glass,' for which Houghton (68) gives no parallel form, but which evidently comprise loans.

To Houghton's material, Samou U Aye added texts dictated in Plains Chin with parallel Burmese translation, together with a large number of lexical forms, later regrouped according to Burmese-Plains Chin phonological equivalences. These items, within a total lexicon as yet untotalled, number 253; they sample, but doubtless do not exhaust, the acculturation vocabulary. Among them they include many of Houghton's entries.

2.1.

The regularity of derivation of loans from Burmese is subject to several qualifications. As the historical resumé indicates, contact between Chin and Burmese has taken place over several centuries, during which time both languages have undergone changes. Loeffler (1960: 553-556) has outlined what he believes to have been the major steps in change among those Southern Chin languages to which Plains Chin is most closely related. His calculus is largely in terms of language-contact, and perhaps underplays the possibility of parallel drift. Thus the fact that Plains Chin, when compared with Khyang, has replaced a syllable-final /-1/ with /-a/ is attributed to Mru influence after the separation of the two groups.

Secondly, Burmese itself has long been undergoing a series of major, and interrelated shifts. Pe Maung Tin (1922) has presented evidence from the transcription of Burmese by Europeans to indicate the nature of the shift, and to show that it had become marked about the beginning of the nineteenth century, while Firth cites the transcriptions of Carpini and Mantegazza in their Alphabetum Barmanorum seu Regni Avensis (1776) to indicate that many of the present features of Burmese pronunciation were already current by the end of the eighteenth century. Miller shows from a Chinese manuscript that some of the changes discussed by Pe Maung Tin were already present in the Burmese of the last half of the fifteenth century; while Luce (1959b: 53) cites one piece of evidence that would carry a detail of that change back two centuries earlier still. (For one early statement, see Duroiselle.)

Matters are rendered still more indeterminate by the circumstance that the older form of Burmese in the area inhabited by the Plains Chin developed divergently into two dialects, Burmese proper and Arakanese, both of which have influenced Plains Chin. In what follows, the modern dialects are termed respectively

Colloquial Burmese (CB) and Arakanese (Ar.) Because of the scantiness of my own materials in the latter, I have drawn upon the Marma (Chittagonian Arakanese) citations of Bernot and Bernot to derive phonological correspondences with Colloquial Burmese. In citing Arakanese forms, those from my materials are designated Ar., while those rephonemicized from the Bernots are preceded by Mr.. The common form from which the two modern dialects stem is taken to be that given in the written form, thus designated Written Burmese (WB), to the graphemes of which have been assigned the phonetic values employed by Luce and his colleagues in the transcription of Old Burmese (OB). Although Luce has remarked (private conversation) the conservative character of Burmese orthography, which in large measure retains Old Burmese form, the WB cited here is at best an approximation. To be sure, the revision of spelling which has touched some Burmese words from time to time (Maung Hpay: 106), often in an effort to underscore a supposed etymological derivation from Pali, does not materially affect comparison. The Old Burmese forms cited have been kindly supplied by Luce.

2.2.0.

The shifts in Burmese and Arakanese may be somewhat impressionistically outlined as follows:

2.2.1.1. Initial consonant clusters: Burmese:

In the inscriptions of Pagan, as Pe Maung Tin has pointed out (1933: 31f.), /l/ and /y/ appear in variant spellings of the same word as the second member of initial consonant clusters beginning with a stop or nasal. Luce (1959b: 53) cites evidence to show that by the end of the thirteenth century /r/ may also have had the value of /y/ after a nasal (see also Duroiselle: 98-102). Chinese evidence from the end of the fifteenth century (Miller) provides evidence that /r/ at that time had one value when following a nasal and another in all other contexts. By about the beginning of the nineteenth century (Pe Maung Tin, 1922), the approximation of /r/ to /y/ was well advanced in all positions. The clusters /kr ky k^hr k^hy/ tended toward a fronted, coarticulated status, being realized as /t^y t^{hy}/. In so doing, however, they overlapped with a phonemic pair, the affricates /c c^h/, which were in turn displaced toward spirant values /s s^h/, and the phonemes which had previously occupied that position now became /θ/, though the Arakanese shift suggests that this may not have been the consequence simply of displacement. As part of the patterned shift, the voiced affricates /j j^h/ also gained their current value /z/. The /r ~ y/ equivalence in clusters was generalized to all occurrences of /r/.

2.2.1.2.

In Arakanese, /r/ retains its original value, both separately and in consonant clusters, with the exception of /r^h/, which divides evenly in the Marma examples

between /r^{h}/ and /š/, the latter phonologically equivalent to the CB value. Similarly, the clusters /kr ky k^{h}r k^{h}y/ retain their linear values, rather than becoming affricates; and the affricate series /c c^{h}j/ – no example of /j^{h}/ appears in the Marma – maintain their earlier values, instead of becoming alveolar spirants. Strikingly, however, the spirants which occupy that position have, as in Burmese, passed to a /θ/, although subject to no displacement. Thus, at least in the Marma sample, with a very few exceptions there appear no regular /s s^{h} z/.

2.2.2.1. Finals: Burmese:

The canonical form of the WB syllable includes three classes, ending respectively in vowel, in continuant, or in obstruent. The evidence for the rendition of finals in Burmese is somewhat less conclusive, either from Miller's material (owing to the meagre array of final nasals and the absence of final stops in Mandarin Chinese) or from the examples which Pe Maung Tin (1922) has been able to assemble. The long-range shift, however, seems to have been to the reduction of final continuants to final /-n/, with the exception of /-ŋ/ (see below), and of final obstruents to final /-ʔ/. The latter development, according to Firth (64), had already run its course by the late eighteenth century.

2.2.2.2.

The finals in Arakanese manifest today the same end-values as do the Burmese.

2.2.3.1. Vowels: Burmese:

To judge from conventional spelling, CB has differentiated simple vowels in open syllables from diphthongized values in closed syllables. Thus compare /-i -ein eiʔ, -o -aun -auʔ, -u -oun -ouʔ/. It is likely that these distinctions represent shifts, although a contradictory relationship seems implied by the defective set / ei (<iy) · · · iʔ/. Luce (private conversation) has expressed the view that the latter members of the set /-ou -ain -aiʔ/ may reflect either Thai (Nanchao) or Mon influences in Burmese. Particularly interesting is the development in the /a/ series, which has two nasal-ending values /-an -in/, the latter always graphemically /-aʔ/, one nasal value /-aŋ/ which was already passing in the fifteenth century (Miller) to its present, open value /-i/, and no less than three stopped values, /-aʔ/ with a final graphemic bilabial or dental stop or alveolar (now interdental) spirant, /-eʔ/ with a velar stop grapheme, and /-iʔ/ with a palatal affricate (now alveolar spirant) grapheme. (See Jones and Khin, especially table: 20-21).

2.2.3.2.

Arakanese vowels diverge somewhat from those in CB in the direction and contexts of diphthongizing. Thus compare /-i -in (<-in) -oin (<-im) -iʔ -oiʔ (both

<-it)/. The series /-o -aun -auʔ/ agrees conditionally with Burmese, judging from examples of the latter two from Sandoway Arakanese; but the first is in doubt, since no forms are attested in my scanty materials, and the Bernots do not distinguish /o/ and /au/ in either their CB or Marma materials. The third set has two values in each position /-u -ou -oun -uʔ -ouʔ/. The series from WB */iy/ is also defective in Marma, the only value attested being the first member /-i --- ---/. The set deriving from WB */uiw/ evinces a lowering but not a fronting or unrounding in the closed syllables, and has two values in the open position, thus /-u -ou -oin -oiʔ/. Finally, the /a/ set manifests great diversity. In the open position it has /-a/; but in the nasal-ending syllables it has /-ein (<-aṁ -am -an) -oin (<-an -aŋ) -e (<-aŋ) -an (<-aŋ)/; and in the stopped syllables /-oiʔ (<-ac) -oʔ (<-ad) -aʔ (<-ak) -eʔ (<-ap -at) -eiʔ (<-ac -ap) -iʔ(<-ak).

2.2.4.

The three phonemic systems, WB, CB, and Ar., share the following phonemes: /p p^{h} b m m^{h} t t^{h} d n n^{h} c c^{h} j ɲ ɲ^{h} k k^{h} g ŋ ŋ^{h}ʔ l l^{h} w y h i e a u o/. They differ in the following dimensions: WB and CB share / s s^{h} z/, while only the first is in evidence in Marma, and there perhaps as a free variant. WB and Ar. share / r/. CB and Ar. share /θ š ei ai au oú/. Unique to WB are /ṁ iy ay uiw/ and length /·/, while Ar. alone has / oi/. Graphemically, as indicated in the preceding section, the spirant, affricate, and diphthong series are actualized differently in the three systems. CB (Cornyn: 7) has four tones: I (level) is unmarked, II (convex) /^/, III (abruptly falling) /ˋ/, and IV (stopped) / -ʔ/. WB (see Cornyn and Musgrave, Tables II and III, for one solution) had symbols which are frequently taken as indicating Tones II and III (contra, Wolfenden: 197), and will be so taken here. Their distribution permits the inference that the other two tones may also have existed. For Arakanese, the Bernots seem to recognize a tonal system similar to CB; but Loeffler (1960: 521) insists that the Arakanese equivalent of CB Tone III has come today to approximate CB Tone I.

2.2.5.

Plains Chin (PC) phonemes include the following: / p p^{h} b m m^{h} t t^{h} d n n^{h} c c^{h} j n k k^{h} g ŋ ŋ^{h} ʔ s s^{h} z z^{h} š l l^{h} w y h ɦ i ei e ɛ ai ou a u ou o au uɯ oɯ/. To these are added length / · / and two tones, Tone 1, contrastively higher, being unmarked, while Tone 2, a more falling tone, is rendered by /ˋ/.

2.2.6.0.

Examples of phonological equivalents in WB-CB-Ar (or Mr) and PC follow. In most instances, loans are cited, but in a few cases forms which seem to be generically shared have been adduced, to facilitate discussion.

2.2.6.1.0.

Initial consonant clusters are treated in the following subsections.

2.2.6.1.1.

WB *kr *k^{h}r equated with PC/kl k^{h}l/ :
WB *kraṁ CB/ can/ PC/klan/ to intend.
WB *krâ CB/ câ/ PC /kla/ to be long (of time).
WB *krîy . CB/ cêi/ Mr/krî/ PC /klei/ copper (Bu.), brass (PC).
WB *krôŋ CB/ câun/ PC/kloun/ a furrow.
WB *akrôŋ CB/ acâun/ PC/ akloun/ consequence, about.
WB *k^{h}râṁ CB/ c^{h}an/ PC/ ak^{h}lan/ fence, enclosure.

2.2.6.1.2.

WB *kr *k^{h}r and PC/ c c^{h}/:
WB *krâ CB/ ca/ Ar/kra/ /ca/ water lily.
WB *krâm CB/ can/ PC/ cin/ to think.
WB *krâm dâm CB/ cândân/ PC/ candan/ to be harsh.
WB *s^{h}aŋ k^{h}raŋ CB/ s^{h}in c^{h}in/ PC/ s^{h}en c^{h}en/ to ponder.

2.2.6.1.3.

WB *ky(*k^{h}y) equated with PC/kl(k^{h}l)/:
WB *kyôŋ OB *klôŋ CB/ câun/ PC/kloun/ to herd, tend cattle.
WB *kyâm CB/ cân/ PC/klan/ oath

2.2.6.1.4.

WB *ky *k^{h}y and PC /c c^{h}/:
WB *aŋkyi CB/ einji/ Ar./ ankrî/ PC/ aunji/ coat, jacket.
WB *kyôŋ OB *klôŋ CB/ câun/ PC/ coun/ monastery, school.
WB *kyok — OB *klok — saŋ pûṁ CB/ cau? θimbôun/ PC/ cau?simbùn/ a slate.
WB *kyok CB/ cau?/ PC/ cou?/ to kick.
WB *kywâm kyaŋ CB/ cûn cin/ PC / con cin/ to be acquainted.
WB *k^{h}riy kyâŋ CB/ c^{h}ei cîn/ Mr/k^{h}ri — /PC/k^{h}lei can, c^{h}ei can/ anklet; foot (Mr.).
WB *k^{h}yao CB/c^{h}i?/ PC/c^{h}è?/ to love.
WB *k^{h}yuṁ CB/c^{h}un/ PC/c^{h}un/ bush.
WB *up k^{h}yup CB/u?c^{h}u?/ PC/u?chu?/ to govern.

In the four preceding classes, WB or Ar. are the more probable donors for the PC instances in 2.2.6.1.1 and 2.2.6.1.3., while those of 2.2.6.1.2. and 2.2.6.1.4 more probably derive from CB.

2.2.6.1.5

WB *Cr and PC / Cl/:
WB *proŋ CB/pyaun/ PC/aploun/ bison.

WB *proŋ CB/pyâun/ PC/ploun/ to change.
WB *praŋ CB/pyei/ Ar/prei/ PC/ple/ country.
WB *mrùiw OB *mruiw? CB/myou/ Ar/mru?/ Mr/mròu/ PC/mlu/ town.
WB *mrôŋ CB/myâun/ PC/mloun/ ditch.

2.2.6.1.5.1. Compare other instances of non-clustered WB *r and PC/1/:

WB *rak^{h}uiŋ CB/yak^{h}ain/ PC/lak^{h}oun/ Arakan.
WB *arap — CB/ayà? yà? gà/ PC/ala? la? kà/ in several places.
WB *ruṁ CB/youn/ PC/lun, yun/ court, office.
WB *rîy CB/yêi/ PC/lei/ to write.

2.2.6.1.6.

WB *Cr and PC/Cy/:
WB *praŋ CB/pyin/ PC/pyàn/ to repair.

2.2.6.1.7.

WB *Cy and PC/Cy/:
WB*pya·suiw OB*pla·suiw CB/pyað ou/ Ar/praθu/ PC/pyas^{h}u/ (a month name).
WB *amyûiw OB *mlyuiw CB/myôu/ PC /myu/ kind, race.
WB *pyûiw — OB *p^{h}yuiw — k^{h}âŋ CB/pyou k^{h}în/ PC/pyu k^{h}aun/ seed bed, nursery.
WB *pyak CB/pye?/ PC/pya? /be damaged.

The PC instances in 2.2.6.1.5. and 2.2.6.1.7. point to a WB or Ar source, while that of 2.2.6.1.6. appears rather to be CB. In the two renditions each in PC of anklet (2.2.6.1.4.) and court office (2.2.6.1.5.1.) there is evidence of multiple borrowings.

Among the Southern Chin languages of the Chittagong Hill Tracts and vicinity, Loeffler (1960: 548) has identified a shift in both Khami and in Khyang, in which /kl k^{h}l/ becomes /kr k^{h}r/. He adds that in Plains Chin /Cr/ has become / Cl/, "yet this rule appears to hold only for words borrowed from Burmese." It seems unlikely, however, that this shift was affected by borrowing, for in this respect loans from Burmese do not seem to have led to a phonemic redistribution. Fryer (1875) recorded several PC words in /Cr/ which Houghton subsequently transcribed in /l/ or /y/, values they retain today: /bri, pri/ to finish (Fryer: 52, 54, 59, 62); /apri/ a bit, fragment (61); /mri/ four (58, 69); /pakri/ (a species of bettle) (70). The last two, at least, do not seem to be loans. Thus consider the equivalence of PC/m^{h}li/ ~ CB/lêi/ four with that of PC/m^{h}luɯ/ ~ CB/l^{h}ei/ boat. Accordingly, Fryer's transcriptions may have preserved a fleeting record of the last stages of the Plains Chin /r>l/ shift.

2. 2. 6. 1. 8.

Another illustration of the changing equation between Chin and Burmese phonemic systems is provided by WB*s. What is probably an ancient equivalence is reflected in forms such as the following, in which Plains Chin stands with other Chin languages in posing an initial /t t^h d/ for WB *s. It might be parenthetically noted that in the same series Nung (Barnard) poses a corresponding /š/.

WB *saṁ CB/θan/ Mr/θein/ PC/t^hi/ iron.
WB *swîy CB/θwêi/ Mr/θwêi/ PC/at^{h}i/ blood.
WB *sacpaŋ CB/θi?pin/ PC/t^hi/ tree.
WB *sûṁ CB/θôun/ Mr/θûm PC/t^hun/ three.
WB *asâŋ CB/aθê/ PC/at^{h}i/ liver.
WB *asî CB/aθî/ Mr/aθî/ PC/at^{h}ɛ/ fruit.
WB *siy CB/θei/ Mr/θei/ PC/du/ to die.

The circumstance that WB *s > CB, Ar /θ/ makes it seem likely that the pattern for the following PC forms may have been taken over prior to that shift. However, as some of the more modern loans attest, the modern equivalence is generally retained: CB, Mr/θ/ ~ PC/s^{h}s/, CB/s/ ~ PC/s/.

WB *sâ· CB/θâ/ PC/sòu/ son.
WB *samî CB/θamî/ Mr/θamî/ PC/s^{h}ami/ daughter.
WB *asâ CB/aθâ/ Mr/aθâ/ PC/as^{h}òu/ flesh.
WB *saŋbo OB *sâŋp^{h}o CB/θimbô/ PC/saump^{h}au/ steamboat.
WB *tosalâŋ CB/toð alîn/ PC/taus^{h}à?lan/ (a month name).
WB *asak CB/aθe?/ PC/asàu ?/ life, age.
WB *siytta CB/θi ?ta/ PC/ai ?ta/ box.
WB *su·pun CB/θaboun/ PC/sabun/ a rebel.
WB *saṁtwe CB/θandwe/ PC/s^{h}ontoɯ / Sandoway.
WB *satâŋ sa· CB/θadînsa/ Ar/θadansa/ Ar/θadansa/ PC/ s^{h}adaunsou/ newspaper.

From a semantic standpoint, the replacement of the first three words at least might not have been predicted, and there are enough comparative data from Southern Chin (see e.g. Loeffler, 1960: 534; Bernot and Bernot: 30) to suggest that son may be a native PC form.

2.2.6.2.0.

Vowels are treated in the following subsections.

2.2.6.2.1.

WB*-i *-iN **iK (N and K stand respectively for classes of nasals and stops).
WB *t^{h}î· CB/t^{h}î/ PC/t^{h}î/ umbrella.
WB *ak^{h}yin CB/ac^{h}ein/ Mr/ak^{h}yin/ PC/ac^{h}in/ a) time; b) weight.
WB *acîm CB/asêin/ / PC/asìn/ green.
WB *bîn CB/bein/ PC/bɛ̀n/ opium.
WB *arip aroŋ CB/ayei?ayaun/ PC/ali?alon/ status, position, token.

2.2.6.2.2.

WB *-o *-oN *-oK:
WB *natto OB *natto CB/nadô/ Mr/ne ?tô/ PC/natau/ (a month name)
WB *to OB *tô CB/to/ Mr/to/ PC/tau/ jungle (native form?).
WB *cô OB cô CB/sozo/ PC/sauzau/ early.
WB *oŋ CB/aun/ PC/oun/ to pass.
WB *toŋ CB/taun/ Ar/taun/ PC/toun/ south.
WB *t^{h}oŋ CB/t^{h}aun/ PC/t^{h}oun/ a) thousand; b) prison.
WB *coŋ CB/saun/ PC/soun/ writings (clsfr.).
WB *tapôŋ CB/tabâun/ Mr/tabâun/ PC/taboun/ (a month name).
WB *môŋ CB/mâun/ PC/moun/ gong.
WB *kok CB/kau?/ PC/kòu?/ paddy plant.
WB *apok CB/apau?/ PC/apòu?/ hole.
WB *anok CB/anau?/ Ar/anau?/ PC/anou?/ west.
WB *mrok CB/myau?/ Ar/mrau?/ PC/mlou?, myou?/ north.
WB *want^{h}ok CB/wundau?/ PC/wount^{h}ou?/ (a government official).

2.2.6.2.3.

WB *-u *-uN *-uK
WB *lù CB/hlù/ PC/hlu/ to be about to.
WB *muc^{h}ûiw CB/mou?s^{h}ôu/ PC/masu, mus^{h}u/ hunter.
WB *puṁ CB/poun/ Mr/pun/ PC/pun/ heap.
WB *c^{h}uṁ CB/soun/ Mr/c^{h}um/ PC/asùn/ mortar (native form?)
WB *aluiw chûṁ CB/alous^{h}ôun/ PC/alus^{h}un/ the most necessary.
WB *ûn CB/ôun/ PC/un/ coconut (native form?).
WB *mûn CB/moun/ PC/mun/ to hate.
WB *tanc^{h}oŋm^{h}ûn CB/tazaunmôun/ Mr/tancembô/ PC/tazàunmùn/ (a month name).
WB *û· t^{h}up CB/ou?t^{h}ou?/ PC/ù?t^{h}ù?/ hat.
WB *mrùiw up CB/myòu ou?/ PC/mlu u?/ township officer.
WB *ca· up CB/sa ou?/ PC/sou u?/ book.
WB *m^{h}ut CB/m^{h}ou?/ PC/m^{h}ù?/ to blow with the mouth, puff (native form?).

2.2.6.2.4.

WB *-uiw *-uiN *-uiK
WB *luiw CB/lou/ PC/lu/ to want.
WB *tarâ· luiw CB/tayâlou/ PC/talalu/ plaintiff.
WB *(mî·) p^{h}uiw CB/(mî)p^{h}u PC/(mèi) p^{h}u/ kitchen. (/mèi/native form).
WB *t^{h}âmpûiw CB/t^{h}abôu PC/t^{h}anp^{h}u/ porter's yoke.
WB *awat c^{h}ûiw CB/awu? sou/ PC/awo? sou/ clothing.

WB *tapùiw tʰway CB/taboùdwe/ Mr/tabòute/ PC/tabaʔtoɯ (a month name).
WB *cʰuiŋ CB/sʰain/ PC/sʰòun/ a shop.
WB *wûiŋ CB/wain/ PC/wain/ a circle.
WB *cuik CB/saiʔ/ PC/sòuʔ/ to plant upright.
WB *tuik CB/taiʔ/ PC/tòùʔ/ a substantial building.

2.2.6.2.5.1. WB *-a (Compare *-aN *-aK in the two succeeding sub-sections.)
WB *akʰa· CB/akʰa/ PC/kʰou/ time.
WB *pa CB/pa/ PC/pou/ to accompany, have on one's person.
WB *câ· CB/ sa/ PC/sou/ a writing.
WB *ŋʰâ· CB/ŋʰâ/ PC/ŋʰou/ to hire.
WB *samâ· OMon, OB *sma· CB/θamâ/ PC/samou/ (agentive); also (honorific - PC).
WB *kra· CB/ca/ PC /kla/ be long (of time).
WB *bʰurâ·/burâ· CB/pʰayâ/ Ar/pʰarâ/ PC/pʰalà / a god, object of worship, pagoda (CB); pagoda (PC).
WB *sa·sana· CB/θaðana/ PC/sazana/ religious instruction, discipline, mission (CB); mission (PC).

Note also the following equivalents which, because of the wide occurrence of cognates in other Chin languages, cannot be held to be loans.
WB *tʰa CB/tʰà PC/tʰòu/ to arise, stand up.
WB *la CB/là/ PC/kʰlou/ moon.
WB *la· CB/la/ PC/lòu/ to come.
WB *ŋâ· CB/ŋâ/ PC/ŋou/ fish.
WB *ŋâ· CB/ŋâ/ PC/ŋʰou/ five.

2.2.6.2.5.2. WB *-aN
WB *asaṁ CB/aθan/ PC/asʰa / voice, sound.
WB *alaṁ CB/alan/ PC/alan/ flag.
WB *sambara· CB/θambaya/ PC/sʰàmbala/ lime (fruit).
WB *yâm CB/yàn-/ PC/yàn-/ cartridge.
WB *riykan CB/yeigan/ PC/tuɯkan/ tank.
WB *kàn OB *kanʔ CB/kàn/ PC/kan, kà·/ sulphur.
WB *praŋ CB/pyin/ PC/pyàn/ to repair.
WB *cʰaŋ CB/sʰin/ Mr/can/ PC/san/ shelf, stage.
WB *laŋ CB/lin-/ Mr/lan-/ PC/lan-/ husband.
WB *kwaŋ CB/kwin/ PC/kwan, kʰwan/ a ring.
WB *pʰràŋ OB pʰwaŋʔ CB/pʰwin/ PC/pʰwan/ to open.
WB *tanâŋla· CB/tanînla/ Ar/talânla/ PC/talanla/ Monday.
WB *arâŋ CB/ayîn/ PC/ayan, ayɛn/ principal (of money).
WB *maŋ CB/mʰin/ PC/mʰɛn/ ink.
WB *kʰutʰaŋ CB/kʰadin/ PC/kʰadɛn/ bedstead (CB); chair (PC).
WB *câŋ CB/šin/ PC/šɛn/ ships, etc. (clsfr.).
WB *payâŋ CB/payîn/ PC/palɛ̀n/ amber.
WB *pulâŋ CB/palîn/ PC/palɛn/ bottle.
WB *cʰarh CB/sʰan/ PC/asaun/ kernel (rice). (native form?).

WB *cʰankʰa· CB/saga/ PC/saugau/ sieve, tray.
WB *waŋ CB/win/ PC/waun/ to enter.
WB *rʰaŋ buraŋma CB šinbayinmà/ PC/saunpalaun nu, sanpalan nu/ Queen.
WB *pyûiw kʰâŋ CB/pyou kʰîn/ PC/pyu kʰaun/ nursery, seedbed.
WB *kansâŋ CB/kanzîn/ PC kòn saun/ bund.
WB *ca·râŋ CB/sayîn/ PC/salaun, salan/ list.
WB *kâŋ CB/kîn/ PC/kaun/ outpost.
WB *talâŋ CB/talîn/ PC/tàunlaun/ threshing floor.
WB *ca·saŋ kyôŋ CB/ saðinjaun/ PC/ souzòucon, souzùcon/ monastic school.
WB *naṁ CB/nan/ PC/noon/ to smell (intrans.). (native form?)
WB *a·makʰaṁ CB/amakʰan/ PC/amakʰon/ bail.
WB *lâm CB/lân/ PC/alon road (native form).
WB *mʰan CB/mʰan/ PC/mʰon/ to be correct.
WB *nân CB/nân/ PC/non/ palace.

2.2.6.2.5.3. WB*-aK
WB *kwak CB/kweʔ/ PC/kwaʔ/ a ring.
WB *akwak CB/akweʔ/ PC/akwaʔ/ ground.
WB *kʰwak CB/kʰweʔ/ PC/kʰwaʔ/ one-thirty-second basket of paddy.
WB *-wak CB/-weʔ/ PC/-waʔ/ half.
WB *pʰak CB/pheʔ/ Mr/pʰaʔ/ side; one of a pair (clsfr.).
WB *pyak CB/pyeʔ/ PC/pyaʔ/ to be damaged.
WB *tak CB/teʔ/ PC/taʔ/ oar.
WB *(mî·) kʰwat CB/(mî)gweʔ/ PC/(mei)kʰwaʔ/ lamp.
WB *arap-- CB/ayàʔyàʔgà/ PC/alaʔlaʔkà/ in several places.
WB *siynat CB/θanaʔ/ Mr/θeineʔ/ PC/šɛnaʔ, sʰeinàʔ/ firearm.
WB *aprac CB/apyiʔ/ PC/aplɛʔ/ offence, crime.
WB *asak CB/aθeʔ/ PC/asàuʔ/ life, age.
WB *saksiy CB/θeʔθei/ PC/sʰauʔsʰei/ a witness.
WB *lap CB/laʔ/ PC/loʔ/ vacant.

2.2.6.2.6.

A resumé of vowel equivalences as evinced in the foregoing (including possible generic forms) shows the following:

Written Burmese	Colloquial Burmese	Arakanese	Plains Chin
i	i	i	i
in	ein	in	ɛn
im	ein	oin	in
it	eiʔ	iʔ, oiʔ	
ip	eiʔ		iʔ
iy	ei	i	
iyt	iʔ		
ay	e		
e	e		
a	a	a	a, ou

Written Burmese	ColloquialBurmese	Arakanese	Plains Chin
aṁ	an	en, ein	an, aun, on
am	an	ein	an, on
an	an	ein, oin	an, aun, on
aŋ	in	an	an ɛn, aun, oun
aɲ	ei	i, ẹ, òin	
ac	iʔ	oiʔ ei?	ɛʔ,
ak	eʔ	aʔ, iʔ	aʔ, auʔ, oʔ
at	aʔ	eʔ	aʔ, auʔ, oʔ
ad	aʔ	oʔ	oʔ
ap	aʔ	eʔ, eiʔ	oʔ
u	u	u, ou	u
uṁ, un	oun	un, oun	un
ut, up	ouʔ	uʔ, ouʔ	uʔ
uiw	ou	u, ou	u, ou
uiŋ	ain	oin	òun, ain
uik	aiʔ	oiʔ	òuʔ
o	au	o/au[7]	au
oŋ	aun	on	oun
ok	auʔ	oʔ	ouʔ, òuʔ, auʔ

Where multiple equivalents occur in PC for the same WB vowel and they cannot be justified in terms of complementary distribution, a difference in time of borrowing or of source must be examined. Of particular interest in this respect are the equivalences of WB *a *aN with PC/ ou on/. As remarked earlier, many of the open-vowel forms appear to be original to PC, as attested by cognates in other Chin languages, while among the latter such forms as /no·n/ to smell (intrans.) and /alon/ road seem to be of the same order. If this is so, it would seem to follow that loans showing the same equivalences should be earlier than those of the order PC/a aun an ɛn/. On the other hand, such forms as /cauʔsimbùn/ slate, /bèn/ opium, /awoʔsou/ clothing, and /wain/ circle seem clearly enough to be relatively recent loans from CB.

A comparison of the transcriptions of Houghton with those of Samou U Aye made over sixty years later indicate that a number of loans have been reborrowed, while others have been modified through time, the later forms in both instances approximating more closely the CB pronunciation. These show, e.g. PC/ -un > -oun, uʔ > ouʔ, -aun > -an, -an > ɛn/. (For the latter, see also the name by which our people are known to the Burmese. In the north, the branch which is found in the Chittagong Hill Tracts retains the name in WB /khyâŋ/ and Ar form, /kʰyân/; Trant in 1826 rendered it in an intermediate pronunciation, Khyen; while today CB pronunciation is /oʰîñ/.)

2.2.6.3. Tones:

Overall, tonal equivalences have not been maintained in loans. Phonologically, PC Tone 1 bears some resemblance to CB I, IV, Tone 2 to CB II, and III. However, when 98 loans in Plains Chin are examined, the following equations are found:

		CB			
		I	II	III	IV
PC	1	21	30	14	13
	2	10	7	3	0

Some of the failure to equate may be susceptible to explanation. If Loeffler is correct in his observation (1960: 521) that in Arakanese CB Tones III and I are reduced to a single tone, phonologically the latter, some apparent divergencies are accounted for. However, as already noted, the Bernots record a separate Tone III for Marma.

2.2.6.4. Syllable-finals:

An impressive feature of the Burmese sound shift has been the reduction of final continuants to /-n/ and of final obstruents to /-ʔ/. Plains Chin, which Loeffler contends (1960: 556) lost terminal /-l/ late in its southward movement, has subsequently paralleled the syllable-final developments in Burmese. Houghton in 1892 distinguished PC final /-m -n -ŋ -t -k/;[8] and in the speech of Samuo U Aye, who as a boy was Houghton's contemporary, there are still audible two lightly articulated nasals /-n -ŋ/ and unreleased /-t˺ -k˺ -ʔ˺/, which become released upon and assimilated to a following stop.

The attitude of Samou U Aye toward these final contrasts is notable. Although his articulation was consistent under repetition, he seemed largely unaware of their existence and, when pressed, claimed that their discrimination was not essential to correct pronunciation. In brief, he reacted in each series like a naive speaker to an allophonic distinction in his own language. It is possible that the light articulation of the nasals and the unreleased character of the final stops provides one indication of their weakening. A younger relative of Samou U Aye, like him fluent in Plains Chin, Burmese, and English, had lost any audible contrast in her syllable-finals of each series.

The role of the Burmese and Plains Chin syllabaries in these shifts merits at least brief discussion. That for Plains Chin, while adhering closely to Burmese practice in the rendition of syllable-initial consonants and consonant-clusters, differs largely in the conventional values assigned to vowel-symbols and in the representation of tones and finals. Thus there is less likelihood that such interference (Weinreich, 1953) as occurs lies simply between the two graphemic systems. The Burmese script represents tones and syllable-finals in distinct notations, preserving in the latter their several former values. By contrast, the Plains Chin notation combines the two, employing six symbols in pairs to indicate two tone-contrasts each for syllables of the shape /-V -Vn -Vʔ/.

It is of interest that in a nation in which, under the system of monastic schools "almost every [male] Burman learned to read and write" (Furnivall: 122; see also the remarks of Trant, 1827: 209, 259), the conservative graphemic system of Written Burmese failed to stem a series of radical shifts in the phonology of the spoken language. On its part, the Plains Chin script, in underdifferentiating

contrasts still audible in final nasals and stops, is a contributing factor in their eventual merging. In neither instance does the written system appear to have played an effectively conservative role, such as Bright (24) has posited for literacy in India.

3.0.

The conditions of Burmese-Plains Chin contact are reflected in some measure by the 253 words and phrases which constitute the acculturation vocabulary of Samou U Aye's texts and notes. Of these no less than 90 percent comprise loanwords, in all but a few instances from Burmese, and another 7 percent comprise loanblends (5.5 percent) and loan translations (1.6 percent). By contrast, only 3 percent of the acculturation vocabulary exemplify the extension of old meanings in Plains Chin (2 percent) and newly-coined words (1.2 percent). If Casagrande is right (1954-55: 217f.), most of the response of Plains Chin speakers to innovation has been made in awareness of, and sensitivity to, the Burmese language, a condition that is consonant with the picture given earlier from non-linguistic data.

By way of comparison, the Sizang (Siyin) Chin of the Northern Chin Hills, who both in terms of ecological specialization and in the expression of recent history have tended to maintain distance from the Burmese (though they do number traders to the plains and are now increasingly aware of their place in the new nation) show a reversal of the Plains Chin ratios. Of some 2280 entries in Naylor's lexicon, the acculturation vocabulary is only half of that recorded by Houghton for Plains Chin, comprising something less than 6 percent of the total. Moreover, the 135 items reflect conditions of primary linguistic accommodation, inasmuch as no fewer than 79 percent comprise new formations or the extension of old meanings, and thus draw preponderantly upon the resources of the native language. The remaining 21 percent constitute loans.

3.1.0.

A few examples from each class of linguistic innovations in Plains Chin follow:

3.1.1. Extensions of old meanings:

/sʰàuʔ cl/ spear; also bayonet.

/ⁿdo/ (numeral classifier for cutting, piercing instruments); extended to (num. clsfr. for ships, automobiles, and planes). In CB, two classifiers denote these categories, respectively /leʔ/ and /sîn/.

3.1.2. Newly-coined words:

/kʰlen mʰun/ (Houghton) mirror, apparently from WB *krêi mun; later reinterpreted through the coinage of /kʰlou mʰù/ (Samou U Aye), lit. see spirit (i.e. reflection).

/mèi kʰaʔ/ matches, lit. strike-fire; cf. /kʰàʔlùn/ flint-and-steel, lit. strike-rock.

/kʰòu li/ shoes, lit. tread on foot; cf. /kʰou pʰoun/ sole, lit. float on foot.

/abòɯ nu lʰen/ (Queen Victoria), lit. great woman chief; maintained alongside the loanblend of similar meaning, /šaun palaun nu/.

3.1.3.0. Loans:

Here only two entries will be noted out of this, the largest of all classes:

3.1.3.1. Metathesis.

/alweikadu/ easy; cf. WB *alwedaku.

3.1.3.2. Narrowing.

/-doun/ compare:

PC /kʰlaun dòun/ CB/ludâin/ each person.

but /kʰlaun guʔ/ /ludâin/ every person.

3.1.4. Loanblends:

/amʰon kʰlaun lʰen/ (Houghton) assessor, lit. great truth person. cf. WB *mʰan- be true.

/sabwe deŋ/ (Houghton) table, from WB *sâbwedan, CB/sabwêdin/; later reinterpreted as / eibou tan/ (Samou U Aye), replacing WB *sâ. eat by its PC equivalent.

/sessen galou/ (Houghton) military policeman, from CB/siʔθi kala/; later becomes /seʔsʰou/ (Samou U Aye) with the PC agentive /-sʰou/.

/tʰalai samou/ doctor, (Houghton;: from Hindustani/davai/ medicine, paint, and ultimately from Arabic.) PC/samou/ practitioner, wise man, on pattern of CB/ sʰei saya/.

/yàn sàu/ cartridge, from CB/yan/ gunpowder, PC/sàu/ long.

/sʰùʔhèn/ reward money, from CB/suʔ/ reward, PC/hèn/ silver, money, on pattern of CB/suʔŋwei/.

/dàʔhaun/ gasoline, from CB (and Pali)/daʔ/ spirit, element, PC/haun/ liquid, on the pattern of CB/daʔsʰi/, lit. spirit oil.

3.1.5. Loan-translations:

kʰlou kʰou/ salary, after CB/làgà/.

/sou ni?/ Buddhist, lit. black writing, after CB/same/; similarly /sou bo?/ (Houghton) Christian (Protestant), lit. white writing (CB/sabyu/). Catholic in CB is /sani/, red writing, but the writer failed to secure a corresponding PC form.

/sou tʰou kʰlaun/ postman, lit. person who brings writings. Compare CB/ sapòuðamâ/.

4.0.

Close correspondence in grammatical structure facilitate the passage of enclitics from Burmese to Plains Chin and the semantic equation of coincident morphemes of somewhat different meaning. Thus,

4.1. Loans:

/la/ (WB *ra, CB/yà/)

PC	cei	ka	pɛk	la	ɦou?		
	I	(I)	give	must	(indic.)		I must give.
CB	cundò	pei	yà	de			
	/pli/	(WB *prî, CB/pî/).					
PC	yà?mèi	ma	ku	pli	yà		When they had
	They	(they)	(cross)	finish (subord.)	time		crossed.
CB	θudòu		kù	pî	dè		akʰa
		/mi/	(WB *mi, CB/mì/)				
PC	cei	ka	si	hò?	mi	yòu?	
	I	(I)	go	(past tense)	unex-pectedly	(indic.)	I went without meaning to.
CB	cundò	θwâ		mì	de		
		/pʰu/	(WB *bû·, CB/bû/)				
PC	òn	hò?	pʰu	dì?			
	live	(past tense)	formerly	(Subord.)			One who had formerly lived.
CB	nei	kʰè	bû	dè			
		/bouɯ/	(WB *pa· CB/pa/				
PC	sadi	tòu	bouɯ				
	Take care		please	Please take care!			
CB	θadi		tʰa ba				

/oun/ WB *oŋ, CB/aun/)

PC	sontouɯ	mluwà	pʰou	oun	
	Sandoway		town-to arrive	in order to	In order to reach

CB	θandwê	myòugou	yau?	aun	Sandoway town.
	/sʰòu/ (WB *sùiw, CB/sòu/				
PC	sì?	nʰaun	sʰòu		
	go	apart (pl.)	(hort.)		Let us part!
CB	θwâ		jà	zòu	

/sei/ Houghton (1892: 28) gives the form /ⁿdeŋ sei/ let (him) be struck, in which the particle functions much as in the CB/θwâbazei/ let him go!

	/nèi/	(WB *nʰàŋ, CB/nè/)		
PC	fi-	lòu	nèi	
	(neg.)	come	(neg. imper.)	Don't come!
CB	ma-	la	nè	

4.2. Replacement:

The earlier form of the comparative, PC/ tʰàu?kà/ is undergoing replacement by the loanblend / sa (<CB θa) nòu?/, as in

PC	ni	kʰlaun	tou?	kʰlaun	(tʰàu ?kà) pouɯ (sa nòu?)	yòu?

This person that person (comp.) good (indic.)

This fellow is better than that fellow. With the replacement has come a change in word order to conform with the Burmese:

	PC	pouɯ	tʰàu?	kà	yòu?
but		sa nòu?	pouɯ	yòu?	
		(comp.)	good	(indic.)	It is better.
	CB	θaywi	kâun	de	

The superlative construction parallels the Burmese,

PC	apouɯsʰun	(/pouɯ/ good.)	Best.
CB	akâunzôun	(/kâun/ good)	

Corresponding forms for Central and Northern Chin languages suggest that here as well the superlative particle has been replaced in Plains Chin by the Burmese morpheme, without otherwise altering the construction:

Lente / atʰa bìk/ (/tʰa/ good)
Sizang / apʰa bèl·/ (pha/ good) Best.

4.3.0. Extension of meaning:

What appears to mark an extension of meaning occurs for the enclitic / gù?/. Although there are a number of contexts in which morphemes of this shape appear, the present discussion is restricted to that which immediately follows the noun head. In this context, the enclitic ordinarily functions as an intensive, as in

PC	ni	nan	gù?	
	this	village	(intens.)	This very village (nom.).

CB	di	ywa	(ha)	
			(di)	

In some instances, it is said to be interposed for euphonic effect, as in

PC	na	sòu	gù?	wùɯ	yóu?	
	their	son (euph.)	(obj.)	call	(indic.)	[They] called
CB	θudòu	θa-	gou	kʰô-	de	to their son.

The identification with CB/kou/, a marker of objective relationship (Cornyn: 19), appears to carry PC/ gù?/ into new semantic areas, which it does not occupy in Houghton's grammar or examples. Thus:

	PC	ni	kʰlaun	gù?	ayi	fiòu?	
		this	man	(obj.)	sell	(indic.)	He sold this man.
	CB	i	lu-	gou	yaun	de	
cf.	PC	ni	kʰlaun-fià		ayi	fiòu?	
	CB	this	man-to		sell	(indic.)	He sold to this man.
		i	lu	â	yaun	de	

4.3.1.

Wolfenden (194f.) remarks a special relationship between Plains Chin and Burmese which can with equal plausibility be reckoned either one of those traits reflecting a special generic affinity between the two languages or as yet another mark of the extension of meaning of a Plains Chin construction. Speaking of the proclitic /a-/ which is affixed in Plains Chin to adjectives and substantives derived from verb roots, he observes,

"The derived forms with this prefix show how this language draws nearer to Burmese than its relatives further north, in that a- derivatives more frequently take a subjective (substantival) turn here, as against an objectival (adjectival) sense elsewhere, which is especially the case with Burmese." He thereupon contrasts some Plains Chin forms with corresponding forms from Thado, a Northern Chin language. Retranscribed, they are:

PC /asʰàu/ length (from /sʰâu/ be long); Th asaŋ, ašaŋ/ long, high, tall.

PC /asʰou/ thickness (from /sʰou/ be thick); Th ása, aša/ thick.

4.4.0.

It may be added that Burmese loans are frequently assimilated to Plains Chin grammatical patterning. Thus PC / sadi tàu?/ (from CB /θadi tʰâ/) takes the following paradigmatic forms:

PC	ka	sadi	tàu?	kòu?	I take heed.
		sadi	tòu		Beware!; when (if) he takes heed.
		sadi	ⁿdòu	nʰòu?	He does not take heed.

4.4.1.

Similarly, numeral classifiers borrowed from Burmese – those for writings, PC/ soun/(CB/saun/); pagodas, etc., PC/ sʰu/ (CB/sʰu/); yoke of animals, PC/šɛn/ (CB/ šîn/), to mention three – follow Plains Chin word order. As in CB (Haas), the numerical phrase follows the noun head; but within that phrase the numeral, or the last numeral in a sequence, is postposed to the classifier, rather than being prefixed to it, as it most commonly is in Burmese.[9]

PC	kʰùa?	ho?	CB ta-	kʰwe?	One paddy measure	
	measure	one	one measure		(1/32nd of a basket).	
PC	ŋʰa	kun	ŋʰou	CB sʰè	ŋâ fiʰi?	Fifteen years.
	ten	year	five	ten	five	year

5.

This brief review has been limited to some of the more salient effects registered upon Plains Chin by Burmese contacts. Data are presently lacking to permit an assessment of interference patterns in the Burmese which Plains Chin bilinguals speak. Similarly, features in Burmese which may have been rejected, as well as developments in Plains Chin which may have enhanced linguistic distance from Burmese have not been discussed.

The necessity of speaking Burmese in daily intercourse with non-Chin may produce for bilinguals difficulty in preserving a distinctive, Plains Chin phonemic rendition of Burmese loanwords in Plains Chin context. Under the circumstances, the effect is no longer simply that of two parallel phonemic systems: there is in addition the coexistence (Fries and Pike) of the one within the other. The major trend evident in the Plains Chin pronunciation of such loans is toward current, Colloquial Burmese rendition. Given bilingualism, the current prestige of Burmese, and the numerical weight of loans already present, such a trend is likely in turn to alter the phonemic patterning of the environing Plains Chin itself. The reduction of syllable finals is a case in point.

Because multiple factors intersect in a given instance, predictability is far from simple. Although cultural innovations have often entailed linguistic loans, the phonemic patterning discussed in earlier sections raises the possibility that forms which already existed in Plains Chin may have been phonemically recast to approximate the then Burmese cognate. Again, while Burmese loans occur more frequently in formal texts than in the informal, much depends upon whether they deal with areas new to Chin culture. On the structural side, there is likewise indeterminacy, for while the comparative loanform from Burmese carries with it Burmese word order as well, borrowed numeral classifiers adhere instead to Plains Chin sequence. A more extensive study than this might well examine the degree to which substructures within a language are delimited by undergoing concommitant systemic change.

Notes

1. An earlier version of this paper was read at the thirteenth annual session of the Association for Asian Studies, held at Chicago, March 27-29, 1961. That version, as well as the present one, benefited from the criticism of William Bright. Subsequent comments from E. R. Leach and my colleagues, Raymond H. Gastil and Oliver M. Willard, can only have strengthened it. All deficiencies should, of course, be debited to the writer. The basic data were gathered during a tour as Fulbright Research Fellow in Burma, 1954-1955, and were reviewed at that time with Gordon H. Luce, whose generous scholarship, like those above, it is a pleasure to acknowledge.
2. Plains Chin (Khyang, Shŏ, Sainbaung is listed by both Grierson (LSI, vol. 1, ch. VI) and Shafer as a member of the Southern Chin. Both agree on its taxonomic distance from Burmese. Thus the larger group containing all Chin, Grierson's Kuki-Chin Group, equates with Shafer's Kukish Section, which for both stand on a par with the corresponding unit containing Burmese. The claim of non-intelligibility rests upon the statements of Plains Chin speakers.
3. It is customary to distinguish Burman nationals, who include the Plains Chin as well as other minorities, from the ethnic Burmese, the dominant entity within the country. (See e.g. Tinker: xi.)
4. It would be of interest to contrast the acculturation of the Khyang, who according to the Bernots (15) have undergone a process of 'Bengalization,' though they are also subject to Marma (Arakanese) influences.
5. Because of the monosyllabic character of many entries in the languages under comparison, the limitation of possibilities clouds decision in many instances. Two values were therefore determined, one accepting and the other rejecting suspicious pairs. The figures arrived at, employing Gleason's nomograph (88), were then:

		+400		+500	
Burmese-Kamhau	2200		to 1800		years.
		–300		–500	
		+300		+300	
Plains Chin-Kamhau	1300		to 1100		years.
		–300		–300	
		+400		+400	
Burmese-Plains Chin	1700		to 1500		years.
		–300		–300	

6. Though described as a proclitic, the preposed negative morpheme has three allomorphs /fi- n- Vq/. The nasal onglide, which assimilates to the following consonant, provides a possible cognate to Colloquial Burmese /ma-/ (Cornyn: 46., 47.). G. H. Luce informs me that a negative prefix /a-/ occurs infrequently in Old Burmese inscriptions and regularly in Maru.
7. See discussion under 2.2.3.2.
8. In his lexicon, syllable-final /-p/ occurs but once, in /lep-pyan/armadillo, where it seems to constitute an assimilation to the following stop.
9. The closest approximation in Burmese to the Plains Chin word order is for type 1 classifiers in multiples of ten (Haas: 194): /lu ayau? taya $n^{h}as^{h}e$/ one hundred and twenty people.

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27

INFLUENCE OF BURMESE LANGUAGE ON SOME OTHER LANGUAGES OF BURMA

(Writings systems and vocabulary)

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In this paper we shall try to show, through a few examples, some of the effects of highly developed cultures of Burma on the language–or writing–of others. We shall try to point out the difficulties the borrowers of alphabets or words had to face, and also what we can learn through those loans.

Beginning with the Mon influence on Burmese culture we shall study it only through the writing. In turn the Burmese culture–and also the Shan one– influenced others and the effects will be studied through the language of a minority group of Burma: the Singpho (or Kachin as the Burmese call them).

When they entered Burma, from the North-East, the Burmese invaders had no writing of their own, they were not a majority group, and they had first to struggle for life. But when they got military power and gradually spread their domination all over the country, they had to borrow from others writing and even vocabulary.

Among the rulers of the pre-Burmese Burma, the most important were the Mons and the Pyus. Both had a writing and a high level of civilization. What sort of cultural inheritance did Pyus leave to Burmans? History does not tell us but the part played by Mons from eleventh century[1] onwards is obvious. Through linguistic facts, one can trace the difficulties Burmese first "writers" had to face when they borrowed from the Mons an alphabet which was meant for indo-european languages and which had been adapted by Mons to their own needs.

Burmese is a tonal language: there were no tonal marks in nagari script borrowed from Mons, and this was the first difficulty. In Burmese, the tones were clearly and systematically indicated only at the beginning of twentieth century, eight centuries after the well known Kubyaukgyi (also called "Myazedi") inscription had been written.

In their first attempts for marking the tones, Burmese used sanskrit letters: the "a", which was already used in Mon for the glottal stop, was subscribed to the last letter of the syllable for indicating tone I[2] (now pronounced high, sharp, with a weak closure of the glottis) and the visarga, written after the syllable, was supposed to indicate tone number 3 (now high, falling, with a stress at the beginning of the syllable)[3]. There was no mark for the second tone (now low, level); but those marks were not used regularly and the system was often dropped; on the other hand, in sanskrit there are long and short vowels and different signs for them; in Burmese, no need of two signs for one vowel since vocalic length is irrelevant, but the long vowel sign was used for another purpose : for "a", "i", "u", the use of short vowel indicates tone one, the long vowel means tone two, and two dots after the syllable (the visarga) means tone three; for "e", "ui", tone two is supposed to be inherent to the sign of the vowel, so that it is necessary to mark tone three (two dots after the syllable) and tone one (one dot under the last sign of the syllable); for "è" (or "ai")[4] and for "o", tone three is supposed to be inherent to the sign, tone one is marked with a subscribed dot, tone two is different for each vowel: "è" (ai) is written "ay" and "o" bears a supplementary mark above the sign. This triple system is now well established though not very simple. It is shown underneath:

	tone I	tone II	tone III
For vowels written: "a, i, u"	–(a)[5] –i –u	–ā –ī –ū	–ā: –ī: –ū:
"e, ui"	–ẹ –uị	–e –ui	–e: –ui:
"è, o"	–ȅ –ọ	–ay –ō	–ȅ –o

Problems of tones were not the only ones Burmese had to face for writing accurately their language: they had to add a subscribed "h" under the nasals for differentiating two kinds of nasal consonants, while there is only one kind in sanskrit.

When Burmese transmitted a writing system to the Shans of Burma, again it was not a proper one for a Thai language and the last difficulties were solved very late: in 1955, there was a reform of Shan orthography and only then were the tones clearly indicated (four marks for five tones, the fifth being the only one left unmarked); from this date, too, the vowels in close syllable were more accurately transcribed, for instance, the use of mark vocalic length was applied to the same sign for differentiating two different vowels, "u" is /u/, "ū" is /o/[6].

When in turn the missionaries adapted the Burmese system to the Karen languages, they tried to answer the specific problems of Karen: though not a majority group in Burma, they played the same part as Mon and Burmese did before and gave writing systems: romanisation, not only to Karen but also to many minority groups of Burma.

Karen alphabet was invented (or adapted from the Burmese one) by the missionary Jonathan Wade in 1832. It was meant for Sgaw Karen and was answering completely the needs of the language; the tones are clearly marked in it; even before 1832, there were a few attempts to use Burmese alphabet in Sgaw Karen, but they were not systematical. It was also attempted to give Pwo Karen language a transcription fit for its nasal vowels and specific tonal system. But the Sgaw is the only one to have an alphabet regularly used for handbooks, dictionaries and so on...

Other ethnic groups of Burma, such as Chin, Kachin (Singpho)[7] Maru, Kadu, Ganan are writing their language in a romanisation established by missionaries; unfortunately tones are not indicated in these romanisations. Two handbooks, written at the end of the last century by British officers on Chin language are marking tones.[8]

The problem of oral communication between two groups, one being more powerful than the other, is different; the smaller group borrows what it needs : things or words; the new words are adapted by the borrowers more naturally, since these words are used daily; the adaptation needs not to be systematic (at least in appearence) : words are adopted one after the other, according to the needs; two points seem to me to throw some light on the history of the lender's language : what kind of vocabulary is borrowed and when might tell us the exhanges and relations between these two groups : the loan-words, if borrowed long ago might have kept, to some extent, archaïc features which have disappeared from the lender's language.

As an illustration of the above statement, materials from Burmese and Singpho languages will be compared. Reading Singpho vocabulary in dictionaries, or listening to Singpho speakers we can notice that some words bear resemblance with Burmese ones, some are totally identical, though Singpho language is different from Burmese, far from being akin to it as Arakanese, Tavoyan or Intha; in those three, all words bear a great resemblance with Burmese and they are, in fact, archaïc dialects of Burmese language as a whole, the modern dialect being nowadays Burmese.

In Singpho vocabulary loan-words from Burmese, and also Shan have been collected; they are contrasting with other Singpho terms[9] and we shall examine which kind of vocabulary they belong to and which form of Burmese they look like to, using for the sake of comparison the above mentioned Burmese dialects.[10]

We used notes and records collected from Maran Roaja, a Singpho (Maran group) student of Rangoon University who was coming from Myitkyina in 1958. We used also Hertz's Handbook (1954, reprint of 1917 edition)[11], and Hanson's Handbook and Dictionary[12]. According to Hertz, he uses an orthographic system which is a romanisation prepared by Deputy Commissioner E.C.S. George and Bhamo's missionaries, accepted afterwards by local government. Tones are not marked in it, same as in Hanson's works. Though we had recorded the tones when we worked with Maran Roaja, we dropped their marks here since there are none in the other materials.

We shall deal first with loan-words which appear to be old borrowings through comparison with Burmese dialects, that is to say words which bear resemblance with archaïc dialects rather than with modern Burmese. We notice that many of these loan-words have a Singpho synonymous[13] and that most of them are terms of daily life, material civilisation, for instance:

	(Singpho)	*(Burmese Dialects)*
"provisions"	ʃa phak lu ʃa	
	jari/jarik	arch.dial. /cəre?/, mod.bur. /səye?/
"capital"	ʃɛtu	
	ʔəraŋ	arch.dial.,shan /ʔə'raŋ/, m.b. /ʔə'yin/
"cup, bowl" (bamboo)	lətək	
(earth, china) wan		shan : *id*
	kɔk	arch.dial /kuə?/, m.b. /kuɛ?/ (both
		written *kwak*)
"to stoop, bow the head"	təgup	
	gum	marma /`kuŋ/ [`koum], m.b. /`kon/
"to be contracted,		kyip, kip
shrunk"	cum	mar. /cuŋ'/ [coum'], m.b. /con']
"grain, seed"	nsi nli	
	si	north.mar. /ci'/, other arak.d. /tsi'
		Akyab arak. /si'/, m.b. /se'/
"to transmit"	ʃ(ə) lai	
	ʔəp	arak. /ʔaʔ/ [ʔaɛʔ], m.b. /ʔaʔ/ (written *ap*)
"to lie down"	kəlɛn	
	yup	/ʔeʔ/ [wiʔ] [ʔəy']
"to calculate"	shɔn	
	thi	arak.tav. /twɔʔ/, m.b. /tuɛʔ/ (both
	tak	written *twak*)

Other terms are belonging to religious or social life vocabulary, such as:

	(Singpho)	*(Burmese Dialects)*
"god"	kərai kəshaŋ	
	phra	arak. /'phra/, m.b. /phə'ya/
"festival"	mənau mənau (Singpho	
	traditional festival)	
	poi	arch.dial. / `pwe/, m.b. /`puɛ/ id.in Shan
"interpreter"	ga kəle ai wa	
	cagəbyan wa[14]	north.mar. /cə'Ka Praŋ/ [cə'gabrɛŋ]
		m.b. /Sə'Ka Pyan/ [zəgəbyã]
race, kind"	bɔ	
	myu	intha /ʔə'myu/, m.b. /ʔə'myo/
"be convenient"	shut[15]	
	tɛŋ	arak. /taŋ'/ [tɛŋ'], m.b. /tiŋ'/
"chief"	du duwa moŋ (but	
	maŋsa "prince",	
	cf. infra)	arak. /'mɔŋ/ ['mɔŋ], ['maŋ], m.b. /'min/

The above quoted lists require a few comments:

mɔŋ shows the Arakanese pronunciation of a + ṅ; the realization of this ʔəraŋ back "a" is more or less opened, and in ʔəraŋ, daŋga show other daŋga realizations of the same; both can be found in Arakanese and Tavoyan dialects. Again, if we consider :

kɔk "bowl", tak "to calculate", in those two words the same variation shows. The final k of the Singpho terms is written in the Burmese and Shan corresponding ones, but these terms were not pronounced by Maran Roaja : they have been found in Hertz' Dictionary.

si "grain", different from modern standard Burmese /se'/ is also-most probably-an archaïsm preserved by other dialects, which have only three degrees of vocalic aperture, while there are four in modern Burmese.

myu "race" differs from m.b. /'myo/ for the same reason.

poi "festival" is akin to Burmese /'puɛ/, no doubt; the status of w is never clearly distinct from u, and cannot be apposed to it inside one dialect: there is one phonema, realised as [u] when it is the nucleus of the syllable, and as [w] when it is before the vocalic nucleus. Even in modern Burmese these two realisations show. The i of poi is nearer from the vowel of archaïc dialects than from the vowel of modern Burmese.

jari, jarik, cagəbyan wa have palatal corresponding with alveolar sibilant of modern Burmese; in an archaïc form of Arakanese[16] can be found three palatal plosives : /c/, /ch/, /j/ corresponding to m.b. /s/, /sh/, /z/ and the alveolar sibilant /s/ corresponding to m.b. /θ/; in another Arakanese dialect[17] /θ/ corresponds to m.b. /θ/ and /ts/. /dz/, /ths/, to m.b. /s/, /z/, /sh/. In Akyab, capital of Arakan, on the North-Western coast of Burma, there is an emphatic /s/; Intha dialect has only one phoneme : an indistinct /s/ [s] or [sh] corresponding to three m.b. phonemes: /s/ /sh/, /θ/. Singpho has no interdental /θ/ but has palatal plosive /c/ and sibilant /s/. It seems that there have been an evolution in dialects of Burmese from /c/ to /ts/ and then /s/ and, if it is so, that would mean that /si/ is a more recent loan-word than /cagə-/ (from cagəbyan), or, on the contrary, that si/nsi is an old Singpho word, cagə- having been borrowed afterwards, though before the evolution of Burmese /c/ to /s/; because of the meaning of the latter, and because si has a synonymous nsi, with a Singpho form, I would rather prefer the second hypothesis.

ʔəraŋ, "capital", phra, "god" remind us that /r/ is coexisting with /y/ in archaïc Burmese dialects while in m.b. both have melted into /y/; this change might not be very old : the Burmese king Alaungphaya was known to foreigners as Alompra, in his life time (beginning of eighteenth century), modern Pyi was Prome and so on.

There are many other terms which are obviously borrowed from Burmese or Shan, but which have no Singpho synonymous (we are still referring to borrowings

from ancient Burmese); most of them belong to "daily life words" category. For instance :

	singpho	*arch. dial*	*m.b.*
"pig"	wəʔ	/waʔ/ [wɔʔ], [waʔ]	/Uɛʔ/
"dog"	kui'	arak. /`khui/	/`khue/
"bateau"	li	arak. /if/	ie
"cart"	lɛŋ	arak. /leŋ/ [`lɔeŋ]	/`iɛ/
"bench, stool"	puŋ khum	arak. /khuŋ/ [khoum]	/khoN/
"bottle"	namtau	shan *id.*	
"bread"	khaumun	shan *id.*	/moN'/
"trousers"	kunkhu	shan khun	
"silk"	lai	shan *id.*	
"drug, medecine"	ʔətsi, tsi	north.mar. /`chi/	/`she/
		south.mar. /`tshi/	
"medecine man"	ʔətsi səra	south.mar. /`tshi Tshəra/	/`sheshəya/
"carpenter"	laksəma	north.m., shan /laʔSə`ma/	
		south.mar. /laʔθə`ma/	/lɛʔθə`ma/
"key"	tsɔ	north.mar. */so'/[18]	/θɔ'/
"brick"	ʔawut, wut	arch.dial.shan, /ʔuʔ/	/ʔoʔ/
"engine"	cak	north.mar. /caʔ/	/sɛʔ/

Some loan-words deal with finance, trade:

"bazar"	kat	shan *id.*	
"benefit"	ʔacu	intha, /ʔə`kyu/	/ʔə`co
"interest"	ʔatu		/ʔə`to/

with administration:

"clerk, secretary"	cəre	north.mar. /cə`re/	/sə`ye/
"steal, stamp"	təzik	arak. /taN Tshiʔ/ [tɛndzoiʔ]	/təSheʔ/
"court of justice"	ruŋ	XVII°c. burm. "roum" [`roum] (?)	/`yoN/
"position, business"	ʔəkhaŋ	arch.dial. /ʔə`khaŋ/	/ʔə`khiN/
"govern"	ʔoup kham	arak. /ʔuʔ/ [ʔouʔ]	/ʔoʔ/ (written up)
"prince"	maŋsa	arch.dial. /`maN`Sa/, /`maN`θa`/ /`miN`θa/	
"palace"	khɔ	shan *id.*	

with "abstractions":

"color"	ʔarɔŋ	arak. /ʔərɔŋ/	/ʔəyɔN/
"life"	ʔasak	arch.dial. /ʔəsaʔ/, /ʔəθaʔ/	/ʔəθɛʔ/,
			written asak
"to die"	si	arch.dial. /si/, /θi/	/θe/
"hell"	ŋərai	arak. /`ŋre/, /ŋə`re/	/ŋə`yɛ/
"habit"	ʔagyaŋ	arch.dial. /ʔə`kyaN'/	/ʔəciN'/
"costums"	thuŋ jaŋ	north.mar. /`thuN CaN/ [`thounjaŋ] /`thoN SaN/	
		arak. /`thuNTsaN/ [`thoundzaŋ]	

The phoneme /r/ is used in many Singpho words. In Burmese itself it was still in use at the beginning of eighteenth century; it disappeared first, from the very beginning of words, while the middle position (in a polysyllabic word) seemed to maintain it; phra, pra (/ph(ə)`ra/), serée (/shə`re/) are terms used in the naratives

of European visitors to Burma; this provides us with very vague datations for the melting of /r/ and /y/ into one /y/.

As for "court of justice", ruŋ it had been pronounced yuŋ very early in Arakan, though all Arakanese dialects maintain /r/ everywhere, in any position; it seems this word received an exceptional treatment in Arakanese, while the Singpho pronounciation is similar to the general archaïc pronounciation.

The discrepancies, concerning the pronounciation of the /c/ which appeared already in the previous list of words show here too. The present list suggests several kinds of relations between Singpho and their powerful neighbours (Shans and Burmeses): trade and business, altogether close contact and the feeling of a deep difference between Singphos' organisation and the Burmese one, or between their chiefs and the Shan or Burmese princes, palaces, administration, words which are treated as untranslatable in Singpho terms, as "strangers"; this close contact was often (in fact) a kind of feudal link which obliged Singpho to deal with Shan or Burmese administration and to know how to call men and things.

Two words are surprising:

kui' "dog" could it be possibly a loan-word? It could be an old Singpho word which happened to be similar to the Burmese one, but we notice that the term is pretty different in Chin language, for example : uy, and in Maru lə`kha, though both,[19] in their own way, bear resemblance with Burmese. Even if not borrowed, the Singpho term for "dog" is the nearest form from the Burmese.

wutauŋ "peacock" (burm. /ʔu'Tɔŋ/), not included in the list since there is no archaïc dialectal form to be compared with. The peacock was the emblem of royalty in Burma, and the term could be included in the administrative vocabulary; it is obviously a loan-word from the time of Burmese kingdom.

Another kind of words, identical or almost identical to Burmese ones, have probably been borrowed very recently, since they bear resemblance with modern Burmese. They belong to administrative or military vocabulary; some are dealing with measures, finance and so on... This is a list of them (list which is not an exhaustive one):

	Singpho	*modern Burm.*
"government"	ʔasoya	/ʔə`soya'/
"school"	jɔŋ	/`cɔN/
"to petition"	ʃɔk	/ʃɔʔ/
"to request"		
"flag"	ʔalan	/ʔəlaN/
"to make enquiry"	soŋ	/soN/
"leave, permit"	ʔakhwiŋ	/ʔəkhuiN'/
"to read"	phat	/phaʔ/
"to make apparent"	phɔ	/phɔ/
"to reveal"		
"prison"	thɔŋ	/thɔN/
"dacoit"	dəmya	/dəmya'/
"to imprison"	hlɔŋ	/lɔN/

	(Army and war)	
"gun"	sənat	`θənaʔ/
"canon"	ʔamyauk	/ʔəmyɔʔ/
"to win"	ʔɔŋ	/ʔɔN/
"to kill"	sat	/θaʔ/
"army"	tap	/taʔ/
"soldier"	luksuk	shan *id.*
	(Measures)	
"cubit"	tɔŋ	/tɔN/
"fathom"	ləlam	/ləlaN/
	(Finance, trade)	
"benefit, gain"	myat	/ʔəmyaʔ/
"to partake"	gam	/kaN/
"to add"	pɔŋ	/ˆpɔN/
"remnant"	can	/ʔəcaN/
	(Entertainments)	
"to bet"	lɔŋ	/lɔN/
"to dance"	ga	/ka'/
	(but manau manau for Singpho dance)	
	(Ornements)	
"pearl"	pŋle	/pə`lɛ/
"necklace"	pədi	/pəTi/ [pədi]
"to decorate"	mən	/'moN/
	(Abstractions)	
"to be happy"	pyɔ	/pyɔ/
"luck, fate"	gam	/kaN/
"to bear, endure"	kham	/khaN/
"to reach, succeed"	khap	/khaʔ/
"to be easy"	lwe	/luɛ/

There is obviously a connection between the categories of loanwords and the situation of the Kachin (or Singpho) group : a minority group, in a country where Burmese language is the official one, spoken by a large majority.

In this paper were shown only a few examples of the linguistic response from a minority facing the difficulty of dealing with a majoriy. Perhaps there is something more to learn, from this response, than the history of the majority's language; perhaps this response might include wider or more general information.

As for us we restrain to a linguistic view point and would like to stress, at the end of this paper, the interdependance between the studies of *all* the languages of a country, whatever might be the situation of their speakers. The last exemples quoted below, have been once more borrowed to Intha, Tavoyan and Arakanese the archaïc dialects of Burmese, and at the same time we shall make reference to Singpho, as an archaïc stage of Tibeto-Burmese general evolution.

Singpho has prefixes, Burmese has still a few dissyllables whose first syllable is very much like a prefix; if we compare with arch. dialects corresponding terms such Burmese words as :

	mod.Burm.	*arch.dial.*
"cooked rice"	/thə`miN/	intha`\`mɛN/

		north.mar. /hə`maŋ/
"paddy"	/Sə`Pa/	tav /`ba/
		intha /`pa/
"snail"	/khəyu`/	intha /ʃu/
"word, speech"	/Sə`Ka/	intha /`ka/
		singpho[20] ga
"bitter cucumber" *(momordica)*	/θəphuʔ/[21]	Tav/phwaʔ/(it is written *saphwat* in bur)

we notice that the archaïc dialects have been affected by a greater evolution than the modern Burmese: they have dropped their prefix while modern Burmese has not.

In Singpho, archaïc Tibeto-Burmese language, a very large number of words has prefix, while in Burmese there are only a few ones, and this makes still more puzzling the examples quoted above; Singpho has also numerous pairs of words, apparently synonymous, one word with prefix and one without. These Facts, among others, arouse the question of the nature, function and history of prefixes in Tibeto-Burmese; there is a prefix problem that the comparison between dialects of a same language, and between languages of a same family might help to study. That is the kind of linguistic problems between majority-minority groups we tried to have a glimpse of.

Notes

1. They surely played a part sooner but historical data are scanty before eleventh century.
2. According to Burmese classification.
3. We suppose there were already tones at that time.
4. The transcription used in *Epigraphia birmanica* is "ai",
5. "a" is an inherent vowel in nagari and scripts derived from it.
6. Jean Perrin, "La Réforme de l'orthographe shane, *Bulletin de l'Ecole française d'Extrême-Orient,* 1958, XLIX, 1, 259-268.
7. The Kachins call themselves, according to the phonetics of their different dialects, Singpho on the border of Assam, Chingpaw in the Center and East of Kachin State.
8. Bernard Houghton, *Essay on the Language of the Southern Chins and its affinities*, Rangoon, Sup. Gov. Printing, 1892. 131 p. and G.E. Fryer, "On the Khyeng People of the Sandoway District of Arakan, *Journal of the Royal Asiatic Society of Bengal*, 1875, 44(1)39-82.
9. Though the phonological study of Singpho (Maran group) could not be achieved, and the necessary checking could not be done, due to the situation of Kachin State, it is possible to guess, through the from of words (presence of prefixe, of final consonant, in particular) whether words are Singpho or not, and if not whether they can be compared with Burmese or Shan corresponding term.
10. Arch. dial. will indicate a form common to all of them, Arak. will refer to Arakanese spoken on both sides of the Burma-Bangladesh border, Marma will refer to Bangladesh Arakanese, sometimes the more archaïc marma will be called northern marma and opposed to southern one, less archaïc, Tav. accounts for Tavoyan.
11. H.F. Hertz, *A Practical Handbook of the Kachin or Chingpaw language*, Rangoon, 1954, VI + 153 pp.

12. O. Hanson, *Dictionary of the Kachin Language*, Rangoon, American Baptist Mission Press, 1906, 31 + 751 pp.; *A Handbook of the Kachin or Jinghpaw Language* ibid, 1917, 19 + 258 pp.
13. Singpho term and loan-word both in use when the dictionaries were written.
14. Cagəbyan wa is compounded of a non-Burmese element: wa, an old loan-word cagə- from arch.dial. /cə'Ka/ [cə'ga] and a modern -byan, m.b. [-byä]; cagə (*versus* Singpho ga) not used alone, has survived in the modern borrowing from the Burmese compound [zəgəbyâ].
15. According to Maran Roaja, shut is no more in use in Singpho.
16. Manna of the Northern, or Mong Circle of Chittagong Hill Tracts, Bangladesh.
17. Marma of Southern or Bohmong Circle of Chittagong Hill Tracts, (next to Burma-Bangladesh border, and the Hills of Burmese Arakan).
18. Reconstructed form.
19. Both are Tibeto-Burmese languages of Burma.
20. Exceptionally the Singpho word has no prefix and the Burmese one has still its prefix.
21. Called also by a loan-word from Mon : m.burm. /khə'Uɛ/, tav. /'khue/.

28

A TENTATIVE LIST OF MON LOAN WORDS IN BURMESE

Hla Pe

Source: *Journal of the Burma Research Society* 50, 1, 1967, 71–94.

This article is a sequel to 'Some Adapted Pali Loan Words in Burmese'[1] and a supplement to 'Verbal Pearls from the Burmese Oyster: the rise of Neologism in Burmese'.[2]

The purpose is to put on record in one place the Mon loans – some certain and others doubtful – that can be traced so far, and to make some comments. The article has many inadequacies, and is no more than a beginning. It is hoped that this material may yield more fruitful results in the hand of a more competent scholar.

The task of collecting Mon loans is beset with pitfalls. It is more formidable than that of collecting adapted Pali loan words. Pali is a dead language; it has been studied extensively by Burmese scholars since it is the language of the Buddhism that is interwoven into the fabric of the Burman's life – his thought, speech and actions; and he has a better knowledge of it, at least of its vocabulary, than any other language, except perhaps English. Mon on the other hand is a living language, which has itself absorbed words from many foreign language, – e.g. Thai, Malay, Persian, Portuguese, English, Pali and Sanskrit. Unlike Pali, it has no special significance in the life of the Burman; and probably after the 13th century, it has become just a language of the people who have lived side by side with him up to the present time.

1. Political relationship

The Mon and the Burmese peoples have been co-inhabitants of Burma for more than 1,000 years. All the available evidence indicates that when the Burmese entered central Burma in the 8th or 9th century A.D.,[3] the Mon had already reached a high level of civilization, and had a kingdom of their own with its capital at Thaton in Lower Burma – though their residence was not confined to that part of the country.[4] They witnessed the emergence of the organized State of the newcomers with its capital at Pagan in Upper Burma in the 10th century. They also felt the repercussions of this new rising power in the 11th century when their

domain was invaded by the Burmese.[5] This attack started the political struggle between the two neighbouring States culminating in 1757,[6] with the Burmese gaining the domination of the whole of Burma. Since then the use of the Mon language began to recede, and at present the bulk of the Mon speaking population in Burma is found chiefly around three cities, all in Lower Burma – Pegu, Thaton and Moulmein.

2. Cultural relationship

In contrast to these political events conducted by the leaders, the cultural relationship between the two peoples has been much closer and happier. The Mon, as already stated, had a high level of civilization; they had an organized State; they were *Theravāda* Buddhists; and they possessed a literature with a script of their own. The Burmese were apt pupils. They wasted no time in emulating the Mon. They assimilated Mon culture, set up a State, embraced Buddhism and reduced their language to writing in the 11th century by adapting the Mon script.[7] Like their mentors they put up hundreds of inscriptions, chiefly dedicatory nature, all over Burma. By the 15th century they could lay claim to having a highly developed form of literature on palm-leaf. Since that time, it may safely be assumed that the borrowing of cultural commodities has been mutual between the two neighbours.

3. Social relationship

Both Burmese and Mon chronicles have dwelt mainly on the political aspect of the relationship between the two peoples. They are silent on the other aspects of human behaviour. Linguistic evidence however teils us that the cultural and social relationships between them have been considerably closer and more cordial than has hitherto been realized. The evidence is the large body of idiomatic expressions and compound words common to both languages and the many loan words taken by each language from the other.

4. Idiomatic expressions and compound words.

The occurrence in both languages of identical or closely similar idiomatic expressions and compound words may be attributed to one of the following causes.

1. Fortuitous accident.
2. Derivation from a common source e.g.
   (a) Mon ဂုံင်ပတိသန္ဓိ take conception – Burmese ပဋိသန္ဓေယူ conception take, conceive < Pali *patisandhiṁ gaṇhāti* conception take, conceive.
   (b) Mon စရဲဍုင် glory(of)city - Burmese ငြည့်တန်းဆာ city's ornament, a courtesan < Pali *nagara sobhini* city adornment, a courtesan.

3. Literal translation from one language to the other e.g.
   (a) Idiomatic expressions[8]
      (i) Mon ကိုဝ် – Burmese ပေး to give
      ကိုဝ်စ – ဝေးစား give eat, give in marriage.
      ။ ဇြဟတ – အားပေး strength give, encourage.
      ။ ပိုန – ဘုန်း ။ merit give, eat (said of monks).
      ။ သတ – သတိ ။ attention give, caution.
      ။ အခေါင – အခွင့် ။ permission give, give permission.
      (ii) Mon စိုတ် – Burmese စိတ် < Pali *citta* mind, heart, disposition.
      စိုတ်က္ဆ – စိတ်ပူ mind is hot, be distressed in mind.
      ။က္ဆီ – ။ ထ mind rises, be angry.
      ။ ဂိ – ။ နာ mind is hurt, have feelings wounded, be offended
      ။ ဂ္ဍင် – ။ ရှည် mind is long, be patient
      ။ဂ္ဍံ – ။ တို mind is short, be short tempered
   (b) Compound words
   Mon ကြုတ်ကွိက် intestine pig–Burmese ဝက်အူ pig intestine, a screw
   ကကတဝ်ကွိုံဝ် fish tongue dog-ငါးခွေးလျှာ fish dog tongue, the *Bachirus* turbot
   ဆက်ပါင် join mouth – နှုတ်ဆက် mouth join, greet
   ယဲလိုတ်ကူတ် ailment fire in active–မီးရပ်ရဓေါ် fire inactive ailment, menstrual ailment

In the absence of histories or historical dictionaries of either language, it is often difficult to know which was the imitator and which was being imitated. This difficulty also presents itself when one comes to consider loan words.

5. Loan wards

5. 1. Collecting

The sources from which the list of loan words was compiled include the following works:

1. *A Vocabulary, English and Peguan*, E. O. Stevens, Rangoon, 1896.
2. *Grammatical Notes and Vocabulary of the Peguan Language*, J.M. Haswell, ed. E. O. Stevens, Rangoon, 1901.

3. *A Mon English Dictionary*, R. Halliday, Bangkok, 1922.
4. *A Manual of Mon Language*-for those who know Burmese (in Burmese), U Wa-yama, Rangoon, 1957.
5. *A Dictionary of Modern Spoken Mon*, H.L. Shorto, London, 1962.
6. G.H. Luce's articles in various learned journals.
7. My own random notes.

5.2. Checking

The words and their meanings were checked by consulting the following works.

1. *Burmah, Its People and Natural Productions*, F. Mason, Rangoon, 1860.
2. *List of Trees, Shrubs etc. in Burma*, J.H. Lace, ed. A. Rodger, Rangoon, 1922.
3. *A Burmese – English Dictionary*, A. Judson, ed. F.H. Eveleth, Rangoon, 1922.
4. *A Burmese – English Dictionary*, i, J.A. Stewart and C.W. Dunn, and subsequent parts, ii, iii and iv, London, 1941, 1950, 1955 and 1963.

5.3. Dating

The date of the earliest occurrence of a loan word could be of great interest to a scholar. However, Burmese literature has not been thoroughly studied from either the literary or the linguistic angle; nor have many works of Burmese literature been printed with indexes. From my knowledge of what I have studied, and from the Dictionary slips (about 500,000 or more in number), I have given the earliest century in which the word has been found.

5.4. Criteria used in determining a loan word

There are two main types of loan words: those taken direct from Mon and those taken through the Mon from other languages. In the process of sifting both types, one or more of the criteria stated below are used as a sieve, but the sieve itself may be full of gaps.

5.4.1. Linguistic

1. Un–Burmese characteristics
   (a) The presence in the spelling of consonants such as ဂ၊ဃ၊ဈ၊ဋ္ဌ၊ဒ၊ဓ၊ဘ၊ဿ and all the cerebrals (pronounced in Burmese as aveolars).[9]
   (b) The endings -ိုက်–*uik*, -ိုင်–*uiṅ* and -ိုဉ် –*in*, which according to Professor G.H. Luce, seem to have come in during the Nanchao period[10].
2. Polysyllabic words which cannot be analysed into meaningful monosyllables.

3. Monosyllabic words whose cognates cannot be traced in the few dictionaries or grammars of the Tibeto - Burman languages, that have been consulted.
4. The existence of a counter-part in Burmese.

5.4.2. Historical

1. The occurrence of the word in Old Mon Inscriptions.
2. Pali and Sanskrit words that were borrowed into Mon before the Mon culture was on the wane.
3. Foreign words from an oversea–country that came through the Mon State of Lower Burma.

5.4.3. Cultural

Terms connected with one of the aspects or objects taken to be Mon in origin
(a) Architecture
(b) Custom-Buddhist as well as non-Buddhist
(c) Vocations and professions
(d) Water craft
(e) Weapons, implements and domestic objects
(f) Items of food.

5.4.4. Geographical

1. Fauna and flora and
2. Physical features and phenomena found in Lower Burma.

Words under the three categories given below have been excluded from the list.

1. Names of places in Lower Burma. These deserve a separate article.
2. Words with the အ prefix, which look like Burmese. Many of these need further investigation.
3. Most verbs. It is dangerous to include them without an adequate knowledge of their histories.

5.5. Arrangement

5.5.1. Divisions and sub-divisions

The loan words are listed under 11heads, each subdivided where necessary. These are : Physical features and phenomena, Vegetation, Minerals, Peoples, Government, Life, Culture, Faith, Animals, Miscellaneous and Verbs. This method of presentation is preferred to that of giving all the words in alphabetical order, although it has certain drawbacks. There are also many advantages: one of these is

that it may enable us to ascertain the comparative ratio of words that each sphere of Mon culture has contributed to Burmese.

The subdivisions are many. As with other subdivisions there are borderline cases e.g. ချေး *dross* under 'Minerals' might equally well have been put under 'Miscellaneous', and သိန္ဓောဆား *rock salt* under 'Minerals' might have been put under 'Medicine'. The two chief considerations in assigning a word to a subdivision are convenience, and its closer association of idea with that particular subdivision.

5.5.2. Arrangement

Under each division or subdivision the loan words are given in Burmese alphabetical order. The arrangement of each entry is in two sections : the first section contains the loan word in Burmese script, transliteration[11] and pronunciation in Burmese; and the second has the Mon word in Mon script, transliteration, reading pronunciation,[12] spoken pronunciation[13] in brackets, and meaning or meanings. Between the first and the second sections, the symbol < stands for 'from', and the symbols > < indicate uncertainty as regards the borrower and the borrowed, or the loan having a common parentage–Sanskrit, Pali etc., – in which case the parentage is given in square brackets. The numerical figures followed by 'C' at the end of each entry denote the earliest century during which the word is found to occur in Burmese writings.

The writer is fully aware that there is a wide gap in our knowledge of the dating of the pronunciations of both the reading and the spoken Mon. We do not yet know at what point or points of time these pronunciations came into current use.

6 List of loan words

Note: M. M. = Middle Mon; O.B. = Old Burmese; O. M. = Old Mon

This list was read by my colleague H. L. Shorto, and has been much improved by many of his valuable suggestions. However the writer alone is responsible for the list as presented below.

I Physical features

1. Land

ဥမင် UMAṄ *ú-, ù-, òuŋ miŋ, – hmiŋ*< ဥမၚ် *umang* (?)a cave, tunnel.[P.*ummaga*; O. M. *umaṅ, ummaṅ, umāṅ*]. 16C.
ကမူ KAMŪ *kamu* <မုဟ် MUH *muh* (*muh*) end of a cape, fringe. 19C.
ချောက် KHYOK *jauʔ* <ခရောဝ် KHAROK *kharok* (*harok*) a valley between hills. 15C.
ဂနိုင် GANUIṄ *gənaiŋ* <ဂိုၚ် GNIṄ *kenoin* (*nòiŋ*) jungle. 15C.
စုံ CUṀ *souŋ* a forest <ဇိုမ်၊ ဇို ZUIM *ćem* (*cə̀m*) a marsh. 15C.

စုံ (တော) ပြား CUṀ (TO) PRĀ: *souŋ* (*tɔ*) *bya* a forest <ဇိုမ်၊ ဇိုပြာ ZUIM PRĀ *ćem prā* (*cə̀m pra*) the marshy wood 15C.
ယာ YĀ *ya* a cultivated spot of ground <ယာ YĀ *ye* (*yə̀a*)a forest clearing. 15C.
ရဂုံ RAGUṀ *yəgouŋ* <လဂို LAGUIM *lekēm* (?) a pleasant grove. 15C.

2. Water

အင်း AṄ:*ìŋ* <အၚ် AṄ *ang* (ɛŋ) a natural pond, lake. [O. B. *aṅ*] 13C.
အော် Ô, ɔ < ဩော O *āo* (*ao*) a basin, small bog. 19C.
ခနောင်း KHANOṄ: *khə́nauŋ* <ခဏာံၚ် KHAṆAṄ *khanong* (*kənɔŋ*) a whirlpool. 15C.
တမံ TAMAṀ *təmaŋ* <တ္ၚိန် TMIN *tamän*, ကမိုန် KAMUIN *kaṁan* (*kəmʋn*) an embankment, dike. [O. M. *timbin, tbin*]. 16C.
ဒီ DĪ *di* <ဒဳ DĪ *ti* (*ti*) a tidal wave, bore. 16C.
ဝဲ WAI,wɛ<ဝဲ WAI *woa* (*wòa*) an eddy, whirlpool. 16C.
သောင် SOṄ, *θouŋ* < သၚ် SAṄ *sòng* (*sɔŋ*) a sandbank. 15C.

3. Wind

မုတ်သုံ MUTSUṀ, *mouʔθouŋ* monsoon< မုသုံ MUSUṀ *musum* (?) season. [Arabic *mawsin*, Malay *musim* season]. 18C.

II Vegetation

1. Bulb

ကမ္ပလူ KAMPALŪ *kaŋbəlu* > < ကမ္မရူ KAMMARŪ *Kòmmarū* (*kəmmərao*) crinum bulbs. 19C.
ကျွေး KYWE: *ćwe* < ကွဲ KLAI *kloa* (*kloa*) the wild yam. [cf. T'ai *klùay* banana]. 19C.
ဝ WA *wá* < ဗုက် BUK *bauk* (*bɜk*) the Arum Campanulatun. 19C.

2. Cereals

ဂျုံ GYUṀ *jouŋ* < ဂျၚ် GYUṄ *kyung* (*cɜ̀ŋ*) wheat. [Bengali *gam*] 18C.
ဆပ် CHAP *shaʔ* > < ဆပ် CHAP *ćhòp* (*chɔp*) a kind of millet; panicum. 18C.
ပြောင်း PROṄ:*pyauŋ* > < ပ္ၚ် PLAṄ *plòng* (*plɔŋ*) a variety of millet, maize. 13C.
မုယော MUYO *məyɔ* > < မုယော MUYO *muyò* (?) barley. [O. B. *muyaw*]. 13C.

3. Flower–tree

အနန်း ANAN: *ənàŋ* < အနၚင် ANĀÑ *anain* (*ənàiŋ*) *Faraea fragrans* (Roxb.). 19C.
ခရား KHARĀ: *khəỳa*, ခရေ KHARE *khəye*, ချယား KHYAYĀ: *chəỳa* <ကေသ် KES, ကေဟ် KEH *kēh* (*kih*) Mimusops Elengi. [P. *kesaro*]. 13C.
စံကား CAṂKĀ: *səga* > < စမ္ပာ CAMÑĀ *ćamngā* (*cəmpa*) the champac. [Skt *campaka*]. 13C
သဇင် SAJAÑ *ðəziŋ* < ကဇင် KAJAÑ ဝဇင် GAJAÑ *kećeang* (*həćeaŋ*) the fragment Bolbophyllum, a very common orchid. 18C.
ဘဝနိုး SĀNUI: θàno < အနု ANHU *anu* (*əhnù?*) the mesua. [O. B *sanuw,sanuw*; O. M. *kajnu*] 13C.

4. Fruit–tree

ကင်ပလင်း KAÑPALAÑ *kiŋbəlìŋ* < ကလၚင် KALĀÑ *kalain* (*kəlaiŋ*) the antidesma. 19C.
ကင်ပွန်း KAÑPWAN: *kiŋbuŋ* < ကပေါဝ် KAPOW *kapo* (*kəpo*) the soap acacia creeper. 13C.
ကဒွတ် KADWAT *kədú*, ဘဒွတ် SADWAT *ðədú* <ကဒေါတ် KADOT *katot*, ခဒတ် KHADAT *khatòt* (*hatòt*) a kind of fig, Ficus Hispida. [O.B. *si' twot*]. 13C
ခဝဲ KHAWAI *khəwɛ* < ခဝဲ KHAWOY *khawoa* (*həwoa*) a species of luffa. 16C.
စပျစ် CAPYAC *zəbyi?*, သပြက် SAPRAK *ðəbyɛ?* > < ဇဗျတေ် ZABYET *cépyēt* (?) a grape. 18C.
စွံပလွံ CWAṂPALWAN, စွန်ပလွန် — လွံ CWANPALWAN-LWAṂ *suŋpəluŋ* < စံပလံ CAṂPALAṂ *ćòmpalòm* (*cəmpəlɔm*) the date palm or fruit. 16C.
ဇာတိပျိုလ် JĀTIPPHUIL *zadei?pho* >< ဇာဒိဖိုဝ် JĀDIPHUIW *ćēpithā* (?) nutmeg. [P. *jātiphala*]. 19C.
တညင်း TAÑÑAÑ: *təñyiŋ* >< ဂနင် GANEÑ *keneang* (*həneaŋ*) the Inga tree. 19C.
တလည်း TALAÑÑ: *təlɛ* >< ဒလန် DALAN *telòn* (*həlòn*) a pomegranate. [Cf. Skt *dālima*]. 13C.
ဒူးရင်း DŪ: RAÑ: *dùyiŋ* < ဒူရေင် DŪREN *tūrēn* (*tùrèn*) the *durian, Durio zebethinus*, D.C. [Malay *duren, durian*]. 19C.
ဓနိ DHANI *dəni'* < ကို KNI *kani* (*kənɔe?*) the *nipa* palm. 18C.
နာနတ် NĀNAT *nana?, na? na?* <အဏ္ဏာတ် AṆNĀT *annāt* (*ənat*) pine-apple. [Malay *nanas*]. 19C.
ပိန်ဒဲ PINNAI *`peiŋnɛ* <ပူး PNAḤ *panah*, ပနဟ် PANAH *panòh* (*pənɔh*) the jack– or bread–fruit. [P. *panasa*]. 18C.
မင်းကွတ် MAÑ: KWAT *`miŋgu?* < မင်ဂုတ် MAÑGUT *meangkut* (*mèaŋkùt*) the mangosteen. [Malay *manggusta–stan*]. 19C.

မန်ကျည်း MANKYAÑÑ: *màji* < မင်ဂွန် MAÑGLAN *meangklòxn*, (*mɛ̀aŋklòn*) the tamarind. [O.M. *mañglañ*, O. B. *mañklañ*]. 13C.
မရန်း MARAN:, မရမ်း MARAM: *məỳaŋ* < မြာင် MRĀÑ *mrān* (*pəraiŋ*) the marian. [Cf. T' ai (*mâ*) *proaŋ*]. 19C.
ယင်ကမ်း YAÑKAM:, ရင်ကမ်း RAÑKAM: *yiŋgàŋ* < လကံ LAKAṂ *lekòm* (*təkɔm*) *zəlacca wallichiana*. 16C.
လိမ္မော် LIMMÔ *leiŋmɔhmɔ* < လမ် LAMAO *lemao*, လိမ် LIMAO *limao* (*limao*) the orange. [Portuguese *limão*]. 18C.
(သစ်)တို (SAC)TUI (*θi?*) *to* < တို၀်၊ တို့ TUIW *tä* (*tɐ*) the wild mangosteen. 16C.
သပြု SAPRU *ðəbyu'* < ခပြု KHAPRU *khaprau* (*həprao?*) the water dilleria. 18C.

5. Nut–tree

သစ်ချ SACKHYA *θi?cha'* < သတ်ချ SATKHYA *sòtcha* (*sɔt cha?*) the Malay chestnut. 19C.

6. Seeds

ဂုံညင်း GUṂÑÑAÑ: *gouŋ `nyiŋ – `hnyiŋ* < ဂနအေ် GANE' *keno'* (*hənè?*) *Entada scandens* Bentham. 19C.
ဇီယာ JĪYĀ *ziya* > < ဇီယျာ JĪYYA *ćīyā* (*ciya*) cumin [Skt *jīra*, P. *jīraka*]. 19C.

7. Trees (includiug creepers and plants)

အကျော် AKYÔ, အခြော် AKRÔ *əcɔ* < အဂို AGLOA *aklea* (*klèa*) *agalloch* or *lignum* aloes. [Skt *aguru*, P. *akalu, agalu*]. 18C.
အင် AÑ *iŋ* < အင် AÑ *ang* (*ɛŋ*) *Dipterocarpus tuberculatus* Roxb.? 13C.
အင်ကြင်း AṄKRAÑ: *iṄjiŋ* < အင်ရေင် AṄREÑ *angreang* (*ɛŋ rèaŋ*) *Pentacme suavis*, A. DC. (*Dipterocarpaceae*), [O.B. *aṅkreang*]. 13C.
ကညင် KAÑÑAÑ *kənyiŋ* < ဂယင် GAYĀÑ *keyain* (*həyàiŋ*) *Dipterocarpus tubinatus*, Goertn. f. [cf. T' ai *khăyaan D. alatus*]. 16C.
ခစွယ် KHACWAY *khəzwɛ* < ကစဲ KACAI *khacóa* (*həcoa*) a species of laurus producing hardwood.?C.
ဆူးလေ CHŪ : LE *`shule* > < ဆူလေ CHULE *ćhūlé* (?) a thistle, bramble. 16C.
တယော် TAYÔ, ဝဂရေင် TARÔ *təyɔ* < (ဇုက်) တယော် (JUK) TAYAW *(cauk) tayò (kəyɔ)* a species of linden-bloom (creeper). 18C.
ပွေးကိုင်း PWE: KUIÑ: *`pwe `gaiŋ* < ပွကိုင် PWE KUIÑ *pwe kain* (*kəwe kaŋ*) senna 19C.
ဗန်ဖွေး BAN. BWE:, ဘန်ဘွေး BHAN. BHWE; *baŋ' `bwe* < ခဗို KHABUY *khapùi* (*həpùi*) *Careya Aborea*, Roxb. 13C.
မဲ MAI *`mɛ* < မဲ MĀI *mai* (*mài*) the indigo plant. 16C.

ယမနေ YAMANE *yəmənе* < ရဵမနေဝ် RĀṀMANEW *rēmmanē* (?) clogwood. [c.f. Skt *ramaṅi* aloe indica]. 18C.
လမု LAMU, *ləmu'* < လမု LAMU *lemu* (*kəmù?*) the sour sonnerata. 19C.

8. Vegetables

ကညတ် KAÑÑWAT, *kənyu?* < နေဘတ် NOT *not* (*nót*) Asparagus Racemosus. 19C.
ကဒတ် KADAT, *kəda?* < ကဒါတ် KADĀT *katat* (*kətàt*) a species of yam. 19C.
ကြက်သွန် KRAKSWAN, *cɛ?θuŋ* < ကသိုန် KASUIN *kasän* (*kəsʊn*) an onion. [cf. P. *lasuna* garlic; O. B. *kaswan*]. 13C.
ငြုတ် ṄRUT, ငရုတ် ṄARUT *ŋəyou?* < မရေက် MAREK, မငြက် MREK *mròit* (*pəròik*) chilli, the red pepper plant. [Skt, P. *marica* black pepper]. 13C.
စမြိတ် CAMRIT, *səmyei?* < ဇီမ္ဘောက် JĪMNOT *ćīmnot* (*cìnòt*) a species of anethum. 18C.
ပဲ PIA, `pɛ > < ဓဲ BAY *boa (boa)* the pea or bean, leguminous plant. 15C. မုံလာ MUṀLĀ, မုန်လာ MUNLĀ *mouŋla* > < မူလာ MŪLĀ *mūlā* (?) radish [cf. P. *mūlaka* root, bulb, radish]. 18C.

III Minerals

အဖြိုက် APHRUIK, အဘြိုက် ABHRUIK *əphyai?* > < အဖိုက် APHLUIK *aphlak* (?) talc, zinc ore. [Skt *abhraka*]. 19C.
ချော် KHYÔ, *chɔ* > < ချဝ် KHYAW *ćhò* (?) dross. 19C.
ဂဝံ GAWAṀ, *gəwuŋ* < ဝါန် WĀN *wān (wàn)* dressed laterite. [M.M. *lwān*]. 19C.
စိန် CIN, *seiŋ* > < စိန် CIN *ćin* (*cin*) diamond. [O.M. *ciñ*]. 15C.
တေ TE, *te* > < တေ TE *tē* (?) brass. 19C.
ဘော် (ငွေ) BHÔ (ṄWE), *bɔ* (*ŋwe*) pure silver < ဓဝ် ḄAW *bò* (*bɔ*) pure metal. 15C.
မဟူရာ MAHŪRĀ, *məhuya* < (တ္) မဟူရာ (TMA') MAHŪRĀ (*tmo'*) *mahūra (pəhùra)* agate. 18C.
မြ MRA *mya'* > < မြ MRA *mre*(*pərè?*) an emerald. [Skt *marakata*; Sinhalese *marā*]. 16C.
မှတ် (ကျောက်) MHAT (KYOK), *hma? cau?* > < မှတ် MHAT *hmot* (?) touchstone. 19C.
သလွဲ SALWAI, *θèlwɛ* < လှဲ LHUY *hlaui* (*hlɔe*) copper. [O.M *sluy*]. 13C.
သိန္ဓော (ဆား) SINDHO (CHĀ:), *θeiŋdɔ (śha)* > < (ဦ့ဦဝ်) သိန္ဓ (ḄUIW) SINDHAO (*bū*) *sintheo* (?) rock-salt. [Skt *śaindhava*]. 18C.
သွတ် SWAT, *θu?* < သြောတ် SROT *sot* (*sot*) zinc. 18C.

IV People

ကပ္ပလီ KAPPALĪ *ka?pəli* > < ကပ္ပရီ KAPPARĪ *kāpparē* (*kappəli*) a negro. [Arabic *kāfir*]. 19C.
ကရင် KARAṄ, ကုရင် KURAṄ *kəyiŋ* < ကရေင် KAREṄ *kareng* (*kərеŋ*) Karen. 15C.
ကုလား KULĀ:, *kàla* an Indian < ဂလာ GALÀ *kelē* (*həlèa*) a native of any country west of Burma. [O.B. *kūlā, kulā*]. 12C.
တရုပ် TARUP, တရုတ် TARUT, တရုက် TARUK *tə you?, tərou?, təlou?* < ကြုက် KRUK *krauk* (*krɔk*) Chinese. [O.M. *Truk* Mongol; O.B *Taruk*]. 13C.
ပသီ PASĪ, *pəθi* (ဂလာ)ပသီ (GALĀ) PASĪ (*kele*) *pasi* (*pase*) a Mohammedan Indian. [Name of a kingdom in north Summatra]. 18C.
ပုဏ္ဏား PUṆṆĀ: *pouŋ̀a* < ဗမ္မား BAMNAḤ *pemneh* (*pənèh*) a Brahman, a Brahman at Indio-Chinese court to carry out Brahmanical rites and ceremonies. [Skt *brahmaṇa*, O.M. *buṁnaḥ, buṁnaḥh* O.B. *pumṇā, pumnā*]. 13C.
ဗမာ BAMĀ, *bəma,* မြန်မာ MRANMĀ *myəma* < ဗမာ BAMĀ *peme* (*hənèa*) a Burman, Burmese. [O.M. *mirmā*, M.M. *bamā*]. 19C/13C.
ဗရင်ဂျီ BARAṄGYĪ, ဘရင်ဂျီ BHARAṄGYĪ, ဘုရင်ဂျီ BHURAṄGYĪ *bəyiŋji* < ဗြင်္ဂေဝ် BRENGYEW *prenkyī* (*prèŋcè*) Roman Catholic, Portuguese. [Persian *firinjī*, Arabic *firanji* a Frank]. 18C.
ရောမ ROMA *yɔma* < ရဝ်မ RAWMA *ròma* (?) Roman. [Italian *roma*]. 19C.

V Government

1. Administration

ကင်း KAṄ:, `*kiŋ* < ကင် KAṄ *kang* (*kɛŋ*) a guard-house, village defence post. 15C.
ခရိုင် KHARUIṄ *khəyaiŋ* the ring which holds the spokes of an umbrella, different areas under one jurisdiction, a district < ခယိုင် KHAYUIṄ *khayäng* (*həyàŋ*) a post, mast. 12C.
တပ် TAP, *ta?* < ဒပ် DAP *tòp* (*tòp*) a fence, camp - a division (of an army) or a squadron (of a fleet). [M.M. *dap*]. 13C.
တံဆိပ် TAṀCHIP, *dəzei?* > < တဆိပ် TACHIP *tachip* (*kəchip*) a seal, signature. [O.B. *tanchip*]. 13C.
ဒမြ DAMRA, ဓမြ DHAMRA *dəmyá* < ဒမ္ဍ DAMLA *temle*, DHAMLA themle (*hə̀lè?*) a robber. 18C.
နိုင်ငံ NUIṄṄAṀ, *naiŋŋaŋ* < (ရး) နိုဋ္ဌ (RAḤ) NIGUIM(*reh*)*nikēm* (*reh ǹikə́m*) a country, kingdom, empire. (P. *nigama* a market town]. 13C.
သက်သေ SAKSE, θɛ?θe > < သက်သီ SASKI *saksēī* (*sksɔe*) a witness, evidence. [SKt *sākshi*]. 13C.
သူပုန် SŪPUN, *ðəbouŋ* a rebel, rebellion < သပုန် SAPUN *sapoun* (*həpɔn*) rebellion, meeting. [See also XI verbs under ပုန် PUN]. 16C.

2. *Officials*

အမတ် AMAT *əma?* > < အမၥတ် AMĀT *amat* (*əmàt*) a king's minister, Privy Councillor. [Skt *āmātya*; O.B. *amatyā, amat;* O.M. *amāt*]. 14C.

ကတော် KATÔ, *gədɔ* the wife of a man with a status < ကလဝ် KALAW *kalo* (?) a wife. [O.M. *KINDAR*, KANDAR]. 16C.

စော်ဘွား CÔBHWĀ:, *sɔ̀bwa* < စဝ်ဖၥ CAOPHĀ *ćāophā* (?) a hereditary prince, used of the Shan princes. [Shan *sǎu phǎ*]. 16C.

ဒေါဗညား DOBAÑÑĀ : *dɔ̀bəǹya* < ဒဗညာ DAOBAÑÑĀ *teo penyē* (*tèa pəŋèa*) a noble man, person of rank. 18C.

ဗညား BAÑÑĀ:, *bànya* < ဗညာ BAÑÑĀ *penyē* (*pəŋèa*) title prefixed to names of royalty and high nobility. 16C.

3. *Regalia*

အလံ ALAṀ, *əlaŋ* < အလၥံ ALĀṀ, အလေမ် ALEṀ *alēm* (*əlèm*) a standard, flag, ensign. [Malay *alam*, Arabic *'alam*]. 16C.

အောင်းမွေး OṄ : MWE:, *aunmwe* < အံင်မဲ့ ÀṄMHUY *òng hmui* (?) a yak's tail fan. [M.M. *aṅ muy*]. 15C.

ကမ္ဘု(ထီး) KAMBU (THĪ :), *kaŋbu', kŋbu'* (*`thí*) white (umbrella) < ကၠူ KMU *kamau* (*kamao?*) white. [M.M. *kambu*]. 16C.

(ညောင်) စောင်း (ÑÑOṄ) COṄ:, (*nyauŋ*) *ʒauŋ* <ဇင် JÀṄ *ćàng* (*còn*) a bedstead (usu. used by royalty).[O.M. *joṅ*]. 15C.

ရာဇမတ် RĀJAMAT *yazəma?* <ရာဇၥ ဓၥတ် RĀJĀDHMĀT *rēćē themat* (?), ရဇ်ဇ္ဈတ် RĀYJMĀT *rai cémāt* (?) a lattice on both sides of a road along which the king is to pass. 18C.

ဝေါ WO,*ẁɔ* <ဝဝ် WAW *wò* (*wò*) a palanquin, litter. [O.M. *lwar*]. 16C.

သန်လျက် SANLYAK, သံလျက် SAṀLYAK *θaŋlyɛ?* သ္နာ်ၵ် SNĀK *hnait* (*hnaik*) a two edged sword or dagger [O.M. *snak, snek, snik*]. 16C.

သံလျင်း SAṀLYAṄ:, *θaŋ' lyiŋ* < သရင် SARENG *sareang* (*həreaŋ*) a palanquin, swing cradle. [O.B. *SANRYAṄ, SANLYAṄ*]. 12C.

သလွန် SALWAN, *θəluŋ* a throne < သျုင် SLUṄ *salung* (*hlɜŋ*) to be high, exalted. [cf O.M. *sumluṅ*]. 15C.

4. *Royalty*

မောင်းမ MOṄ : MA, *maunma* > <မံင်မ (သ္မီ) MÅṄMA (SMIN) *mòngma* (*hmoin*) (*moŋ ma?*) a royal concubine. [O.B. *moṅma*]. 12C.

ရာဇဝင် RĀJAWAṄ *yazəwiŋ* < ရာဇၥဝင် RĀJĀWAṄ *rēćēweang* (*rèacəwèaŋ*) a chronicle of kings, history. [*rājavamsa*]. 16C.

ရာဇသံ RĀJASAṀ *yazəθaŋ* < ရာဇၥသၥန် RĀJĀSĀN *rēćēsan* (?) a royal edict, king's letter. [cf. SKt *rājajñā*.] 16C.

VI Life

1. *Ailments*

အင်(ပျဉ်) AṄ (PYAÑ), *iŋ(byiŋ*) rash < (ယဲ)အင် (YAI) AṄ (*yoa*) *ang* (*yòaeŋ*) rapture in children. 19C.

ကတ္ဝတ် KATWAT, *kətu?* < ကတောတ် KATOT *katot* (*kətot*) a wart. 19C.

ခု KHU, *khu* < ခူ KHŪ *khu* (*khao*) whitlow. 18C.

ငန်း: ṄAN:*ŋaŋ* a venomous influence < ဍာန် ṄĀN *ngān* (*ŋàn*). 15C.

ဒူလာ DŪLĀ *dula* < (ယဲ)ဒူလာ (YAI) DŪLĀ (*yoa*) *tūlā* (?) rheumatism. 19C.

မုတ္တ(ကိတ်) MUTTA (KIT), *mou?tá* (*kei?*) hernia, rupture < (ယဲ)မုတ္တကြိတ် (YAI) MUTTA KRIT (*yoa*) *muttakrit* (?) stricture of urethra. [Skt *mūrtakricchra* strangury]. 18C.

မြင်းသရိုတ် MRAṄ: SARUIK, *'myiŋθəyaï?* < (ယဲ) မင်သရိုတ် (YAI) MAṄSARUIT (*yoa*) *meang sarät* (*yòa mèaŋhərʊt*) haemorrhoids, piles. 18C.

သလိတ် SALIT, သလိပ် SALIP, သလိသ် SALIS θəlei?> <သလေဟ် SALEH, သ္လေဟ် SLEH *hleh* (*hleh*) phlegm. [Skt *śleshman*]. 15C.

2. *Clothes, woven material*

ကတ္တီပါ KATTĪPĀ, *gədiba* < ခထေပး: KHATEPAḤ *khatepah*, ဂထေပး GATEPAḤ *ketēpah* (*hŋtepah*) velvet. [Arabic *qaṭifa*]. 16C.

ဇကော်ဝ KÔJO, *kɔ̀zɔ* < ကောဇ် KOJAO *kaoćeo*, ခေါခဇ် KHOJAO *khaoćeo* (*khaocɜa*) carpet. [P. *kojava*]. 15C.

ခါသာ KHĀSĀ *khaθa* < ခါသာ KHĀSĀ *khāsā* (?) a kind of muslim. 15C.

ဇင် JAṄ, *ziŋ* > < ဇနေ် JEN *ćōn* (?) drill. [Eng. *jean*]. 19C.

ဇာ JĀ, *za* laces embroidery < ဇာ JĀ *ćē*, ဒဇာ DAJĀ, *tećē* (*cà*) netting, lattice, lace, embroidery. [P. *jāla* a net]. 16C.

ဒုကုဋ္ဌ DUKUṬ *dúgou?* < ဒကိုပ် DAKUIP *tekäp* (*həkʊp*) the outer garment of a monk. 17C.

ပိတ် PIT, *pei?* < ပိက် PIK *poik* (*poik*) cotton cloth. 16C.

ပုဝါ PUWĀ, ပဝါ PAWĀ *pəwa* < ပဝါ PAWĀ *pawā* (*pəwa*) a handkerchief, towel, shawl. [cf P. *pavara* a cloak]. 19C.

ပေါင်းပီ PON:PĪ, ဗောင်းဘီ BOṄBHĪ, ဘောင်း ဘီ BHOṄ:BHĪ *'bauŋbi* < ပံင်မီ PÅṄMĪ *pòngmei* (*pɔŋmɔe*) pantaloons, trousers. 18C.

သင်းပိုင် SAṄ:PUIṄ, *θiŋbaiŋ* < သပိုင် SAPUIṄ *sapäng* (*həpaŋ*) the nether garment of a monk. [O.M. *sirpuṅ*] 18C.

3. *Custom*

မဲ MAI, *mɛ* < မဲ MĀY *mai* (*mài*) anything used in casting lots, lottery. 19C.

လေလံ LELAṀ, လေလန် LELAN *lelaŋ*< လေလာန် LELĀN *lēlān* (*lelan*) an auction. [Portuguese *leilao*]. 18C.

4. Drinks

အရက် ARAK, *əyɛʔ* < အရက် ARAK *areak* (*ərèak*) spirits, alcohol: [Arabic *arak*; Malay *arak*]. 16C.
သေ SE, *θe* < သီ SĪ *sei* (*sɔeʔ*) distilled spirits. 13C.

5. Drugs

ဘင်း BHAṄ:, *bìŋ* < ဘင် BHAṄ *pheang* (*phèaŋ*) hemp, ganja. [Skt, P. *bhaṅga*]. 18C.
ဘိန်း BHIN:, *bèiŋ* < ဘိန် BHIN *phin* (*phin*) opium. 18C.
လျော်ဇာ LHÔJĀ, *hlɔza* < လက်ချာ LAKKHYĀ *leak ćhā* (*?*) a fermental preparation of rice. 18C.

6. Food

အမဲ AMAI, *ʾəme*, မဲ MAI *mɛ* < အမဲ AMĀY *amai* (*əmài*), မဲ MĀY *mai* (*mài*) viands. 16C.
ခဲလံ — ခဲတံ (ကျည်တောက်)KHAILAṀ-KHAITAṀ (KYAÑÑ TOK), *khɛ laŋ-khɛdaŋ* (*cidauʔ*) < ခလံ KHALĀṀ *khalām* (*həlam*) glutinous rice cooked in joints of bamboo. 19C.
ခေါပျဉ် KHOPYAÑ, *khɔpyiŋ* < ခပဉ် KHAPEÑ *khapeang* (*həpeaŋ*) a preparation made of glutinous rice and flavoured with sesamum. 19C.
စားနပ် CĀ:NAP, *sənaʔ* < စ် *ćina* (*kənaʔ*) food. 16C.
တင်လဲ TAṄLAI, *tiŋlɛ* < တင်လဲ TAṄLĀY *tanglai* (*tèŋlài*) molasses, treacle. [O.M. *taṅglāy*]. 15C.
ယို YUI, *yo* < ယိုဟ် YUIH *yüh* (*yɜ̀h*) fruits preserved in sugar, jam. 19C. ရက်တက် RAKTAK, *yɛʔtɛʔ* < ဍာ်တက် ḌĀKTAK *dait tak* (*daik tɛk*) buttermilk mixed with water. [P. *takka* buttermilk]. 15C.
သကာ SAKĀ, *ðəga* < သကဝ် SAKAW, သ္ဆဝ် SKAW *sakò* (*kɔ*) coarse sugar, jaggery. [M.M.*skaw*]. 16C.
သကြား SAKRĀ:, *ðəja* < သဂြာ SAGRĀ *sakrē* (*həkrèa*) sugar. [Malay *sakar*, Arab *sukkar*, Skt *śárkara*]. 18C.
သာဂူ SĀGŪ, *θagu* < သာဂူ SĀGŪ *sākū* (*sakù*) sago. [Malay *sagu*]. 19C.

7. Implements

ကညစ် KAÑÑAC, *kənyiʔ* < ကွေ့ဟ် KNEH *kaneh* (*neh*) a stylus. [M.M. *kneh*]. 16C.
ကတ်ကြေး KATḲRE :, *kaʔèi* < ကတ်ကြဲ KATKRĀY *kòtkrai*, ခတ်ကြေဝ် KHATḲREW *khotkrè* (*kɔtkrai*) scissors. 15C.
ကိုက် KUIK, ဂိုက် GUIK *gaiʔ* < ကိုက် KUIK *käk* (*kak*) a carpenter's shave, spoke, shave. 20C.

ကျင်တွေယ် KYAṄTWAY *ciŋtwɛ* < တင်တဲ TAṄTAI *tangtoa* (*tɛŋtoa*) a carpenter's square. 19C.
ချား KHYĀ:, *ècha* < ချာ KHYĀ *ćhā* (*cha*) swift of loom. 15C.
စုတ် CUT, *souʔ* < စုက် CUK *cauk* (*cɜk*) artist paintbrush, a sharp tattooing iron, brush. 16C.
တံဇည်း: TAṀCAÑÑ:, *dèzi* an adze < ဒဇဲ DAJAY *tećoa*, ဓဇဲ DHAJAY *thećoa* (*həcòa*) a carpenter. 15C.
ထယ် THAY *thɛ* <ထေဲ THOY *thoa*(*thoa*) plough. [cf. T ai *tháy*]. 19C.
ဓနက် DHANAK *dənɛʔ* <ဒနက် DANAK *teneak* (*hənèak*) a snare. 19C.
ဓမင်း: DHAMAṄ:, *dèmiŋ* < ဓမင် DHAMAṄ *themeang*, ခမင် KHAMAṄ *khameang* (*həmèaŋ*) a fishing-trap. 19C.
ပတ္တာ PATTĀ *paʔta* < ပါတ္တာ PĀTTĀ *pāttā* (*patta*) a hinge. 19C.
ပေါက်ဘူး: POKTŪ:, *pauʔtu* > < ဗံက်ဘူ ḄÀKTŪ *bàktū* (*bɔktao*) a mattock, hoe. [O.B. *poktū*]. 13C.
မောင်း:MOṄ:, *màuŋ* < မံင် MÀṄ *mòng* (*mòŋ*) a lever. 15C.
ယက်ကန်း: YAKKAN:, *yɛʔkaŋ* a loom < ယာတ်ကာန် YĀTKĀN *yātkān* (*yàtkan*) cloth, linen. 16C.
(လွန်)ပူ (LWAN)PŪ,(*luŋ*)*bu*<ခပူ KHAPŪ *khapu* (*həpao*) a gimlet, auger. 19C.

8. Medicine

ကုံကမံ KUṀKAMAṀ, kouŋkəmaŋ >< ကုံကမာမ် KUṀKAMAM *kumkamēn* (*kum kəmèm*) saffron [Skt, P. *kunkuma*]. 18C.
စိန် ĆIN, *seiŋ* < စိန် CIN *ćin* (*cin*) arsenic. 18C.
နှာ NHĀ, *hna* >< နုဟ် NUH *nuh* (*nùh*) drug snuff. 18C.
ပရုတ် PARUT. ပရုပ် PARUP *pəyouʔ* < ပရုတ် PARUT *paròt* (*pərɔt*) camphor. 18C.

9. Ornaments

ချု KHYŪ, *chu* <ခြယော် KHREY *khareo* (*hərea*) a jingle, small bell. 13C.
ပုလဲ PULAI, *pòlɛ* < ဗွဲ BLAI *ploa* (*plòa*) a pearl. [O. B. *pulay*; O.M. *bley*]. 13C.

10. Requisites

ကော် KÔ,*kɔ* < ကဝ် KAW *kò* (*kɔ*) glue, paste. 16C.
ကော်ပတ် KÔPAT, kɔbaʔ ကဝ်ဗာတ် *KAWBĀT kopat (kɔpat)* sand-paper. 18C.
ချိပ် KHYIP, *cheiʔ* < ကြကော် KREK *kròit* (*krɔik*) lac. 16C.
ဆပ်ပျာ CHAPPYĀ *shaʔpya* ဆာပ်ပျာ CHĀPPYĀ ćhāppyā (*chappya*) soap. 18C.
ဗန် (ချည်) BAN (KHYAÑÑ), *baŋ* (*ji*) < (ဇုက်) ပါန် (JUK) PĀN (*cauk*) *pān* (*cɜk pan*) jute (string). 19C.

မင် MAṄ, မှင် MHAṄ *hmiŋ* < (ဍာ်)မှင် (ḌAK) MHAṄ (*dait*) *hmang* (*hmɛŋ*) ink. 16C.
မဲ (နယ်) MAI (NAY), *mɛ̀(nɛ)* < မဲ MĀY *mai* (*mài*) indigo. 15C.
ဝဲ WAI, *wɛ* < ဝေါ် WĀY *wai* (*wài*) manure. 15C.

11. Transport

ကတ္ဆု KATTU, *kaʔtú*, ကတ္ဆူ KATTŪ *kaʔtu* < ကာတ်တူ KĀTTŪ *kāttū* (*kattao*) a junk. 16C.
ကမကော် KAMAKÔ, *kəməkɔ* name of a State boat < ကမင်ကရ် KAMAṄKAR *kamangkò* (?) a mythical fish, sea monster. [Mon *ka* Skt, P. *makara*]. 19C.
ကုံးပတ် KUṂ:PAT, ကုန်းပတ် KUN:PAT *kòuŋbaʔ* < ခုံမာတ် KHUṂMĀT *khummat* (?) the deck of a ship. 19C.
ကူရွပ် KŪRWAP, *kuyuʔ*, *kuruʔ* name of a State boat < ခရော် KHAROK *kharok* (*hərok*) a pitcher, cup, vessel. 18C.
ကူးတို KŪ:TUI. *gədó* < ဂဒိုအ် GADUI' *ketú*, ဂဒဲ GADO' *ketu'* (*hətɛ̀*?) a ferry. 15C.
စွတ် (ဖား) CWAT (PHĀ:), *suʔpha* < စောတ် COT *ćot* (*cot*) a sledge. 19C.
ဇလာကပင်း JALAKAPAṄ:, *zəlagàbiŋ*, စာလာကပင် CĀLĀKAPAṄ *salakəbiŋ*< ဇလာကွင် JALĀ KḄAṄ *ćelēkabang* (?) a dhoney or trough shaped canoe with an outrigger. 17C.
တုန်ကင်း TUNKAṄ:, *touŋkìŋ* < တုင်ကန် TUṄKEN *tungkēn* (*tɜŋken*) a cargo boat. [cf. Malay *torgkang*]. 19C.
ဖောင် PHOṄ, ဘောင် BHOṄ *phauŋ* < ဖိုင် PHĀṄ *phong* (*phɔŋ*) a raft. [M.M. *phàn*]. 16C.
လောင်း LOṄ:, *làuŋ* a race boat < ဂျင် GLUṄ *Klung* (*klɜ̀ŋ*) a boat. [O.M dluṅ]. 16C.
လော်ကား LHÔKĀ:, *hlɔ́ga* > < လှဂါ LHAOGĀ *hlāokē* (?) a State boat. [O.B. *lkawkā*]. 13C.
သမ္ပန် SAMBĀN, *θaŋbaŋ* < သံပါန် SĀṂPAN *sāmpan* (*sampan*) a flat–bottomed boat with projecting incurved timbers at stern, sampan. [Chinese *sambaan*]. 18C.

12. Utensils

အင် AṄ, *iŋ* > < အင် AṄ *ang* (*ɛŋ*) a bowl. 16.C
ကတော KATO., *gədɔ́* < ကဒအ် KADA' *kato'* (*hətò?*) a funnel. 16C.
ကတုတ် KATUT, ကဒုတ် KADUT *gədouʔ* < (လဲ) ဂဒုက် (LE') GADUK (*lì*) *ketouʔ* (?) a strickle. 20C.
ကပ် KAP, *kaʔ* < ကပ် KAP *kòp* (*kɔp*) a mat of woven split bamboo. 18C.
(ကျ) ကပိုင်(KYŪ) KAPUIṄ, (*cu*)*gəbaiŋ*> ခဖေဝ် KHAPHEW *khaphē* (?) a coarse mat made of reeds. 19C.

ကရား KARĀ:, *kháya* < ကာ KĀ *kā* (*ka*) any vessel with a spout. [O.B. *karā*]. 13C.
ကြုတ် KRUT, *couʔ* < ကြောတ် KROT *krot* (*krot*) any cylindrical box with a cover, casket. [O.B. *krwac*; M.M. *krot*]. 13C.
ခမောက် KHAMOK, *khəmauʔ* < ခမံက် KHAMĀK *khamok* (*həmok*) a native hat. 18C.
ခုံ KHUṂ, *khouŋ*> < ခုင် KHUṄ *khung* (*khɜŋ*) a stool, block bench. 16C.
(ပဓိုင်း) ချောင် (POṄ:) KHYOṄ, (*pàuŋ*) *jauŋ* < ခရူင် KHARUṄ, *kharung*, ဂရူင် GARUṄ *kerung* (*hərɜ̀ŋ*) a cooking-pot with cover and perforated bottom, steamer. 18C.
ချုံင် KHYUIṄ., *jaiŋ'* < ခြိုင် KHRUIṄ *khrang* (*khraŋ*) a cage. 16C.
ခွက် KHWAK *khwɛʔ* > < ခွက် KHWAK *khwak* (*khwɛk*) a cup. 13C.
စက္ကူ CAKKŪ, *sɛʔku* <စက္ခာ CÂKKHO *ćakkhao* (*cɛkkhao*) paper. 19C.
စည် CAÑÑ, *si* > < စဝေ် CEW *ći* (*ce*) a cask. 19C.
စရည်း CARAÑÑ:, *sáyi* < ဇရီ JARĪ *ćerī* (*hàri*) a large jar. 15C.
စလောင်း CALOṄ:, *sálauŋ* the cover of a cooking pot < စလံင် CALĀṄ *calòng* (?) a pinnacle. [O.B. *caloṅ*; O.M. *cloṅ*]. 13C.
ဇွန်း JWAN:, *zuŋ* < ဇန် JAN *ćòn* (*còn*) a spoon. 18C.
(ရဲ) တကောင်း (RE) TAKOṄ:, (*ye*) *dəgauŋ* < (ဍာ်) ထ္ဂံင် (ḌĀK) THGĀṄ (*dait*) *thakòng* (*daik həkòŋ*) water pot with long neck, carafe. 16C.
တလား TALĀ:, *təla* < ကလာ KALĀ *kalā* (*kəla*) a container with a lid, box, chest, tin, coffin. [O.B. *talā*]. 13C.
ပန်းကန် PAN:KAN, ပုကန် PUKAN *pəgaŋ* < ပဠါန် PAṄĀN *pangān* (*pəŋan*) a plate, bowl, cup, dish. [Malay pinggan]. 18C.
ပရပိုက် PARAPUIK, ပုရပိုက် PURAPUIK *pərəbaiʔ* < ဗပိုတ် BAPUIT *pepāt*, ခပိုတ် KHAPUIT *khapät*, ထပိုတ် THAPUIT *thapät* (*həppt*) a book consisting of a continuous folded sheet. 13C.
ပလင်း PALAṄ:, ပုလင်း PULAṄ: *pàliŋ* < ပလင် PALAṄ *palang* (*pəlɛŋ*) a bottle [M. M. *paraṅ*]. 19C.
ပုတ် PUT, *pouʔ* < ပုက် PUK *pauk* (*pak*) a square or telescope basket. 15C.
ပြောင်း PROṄ: *pyauŋ* < < ပျံင် PLĀṄ *plòng* (*plɔŋ*) a tube. 18C.
ဖုံ PHUṂ, *phouŋ* a cushion < ဖုန် PHUN *phun* (*phun*) a bed, mattress. 19C.
(အိုး) ဗုတ် (UI:) BUT, (ò) *bouʔ* < ဗောတ် BOT *pot* (*pòt*) a small pot. 18C.
ဘိနပ် BHINAP, *phənaʔ* < ခနပ် KHANAP *k̄hanop*, ဂနပ် GANAP *kenop*, ဒနပ် DANAP *tenop* (*hənòp*) sandal, shoe, boot. 18C.
ယောက် YOK, *yauʔ* < ယံက် YĀK *yòk* (*yòk*) a ladle, cooking spoon. 15C.
ရမထာ (ကိုမြ) RAMATHĀ (KRIM) *yəmətha* (*ceiŋ*) < (ဓဝ်) ရမတာ ḄAW RAMMATĀ (bò) rommatā (bɔ...) a large species of rattan cane. 19C.
ရဟတ် RAHAT, *yəhaʔ* < ဟတ် HAT *hòt* (*hɔt*) spinning wheel, cotton gin, windlass of well. 15C.

(ရေ) သနပ် (RE) SANUP, (*ye*) *θənou?* < သ္နပ် (ဍာ်) SNUK (ḌAK) *sanauk* (*dait*) (*hnɜk daik*) a bathing garment. 16C.
သပေါ့ (ဖျာ) SABO. (PHYĀ) *ðəbɔ́* (*phya*) < (ဒကဝ်) သ္ဒအ် (DAKAW) SḂA' (*tekɔ̀*) *SAḂO'* (*həbɔ?*) a mat made of rushes sewn together. 16C.
သော့ SO. *θɔ́*> < သအ် SA! *so'* (*sɔ?*) a lock, key. [Chinese *suo* lock]. 18C.

13. Weapons and armour

အမြောက် AMROK, *əmyau?* < အမ့်က် AMLȦK *amlòk* (*pəlòk*) a cannon, big gun. 16C.
(သံ) ချပ် (SAṀ) KHYAP, (*θaŋ*) *ja?* >< ခြပ် KHRAP *khrop* (?) mail armour, coat of mail. 15C.
မြတပူအမခြောက်သေနတ် MRATAPŪ AMROK SENAT, *myádəbu əmyau? θəna?* < မြတ့ဗူ အမ့်က်သေနာတ် MRATḂŪ AMLȦK SENĀT *mretabū...* (*?*) artillery. [See အမြောက် above and သေနတ် below]. 18C.

မှိန်း MHIN:, *ȟmeiŋ* < မိင် MIṄ *moin* (*moiŋ*) a harpoon. 18C.
သေနတ် SENAT, *θəna?* < သေဏာတ် SEṆĀT, သေနာတ် SENĀT *sēnāt* (*sənat*) a gun, musket. 18C.

VII Culture

1. Architectural terms

အင်္ဂတေ AṄGATE, အင်္ကတေ AṄKATE, အင်းကတေ AṄ :KATE *ìŋgəde* plaster, mortar, stucco < အင်ဂဒို AṄGADUIW *angketü* (*ɛŋ hətɜ*) a coating of plaster over bricks. [O. B. *aṁkatiy*; O.M. *aṁgadiw*, M.M. *aṁkade*]. 12C.
ကန္နား KANNĀ :, *kànə* < ကဏာ KAṆĀ, ကွာ KNĀ *kanā* (*kənə*) a shed, pavillion. [O.B. *kanā*; M.M. *kanā*]. 13C.
ကပရှ် KAPRAṄ, *gəbyiŋ* < ကမ့ငေ် KAMHEṄ *kameang* (*kəmeaŋ*) an open space or platform in front of house. 19C.
(အုတ်) ကြပ် (UT) KRWAP, (*ou?*) *cu?*< ကြဘေပ် (တိ) KROP (TI) *krop* (*tei*) (*krop tɔe?*) a tile. 18C.
ခါးပန်း KHĀ: PAN: *khəəaŋ* > < ခဗာန် KHABĀN *khapān* (*həpàn*) a board band round the house level with the floor. 18C.
စမုတ် CAMUT, *səmou?* <စမုက် CAMUK *ćimauk* (*?*) hall of audience. 18C.
စရပ် CARAP, ဇရပ် JARAP *zəya?* < ဇြပ် JRAP *sòp* (*sòp*) a rest house (often used for religious purposes). [O.B. *carap*; O.M. *jrap*]. 13C.
တင်းကုပ် TAṄ:KUP, *tìngou?* > < တင်ဂုက် TAṄGȕK *tangkauk* (*?*) a shed, shelter for cattle. 16C.

တန်ဆောင်း TANCHOṄ:, *dəəauŋ* a four-cornered edifice with a graduated roof<ထဝန်ဆောင် THĀNCHOṄ *thanćhòng* (*?*) apartments in the palace. [O.B. *tanchoṅ*]. 13C.
(ရဓ) တံလျောက် (RE) TAṀLYOK, (ye) *dəyau?* > < (ဍာက်) တရုံက် (ḌĀK) TARȦK (*dait*) *taròk* (*kərɔk*) a trough placed under the eaves of a roof. 19C.
တဲ TAI, *tɛ* > < တာ် TĀY *tai* (*tai*) a temporary abode, tent, booth, hut. 15C.
တိုက် TUIK, *tai?* < တိုက် TUIK *täk* (*tak*) a brick or stone building. 13C.
ထောင် THOṄ, *thauŋ* < ထံင် THȦṄ *thong* (*thɔŋ*) a jail, prison. 18C.
နန်း NAN:, *ȵaŋ* < နန် NAN *non* (*nòn*) a royal palace. [O.B. *nan*]. 14C.
ပနက် PANAK, *pənɛ?* < က္နက် KNAK *knak* (*nɛk*) a short stake driven into the ground as tent–pin or to mark the site of a building. [O.M. *tnak*]. 18C.
ပေါင်း POṄ:, *pàuŋ* an arched roof over a boat, carriage or palanquin<ပံင် PȦṄ *pòng* (*pɔŋ*) an arch. [M.M. *pȧṅ*]. 15C.
ပြ PRA, *pyá* a tower on a city wall< ပြ PRA *pra* (*pra?*) a tower. 15C.
ပြတင်း PRATAṄ:, ပြုတင်း PRŪTAṄ: *bədiŋ* < ဗတင် BATAṄ *petang*, ခတင် KHATAṄ *khatang* (*hətɛŋ*) a window. 18C.
ဖို PHUI, *pho* < ဖ PHAO *phao* (*phao*) a fire-place, kiln. [O.B. *phuiw*.] 13C.
ဗြိတိုက် BRAITUIK, *byɛdai?* one of the administrative buildings attached to the palace < တိုက်ပျဲ TUIK BLĀY *täk plai* (*tak plài*) bachelors chamber. 17C.
မုက် MUK, မုတ် MUT *mou?* an arched passage into a pagoda > < မုက် MUK *mauk* (*mɜ̀k*) the face, the front, the mouth, face, entrance. [O.M. *muk* porch; *cf.* P. *mukha*]. 15C.
ရုံ RUṀ, *youŋ* >< ရုံ RUṄ *rung*, (*rɜŋ*) a shed, booth. 19C.
ရုံး RUṀ:, *ỳouŋ* >< ရုင် RUṄ *rung*, ရိုင် RUIṄ *räng* (*rɜ̀ŋ*) a court–house. 18C.
ဝင်း WAṄ:, *wiŋ* < ဝင် WAṄ *weang* (*wɛaŋ*) an enclosure, compound, fence. 18C.
သရုတ် SARWAT, *θəyu?* < ဩတော် SROT *sot* (*sot*) mortar. 13C.

2. Festivities

ပွဲ PWAI, *ỳwɛ*< ပေါ် POY *poa* (*poa*) a feast, festival, public entertainment. 15C.
လက်ပန်း LAKPAN:, *lɛ?ỳaŋ* >< လက်ဗန် LAKBAN *leak pòn* (*lèak pòn*) wrestling. 15C.
လက်ဖွဲ့ LAKWHE., *lɛ?phwé* >< လက်ပွဲ *leak plaui* (*lèak plɔe*) boxing, fighting with fists. 16C.
သဘင် SABHAṄ, *θəbiŋ*<သဘင် SABHAṄ *sapheang* (*kəphèaŋ*) a feast, festival. [O.M. *sabhaṅ*; *cf.* Skt *sabhā* an assembly, congregation]. 12C.

3. Musical instruments

ခရာ KHARĀ, *khəya* < ခရာ KHARĀ, ခြာ KHRĀ *kharā* (*həra*) a trumpet, bugle. [M.M. *karhā*]. 13C.

စောင်း CON:, *sàuŋ* < စိုင် CÀṄ *còng* (*cɔŋ*) a harp. [Persian *cang*]. 16C.

တယော TAYO, *tàyɔ* <ခြွဲ DRAW *krò* (*krò*) a violin. 18C.

ထပိုး THAPUI:, တံပိုး TAṀPUI : *tàbo, dàbo* < ဒပို့ DAPUIW *tepä*, ခပို့ KHAPUIW *khapä* (*həpò*) a trumpet, animal horn fitted with reed and sounding note of fixed pitch. [O.B. *tapuiw*; O.M. *tapiw*]. 12C.

နှဲ NHAI, *ɦnɛ* < သဏ္ဍော SAṆOY *sanoa* (*hənoa*) an oboe. [Skt *sāneyī*, Persian *surnāya*]. 15C.

ပတ် PAT, *paʔ* a drum < ဗာတ် BĀT *pāt* (*pāt*) melodic percussion instrument. [Skt *vādya* musical instrument]. 12C.

ပတ္တလား PATTALĀ:, *paʔtàla* < ဗတ်လတာ BĀT TALĀ *pāt talā* (*pàt kəla*) a xylophone. 18C.

ပတ်ဝိုင်း PAT WUIṄ: *paʔwaiŋ* >< ပတ်ဝိုင်း BĀT WUIṄ *pat wäing* (*pàt wàŋ*) the drum-circle. 19C.

ဗာဂျာ BĀGYĀ, *baja* > < ဗာဂျာ BĀGYĀ *pācā* (*pàcà*) a mouth organ. 20C.

ဗုံ BUṀ, ပုံ PUṀ *bouŋ* < ဖမ် PHAṀ, ဖံ PHAṀ *phom* (*phɔm*) a drum. [O.M. *phaṁ*]. 15C.

(မိ) ကျောင်း (MI)KYOṄ:, (*mí*)*jauŋ* < ကျံ့ KYĀṀ *kyām* (*cam*) type of stickzither or vina in form of crocodile. 16C.

မောင်း MOṄ:, *màuŋ* < မံင် MÀṄ *màng* (*màŋ*) a gong. 15C.

4. Professions, vocations

ကုဟာ KUHĀ, *kúha*, ကူဟာ KŪHĀ *kuha*, ကဝါ KAWĀ *kəwa*, ခဝါ KHAWĀ *khəwa* < ဂဟာ GAHĀ *kehā*, ခဝါ KHAWĀ *khawā* (*həwa*) a washer-man. 13C.

ဆတ္တာ (သည်) CHATTĀ (SAÑÑ), *shaʔ ta* (ðɛ) >< ဆတ္တာ CHATTĀ *ćhòttā* (*?*) a barber. 16C.

တံငါ TAṀNGĀ, *təŋa* <တမ္ငာ TAMNGĀ *tamngā* (*təŋa*) a fisherman. 15C.

ပန်းချီ PAN:KYĪ, *bəjì* > < ပါန်ခီ PĀNKHĪ *pankhī* (*pankhi*) a painter of pictures, an artist. [O.B. *pankhī*]. 13C.

ပန်းရန် PAN:RAN, *pəyaŋ* < (အစာ) ပရန် (ACĀ) PARAN(*aća*) *paràm* (*əca pərɔn*) a mason. [O.B. *pu-pūran*]. 13C.

သမား SAMĀ:, *θə̀ma,ðə̀ma*<သမာ SAMĀ *samā* (*həma*) a skilled person, craftsman. 13C.

5. Time, measurements and number

အဝက် AWAK, əwɛʔ>< အဝဲက် AWOK *awòk* (*?*) 1/8 of a viss. 18C.

ကိန်း KIN:, *kèiŋ* < ကိုန် KUIN *kän* (*kɐn*) a number, in arithmetic or numerological index.] Shan *kiṅ* an arithmetical number used in astrological calculation]. 15C.

ဂရီ. GARUI., *gəyó*< ဂရီအ် GARUI' *keru*' (*hərɛ̀*?) tally-stick. 18C.

နာရီ NĀRĪ *nayì*>< နာဦ် *nadī*(*nədi*)hour, clock, watch. [Skt *nādi* period of twenty–four minutes; O.M. *nādī*]. 13C.

ပေ PE, *pe* > < ပေ PE *pe* (*pe*) a foot, footrule. [Portuguese *pé*]. 19C.

မိုက် MUIK, *maiʔ* > < မိဟ် MIH *mih*(*mih*) a third of a cubit, about 6½ inches. [*cf.* Skt *mushti*, P. *muṭṭhi* the fist, a particular kind of measurement]. 13C.

သံတောင် SAṀTOṄ *θaŋdauŋ* > < (ဟတ်) သာံဒံင် (HAT) SĀṀ DÀṄ (*hòt*) *samtong* (*hɜtʔ*) a standard cubit=19½ inches, as opposed to normal cubit = 18 inches. [P. *hatta*]. 15C.

VIII Faith

1. Buddhism

ကထိန် KATHIN, *kətheiŋ* < ကထိုန် KATHUIN *kathän*, ဂထိုန် GATHUIN *kethän* (*kəthon*) the eight of the lunar months, a robe, a robe made in a single day [P. *kathina* the cotton cloth annually supplied by the laity to the *bhikkhu* for the purpose of making robes]. 16C.

ကျက်သရေ KYAKSARE, *cɛ²θəye* <ကျာ်ခြီ KYĀKSRĪ, ကျာ်သီ KYĀKSĪ *kyait seī* (*caik sɔe*) honour, glory, good name. [Skt *śrī*, P. *sī*; O.M. *kyāk śrī*]. 13C.

ကျိုက် KYUIK, *cai²*, ကျောက် KYOK *cau²* (in names of pagodas) < ကျာ် KYĀK *kyait* (*caik*) any object of worship, a pagoda. [O.M. *kyāk, kyek*]. 16C.

2. Non-Buddhism

အင်း: AṄ:, *ìŋ* < အင် AṄ *ang* (ɛŋ) table, tabulation, magic square. [*Cf.* Shan *aṅ*, P. *anka*]. 15C.

အပ်ငံး APAṄ:, *əpiŋ* > < အပင် APAṄ *apang* (*əpɛŋ*) a foreign substance inserted into body by magical means. 18C.

ခေါ KHO, *khɔ* <ခဝ် KHAW *khō* (*khɔ*) a small cup in which offerings to the spirits are placed. [O. M. *khal* bowl]. 19C.

နက်သန် NAKSAN, *nɛ²* θaŋ < လက်သန် LAṆKSAN *leaksòn* (*lèaksɔn*) symptom, sign, characteristic, a lucky mark, favourable sign. [Skt *lakshaṇa*; O.M. *lakṣan*]. 15C.

ဗလီ (နတ်စာကျေး) BALI (NATCĀKYWE:), *bəlí* (*naʔsaćwe*) < ဗလီ BALI *peli* (*həliʔ*) to make offerings to the *deva*. [Skt, P. bali]. 15C.

ဗိန္ဓေ (ဆရာ) BINDHO (CHARĀ), *bèiŋdɔ̀* (*shəya*) >< ဗိန္ဒော BINDO *pintū* (*pìintɜ*) a magician, astrologer. [*cf.* Skt *vaidya* skilled in the art of healing, a physician]. 16C.

ဘုတ် BHUT, *phou²*>< ဘုတ် BHUT *phut* (*phùt*) malevolent spirit of dead person. [Skt, P. *bhūta*]. 15C.

မှော် MHÔ, *hmɔ* a certain magical influence, black magic, a conjurer or black magic practitioner < မှဝ် MHAW *mhò* (*hmɔ*) a conjurer.

ဟူးရား HŪ:RĀ:,*hùyà* >< ဟူရာ HŪRĀ *hurā* (*hura*) an astrologer. [Skt *horā* horoscope, astrology; O. M. *hurā*].? 14C.

IX Animals

1. Air

ကြိုးကြာ KRUI: KRĀ, *joja* <ကြေ KREY *kreo* (krea) sarus crane. 13C.

ငန်း ṄAN:, *ŋàŋ* < အဟာန် AHĀN *ahān* (*əhan*) a goose. 19C.

သိမ်း SIM:, ‘*θeiŋ* < အသီ ASIM *asèm* (*əsɛm*) a kind of hawk, falcon. 15C.

2. Land

ကတိုး: KATUI:, *kədò* < ဂဒှီ GADUIW *ketū* (*hətɜ̀*) musk, civet. 16C.

(ကုလား) အုတ် (KULĀ:) UT (*kələ*) *ou²* > < အုတ် UT *ut* (*ut*) a camel. [Skt *ushṭra*, P. *oṭṭha*; O.M. *ot*]. 18C.

ကျား: KYĀ:, *cə*>< က KLA *kla* (*kla*?) a tiger. [O.M. *kla, klaˀ*]. 15C.

ကျိုင်း: KYUIṄ: *cəiŋ* < အခြင် AGRAṄ *akrean* (*əkrèaŋ*) locust. 19C.

ခါချဉ် KHĀKHYAÑ, *khajiŋ* < အချဲ AKHYAO *achao* (*achao, khəchio*) a species of red ants. 19C.

ဆင် CHAṄ, *shiŋ* ><စိုင် CIṄ *ćoin* (*coiŋ*) an elephant. [O.M. *ciṅ, cīṅ*]. 12C.

တယ်လူး TAYLŪ:, *tɛ'lu* < အလု ALU, *alu* (*əlū?*), လု LU *lu* (*lù?*) a buffalo, having one horn bent down. 19C.

ဒရယ် DARAY, *dəyɛ, dərɛ* <ဒြဲ DRAY, ဂြဲ GRĀY *krai* (*kràì*) the hog deer, axis porcinus. [O.M. *drāy*]. 15C.

ပုတတ် PUTAT, *pəda?* < ခတတ် KHATAT *khatòt* (*hətɔt*) the sand lizard. 16C.

ပြောင် PROṄ, *pyauŋ* < ပြင် PRAṄ *prang* (*prɛŋ*) the wild ox, bison. 16C.

ဖွတ် PHWAT, *phu?* < ဖကောတ် PHAKOT *phakot* (*həkot*) the varan, monitor lizard. 16C.

ဗျိ BUI. *bó* >< ဗအ် BA' *po*', လဗအ် LABA' *lepo*' (*pò?*) the hump of a bull. 19C.

မြည်း MRAÑÑ:, *mɜ̀yi, mɜ̀yɛ* > < မဲ MAY *mai* (?) an ass. 13C.

လား LA :, *là* >< လှာ LHĀ *lā* (*la*) a mule, donkey. 19C.

သမင် SAMAṄ, *θəmiŋ* < မင် MAṄ *meang* (*mèaŋ*) the brow-antlered deer, *Rucervus*. [O.M. *ramaṅ*]. 15C.

သိုး SUI:, `*θo* >< သိုဝ် SUIW *sä* (*sɐ*) a sheep. 16C.

3. Water

အကြေး AKRE :, *əcè, əcì* >< ခစေဟ် KHACEH *khaćeh* (*həceh*) the scales of a fish. 19C.

ကကတစ် KAKATAC, *kágədi?* < ကခတေတ် KA KHATET *ka khatēt* (*ka? hətet*) the large perch. 19C.

ကကလောင် KAKALOṄ, *kákəlauŋ* < ကက KA KLAO *ka klao* (*ka?klao*) the pointed tailed goby. 19C.

ကခူရန် KAKHŪRAN, *kákhuyaŋ* < ကခူရင် KA KHŪRAṄ *ka khūrang* (*?*) the king fish. 19C.

ကဏုကမာ KAṄUKAMĀ *kənúkəma* < ကဏုကမာ KAṄU KAMA *kanu kamā* (*kənao? kəma*) an oyster. [O.M. *KINLO' KBAL* mother-of-pearl]. 18C.

ကနကုတ် KANAKUT, *kənəgou?* < ခကုတ် KHAKUK *the kauk* (*həkāk*) a kind of water serpent. 19C.

ကဘီလူး KA BHĪ LŪ:, *ká bàlu*< ကဖလုဟ် KA PHALUH *ka phaluh* (*ka?*) the large mullet. 19C.

ကသပေါင်း KASAPOṄ:, *ká ðəbauŋ* < ကခဗံင် KA KHABÀṄ *ka hapòng* (*ka? həpòŋ*) the cock-up. 19C.

ကသဘိုး CASABHUI:, *ká θəbo*<ကဣဗို KA IBIUM ka *ipēm* (*ka?i?pɜ̀m*) the goby. 19.C

ခရူ KHARU, *khəyú* < ကဏု KAṆU *kanu* (*kənao*?) a shell, mollusk. 16C.

ခရူကမာ KHARU KAMĀ, *khəyu kəma* [see under ကဏုကမာ KAṆU KAMA above].

ခရူသင်းKHARUSAṄ:, *khəyu ðiŋ* < ကဏုသင် KAṆU SAṄ *kanu sang* (*kənao? sɛŋ*) a conch shell. [cf. *SAN*, P. *saṅkha* a conch].16C.

ဂဏန်း GAṆAN:, *gəǹaŋ* < ခတာံ KHATĀṀ *khatām*, ဂတာံ GATĀṀ *ketām* (*hətam*) a crab. 19C.

ငါးကြင်း NGA:KRAṄ: *nə jiŋ* < ကကြင် KA KRAṄ *ka krang* (*ka? krɛŋ*) the morton barbel. 16C.

ငါးကြင်းစောက် NGĀ: KRAṄ: COK, *nəjiŋzau?* < ကကြင်ခဂါ KA KRAṄKHO *ka khrangkhao* (*ka?krɛŋkhao*) the black-banded systomus. 19C.

ငါးခူ NGĀ:KHŪ, *nəkhu* < ကဟကအ် KA HAKA' *ka hakó* (*kaʔhəkɔʔ*) the torpedo 18C.

ငါးပနော် NGĀ:PANÔ, *nəpənɔ*< ကပဏ္ဍKA PAṆAḤ ka *panòh* (*kaʔpənɔh*) the small snake-head.19C.

ငါးပုဏ္ဏားNGĀ:PUṆṆĀ:,*nəpouŋ̀na*<ကပန်း KA PANAḤ *ka panah* (?) the mango fish. 19C.

ငါးလင်ပန်း NGĀ: LAṄPAN:, *ŋəliŋ̀baŋ*< ကပန် KA PAN *ka-pòn* (*kəpɔn*) an eel. 19C.

ငါးသလောက် NGĀ SALOK, *ŋəθəlauʔ* <က သလံက် KA SALÅK *ka salòk* (*kaʔ səlak*) the Rangoon shad, the hilsa. 19C.

(မိ) ကျောင်း (MI) KYOṄ: (*miʔ*)*jauŋ* <ကျံ KYĀṀ *kyām* (*cam*) a crocodile, alligator. 16C.

X Miscellaneous

အနံ ANAṀ, *ənaŋ*>< အနာံ ANĀṀ *anēm* (*ənèm*) breadth. 13C.

ဥဒဟို (ရ်) UDAHUI (R) *údəho* < ဥဒါဟိုရ် UDĀHUIR *utāhä* (?) an example, instance. [P. *udāharaṇa*]. 15C.

ဥဿုံ USSUṀ, အုပ်စုံ UPCUṀ *ouˀ souŋ* < အိုဘ်သိုံ UIT SUIM *ät säm* (*ʊt sʊm*) all together. [cf. P. *ussana*]. 15C.

စာရင်း CĀRAṄ:, *sàyiŋ*>< စရင် CARAṄ *ćarang* (*kərɛŋ*) account, tabulation, list. 15C.

စရိတ် CARIT, *zəyeiˀ* < သရ်တ် SARET *saret* (*hərɛt*) expense, expenditure. 18C.

ညည်း ÑÑAÑÑ:,*ɲ̀yi*, ညဲ ÑÑAI *ɲ̀nyɛ* a term of address by a woman to another woman 'you' < ညး ÑÑAḤ *nyeh* (*ɲɛh*) people, they, others; he, she, they. 15C.

ထက်ဝယ် THAKWAY, *thɛˀwɛ*<ထဝါ THAWĀY *thawai* (*həwai*) the lap, cross-legged posture. [O.B. *thawāy*; O.M. *thawāy*]. 13C.

ဘယ် BHAY, ပယ် PAY *bɛ* >< ပါ PĀY *pai* (*pai*) left (side). 15C.

လက်ထက် LAKTHAK, *lɛˀthɛˀ* < အထက် ATHAK *athak* (*əthɛk*), လက်ထက် LAK THAK *leak theak* (*lɛk thɛk*) life time. [M.M. *lak thak*]. 13C.

XI Verbs

ဦး Ū:, *ù* <ဥ Ū *ū* (*u*) to polish, burnish gold. 15C.

ကတော့ KATO., *gədɔ́*<ကလံ KALA' *kalo*' (*kəlɔʔ*) to pay one's respect. [O.M. *kindo', kinḍo*']. 15C.

ကြုံး KRUṀ:*ɔ̀ouŋ* <ကြိုံ KRUM *krăm* (*krʊm*) to shout, roar, boast. 15C.

(ဆေး) ကြော (CHE:) KRO, (*ɕhe*) *ɔ̀ɔ* <ကြာ KRAO *krāo* (*krao*) to rinse, wash, wash oneself. [O.M. *krow*]. 16C.

ဆော် CHÔ, *ɕhɔ* > < ချ KHYAO *chao* (*chao*) to solder. 16C.

တန် TAN, *taŋ* to be unworthy, worthless >< တန် TAN *tòn* (*ton*) to be cheap. 15C.

တော့ TO., *tɔ́* to toss<တေအ် TE' *tè*'(*teh*) to kick, as a cane ball. 19C.

ထွေ THWE, *thwe*< ထေဝ် THWE *the* (*the*) to throw, pitch. 19C

ပုန် (ကန်) PUN (KAN) *pouŋ* (*kaŋ*) > ပုန် PUN *paun* (*pɔn*) to rebel. 13C.

ပူဇော် PŪJÔ, *puzɔ* < ပူဇ PŪJAO *pāūceo* (*paoc̀ea*) to make ceremonial offering to monks. [Skt, P. *pūjā*; O.B. *pūcao*, *pūjao*]. 12C.

မန်း MAN:,*m̀aŋ* >< မန် *mon* (*mòn*) to infuse healing virtues. into (water, medicine) by the recitation of mantras. [Skt *mantra*]. 15C.

လောင်း LOṄ:,*l̀auŋ*>< လံင် LÅṄ *lòng*(*lòŋ*) to stake, wager. 15C.

7. Some linguistic features of the loans

The loan words in the list are of two forms: literal and adapted.

1. The literal form is adopted by transliterating the word from the written language – Burmese ဒိ < Mon ဓ, Burmese ဝဲ < Mon ဝ॥
2. The adopted form is acquired (a) (comparatively rarely) by transcribing the sound of spoken Mon e.g. (ငါး) ခူ < (က) ဟကအ်၊ ငန်း < အဟာန်; and (b) by transcribing the Mon reading pronunciation to suit the Burmese phonetic sound classes and phonological patterns–ဒေါဗညား < ဒဗညာ၊ အနန်း < အနာင်၊ အင်း < အင်॥

7. 1. The literal form

There is hardly any comment to make on this form. Burmese has few problems in transliterating the Mon word since, as has already been stated, it has borrowed the Mon script.

7. 2. The adapted form

The adapted form however presents many problems, which concern certain changes – consonantal, vocalic and tonal – in the loan word. The salient features of these changes, drawn from a comparison of some 200 examples from the list, are set out below.

7. 2. 1. Consonantal changes

7. 2. 1.1. INITIAL CONSONANT

Burmese Consonant	Mon: Monosyllabic word	Mon: Polysyllabic word — initial	Mon: Polysyllabic word — final
ka	ga	kha, ga, da	ga, ṅa
kya		ta	
kra			ca, ra
kha	ka		
ṅa	ha		ga
ca	ja	ja, sa	kha, ja, ya
cha	ca		
ñña			na, ya
ṇa			ta
ta		ka, tha, a	da, la
tha	da	da	
dha		ka, da, na	
na		la	ṇa
nha	saṇa		
pa	ba, ḅa	kha, ba, ḅa	pha, ba, ḅa
ba	pa, pha	kha	ma
bha	pa, ba, ḅa	kha, pa	ma
ya		la	
ra		la, ḍa	ḍa
la		ka	ra
lya			na, ra
sa		ka, ma, ga, a	

7. 2. 1. 2. BURMESE MEDIAL CONSONANT

Burmese subscript ◌ျ Mon subscript ◌ြ or ◌ျ
Burmese subscript ◌ြ Mon subscript ◌ျ

7. 2. 2. Vocalic and tonal changes

The patterns of these changes–some regular and others seemingly irregular-arl given in series below.

The arrangement of the vowels in each series is in alphabetical order. Each entry starts with the loan syllable, followed by the conventional sign < and finally by its corresponding Mon syllable or syllables. The numeral in brackets indicates the number of words occurring in this type of syllable. No numeral is given where there is only a single occurrence.

		Series
I.	a	
1.	a	< uk
2.	ak (2)	āt, ok
3.	ac (4)	at, ek, et, eh
4.	aṅ (15)	aṅ (9), eṅ (3), ān, iṅ, en
5.	aṅ: (19)	aṅ (12), eṅ (4), āṅ, an, e'
6.	añ	ao
7.	añ̃	ew
8.	añ̃: (6)	an (2), ay, aḥ, āy, ē
9.	at (6)	āt (5), at
10.	an (2)	aṅ, āṅ
11.	an: (5)	āṅ (2), aṁ, ān, āṁ
12.	ap	a
13.	ay (6)	āy (3), ay (2), oy (See also 'ai')
14.	aṁ (9)	ām (3), ān (3), aṁ, in, cuṁ
15.	ā (3)	aw, ah, uh
16.	ā: (3)	aḥ (2), a
II.	*i*	
1.	it (3)	< ik, is, et
2.	in	uin
3.	in: (2)	in, uin
4.	ip	ek
5.	im:	iṁ
6.	î	ew
III.	*u*	
1.	uṭ	< uip
2.	ut (9)	uk (6), ek, ot., wat
3.	up (2)	uk (2)
4.	uṁ (8)	uim (3), uṅ (3), aṁ, uṅ or uiṅ
5.	uṁ: (2)	uiṁ, uṅ or uiṅ
6.	ū (4)	uh, a', eh, o
7.	ū:	uh
IV.	*e*	
1.	e (3)	< ī, ew, uw
2.	e: (3)	ay, āy or ew, eh
V.	*ai*	
	ai (10)	< ā'y (5), oy (3), ay, aḥ
VI.	*o*	
1.	o (8)	< aǫ (4), aw (3), o (See also 'ô' below)
2.	ok (7)	ok (6), āk
3.	oṅ (7)	oṅ (4), uṅ, eṅ, ao
4.	oṅ: (17)	oṅ (15), āṁ, uṅ
5.	o (5)	o (4), e
6.	ô (12)	aw (5), ao (4), o (2), ah. (See also 'o' above)
VII.	*ui*	
1.	ui (3)	<uiw (2), ao. (See also 'ui:' below)

2.	uik (4)	uit (2), āk, ih
3.	uiṅ	ew
4.	uiṅ	aṅ
5.	ui. (3) ui', uih, a'.	
6.	ui:	(5) uiw (3), u, uim (See also 'ui' above)
VIII.	*w*	
1.	wat (8)	< ot (7), ut
2.	wan (2)	uiṅ, uin
3.	wan: (2)	an, ew
4.	we (2)	ew
5.	we.	uy
6.	we: (3)	uy (2), ai

Some of the changes attributable to linguistic causes require further study before an explanation can be given. However, certain reasons may be suggested for other changes. These are mainly orthographic and partly alphabetic.

1. Alphabetic
Mon has two more letters of the alphabet – ၜ and ၝ [14]

2. Orthographic
Burmese has discarded many traits of its old orthography which is much closer to the Mon, while Mon still retains most of its orthographic features. The chief differences are the following.

(a) Finals
Burmese set of finals: က၊ င၊ စ၊ ဉ ၊ ည၊ တ၊ န၊ ပ၊ မ၊ ယ။
Mon set of finals: က၊ င၊ —၊ —၊ —၊ တ၊ န၊ ပ၊ မ၊ ယ၊ လ၊ ဝ၊ဟ၊ အ။

(b) Combinations
The possible combinations of these finals (i) with initial consonants (single, double or treble) and (ii) with initial consonant + vowel symbol or symbols. (See J. A. Stewart's *Manual of Colloquial Burmese*, 1955, 7–8 and R. Halliday's *Mon – English Dictionary*, X – XI).

(c) Vowel signs
Two vowel symbols are represented differently
Burmese ေ — ာ်= Mon ဴ
Burmese — ား = Mon –:

(d) Subscript
Besides subscript *y* (–ျ) and *r* (ြ–), which also occur in Burmese, Mon retains subscript *l* (–္လ) which has been written as *y* or *r* in Burmese since the 14th century.[15]

Notes

1. Journal of the Burma Research Society (hereafter abbreviated to *JBRS*), Fiftieth Anniversary Publications, No. 1, 1960, 71–99.
2. *La tradition et le devéloppement économique dans l'Asie du Sud–Est*, Bruxell es 1962, 191–200.
3. See G.H. Luce's 'Economic Life of the Early Burman', *JBRS*, XXX, 1, 285.
4. *Ibid*, Note 21, 305.
5. G.H. Luce's 'The Career of Htilaing Min (Kyanzittha)', *Journal of the Royal Asiatic Society*, 1 & 2, 1960, 58.
6. G.E. Harvey : *History of Burma*, 1925, 234.
7. G.H. Luce : *JBRS*, XXX, 1, 305.
8. See Halliday's *Mon–English Dictionary* under these words as well as e.g. ဂွ၊ ငွေတ်၊ စ၊ ဇိင်၊ ဒက်၊ ဒုင်၊ ဒး၊ ဖျေဟ် and လး။
9. See under 'Identification of loan words' *JBRS*, 1960, 96–97.
10. G.H. Luce: *JBRS*, XXX, 1, 304.
11. The transliteration follows the system devised by C. O. Blagden and Chas. Duroiselle, see *Epigraphia Birmanica*, 1, i, 6–12.
12. The reading pronunciations are from Halliday's *Mon–English Dictionary*.
13. Most of the renderings in phonetic script are from H.L. Shorto's *A Dictionary of Modern Spoken Mon*, and the rest were supplied by Mr. Shorto himself.
14. The letter ၝ does not occur in the list of loan words.
15. As a rule, the subscript l in combination with the initial consonants *k, kh* has become *y*, and with *p, ph, m* has become *r*.

29

PHONOLOGICAL CONVERGENCE BETWEEN LANGUAGES IN CONTACT

Mon-Khmer structural borrowing in Burmese

David Bradley

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This paper enumerates and discusses a number of historical changes in the phonology of Burmese, a Tibeto-Burman (TB) language, which have resulted in convergence towards genetically unrelated Mon, a Mon-Khmer (MK) language.

Areal linguistics as exemplified in the work of Emeneau on South Asia and Henderson on Southeast Asia has shown that adjacent languages tend to have similar characteristics. It is also possible to observe such similarities between two specific languages, as Gumperz and Weinreich have done. What I shall attempt is to trace the development of such similarities, in a case where both written records and previous historical linguistic work permit.

History

Burmese is now the TB language with by far the largest number of speakers, perhaps twenty million. Most other TB languages are spoken by groups with anything from a few hundred to a couple of million members; of these, only Tibetan, Newari, Manipuri, and Tripuri have been used as the language of a large traditional state. Thus, Burmese has been the most successful TB language in 'acquiring' speakers.

The phonological history of the Lolo-Burmese subgroup of Proto-TB, which includes Burmese, has been clarified in excellent comparative linguistic work, by Benedict and Shafer at Berkeley in the late 1930's and later; and more recently by Burling, Matisoff, and his students. Burmese itself is extensively attested since 1112 AD in inscriptions.

The history of the people who spoke Proto-Burmese is less clear. It seems they became the politically dominant group in Upper Burma, near Mandalay, about the

tenth century AD. For many centuries after that they were in conflict with a series of Mon kingdoms in Lower Burma, which were eventually conquered. What is eminently clear is that Lower Burma, where the capital Rangoon is located, was mainly populated by speakers of Mon only a few centuries ago.

There is a continuing process of 'Burmanization' of the Mons in Burma, which has been going on for nearly a millenium, and is still continuing. At present in the Mon State around Moulmein in southeastern Burma most Mons are bilingual in Burmese and Mon, and many people who speak only Burmese are aware of their Mon genetic background. For example, my esteemed Burmese teacher Hla Pe, professor of Burmese at the University of London, is an ethnic Mon but does not speak Mon.

Well-known historically-documented borrowings from Mon include the Burmese orthography; Burmese was probably first written by Mon monks, who also brought their Theravada variety of Buddhism. Much of the vocabulary of Buddhism was borrowed from Pali via Mon into Burmese. Other Mon lexical material has also been identified in Burmese - see Hla Pe 1967.

Since so many speakers of Burmese have a Mon background (including large numbers who now have no awareness of it) it is hardly suprising that the structure of Burmese phonology has also been affected. I will give a number of examples in which it appears that Burmese has diverged from closely-related Lolo-Burmese languages in the direction of unrelated Mon.

Suprasegmentals

Prosodies or suprasegmentals are often labelled as 'tone' or 'register' or 'stress' or 'length' when the parameters involved in the opposition include realizations associated with all of these: fundamental frequency (pitch), phonation (voice quality), intensity (loudness), and duration. Burmese has usually been described as a tone language, as have most other TB languages, but in fact if a case must be made for one contrastive parameter, a better case can be made for register in Burmese. In this respect it has become more like Mon, which like most MK languages uses a register contrast. Conversely, languages such as Lahu and Lisu, closely related to Burmese, have proliferated pitch/contour tone contrasts (Bradley 1977), and most TB languages are tonal. The following chart shows the realizations of the 'tones' of Burmese; the first column gives the traditional Burmese term for each category.[2]

	phonation	*pitch*	*contour*	*duration*	*intensity*
'creaky'	tight or creaky	fairly high	slight fall	shorter	fairly high
'even'	normal	fairly low	level or slight fall	longer	low
'heavy'	slack or breathy	inter-mediate	sharp fall	longest	very high
(with different vowel nucleus possibilities, and a final stop)					
'killed'	normal or tight	very high	slight fall	very short	high

Fundamental frequency is not a reliable cue to the 'tones' of Burmese; speakers vary between higher and lower pitched 'creaky' in certain environments. Also, the 'heavy', which is usually described as 'high falling tone', is often lower than the 'even' which is often called the 'low tone'. Worse, most 'tones' in fact have similar contours.

Maran has proposed an analysis which attributes the prosodic opposition to abstract final segments which themselves have no realization, but which condition the various differences noted above. This analysis has little diachronic and no synchronic support.

The analysis which seems to correspond to native intuitions as reflected in the traditional names, and which is consistently reflected in the realization, is the register analysis: a three-way opposition of creaky, normal, and breathy voice quality.[3] In most MK languages, there is a two-way register opposition, as in Mon; thus both Mon and Burmese use register contrastively.[4]

In the Arakanese dialect of Burmese there are secondary vowel developments which are typical of a register language, but not of a tonal one; these further arguments for the register analysis are presented below.

Vowel-system convergence

There are three main ways in which Burmese vowels have changed from the typical TB pattern in the direction of a more MK-like one. The overall result is a larger inventory of monophthongs; several diphthongs which are frequently found in MK languages but rarely in TB languages; and a Burmese vowel nucleus borrowed from Mon, never regularly found in the Proto-TB component of the Burmese lexicon.

The typical TB vowel inventory includes five monophthongs, viz. /i e a o u/; Burmese has monophthongized two further Proto-TB diphthongs, *ay and *aw, to produce a seven vowel system with /ɛ / and /ɔ / in oral nonstopped syllables with the register opposition, and has further developed a /ə / in pretonic syllables as described below in the section on word structure. Thus the Burmese inventory approaches the typical MK symmetrical nine-vowel system, lacking only an /ɨ/.

Several nasal and stop-final nuclei represented in the Burmese orthography by monophthongs and final consonants have become diphthongs in most dialects of Burmese (though the details of which combinations result in which diphthong differ from dialect to dialect; see Bradley 1979c). Though these final consonant oppositions are now completely neutralized, some features are reflected in the resulting diphthong. Specifically, in most dialects,

*im/in/ip/it	/ei/	with nasalization or final stop
*um/un/up/ut	/ou/	with nasalization or final stop
*oŋ/ok	/au/	with nasalization or final stop

Further, combinations reconstructed and written with a medial w have in several cases monophthongized to increase the inventory of nasal and stop-final vowel

nuclei; the result is seven nasalized vowel nuclei, and eight stop-final vowel nuclei; again, a more MK-like system.

One of these nuclei is /ai/, nasalized or stop-final. Words with this nucleus never have regularly-corresponding cognates outside Burmish, the subgroup of Lolo-Burmese closest to Burmese. Most lexical items with this nucleus are Mon or other loanwords: some usually attributed to Shan/Thai, others to Pali, and a few unclear. There are a couple of Proto-TB etyma which have shifted into this category, rather than the regular /au/, from *u:ŋ or *u:k.

Interaction of vowels and suprasegmentals

MK languages - and register languages generally (Gregerson 1976) - show vowel height differences which relate to the register system. As noted above, so does at least one dialect of Burmese: Arakanese.

In Arakanese all vowels have higher allophones when in a breathy ('heavy tone') syllable. Moreover, what is /e/ in Burmese has split in Arakanese between /i/ mainly in breathy syllables and /ę/, which corresponds also to Burmese /ɛ/, in other syllable types. Burmese contact with Arakanese as the 'standard' language has complicated this picture, and there is considerable stylistic variation in Arakanese.

Nevertheless, here is another strong argument for the register analysis. In tone languages (with a few exceptions) there is little correlation between tongue height and pitch height[5] but more frequently correlations instead between features of adjacent consonants and pitch height/contour. But Gregerson, Glover, and others have demonstrated a regular relationship, based on tongue root position, in register languages in all areas of the world.

Consonants

Again, Burmese has undergone a number of developments in its inventory of consonants which result in a more MK-like system.

Most TB languages, including most other Lolo-Burmese languages,[6] have an opposition between alveolar fricatives and affricates, e.g. /s/ and /ts/, versus palatal or alveopalatal fricatives and affricates, e.g. /š/ and /tš/. Burmese has collapsed *s and *š to |s|, now pronounced /θ/; and has collapsed *ts and *tš to |c|, now pronounced /s/. Apart from a few northern MK languages, it is typical of MK not to contrast alveolar as opposed to alveopalatal fricatives or affricates; thus again Burmese has become more Mon-like.

One typologically unusual property of MK languages, including Mon, is that they may have palatal stop or nasal in syllable-final position. This is not usual in TB languages, but in the Burmese orthography, final palatal stop and nasal are written. Whether they had the value of final palatals when the orthography was devised is unclear; on the whole they developed from *i with a *velar or less frequently *alveolar final, so it seems phonetically reasonable that they may have.

Now, however, like other *finals, the position contrast has been neutralized and is reflected only in vowel nucleus differences.

Word structure

Henderson 1951 points out the essentially similar word structure, (C^{s})C(C)V(C)^{s}, of various unrelated Southeast Asian languages: Thai, Khmer, and so on. That is, words may have a first 'minor syllable' or 'pretonic syllable' with schwa vowel and no suprasegmental opposition (tone, register, or otherwise). The consonant and cluster possibilities are often limited in the 'minor syllable', and of course there is no vowel opposition.

Mon, like nearly all MK languages, has this word structure. For Proto-TB, Wolfenden and others have reconstructed morphological prefixes, but most of these prefixes seem to have been fused into the initial consonants by the Proto-Lolo-Burmese stage (Bradley 1979b). Only a few such as the *ʔ^{ə} - kinship term prefix have survived; but in most Lolo-Burmese languages they have become full syllables with a tone. So Lolo-Burmese languages other than Burmese have mainly one-syllable monomorphemic words.

Burmese has instead reduced a large number of full syllables to 'minor syllables', resulting in another parallelism with MK, in the basic word structure.

The most frequent minor-syllable words in Burmese contain a grammatical functor which has a full-syllable cognate elsewhere in TB. Examples include:

m^{ə} –	'negative' (preceding verbs)
ʔ^{ə} –	'adverbializer/nominalizer (preceding verbs)
t^{ə} –	'one' (preceding numeral classifiers)
n̥^{ə} –	'two' (preceding numeral classifiers)
khun̥^{ə} –	'seven' (preceding numeral classifiers; derived from 'two')

as well as the kinship term prefix ʔə-, which occurs mainly with terms for relatives of the same or a younger generation. Thus the very frequent classifier phrase (numeral plus classifier), a part of the noun phrase, will most frequently show this MK-like word structure; as will all negated or derived forms of verbs.

There are also very many Burmese nouns which have had their first syllables reduced. In most cases the original, unreduced first syllable is recoverable from external or internal evidence. In some cases, etymology provides evidence for the full form; in a few cases, inscriptions provide earlier forms that are now spelled with the reduced form. In numerous instances, dialect and standard forms differ: either the dialect reflects the full first syllable and the standard reduces it, or vice versa. There are also examples in which the modern spelling still reflects the former full syllable, but pronunciation always has the reduced form. Many examples show a synchronically transparent or even productive process of reduction. Of course, there are also cases of loanwords, from languages that also have 'minor syllable' forms or to reflect borrowed short vowels. Finally, there is a small residue of unexplained cases, which may either be loans, or may have unclear etymologies.

It is not always clear what the conditioning factor is in the reduction of some two-syllable nouns and the non-reduction of others; perhaps the more closely-bound, unanalyzable noun compounds are more likely to undergo reduction. There are semantic factors involved, for example the frequent reduction of certain body part words (1ɛʔ 'arm/hand', chi 'foot/leg', nà 'ear', and so on) which categorize major regions of the body - these also happen to occur frequently in two-syllable compounds, so both semantic and morphophonemic processes may be involved.

Less frequently, as in the case of the kinship term prefix, the 'minor syllable' has a very good etymology. For example, 'ant' is reconstructed as Proto-Lolo-Burmese *p-rwak; the prefix occurs in the Burmese form p^{ə} rwEʔ Similarly 'flute' can be reconstructed as *p-lwe^{1} (the superscript numeral is a reconstructed tone category); the Burmese cognate is p^{ə} lwe. Examples of this type are very few.

Even rarer are examples of verbs which have a 'minor syllable' g^{ə}zà 'to play' is one of the few; in this case the first syllable has probably been reduced from the full verb ká 'to dance', so etymology provides evidence as to the full form.

The following noun examples show the various types of reduced first-syllable possibilities enumerated above. They are far from exhaustively listed; these two-syllable nouns are a very frequent phenomenon in the Burmese lexicon. Many other instances of each type could be given.

1. etymology supports full first syllable
   θ^{ə} mɛʔ 'son-in-law' from *ya^{2} 'son/child' plus *C-mak 'son-in-law'
   s^{ə} bà 'paddy' from *ca^{1} 'food' plus MK root for 'rice'[7]
2. inscriptions support full first syllable (as well as etymology)
   ʔ^{ə}ko 'elder brother' inscriptional form |ac kuiw|, from *wik ko^{1}
   n̥^{ə}má 'younger sister' inscriptional form |nham ma|, from *s-nam^{1}
3. dialect and standard forms disagree (in these cases, spelling also usually gives the full form)
   sh^{ə}bĩ 'head hair', Arakanese shɛbã, spelling |cham paŋ'| (the dialect supports the spelling and reconstruction *cam^{1})
   lei? pya 'butterfly', Arakanese l^{ə} pra
   (standard, spelling, and etymology *lip all support the full form)
4. spelling retains the etymologically-expected unreduced form
   n^{ə}lõũ 'heart'; etymon for 'heart' is *s-nik; spelled |nhac| ph^{ə} na? 'sandals'; spelling |phi nap| not supported by etymology
5. semiproductive or productive examples
   cà 'tiger'; c^{ə} θ i? 'leopard'
   (also various other animal names: 'fish', 'cow', and so on)
   nà 'ear'; n^{ə} kwĩ 'earring'
   (also various other body parts: 'arm/hand', 'foot/leg', etc.)
   dà 'knife'; d^{ə}ʔù 'knife tip'

A number of other examples of this type occur, such as parts plants with θ^{ə} – from θ i? 'tree', free form θ i? pĩ. In such case the spelling also reflects the unreduced form.

6. loanwords
   pᵊlãu 'Palaung' (name of a MK group in Upper Burma)
   kᵊ là 'Indian'
   (this word can be recursively reduced, as in kᵊ lᵊ thãi 'chair' the Indian sitting device, containing the verb thãi 'sit')
7. unanalyzable (etymology unavailable or unclear)

bᵊzei	'axe'	spelled	pu	chin
dᵊye	'antelope'	spelled	da	ray

There are also a number of words for tools, parts of a boat, and so on which contain the 'minor syllable' tə– or də–, written as if pronounced ta, spelled tam.

In addition to the analyzable adverbs with the prefix ʔə–, there are a number of adverbs with the numeral 'one' tə–, usually in a reduplicated four-syllable word. Moreover, there are several other less easily derivable adverbs, such as the following:

gᵊné 'today' - the second syllable is 'day'
gᵊyú 'carefully'

One possible source for these two is a reduced form of the topic particle ká, which may have become word-initial when the demonstrative ʔɛ́ was lost, reducing these two words to the more frequent two-syllable type.

It should not be claimed that all instances can be explained in terms of reduction, as noted above; but on the whole, it seems that Burmese has rearranged its word structure, a relatively basic part of the phonology, from one-syllable towards the Mon (and MK) 'minor syllable' plus main syllable pattern; and that the main mechanism of this restructuring has been reduction of first syllables, including some morphological functors, in two-syllable bimorphemic compounds.

Conclusion

I have tried to show several areas of Burmese phonology which have changed during the recent history of Burmese in the direction of Mon, at a time when Burmese was in contact with Mon. Specifically, it seems that many speakers of Mon were 'becoming' speakers of Burmese.

The most basic area of change seems to be the reanalysis of the main suprasegmental contrast as register rather than tone in Burmese.

Vowel and consonant systems have also become more similar to a Mon-like structure.

The basic pattern of 'minor syllable' plus full syllable has become established in Burmese, though various evidence shows that this has been a recent, gradual, and partially nonsystematic process. Basically, some closely-bound two-syllable noun compounds have had their first syllable reduced.

Finally, it should be noted that the convergence I have documented has not been to an identical phonological system with Mon, but rather to a typologically more MK-like pattern for Burmese.

Notes

1. I am glad to acknowledge comments by Matisoff, Diffloth, Haas and Thurgood at the meeting; and also by Benedict and Gregerson. This is not to blame them for any remaining inadequacies, which are of course my responsibility. I use * before reconstructed forms, and vertical lines to enclose transliterated Burmese.
2. These observations are derived from instrumental work with two speakers from Mandalay, one male and one female. I used F-J fundamental frequency meter, electroglottograph, and intensity meter, recording the results on a mingograf; also narrow-band spectrograms from a Voiceprint sound spectrograph.
3. Mary Haas pointed out that duration is similarly consistent and could also be considered to be the contrastive suprasegmental; intensity similarly differentiates; but three-way stress or length distinctions are rare.
4. Most MK languages, as Gerard Diffloth pointed out, are thought to have developed register from *voiceless versus *voiced initial consonant features preserved in voice quality, but lost in the initial segments. By the time Mon and Burmese came into contact, it seems reasonable that Mon had already developed the voice quality feature, though of course the orthography represents it in the initials.
5. W. S-Y Wang has given some Chinese dialect examples; there is also an example in Lahu, where *uk has /o/ as its reflex in the low stopped tone, but /u/ with high rising tone.
6. Lahu is an exception, but the merger in Lahu, like its nine vowel system, may perhaps be an instance of convergence between Lahu and Shan, which also lacks this contrast, and has a nine vowel system.
7. This MK etymology was provided by Diffloth.

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NISSAYA BURMESE

A case of systematic adaptation to a foreign grammar and syntax

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It is recorded in the Burmese chronicles that king Anorahta 'placed the thirty sets of the Piṭaka' – the Theravada Buddhist scriptures which he had brought into his kingdom – 'in a shrine studded all over with precious stones, and had the noble Order of monks give instruction in them.' This event is said to have taken place in the second half of the eleventh century A.D. Instruction in the Piṭaka and in Pali, the language in which they are written, is still given today and has had profound effects on the language and literature of the Burmese. The purpose of this paper is to draw attention to one of these effects in the field of language, namely '*nissaya* Burmese'. Besides being a linguistic curiosity in itself, nissaya Burmese, it is suggested, may well have an importance for the analysis of Burmese grammar that has not been properly seen in perspective. Early Western grammars (e.g. Judson[1]) and Lonsdale[2])) were dominated by nissaya-influenced Burmese and accepted most of it without question, while recent studies (e.g. Stewart,[3]) Cornyn,[4]) Minn Latt[5])) have perhaps tended to underrate it.

Nissaya are works in which each word or phrase of a Pali text is followed immediately by its Burmese translation[6]) (example in Appendix 1). They have been known in Burma since at least the mid-15th century,[7]) i.e. a little before the bulk of non-inscriptional Burmese literature begins. Since then nissaya have been composed in considerable numbers and are still written today. In addition to whole works written in this way, there are many short passages of nissaya in both classical and modern texts.

From the grammatical point of view, the interest of nissaya is in the fact that they were intended not only to give the reader the meaning of the Pali text but also to enable him to construe its grammar. For the student, nissaya 'could be a kind of grammar or manual as well as a dictionary. He can grasp syntactical construction of the language as he scans the lines and learns the meaning of a Pali word or phrase'.[8]) Clearly, the word-by-word arrangement alone imposes a close structural correspondence with Pali; but, more than this, a system was established whereby

certain particles – and in Burmese it is the suffixed particles that bear the main burden of grammatical and syntactic relations – were conventionally employed to represent such features as number, case, tense and mood (illustrated in Appendix 1). Their position at the end of the word makes them curiously parallel to tense- and case-endings. As a result, the nissaya writers were able to represent, with remarkable accuracy, the inflections and syntax of Pali, an Indo-European language, in unrelated Burmese, which belongs to the Sino-Tibetan family and is largely monosyllabic.[9]) The strength and widespread acceptance of the system can be gauged from the fact that the same grammatical conventions have been preserved unchanged for more than four centuries: there is nothing to distinguish a nissaya rendering of 1491 from one of 1910 (examples in Appendices 2 and 3).

The major part of this paper consists of an analysis of these conventions. Cornyn once suggested,[10]) as one of the possibilities of an investigation of the Burmese Jātaka Commentaries, 'the information to be gained from the attempt to reflect Pali syntactic features in a language of different structure.' He did himself point out some of these features in passing, and the attempt is made here to take up his suggestion and carry the analysis further.

It is hoped that the analysis may (1) hold some interest of its own as an example of a language of one type deliberately and systematically adapted to the structure and syntax of another. It should also be possible (2) to use it for comparison when examining other Burmese prose styles and phraseology. (3) The implications of nissaya Burmese for grammatical study become apparent when one considers particle usages and sentence structures, evidently generated within nissaya, which have as it were escaped into other kinds of Burmese. Pali, as the language of the Piṭaka, has always been held in such esteem that escapes were easily made. While nissaya Burmese can be analysed entirely, and most satisfactorily, in terms of Pali grammar, it will readily be appreciated that other kinds of Burmese, which are not completely in the nissaya style but have drawn on its conventions to some extent, will require, at the worst, two separate grammars: one for the Pali and one for the Burmese; and both may be in operation within the same sentence. This 'split personality' of Burmese grammar and syntax may well underlie much of the elusiveness of its analysis, particularly at a time when grammarians are making efforts to avoid 'translational' pitfalls. It was in fact the tiresome persistence with which such suspect features resisted various analytical approaches that prompted the observations made in this paper.

The extent to which nissaya usages have permeated non-nissaya Burmese is not easily delimited. Much of Burmese prose written before the 20th century consists of translations, adaptations and compilations from Pali texts. Some of these works, as one would expect, are very close to nissaya – notably the five-volume translation of the 550 Jātaka by the Nyaunggan Sayadaw (c. 1800),[11]) which – with the exception of only one or two particles throughout – reads exactly like a nissaya with the Pali text omitted (example in Appendix 4). Others, such as the well-known translation of eight of the ten Jātaka of the Mahā Nipāta by U Obhāsa (1782–1787)[12]) adhere less closely to the original Pali, but their grammar, apart from the omission of certain particles, is still readily analysable in Pali terms (example in Appendix 5).

Original Burmese prose, not based on Pali texts, differs from nissaya Burmese to a greater or lesser extent according to the author and his subject. Up to about the 20th century the pressure on writers to model their prose on Pali was strong: stylistic traditions had been established since the beginning by translated works, and students were expected to reproduce exactly what they had been taught. Pali was regarded as the model of correctness in language, so that the closer to Pali one's Burmese was the purer it seemed to be. Burmese grammars were based on nissaya Burmese, and ordinary speech was disregarded by scholars. Nissaya 'framed the style of the Burmese language. The Burmese sentence thus becomes exactly like the Pali sentence'.[13]) The conventions of nissaya, however, did not overrule Burmese idiom completely, and in the course of time what were presumably changes in the spoken language affected the use of particles in the written prose. It is interesting to see, for example, how U Kala,[14]) writing between 1714 and 1733, writes in a style much closer to nissaya in the early parts of his chronicle when his source materials may have been in a similar style if not actually in Pali, than in the later parts which are probably more original. However, much of the apparent difference arises from the fairly regular replacement of particles by others of similar function or from their omission (examples in Appendix 6). It is a simple matter in most of his sentences to reproduce nissaya Burmese merely by the substitution or the insertion of particles: thus the structure of the sentence is still largely modelled on Pali, and his use of particles, both the old ones that persisted and the new ones that were introduced, still reflects nissaya usage. The same characteristics are to be seen in much other written Burmese prose, including books, magazines and newspapers of the present day.

For some purposes it is convenient to draw a line dividing particles and usages appropriate to 'written Burmese' from those of 'spoken Burmese', and it is tempting to think that the influence of Pali grammar stops on the written side of the line, where stylistic traditions maintain nissaya-like features, while the natural spoken language has developed independently without being subjected to these alien pressures. However, the dividing line is not always very clear. Stewart[15]) expressed his belief that the difference between the two forms of Burmese is 'usually exaggerated'. Cornyn[16]) found it 'necessary to make a sharp and arbitrary distinction between his [informant's] colloquial speech and his knowledge of the literary language'; and Minn Latt[17]) while wishing to concentrate on 'Modern Burmese' and to 'exclude, as strictly as possible, Classical Burmese' – which he regards as 'a language no longer spoken, or at least highly removed from the language of modern times' – nevertheless admits that 'the high style [of Modern Burmese]... merges sometimes with Classical Burmese,' and that at the present stage of development 'users of the language are apt to mix even the comparatively distinct forms of Modern and Classical Burmese in their less natural moments'.

The fact is, of course, that although one wants to avoid teaching students to talk in unnaturally bookish terms or to use archaisms that still find a place in written prose, it is impossible to put all usages neatly on one side or the other of

a dividing line: rather, there is a broad band of overlap, so that one finds almost a gradual shading off from the extreme nissaya style down to highly colloquial forms of speech and slang. Styles often thought of as 'written Burmese' may be heard spoken in formal contexts such as speeches and lectures, and news broadcasts are delivered in a style closer to the nissaya end of the scale than much written material never intended to be read aloud. There is in fact a widespread feeling among Burmese speakers that styles associated with the written language are 'correct', and that the further one moves towards the colloquial styles the more debased and slangy one's language becomes. Consequently, on formal occasions, and also when speakers are asked about their language, when they are speaking into a microphone or know they are talking to a linguist – i.e. 'in their less natural moments' – they may often make use of more bookish forms then usual.

It is possible, then, that just as some of the features of Pali grammar, carefully reproduced in nissaya Burmese, are to be found in non-nissaya texts, both translated and original, so they may have trickled here and there even into everyday spoken Burmese – the way for this being made easier by the high prestige of Pali and the belief in the correctness of written usage, both extended over a long period of Burmese history. An assessment of the extent to which this development may have taken place is not attempted here: that would require not only an analysis of nissaya Burmese such as is given here in outline, but also, for comparison, an analysis of the grammar of a Burmese that had definitely never been exposed, directly or indirectly, to Pali influence; and no such Burmese exists. Looking for an out-of-the-way dialect is unlikely to help since nearly every village has its monastery with a collection of Pali texts; and going back in history is also ruled out as no Burmese is recorded from the time before Anorahta brought back the Pitaka to Pagan.

Two points that can be made, however, are: first, that in analysing the grammar even of spoken Burmese it may prove both desirable and defensible sometimes to admit certain categories – e.g. subject, object, accusative, locative, future, causative – and at other times to deny them. They may be logically quite permissible as the reproduction in speech, unconsciously or otherwise, of Pali patterns long established in styles at the written end of the scale, but may well have no place in patterns deriving from pre-Pali Burmese. It is interesting to note too, that when the Pali categories are similar to English ones, 'translational' grammar would be more appropriate than an exotic analysis. Secondly, the existence of nissaya Burmese and the likelihood that some of its features have penetrated fairly deep into the language, underlines the importance of grammatical study of languages closely related to Burmese, such as Kachin. If, as one hopes, they have not been subject to such powerful external pressure, many features in their grammars should match those of Burmese, and thus highlight the structure of the pre-Pali language. On a graph with these languages as one axis and nissaya as the other, we may look forward to plotting with greater precision the elusive figures of Burmese grammar.

Background

In order to appreciate how some features of nissaya Burmese may have found their way into spoken Burmese it is perhaps worth recalling, first, something of the prestige of Pali among the Burmese, and secondly some of the ways in which the ordinary Burman can come into contact with Pali-influenced Burmese.

Pali studies are not just a single thread running through the history of Burmese language and literature: on the contrary, they colour the whole fabric. Burmese was first written at the beginning of the 12th century, and from then until the middle of the 15th it was written only in the restricted form of inscriptions on stone recording the dedication of property to the religion. No major work in Burmese dating from before 1455 is extant today, and none is certainly known to have been committed to writing before that date. During these three and a half centuries, however, the study of Pali texts was flourishing.[18]) Numbers of commentaries in Pali on matters in the Piṭaka and allied subjects were written, of which many were grammars.[19]) One of these was the *Saddanīti*, dated 1154, which was examined at the time by those from the island of Ceylon (Sīhala) 'who knew grammar well', who said to themselves '"in the subject of grammar there is no book like this in the island of Sīhala, even the detailed analysis as contained in this book we did not know", they spoke highly in various ways'.[20]) In the same source[21]) are stories illustrating the great interest in and knowledge of Pali grammar displayed by the inhabitants of the then capital of Burma – including even 'the wretched young woman who guards the fields and goods'.

Pali was thus the language of books and learning for a long time while Burmese was apparently written only for records of religious deeds. Although, in the language of these early inscriptions, the use of particles does not seem (on the basis of a cursory examination) to have been closely adapted to Pali patterns, the influence of Pali is discernible not surprisingly – in various phrases and expressions. When Burmese came to be used alone on palm-leaf it was mainly for verse where grammatical patterns are frequently modified to suit the verse-form. It is worth noting in passing that much of this verse was written on themes from Pali works, sometimes with parts of the Pali text quoted at the head of each section, and in some cases this was given a nissaya translation.[22]) Among such prose works as there were, translations and adaptations from Pali had an important place – e.g., in the early period, *Pārāyana Vatthu* (1511), those parts of the *Yazawin-gyaw* (1520) which are not in nissaya, *Maṇikuṇḍala Vatthu* (1629), and *Dhammapada Vatthu* (1680). Before any known Burmese work was composed, however, there were nissaya: nineteen are included in a list of books dedicated to a monastery in 1442.[23]) There is also a nineteenth century record of nissaya composed still earlier, in about 1300.[24]) There can be no certainty that there were not earlier works in Burmese alone, but as it stands the scant evidence would suggest that, apart from inscriptions, Burmese prose was actually first written in nissaya form.

In addition to the influential position of Pali and Pali writings in Burmese literature, there were suggestions of a continuous line of descent from classical times:

'After the 334, 569 kings from Mahāsammata at the beginning of the world up to Siddhattha Kummāra who became Buddha, there arose in our country of Burma the great states of Tagaung, Thindwè, Thayekhittaya, Pagan, Myinzaing, Pinya, Ava and Konbaung'.[25]) The Burmese kings were believed to 'have their origin in the Sun dynasty of the Sakiyan line';[26]) more recently, 'adding the continuous line of kings, from the Buddha-to-be Siddhattha Kummāra up to King Thibaw (second to enjoy the palace in the royal city of Ratanapuṁ [i.e. Mandalay: he reigned 1878–1885]), brings the number to 335, 876 – a dynasty of Sakiyan kings descended from the Solar race, an unbroken succession of umbrella-bearing sovereigns'.[27])

There have been many Pali loan-words in Burmese since the time of the earliest records, and it was inevitable, against this background, that when, in the 18th century, Burmese and its literature came to be considered subjects fit for scholars, it should have been treated as an extension of Pali studies. It has even been argued[28]) that Burmese is related to Pali. Earlier scholars did not go quite so far,[29]) but they derived large numbers of Burmese words from Pali without hesitation: for example

> *tui'* [sign of nominal plural in nissaya Burmese] is a corruption of *bahu* [Pali = 'many']: delete *ba*; at *hu* make *u* into *ui'*; make *h* into *t* or *dh* and join it to *ui'*. The result is *tui'* or *dhui'*.
> *ṃha* [sign of ablative case in nissaya Burmese] is a corruption of *smā* [one of the Pali ablative inflections]: make *smā* into *mha*. The result is *mha*.[30])

These are only two examples from what must be several hundred such derivations in the same work. Many others are offered by Mahā Zeyyathinkhaya and Kyaw Aung San Hta Sayadaw II. The tradition has still not died out and is not confined to scholars.

From the grammatical aspect too, Burmese was naturally not expected to differ from Pali. By the 18th century, when grammars with Burmese examples were first written, the language had had three centuries to shape itself in the Pali mould. Two early native grammars give their examples in nissaya, there being no difficulty in illustrating all their points in both Pali and Burmese.[31]) These may well have been what Lonsdale meant when he complained[32]) that native grammarians 'not content with merely borrowing the grammatical nomenclature of the Páli language, also attempted to assimilate the grammatical principles of uninflected Burmese to those of inflected Páli, so that they produced, not Burmese grammars, but modified Páli grammars in Burmese dress'. He found their attempts 'futile' and blamed 'the servile veneration in which they held the Páli language'. Needless to say, the existence of these grammars and of Pali-influenced Burmese made it much easier for the early Western grammarians, including Lonsdale himself, to treat Burmese grammar on traditional classical lines. On the other hand, later studies,[33]) in their deliberate concentration on 'colloquial' Burmese, have perhaps been too shy of admitting categories that often bear a suspicious resemblance to English ones.

Perhaps the above few instances will serve as a reminder of what it means to say that Pali is a prestige language among the Burmese, and how it has affected their thinking about language. In this atmosphere it was not difficult for the usage of Burmese to be influenced by the grammar of Pali, assisted by numerous nissaya with their conventional renderings preserved unchanged for so long.

Even so, it may be felt, it is a long way from the artificial linguistic conventions of monkish scholars to the everyday speech of the layman. In fact, nissaya Burmese is not the exclusive preserve of the learned. We may discount the stories of the popularity of Pali grammar at Pagan. There is the cumulative effect of centuries of traditional monastery education[34]) through which nearly all male Burmans were directly exposed to nissaya for at least a few years in their lives. Here the children were first taught the alphabet and then made to repeat aloud nissaya texts of religious works and learn them by heart.[35]) If nissaya Burmese were thus held up as the best Burmese in the schools for many generations, this alone might have been enough to establish some new speech habits; but Pali-influenced Burmese continued to be disseminated in the secular schools which were founded in the time of the British government in the 19th century. This was not through nissaya but through readers[36]) mainly written in a style closely resembling that of U Obhāasa's Jātaka translation.[37]) Some of the pieces are actually Jātaka retold. After leaving school, the Burman today keeps in touch with a language descended from nissaya-influenced Burmese through broadcast news, newspapers, journals and books – 'the classical texts that are one's daily reading matter';[38]) through parts of the popular dramatic shows, and through the enthusiastically attended sermons delivered by monks well trained in Pali.

So through reading, schooling, entertainment and preaching, the Burman has for several centuries been encouraged to regard as correct the Pali grammar of nissaya Burmese and similar styles. It would hardly be surprising if he sometimes echoed it in his speech, above all when he is consciously on his best linguistic behaviour.

Analysis

Text and scope

The analysis which follows is based on the first volume of a nissaya, made in the second half of the 18th century by Shin Guṇalaṅkāra, of the Mahā-ummagga Jātaka (No. 546).[39]) A Jātaka provides a wider range of grammatical and syntactic features, and is simpler to follow, than some of the more famous nissaya which consist of disquisitions and commentary rather than narrative and dialogue. This particular Jātaka has further the advantage that two passages from it are included in Andersen's *Pāli Reader*[40]) which has been of the greatest help – where his text is the same as Shin Guṇalaṅkāra's – in parsing the Pali. The outlines of the analysis were in fact based on the material in these two passages before the rest of the text was examined for modifications and features not found in those few pages.

The first aim of the analysis is to demonstrate the way in which Burmese was adapted to represent the grammar and syntax of Pali. The coverage is therefore not exhaustive. Features in the Pali which appeared to have regular and consistent renderings in Burmese are listed with their Burmese equivalents and exemplified. Locutions that occur infrequently are omitted, and certain items (e.g. Pali Perfect and Conditional tenses) were not found in the text at all. These, however, on account of their rarity, are less likely to have acquired regular conventional equivalents in Burmese and they are consequently of little importance for the present purpose. Even among constantly recurring features, variations in the Burmese renderings are found. These are also recorded here and though no frequency count was made there is usually not much difficulty in deciding which Burmese form is the regular equivalent of the Pali. It may be taken therefore that renderings listed as 'variant' or 'occasional' are in the minority. There are also occasions when, for one reason or another, the regular or simple rendering of the Pali is not employed: the purpose of the nissaya being to help the reader understand the Pali text, it is inevitable that sometimes a strictly literal translation or the mechanical reproduction of the Pali grammar and syntax would not further this purpose. A number of these 'irregularities', with examples of other kinds of inexact translation, are exemplified in the analysis. In general, however, it is remarkable how successful the system is in conveying the meaning of the Pali and at the same time revealing the grammar and syntax of each sentence, and how rarely the translator has to use a variant form or make an exception.

Sections *I* to *IV* of the analysis are concerned with Nouns, Verbs, Adjectives and Adverbs (of one type) respectively. Pronouns, having no special grammatical status in nissaya, are not relevant here in themselves; but as they have regular nissaya equivalents these are briefly listed in Section *V*, together with certain points of interest arising from them. Sections *VI* and *VII* illustrate types of Predication and Subordinate Clauses. Indeclinables, in Section *VIII*, are again of no direct grammatical importance, but as many of them occur with great frequency they play a prominent part in forming the distinctive quality of nissaya Burmese and similar styles, and so it seemed worth giving briefly their Burmese equivalents. The conventions of nissaya also extend to a number of common compounds occurring in Pali, but these are omitted here as they would have required many more pages and are anyway of small grammatical interest. Irregularities, mentioned above, are in Section *IX*, and the final Section (*X*) illustrates the occurrence in the text of certain Burmese verb-particles which appear to stand outside the Pali-Burmese system.

Transliteration, abbreviations, etc.

As the text under consideration is a written text, examples are quoted in a direct transliteration of the Burmese script, rather than in a phonemic transcription as if the text had been read aloud. However, since this method of romanizing Burmese has not been widely used of recent years, key words are also shown, as a guide, in transcription. In defence of the transliteration adopted here (essentially the same as that described by Duroiselle),[41]) it may further be pointed out that (1) precisely the same system applied to Pali written in Burmese script results in a romanization used by Pali scholars; (2) the identity of Pali words and names used in the Burmese is made clear – as it would not be by phonemic transcription, on account of peculiarities of pronunciation; and (3) the script – and therefore the transliteration – can distinguish homophones: e.g. /hcin/ may be spelt *khyaṅ* 'wish', *khyañ* 'acid', *khraṅ* 'mosquito', or **khrañ*.

Transliterated, the Burmese alphabet is as follows:

ka kha ga gha ṅa, ca cha ja jha ña, ṭa ṭha ḍa ḍha ṇa, ta tha da dha na, pa pha ba bha ma, ya ra la wa sa ha ḷa a. Vowels: *a ā i ī u ū e ai o ō ui.*

No consonant is *syllable-final* ('killed' with *asat*) unless separated from the following letter. Separation may be effected by a tone-mark, space, bracket, asterisk or hyphen. Double consonants, however, are not separated (e.g. *assatuir, Udumbara*), and 'big *ña*' is written *ññ̈a*. Niggahīta (Burmese *se"se"taṅ*) is shown by *ṁ*. Hyphens are also used to separate vowels in different syllables (e.g. *ma-ō-ap*), and sometimes to single out the particle being illustrated.

Tones marked in the script with one dot are shown here by' and those marked with two by" (e.g. *aṁ', taññ"*).

The *abbreviated forms* of *rwe'* and *nhuik* are ignored, the words being written out in full; and *i* represents the special sign pronounced /i./.

Brackets. It is common nissaya practice to omit a Burmese word where the meaning of the Pali is taken to be obvious, but the particle showing its grammatical function remains – e.g. Pali *hutvā:* Burmese *rwe'* (for *phrac-rwe'*). Where this was difficult to avoid in the selection of examples, the missing word has been restored between brackets: *{phrac}rwe'*.

Names are sometimes abbreviated in the examples to save space: e.g. U. for Udumbaradevī.

Square brackets mark off certain Burmese verb-particles apparently unconnected with the representation of the Pali – see Section *X*.

Phonemic transcription is shown between oblique strokes. The system used is the revised form of Cornyn's, with the difference that grammatical voicing is not shown, and initial glottal stop /q/ is omitted throughout.

Abbreviations: B. – Burmese; P. – Pali; pl. – plural; neg. – negative; *N* – noun; *V* – verb.

D. – Duroiselle, Grammar:[42]) quoted by page and section thus: D. 1*1. References to D. are made for a brief description of the uses of a Pali word or form.

A. – Andersen. Acknowledgement is made to A. when a rough indication of the meaning of a Pali word has been extracted from his Glossary.

References. Italicized figures refer to Sections of this analysis (e.g. *II: 4.1*) and *n, v,* and *x* stand for note, variant, and exception respectively; figures in the examples (e g. 121.20) refer to page and line of Shin Guṇalaṅkāra's nissaya (vol. I). They are followed by the Pali and its Burmese rendering, in that order.

1. Nouns

1. Number: singular unmarked; plural B. *N-tui'* /tou./

2. Case:

2.1. Nominative (D. 301*594):

2.1.1. B. *N-sañ̃ñ* /thi/

e.g. 123.2 dhītā samī"sañ̃ñ

pl. 124.23 mātāpitaro ami-abhatui'sañ̃ñ

2.1.2. Less often *N-kā"* /ka:/ – with which compare P. *pana VIII: 2.*

e.g. 124.10 ahaṁ ṅākā"

40.3 ratho rathā"kā"

2.1.v Occasionally *N-sañ̃ñ-kā"*

e.g. 101.25 ayaṁca pañ̃hā ī prassanāsañ̃ñ-kā"

2.1.3. May also be rendered as an Accusative (B. *N-kui*) with verbs in the Passive *II: 4.8.*

2.2. Vocative (D. 515*602): unmarked – but cf. P. *ambho, bho* = B. *ui-N VIII: 12.*

e.g. 122.4 tāta moṅ-ṅay

122.10 devī rhaṅ mibhurā"

124.9 bhadde abhay

124.10 sāmi arhaṅ

129.7 amma ami

pl. 106.2 tātā amoṅ-tui'

2.3. Accusative (D. 306*598) two forms distinguished –

2.3.1. B. *N-kui* /kou/ for the object of a verb

e.g. 29.7 mukhaṁ myak-nhākui

pl. 30.5 akkhīni myak-citui'kui

2.3.2. B. *N-sui'* /thou./ for motion towards

e.g. 122.19 garaṁ im-sui'

pl. 145.19 phalakāni pyañ-tui'sui'

2.3.x Exception: P. *taṁ divasaṁ* 'on that day' and similar phrases (D. 307*598) are regularly translated as if they were in the Locative (B. *N-nhuik*) – see Irregularities *IX: 5.*

2.4. Genitive (D. 301*595): B. *N-í* /i./.

e.g. 123.18 purisassa yok-kyā"í

pl. 131.1 mātāpitunaṁ ami-abhatui'í

2.5. Dative (D. 304*597): B. *N-ā"* /a:/

e.g. 146.18 bhariyāya mayā"ā"

pl. 122.20 sahāyakānaṁ achwekhaṅ-pwan"tui'ā"

2.6. Ablative (D. 310*600): two forms distinguished –

2.6.1. B. *N-mha* /hma./ meaning 'from'

e.g. 130.19 araññato tomha

136.9 rukkhato sac-paṅ-mha

pl. 105.13 ubhohi passehi naṁ-pā"nhac-bhak-tui'mha

2.6.2. B. *N-thak* /hte?/ meaning 'than'

e.g. 65.23 pituto abhathak

pl. 63.11 puttehi sā"tui'thak

2.7. Instrumentive (D. 308*599): two forms distinguished –

2.7.1. B. *N-phran'* or *V-saphran'* /hpyin., thahpyin./ usual form

e.g. 126.12 pātiyā khwak-phraṅ'

pl. 142.17 pannehi haṅ"rwak-tui'phran'

36.4 bhayena krok-saphraṅ'

36.5 kopena amyak-thwak-saphraṅ'

2.7.2. B. *N-nhaṅ'* /hnin./ meaning 'with' before P. *saddhiṁ, saha* = B. *takwa* / takwa./ 'together (with)', and words of comparison such P. *sameti* = B. *ñ̃ñī* 'match, tally', P. *sadiso* = B. *tū* 'compare'

e.g. 89.2 raññā saddhiṁ maṅ"nhaṅ'takwa

pl. 133.5 sahāyikāhi saddhiṁ khaṅ-pwan"matui'nhan'takwa

144.24 udakena saha renhaṅ'takwa

18.3 rathena saha rathā"nhan'takwa

38.20 vacanena sameti cakā"nhaṅ' ñ̃ñī[kra]í

16.21 diṭṭhasuvinena sameti mraṅ-mak-so im-mak-nhaṅ'ñ̃ñīñ̃wat-í

66.11 bodhisattena sadiso bhurā"loṅ"nhan' tūso sū

154.24 tayā sadisā saṅ maṅ"krī"nhaṅ' tūkun-sañ̃ñ

2.7.3. May also be rendered as a Nominative (B. *N-sañ̃ñ*) with verbs in the Passive *II. 4.8.nl*

2.8. Locative (D. 312*601): two forms distinguished –

2.8.1. B. *N-nhuik* /hnai?/ meaning 'at, in'

e.g. 123.19 gehe im-nhuik

pl. 7.17 kulesu amyui"tui'nhuik

2.8.2. *N-twaṅ* /twin/ meaning 'among' (hence always plural)

e.g. 111.1 tāsu dvīsu gāthāsu thuinhac-gāthātui'twaṅ

140.17 tesu thui sukhamin-ṅā"yok-tui'twaṅ

2.8.3. Rendered as Nominative (B. *N-sañ̃ñ*), or as Accusative (B. *N-kui*), in Locative Absolute *VII: 4.3.n.*

II. Verbs

1. Number: singular unmarked; plural B. *V-kun* /koun/

2. Negation: B. *ma-V* (but *ma-V-laṅ'* for 2nd person Imperatives *4.5*)

3. Person: Differences between 1st, 2nd and 3rd person inflection in verbs are not normally shown in B.

e.g. 21.3 dadāmi pe"í '(I) give'

84.23 asi phrac-í '(thou) art'

125.28 karoti pru-í '(he) does'

150.10 lajjāma rhak-kun-í '(we) are ashamed'

31.10 jānātha si-kun-í(lo) '(do you) know?'

102.8 bhavanti phrac-kun-í '(they) are'

3.n Occasionally, however, when the verb is in the 1st person and the subject is not expressed in the Pali, the Burmese supplies it.
The words supplied are bracketed in the following examples.

e.g. 100.14 na jānāmi (ṅā) masi '(I) do not know'

120.22 apucchimha (ṅātui') me"kun-í '(We) asked'

4. Tense, Mood, Voice

4.1. Present (D. 320*611): B. *V-í* /i./

e.g. 124.6 pucchati me"í

pl. 130.12 bhuñjanti cā"kun-í

neg. 124.13 natthi marhi

pl. 125.10 na-enti malāpran-kun

4.1.v Rarely B. *V-sataññ"* /thati:/

e.g. 158.22 karomi pru-sataññ"

75.5 atimaññati mathī mai'mraṅ pru-sataññ"

4.2. Aorist (D. 321*612, ii): B. *V-í* /i./

e.g. 121.17 vicāresi cīraṅ-í
pl. 136.27 kariṁsu prukun-í
neg. 143.25 na-adāsi mape″
pl. 16.2 na passiṁsu mamraṅ-kun

4.2.v Rarely B. *V-sataññ″* /thati:/
e.g. 66.26 akāsi pru[le]sataññ″

4.2.n Note: P. Aorist is also used for negative imperatives, which Burmese renders accordingly: *II: 4.5.1.n.*

4.3. Future (D. 321*613): *V-aṁ′* or *V-aṁ′ sataññ″* /an., an.thati:/
e.g. 122.5 ānemi choṅ-aṁ′
pl. 12.11 karissāma prukun-aṁ′
124.22 harissāmi choṅ[pe]aṁ′sataññ″
pl. 10.27 bhavissanti phrac[lat]kun-aṁ′sataññ″
neg. 10.18 na nibbattissati maphrac-aṁ′sataññ″
pl. 12.4 na kilamissāma mapaṅ-pan″kun-aṁ′sataññ″
(No examples of neg. *ma-V-aṁ′* were found.)

4.4. Questions (D. 331*625, ii–xiv): nearly all questions in the text are asked in the Present or Future tense.

4.4.1. Questions answerable by 'Yes' or 'No'
4.4.1.1. Present tense: B. *V-ílo* or *V-salo* /i.ilo:, thalo:/
e.g. 129.17 atthi rhi-ílo
31.10 jānātha sikun-ílo
30.26 hoti phrac-salo
125.4 kasati lay-thwan[le]salo

4.4.1.2. Future tense: B. *V-aṁ′lo* or *V-aṁ′salo* (*aṁ′saññ-lo*) /an.lo:, an.tha(thi)lo:/
e.g. 135.16 khādissasi cā″aṁ′lo
30.10 ṭhassatha taññ-kun-aṁ′lo
125.17 essati lā-aṁ′salo
129.2 pivissasi sok[pā]aṁ′saññ-lo

4.4.2. Open questions
4.4.2.1. Present tense: B. *V-sanaññ″* /thani:/
e.g. 124.28 karoti pru[le]sanaññ″
134.2 gacchasi swā″sanaññ″

4.4.2.2. Future tense: B. *V-aṁ′naññ″* /an.ni:/
e.g. 124.20 harissasi choṅ-aṁ′naññ″
139.26 jānāma sikun-aṁ′naññ″

4.4.2.3. Aorist tense – only one example found:
31.27 ganhī yūsanaññ″

4.5. Imperative (D. 323*616): two forms distinguished –
4.5.1. B. *V-lo′* /lo./ for 2nd person imperatives
e.g. 127.3 ācikkha krā″lo′
140.8 āhara choṅ-lo′
122.17 karohi pru[le]lo′
pl. 30.16 gaṇhatha yūkun-lo′

4.5.1.n Note: Negative 2nd person Imperatives in the text commonly use P. Aorist instead of the Imperative, and take the form *ma-V-laṅ′*.
e.g. 23.17 mā akāsi maprulaṅ′
pl. 104.2 mā cintayittha makraṁ-laṅ'kun } (sic)
51.23 mā cintayittha makraṁ-kun-laṅ' }

4.5.2. B. *V-cesataññ″* /sei-thati:/ for 3rd person imperatives
e.g. 10.10 hotu phrac-cesataññ″
pl. 67.9 hontu phrac-cekun-sataññ″
neg. 72.14 mā hotu maphrac-cesataññ″

pl. 93.15 mā vinassantu mapyak-cekun-sataññ″

4.6. Optative (D. 322*614): B. *V-rā-í,* neg. *ma-V-rā* /ya/
e.g. 43.9 jāneyya sirā-í
neg. 122.8 na rucceyya manhac-sak-rā
pl. No examples found

4.6.n Note: The Pali also uses the Optative form for commands and in conditional clauses, and these are rendered in the Burmese according to the appropriate conventions.
e.g. 130.1 āroceyyasi krā″[khre]lo' (Imperative *II: 4.5.1*)
123.19 bhaveyyaṁ phrac-aṁ' (Conditional *VII: 6.3*)

4.7. Causative (D. 306*598, iv): B. *V-ce-* /sei/
e.g. 138.21 kāresi pruce-í (Aorist)
140.14 pesissāma prucekun-aṁ' (Future)
122.1 jānāpehi sicelo' (Imperative)
164.22 thapeyya taññ-cerā-í (Optative)
100.18 uggaṇhāpitā saṅ-ce-ap-kun-í (Passive)
123.20 saṇṭhāpetuṁ taññ-cekhraṅ″ṅhā (Infinitive)
138.18 nisīdāpetvā nece-rwe' (Gerund)

4.7.n Note: An apparent violation of the convention, by using the aspirated form of a Burmese verb instead of the 'Causative' of the unaspirated form (when such a pair exists), is explained occasionally by a note.
e.g. 131.28 pātesi khya-í (kyace-ísōlañ″hū)
131.26 nāsesi phyak[bhi]sanañ″ (pyak-ce[bhi]sanañ″sōlañ″hū)
and cf. 130.27 bhojetvā kywe″prī″rwe' (cā″ceprī″rwe'hūrwe' sōlañ″ chui)

4.8. Passive: This occurs infrequently in the text, apart from the Past Participle considered below (*5.3.2*), for which B. *ap* /aʔ/ is often used, but not always – apparently as a sign of the Passive. The only other Passive form found is at 30.20: *kaḍḍhiyamāno,* a Passive Present Participle, which is rendered (without *ap*) as *ṅan-lat-sō.*

4.8.n1 Note: Burmese evidently could not be made to produce a satisfactory passive construction, so that where the Pali has (so to speak) 'the duck was killed by the farmer', Burmese turns it to 'the farmer killed the duck'. In such cases therefore, the Pali Instrumentive case (D. 328*620, vi) has to be rendered by the Burmese 'Nominative', and P. Nominative by B. 'Accusative'.[43])
e.g. 139.20 P. tena... bhariyā ānītā 'a wife is brought by him' B. thui M. sañ̃... mayā″kui choṅ-ap-í 'M. has brought a wife' 93.3 P. te pañho cintito 'is the problem solved by you?' B. saṅ-sañ̃ prassanākui kraṁ-ap-í(lo) 'have you solved the problem?'

4.8.n2 However, certain Past Participles in Pali are not felt, apparently, to have a 'genuinely' passive sense: for example, P. *gata* 'is gone', *jāta* 'is become', and many others. Here P. Nominative is retained in the Burmese. (These words seem not to take B. *ap,* but the converse is not always true: e.g. 91.14 P. *diṭṭhaṁ* 'seen', 149.20 *pucchita* 'asked', both rendered without *ap.*)
e.g. 132.25 sā (Nom.)... āgatā thui A. sañ̃ (Nom.)... lā-í 144.11 ekakolāhalaṁ (Nom.) jātaṁ... asaṁ-sañ̃ (Nom.) phrac-í

4.8.n3 When the P. Past Participle is used in the Locative Absolute construction, the subject (in P. Locative case) may be rendered either by B. 'Accusative' as in *n1* above, or by B. 'Nominative' as in *n2.*
e.g. 175.13 pañhe kathite prassanākui (Acc.) phresañ̃ rhisō 156.15 yase parihīne caññ″cim-khyam″sāsañ̃ (Nom.) yut-sō

5. Other parts of the verb –

5.1. Infinitive: B. *V-aṁ'soṅhā* or *V-khran''ṅhā* – see *VII: 1.*

5.2. Gerund: B. *V-rwe'* (occasional variants *V-pri''rwe', V-sokroṅ'*) – *VII: 2.*

5.3. Participles: These are used in a variety of ways, some of which overlap (in B.) with other constructions. They are therefore placed in the appropriate sections as indicated below.

5.3.1. Present Participle:

V-so	under Adjectives *III: 1.2* and *2.2*
V-sañ̃ ṙhisō	under Sub. Clauses *VII: 4*
V-sañ̃ phrac-rwe' (infrequent)	under Sub. Clauses *VII: 3*
V-lyak	under Sub. Clauses *VII: 5*
V(lat)sō (infrequent)	under Sub. Clauses *VII: 4v*

5.3.1n Note: No distinction is made in the Burmese between the 'active' and 'reflective' forms of the P. Present Participle (D. 140*357; 184*447) – examples at *III: 1.2, VII: 4.1, VII: 5*, etc.

5.3.2. Past Participle: B. *ap*, for the Passive (?), being optional, is shown in brackets.

V-(ap)so	under Adjectives *III: 1.3* and *2.3*
V-sañ̃ ṙhisō	under Sub. Clauses *VII: 4*
V-(ap)sañ̃ phrac-rwe'	under Sub. Clauses *VII: 3*
V-(ap)í	under Predication *VI: 1.3*
V-(ap)prī	under Predication *VI: 1.3*

5.3.3. Future Passive Participle (= Gerundive): B. *V-rā* or *V-ap-*. This is mostly found as a Predicate and is therefore exemplified in that section (*VI: 1.4*).

III. Adjectives

(D. 316*604) – including Participles used as Adjectives. Plural *kun* as for Verbs.

1. B. *V-so* /tho:/ when qualifying a Noun

1.1. Adjective –

e.g.	108.8	aḍḍhaṁ	krway-waso
pl.	103.10	pāpāni	yut-mākun-so

1.2. Present Participle –

e.g.	11.11	kīḷantassa	kacā''so
	60.24	caramānaṁ	kyak-cā''so
pl.	15.28	nikkhantā	thwak[le]kun-so

1.3. Past Participle (with and without B. *ap:* see Passive *II: 4.8*) –

e.g.	122.14	abhirucitaṁ	kruik-nhac-sak-so
	134.28	nisinnaṁ	neso
	85.2	gatassa	swā''so
	128.8	vuttaṁ	chui-ap-so
	138.28	pahitaṁ	sa-ap-so
	9.4	dinno	pe''ap-so
pl.	163.26	phuṭṭhā	twe'ap-kun-so

2. B. *V-so-N* /tho:/ when used substantially (D. 327*619, iii): i.e. B. translates *V-so* as for *1* and supplies an appropriate N. Plural *tui'* as for Nouns.

2.1. Adjective –

e.g.	9.4	puññavatā	bhun''rhiso sūsañ̃
pl.	8.20	ābādhikānaṁ	anā rhiso sūtui'ā''

2.2. Present Participle

e.g.	171.26	palāyantaṁ	pre''so sā''kui
pl.	40.10	āgacchante	lāso sūtui'kui

2.3. Past Participle –

e.g.	31.8	ṭhitā	taññ-so min''masañ̃
pl.	122.7	ānītā	choṅ-ap-so min''makui
	125.11	gatānaṁ	swā''so sūtui'í

3. Numeral Adjectives (D. ch. VIII): Although in Pali numeral adjectives are used in much the same way as other adjectives, they require special treatment in nissaya since counting in Burmese entails the use of 'classifiers' or 'numeratives' (see Hla Pe,[44]) Stewart *Manual*, 21, Cornyn *Outline*, 26). The standard nissaya rendering for numeral adjectives qualifying Nouns is: Number-appropriate Numerative-*so*. As with other adjectives, plural is shown by B. *kun*.

e.g.	52.23	ekaṁ	tacaṅ''so	1 (rope)
	122.13	ekaṁ	tayok-so	1 (bride)
	12.10	ekaṁ	takhuso	1 (hall)
	87.10	dve	nhac-ū''kun-so	2 (enemies)
	4.11	catūsu	le''pā''kun-so	4 (corners)
	100.9	pañcahi	ṅā''yok-kun-so	5 (wise men)

3.v Variants: Sometimes Noun-Number-Numerative – the form current in ordinary modern spoken Burmese. This occurs in the rendering of a Pali 'numeral compound' (D. 256*548) – i.e. when the number is not translated separately from the noun; also when an inflected numeral adjective and its noun are taken together without a break in the translation; and (without the Noun) for days, months, years.

e.g.	87.19	pañcapaṇḍito	sukhamin ṅā''yok-tui' (variant)
but	87.6	pañcapaṇḍito	ṅā''yok-so sukhamin-tui' (regular)
	15.25	catūhi dvārehi	taṁ-khā''le''myak-nhātui'phraṅ' (with N)
	77.17	sattāhaṁ	khunac-rak-kui (days)
	7.19	dasamāsaccayena	chay-la lwan-saphraṅ' (months)
	15.17	sattavassaccayena	khunac-nhac lwan-saphraṅ' (years)

The word for 'thousand' (B. *thoṅ*) is used both 'regularly' and in the variant form above – again the form current in ordinary spoken Burmese today.

e.g.	132.27	kahāpaṇa sahassena	tathoṅ-so asaprānhaṅ' (regular)
	120.25	gavaṁ sahassaṁ	nui'ñ̃hac-nwā''tathoṅ-tui'-phraṅ' (variant)

3.n1 Note: Like other adjectives, numeral adjectives are used substantivally :

e.g.	102.12	tayo	suṁ''yok-kun-so sukhamin-tui'kui
	12.21	sahassaṁ	tathoṅ-so asaprākui
	82.7	satasahassena	tasin''so uccāphraṅ'

3.n2 Finally, it is perhaps worth noting that the numerative B. *koṅ* for animals, commonly used in spoken Burmese today, does not seem to have been adopted for nissaya.

e.g.	60.24	ekaṁ	takhuso	1 (mule)
	83.6	ekaṁ	takhuso	1 (goat)
	18.17	eko	takhuso	1 (kite)

4. Adjectives are also used as Predicates and in Subordinate Clauses, which B. renders accordingly: see *VI* and *VII: 3.*

IV. Adverbs

These are from P. Adjectives in the Accusative (D. 240*532d):

B. *V-cwā* /swa/

e.g.
13.2 sādhukaṁ koṅ″cwā
32.11 ciraṁ krāmraṅ′cwā
5.10 sukhaṁ khyam″sācwā
1.8 sīghaṁ lyaṅ-cwā

Other Adverbs (not rendered B. *V-cwā*) are listed under Pronouns (Pronominal Adverbs *V: 2*) and Indeclinables etc. (*VIII*).

V. Pronouns

These are declined in nissaya in the same way as Nouns. Their use in Pali is described in D. ch. IX, and 317*605–9. Pali forms are given here in Nominative singular masculine.

1. Regular nissaya equivalents –

1.1. First person: P. *ahaṁ* = B. *ṅā* /nga/ 'I' – e.g. 1.1, 144.15. Occasional variants from junior or inferior speakers – 57.17, 26.9.

1.2. Second person: P. *tvaṁ* = B. *saṅ* /thin/ 'thou' – e.g. 32.1, 140.2. Occasional variants from junior or inferior speakers, inserting title or rank, and then sometimes omitting *saṅ* – 139.22, 59.4, 127.21, 122.15.

1.3. P. so = B. *thui* /htou/ 'this, that, he, she, it' – e.g. in *1n1*.

1.4. P. *eso* = B. *thui* or *ī* /htou, i/ 'this' – 6.12, 67.8, 61.9, 36.27.

1.5. P. *ayaṁ* = B. *ī* /i/ 'this' – e.g. 88.6, 22.9, 124.4.

1.6. P. *asu, asuko* = B. *ī-mañ̃-so* /i-myi-tho:/ 'such and such' – 22.22, 142.6.

1.7.1. P. *yo* = B. *akraṅ* /acin/ 'who, he who' – 166.23, 150.26, 124.13.

1.7.2. P. *yo koci* = B. *amhat marhiso* /ahma? mahyi.tho:/ (lit. 'not having a mark' hence 'undistinguished, indefinite') 'whoever, whosoever, anyone' – e.g. 8.20, 17.14, 9.19.

1.8. P. *ko* = B. *abhay* /abe/ 'who? which?' – e.g. 22.19, 34.15; see *1n4* and *5*.

1.9. P. *koci* = B. *tacuṁ ta* (numerative) *so* /tasoun ta(-) tho:/ 'anyone, someone or other' – e.g. 129.16, 151.22, 122.11.

1.n1 Notes: Pronouns are used in Pali both adjectivally (P. *so puriso* 'that man') and substantivally (P. *so* 'he'). Their equivalents in nissaya Burmese, however, do not stand alone (except *ṅā* and *saṅ*, and occasionally P. *ayaṁ* Nom. = B. *īsañ̃-kā″* as at 121.11, 153.18); so Burmese reproduces the substantival use by supplying an appropriate noun (cf. substantival use of adjectives and participles *III: 2*).

e.g.
48.21 so rājā thui maṅ″sañ̃ 'that king'
137.23 so thui sūsañ̃ 'that (person)'
122.18 so thui bhurā″loṅ″sañ̃ 'that (Bodhisatta)'

1.n2 Explanatory words are sometimes added in the Burmese apparently to avoid ambiguity about the reference of certain pronouns. The extra words are bracketed in the examples below.

e.g.
59.24 tāya saññāya thui (kraññ'so) amhat-phraṅ' 'by that signal (of giving a look)'
9.9 tasmiṁ khaṇe thui (lim″so) khaṇanhuik 'at that moment (of anointing)'
133.2 atha thui (A. lāso) akhānhuik 'at that time (of A.'s coming)'
129.4 atha thui (sui' rok-so) akhānhuik 'at that time (when he arrived in that way)'

1.n3 Relative clauses (D. 300*592) receive no special treatment as a whole: each word is rendered just as it stands in the Pali.

e.g.
127.11 Yena dadāmi tena vadāmi.
B. Akraṅ lak-phraṅ' pe″í thui lak-phraṅ' chui-í.
'I direct you by the hand with which I give to you.'

1.n4 For the forms P. *ko* (meaning 'who?') and *kiṁ* (idiomatically – D. 240*532b – meaning 'how now?' etc.) of the interrogative pronoun, Burmese has the alternative forms *asū* and *asui'* –

e.g.
146.19 ko asū-naññ" (instead of *abhay sū-naññ"*) 'who?'
126.20 kiṁ asui'naññ" (instead of *abhay sui'naññ"*) 'how now?'

1.n5 In the Pali text the word *nāma* (lit. 'name') is sometimes used idiomatically after Interrogative Pronouns. This is rendered in nissaya Burmese as *mañ̃-so* /myi-tho:/ (lit. 'named'), and this phrase is also used sometimes in the Burmese even when P. *nāma* is not in the original. One is reminded of *mañ̃* used as an interrogative in some (usually written) styles of Burmese prose.

e.g.
36.27 kiṁ nāma saddo abhay mañ̃-so asaṁ-naññ" 'what sound?'
80.17 ko nāma abhay mañ̃-so sūsañ̃ 'what person?'
96.14 ko abhay mañ̃-so sūsañ̃ 'what person?'
16.8 katara vaḍḍhakinā abhay mañ̃-so lak-samā"naññ" 'what carpenter?'

2. Pronominal Adverbs etc.: The numerous 'adverbial derivatives from pronominal bases' (D. 137*344–352; 239*530–532) are rendered in various idiomatic ways in nissaya, evidently with the intention of bringing out the meaning rather than of indicating grammatical forms. The base from which the word is derived, however, is usually indicated by B. *thui, ī, akraṅ*, etc., as appropriate, and case-derivations are sometimes shown. Among the commonest are –

2.1. P. *-tha* (D. 137*346; 240*531d)

e.g.
125.28 atha thui akhānhuik 'at that time, thereupon' – frequently thus (or abbreviated to *nhuik*)
137.6 tattha thui arhe′tū 'in the same way as before'
126.18 tattha thui yāgunhuik 'in that gruel'
125.8 yattha akraṅ arap-sui′ 'to the place which'
155.22 yattha akraṅ arap-nhuik 'in the place where'

2.2. P. *-dā* (D. 137*345; 240*531e)

e.g.
122.25 tadā thui akhānhuik 'at that time'
6.11 idāni yakhu akhānhuik 'at the present time' †
87.8 kadāci taraṁ tachac-so akhānhuik 'at any time' †
119.22 kadāci taraṁ tachac-mhyaso akhānhuik 'at any time' †
81.14 kudaci taraṁ tachac-mhya 'in any way'
(† followed by negative verb = 'never, in no way')

2.3. Ablative case (D. 240*531c)

e.g.
31.27 kasmā abhay-kroṅ' 'why?'
127.26 yasmā akraṅ-kroṅ' 'because'

127.26 tasmā thui-kroṅ′ 'therefore'

2.4. Ablative case (D. 240*532)

e.g. 29.24 kuto abhay arap-mha 'from what place?'
121.14 tato thui akhāmha 'from that time'
139.5 tato thui ne′mha 'from that day'
147.2 tato thui bhaṅ-twaṅ″mha 'from that cess-pool'

VI. Predication

Apart from predication with finite verbs, which is not specially illustrated here, a predicate may be 'direct' or with parts of P. *hoti* 'is' as under.

1. 'Direct', i.e. the predicate in P. is simply a noun, adjective or participle standing alone ('with the verb *hoti* understood' D. 299*590).

1.1. Nouns: B. *N-tañ̃* /ti:/

e.g. 30.7 ayaṁ yakkhinī = B. ī min″masañ̃ bhilū″matañ̃″
'This woman (is) an ogress.'
89.13 eso pañho gaṇṭhipañho = B. ī prassanāsañ̃ khaikhak-so prassanātañ̃″
'This problem (is) a difficult problem.'

1.2. Adjectives: B. *V-í* /i./

e.g. 126.18 sittāni mahantāni = B. thamaṅ″luṁ″tui′sañ̃ myā″kun-í
'The rice grains are many.'
123.2 dhītā abhirupā dassanīyā
B. samī″sañ̃ alwan achaṅ lha-í, rhukhyaṅ-bhway rhi-í
'Their daughter was extremely beautiful. She was a delight to look at.'

1.3. Past Participles: B. *V-í* /i./ or (? less often) *V-prī* /pyi/ – B. *ap* (*II: 4.8*) is sometimes used.

e.g.
144.11 jātaṁ	phrac-í	
132.25 āgatā	lā-í	
47.21 chinnaṁ	prat-í	
128.16 vuttaṁ	chui-ap-í	
16.14 katā	pru-ap-í	
52.16 ñāto	si-ap-í	
121.21 jāto	phrac-prī	
128.25 niṭṭhito	prī″prī	
144.10 palāto	pre″[le]prī	
129.9 dinnā	pe″ap-prī	
93.4 cintito	kraṁ-ap-prī	
91.27 diṭṭho	mraṅ-ap-prī(lo)	

neg.
16.11 na katā	mapru-ap	
126.22 na laddham	mara-ap	
91.27 naditṭho	mamraṅ-ap[se″]	

Negative without *ap* not found.

1.4. Future Passive Participle (or 'Gerundive') (D. 329*622): B. *V-rā-í* or *V-ap-í* /ya-i., aʔi./

e.g.
10.20 bhavitabbaṁ	phrac-rā-í (= 16.7, 17.20)	
24.15 veditabbaṁ	sirā-í	
99.2 kattabbo	pru-ap-í	

27.2 daṭṭhabbo mhat-ap-í

2. Predication with P. *hoti* 'is' and its parts, and with *jāta* 'become': Like 'direct' predication this form appears in the P. text with nouns, adjectives and past participles (not found with future passive participle).

2.1. Nouns: B. *N-sañ̃ phrac-* /thi hpyiʔ/ (the 'inflection' of *phrac* varies according to tense etc.)

e.g. 32.1 tvaṁ yakkhinī jātā 'You are an ogress.'
B. saṅ-sañ̃ bhilū″masañ̃ phrac-í
58.22 ayaṁ pañho bhavissati 'This will be a problem.'
B. īsañ̃ prassanāsañ̃ phrac[lat]aṁ′satañ̃″

2.2. Adjectives: B. *V-sañ̃ phrac-* /thi hpyiʔ/

e.g. 46.8 naṅguttaṁ tanukaṁ hoti 'The tail is small.'
B. mrī″thū″sañ̃ ṅay-sañ̃ {phrac}í
44.11 mūlaṁ bhāriyaṁ hoti 'The lower part is heavy.'
B. araṅ″sañ̃ le″sañ̃ phrac-í

2.3. Past Participles: B. *V-sañ̃ phrac-* /thi hpyiʔ/ – B. *ap* (*II: 4.8*) does occur in this construction (e.g. at 50.6) but seems to be rare.

e.g. 84.23 tvaṁ nippanno ahosi 'You were lying down.'
B. {saṅ}sañ̃ ip-sañ̃ phrac-í
88.1 Senako nisinno ahosi 'Senaka was seated.'
B. Sin″sañ̃ nesañ̃ {phrac}í

VII. Subordinate clauses

As there is some overlapping among certain of the nissaya renderings for the different methods of subordination in Pali, examples in these cases are listed under the Burmese version instead of the Pali original.

1. Infinitive (D. 324*617): B. *V-aṁ′soṅhā* or *V-khraṅ″ṅhā* /an.tho:hnga, hcin″hnga/

e.g.
121.23 kātuṁ	pru-aṁ′soṅhā
131.24 pacituṁ	khyak-aṁ′soṅhā
13.20 kātuṁ	prukhraṅ″ṅhā
12.16 pasārituṁ	khaṅ″khraṅ″ṅhā

1.n Note: Compounds with P. *atthāya* (D. 241*532: construed as Dative, translated 'for the sake of, for the purpose of') are also rendered B. *V-aṁ′soṅhā* –

e.g.
145.19 nhānatthāya	re khyui″aṁ′soṅhā
20.24 gocaratthāya	kyoṅ″cā″aṁ′soṅhā

1.nv There are occasional variants:

e.g.
142.11 gahaṇatthāya	yūcim′soṅhā (i.e. yūce-aṁ′soṅhā)
134.19 paṭighātanatthāya	han′tā″pay-luisoṅhā

1.nx Exception: meaning 'for the advantage of' atthāya is rendered differently

e.g. 129.12 dhītu atthāya sami″í akyui″ṅhā

2. Gerund (D. 325*618): B. *V-rwe′* /ywei./

e.g.
19.15 ñatvā	sirwe′
122.14 pariyesitvā	rhārwe′

2.vl – occasionally B. *V-prī″rwe′* /pyi:ywei./

e.g. 138.6 ñatvā siprī″rwe′

5.14 vatvā chuiprī″rwe′

2.v2 – occasionally B. *V-sokroṅ′* /tho:caun./

e.g. 137.25 katvā prusokroṅ′
137.27 modāya wam″mrok-sokroṅ′

2.n1 Notes: Gerunds with negative prefix P. *a-* (D. 326*618, iv) are occasionally rendered regularly –

e.g. 37.18 ajānitvā masirwe′
91.24 adisvā mamraṅ-sokroṅ′

– but more often in the form B. *ma-V-mūrwe′* /maVmu-ywei./

e.g. 126.8 adhovitvā mache″mūrwe′
126.15 athapetvā mathā″mūrwe′

2.n2 Gerund with P. *-va* (normally = B. *lhyaṅ*) is occasionally rendered regularly –

e.g. 35.13 sutvāva krā″rwe′lhyaṅ
21.17 disvāva mraṅ-rwe′lhyaṅ

– but perhaps more often conventionally as B. *V-kataññ″kalhyaṅ* /kate:ka.hlyin/ – cf. D. 326*618, ii: 'may be translated "as soon as".'

e.g. 61.22 sutvāva krā″kataññ″kalhyaṅ
123.17 disvāva mraṅ-kataññ″kalhyaṅ

2.n3 Some alternative renderings for the Gerund are found in the Nyaunggan Sayadaw's nissaya-like translation of the 550 Jataka. In addition to the forms illustrated above he has the following. (references to page and line of vol. iv; Pali original from Fausbøll v, 39–47.)[45])

2.n3.1 B. *V-lhyaṅ* /hlyin/

e.g. 581.10 (ñatvā) silhyaṅ
585.7 (sutvā) krā″lhyaṅ

2.n3.2 B. *V-prī″lhyaṅ* /pyi:hlyin/

e.g. 583.15 (āruyha) tak-prī″lhyaṅ
579.15 (pavisitvā) waṅ-prī″lhyaṅ

2.n3.3 B. *V-saphraṅ* /thahpyin./

e.g. 578.25 (patvā) rok-saphraṅ′
578.27 (ācikkhitvā) krā″saphraṅ′

3. B. *V-sañ phrac-rwe′* /thi hpyi?ywei./ represents two locutions in P.:

3.1. P. adjective with *hutvā* (lit. 'being, becoming' adj.). *Hutvā*, as the Gerund of *hoti*, is regularly rendered B. *phrac-rwe′*, and expressions of the form adjective-*hutvā* are then treated in the same way as main clause predication with *hoti* (*VI: 2*).

e.g. 35.15 paṭibandhacittā hutvā tap-so cit rhisañ {phrac}rwe′
109.22 ninnā hutvā khyuiṅ′wham″kun-sañ {phrac}rwe′

3.2. Adjectives and participles standing alone (D. 299*590: 'with *hoti* understood').

3.2.1. Adjectives – e.g. 35.6 sampannavatthālaṅkārā praññ′cuṁ-so wat-cā″tan-chā rhisañ phrac-rwe′
89.26 anekacittā matañ-kraññ-so cit rhikun-sañ phrac-rwe′

3.2.2. Present Participles –

e.g. 37.25 jānanto sisañ phrac-rwe′
29.26 karontiyo prukun-sañ phrac-rwe′

3.2.2n Note: Present Participles with the negative prefix P. *a-* are often rendered this way –

e.g. 37.12 ajānanto masisañ phrac-rwe′
21.5 apassanto mamraṅ-sañ phrac-rwe′

3.2.3. Past Participles –

e.g. 90.13 ṭhitā taññ-sañ phrac-rwe′
168.8 vutto mhāluik-ap-sañ phrac-rwe′

3.2v Variant: the regular nissaya form for P. compounds in *-kāma* ('being desirous of') is B. *V-luisañ phrac-rwe′*, and this is occasionally used for Present Participles where the sense is appropriate.

e.g. 09.3 kāronto pruluisañ phrac-rwe′
127.5 ācikkhantī krā″[pe]luisañ phrac-rwe′

4. B. *V-sañ rhisō* /thi hyi.tho/ regular for P. Locative Absolute (D. 315*603); also used for P. Present Participle standing alone, and infrequently for the Past Participle standing in the same position.

4.1. Present Participle –

e.g. 28.16 karontī prusañ rhisō
8.28 jāyamāno bhwā″ saññ rhisō

pl. 11.23 dhāvantā pre″ kun-sañ rhisō

4.2. Past Participle (infrequent) –

e.g. 19.13 bhīto krok-sañ rhisō
33.9 paṭipanno swā″ [le]sañ rhisō

4.3. Locative Absolute –

60.6 vutte chuisañ rhisō
116.20 vutte chui-ap-sañ rhisō (*ap:* see *II: 4.8*)
90.21 akathente machuisañ rhisō

4.3n Note: Where the P. Locative Absolute has a 'subject' (both being in the Locative case) B. renders it, if with a Past Participle, as either 'Accusative' or 'Nominative' (*II: 4.8n*); if with a Present Participle as 'Nominative' –

e.g. 125.23 udake ente = B. resaṅñ lāsañ rhiso
'If the water comes'
93.4 mayi acintente = B. ṅāsañ makraṁ-sañ rhiso
'If I were not to solve it'

4.v1 Variant: B. *V-(lat)sō* /(la?)tho/ is perhaps most conveniently listed as a variant of *V-sañ rhisō*. It is used infrequently for the Present Participle standing alone, and for the Past Participle in Locative Absolute.

4.v1.1 Present Participle –

e.g. 39.26 nikkhanto thwak-lat-sō
39.9 āvajjanto kraññ′lat-sō

pl. 59.7 gacchantā swā″[le]kun-sō

4.v1.2 Past Participle in Locative Absolute –

e.g. 20.20 vasse patite mui″ sañ kyalat-sō
156.15 yase parihīne cañ″ cim-khyam″ sāsañ yut-sō
155.2 atthe jāte aluisañ phrac-lat-sō

4.v2 B. *V-sōlañ″* – P. Gerund or Participle with *pi:* see *VIII: 3.*

5. B. *V-ḷyak* /lyer?/ – represents the P. Present Participle standing alone (perhaps its commonest rendering in this position) and is rarely used for other forms.

e.g. 139.8 vasanto nelyak
30.23 rodamānā ṅuilyak

pl. 137.9 kaḍḍhantā ṅaṅ-kun-lyak

6. Conditional Clauses (D. 330*623, v; 322*613, iii; 323*614, vi; 299*590): These appear in the text with P. *ce, sace, noce,* or *yadi* = B. *akay-rwe'* / ake-ywei./ 'if', followed by the Present or Future Tense, or infrequently by the Optative, Imperative, a Past Participle, or an Adjective. All these are rendered in the same way in the Burmese: *V-sañ̃ phrac-aṁ'*, or rather less commonly, *V-aṁ'*.

6.1. Present Tense –

e.g.

63.28	sace upakārako hoti	akay-rwe' kye″jū″prutat-sañ̃ phrac-aṁ'
53.19	sace vadati	akay-rwe' chuisañ̃ phrac-aṁ'
140.24	sace gaṇhāti	akay-rwe' yū-aṁ'
58.18	sace natthi	akay-rwe' marhi-aṁ'
153.27	ce paṇḍitā no bhavissati	akay-rwe' paññārhisañ̃ maphrac-aṁ'

6.2. Future Tense –

e.g.

123.6	sace... paṇḍitā bhavissati	akay-rwe'... paññārhisañ̃ phrac-aṁ'
125.18	sace essati	akay-rwe' lāsañ̃ phrac-aṁ'
126.8	sace... dassati	akay rwe'... pe″[lat]aṁ'
125.18	noce essati	akay-rwe' malāsañ̃ phrac-aṁ'

6.3. Other forms –

e.g.

Opt.:	87.22 yadi nasakkuṇeyyātha	akay-rwe' mata-nhuiṅkun-sañ̃ phrac-aṁ'
Impt.:	46.28 noce pesentu	akay-rwe' mapui'chaklākun-sañ̃ phrac-aṁ'
P'ple:	91.28 yadi naditṭho	akay-rwe' mamraṅ-sañ̃ phrac-aṁ'
Adj.:	132.6 sace... nasundaraṁ	akay rwe'... makoṅ″sañ̃ phrac-aṁ'

6.n Note: Between the conditional clause and the main verb there is sometimes the phrase P. *evaṁ sati* (D. 315*603, iii) 'it being so'. *Sati* is a Locative Absolute and is rendered as such (*VII: 4.3*), and *evaṁ* is rendered regularly as *īsui' (VIII: 8)*, but the phrase is always given an explanation in B. 'it being so –

e.g.

140.24	evaṁ sati	īsui' yūsañ̃ rhisō	(that it is taken)'
53.20	evaṁ sati	īsui' chuisañ̃ rhisō	(that he says so)'
123.13	evaṁ sati	īsui' laṅ marhisañ̃ rhisó	(that she has no husband)'

7. P. compounds in *-kāle:* B. *V-so akhānhuik* /tho: ahka-hnai?/ 'at the time of, when'.

e.g.

141.11	āgatakāle	lāso akhānhuik
87.20	pātarāsakāle	thamaṅ″naṁ-nak-cā cā″so akhānhuik

VIII. Indeclinables, conjunctions, adverbs, etc.

(D. 243*538; 330*623f.; 239*529–32)

1. P. *eva* = B. *lhyaṅ* /hlyin/ 'just, even, only' (A.) e.g. 121.17, 35.14, 125.17, 123.6, 21.17, 131.23.

1.v1 Variants: occasionally B. *paṅ-lhyaṅ* or *sālhyaṅ* /pin-hlyin, tha-hlyin/ e.g. 137.4, 16.7.

1.v2 Following a verb at the end of a sentence: B. *V-sañ̃-sālhyaṅ-taññ"* /thi-tha-hlyin-ti:/ e.g. 129.25, 143.7.

2. P. *pana* = B. *ka"* /ka:/ 'but; now! well! then!' (A.) e.g. 150.21, 22.7, 134.16, 122.25, 137.15.

3. P. *api* = B. *laññ"* /li:, le:/ 'and, also; very, even, although; but; perhaps,' etc. (A.) e.g. 130.23, 135.2, 137.14.

3.v Sometimes B. *V-sōlaññ"* /tho-li:, tho-le:/, usually with a Gerund or Participle – cf. D. 326*618, iii, 327*619, v: 'may be translated by "although".'

0.8	ñatvāpi	sisōlaññ"	(Gerund)
3.18	carantopi	kyaṅ'sōlaññ"	(Pres, P'ple)
33.4	paṭikkhitopi	pay-sōlaññ"	(Past P'ple)
108.1	rukkhesupi	sac-paṅ-tui'nhuik-sōlaññ"	(Noun)

4. P. *ca*

4.1. Singly = B. *laññ"* /li:, le:/ 'and, also' (A.) e.g. 150.28, 153.17.

4.2. Correlatively = B. *laññ"koṅ"* /li:kaun;, lakaun:/ 'both... and...' (A.) e.g. 127.7, 131.9.

5. P. *yadi, sace, noce, ce* = B. *akay-rwe'* /ake-ywei./ 'if' – see *VII: 7.*

6. P. *viya, iva, yathā* = B. *N-kai'sui', V-sakai'sui'* /(tha)ke.thou./ 'like, as if, as it were' (A.) e.g. 160.3, 107.23, 28.12, 110.4 and 19.

7. P. *kira* usually = B. *V-satat* /thata?/ 'indeed, really, probably, namely, you know, you see, we hear, it is said' (A.) e.g. 32.23, 117.21, 150.15.

8. P. *iti* 'thus, in this manner' (A.), also used in a variety of ways to mark the end of a piece of reported speech etc.

8.1. Taken alone = B. *īsui'* e.g. 121.24 and passim. /i-thou./

8.2. Taken together with preceding words = B. *hu* or *hūrwe'* /hu., hu-ywei?/ e.g. 129.13, 20.21, 44.13.

9. P. *evaṁ* = B. *īsui'* /i-thou./ 'thus, in this way' (A.) e.g. 122.17, 127.18, 128.8. Sometimes expanded (cf. *V: 1.n1*):

e.g. 50.15 evaṁ īsui' yok-kyā″ sā″bhwā″ khraṅ″sañ̃ 'thus (that men bear children)'

9.v As an affirmative answer to a question, 'yes', translated idiomatically in different ways –

e.g. 124.18 evaṁ īsui' chui-tuiṅ″ hut-í
'It is true thus as you have said.'
125.5 evaṁ āma ō hut-í
'Indeed, it is true.'

10. P. *puna* = B. *tabhan* /tahpan/ 'back, again, once more' (A.) e.g. 36.5, 87.17, 164.10.

11.1. P. *hi* = B. *saṅ'cwa* /thin. swa./ preceded by an explanatory clause, 'for, since, indeed verily' (A.) e.g. 119.3, 46.5.

11.2. P. *hi saccaṁ* = B. *mhan-í* preceded by an explanatory clause; *saccaṁ* 'truly, indeed, verily, justly, by rights' (A.) e.g. 148.10, 2.3.

12.1. P. *ambho* = B. *ui* /ou/ followed by an appropriate noun; vocative particle (A.) e.g. 30.25, 60.27, 139.14.

12.2. P. *bho, bhonto* = B. *ui(N)* (as preceding *12.1*) /ou/; vocative particle (A.) e.g. 49.24, 87.5.

13. P. *saddhiṁ, saha* = B. *takwa* /takwa./ 'together (with)' – see *I: 2.72.*

IX. Irregularities

These are departures from a strict and systematic rendering of the Pali text as it stands.

1. There are a few translator's notes, such as those given above in connection with the Causative (*II: 4.7.n*) or –

154.12 nok-sui' chut-rwe' samban-mha upamā upameyya thaṅsañ̃ñ
'The point of the simile is not clear unless one construes backwards.'

2. Occasionally there are explanatory additions of a commentarial nature (bracketed in the following examples) –

e.g. 1.11 Jetavane = B. (Jetawan maṅ"í uyyāñ-nhuik choksokroṅ') Jetawan (amañ̃ rhiso kyoṅ"krī")nhuik
'At (the great monastery named) Jetavana (because it was built in the park of Lord Jetavana)'

75.3 Vedehaṁ = B. (Videha-tuiṅ"kui acui"rasokroṅ') Vedeha (amañ̃ rhiso)
'(Named) Vedeha (on account of his being ruler of the country of Videha)'

3. Certain pronouns, it was noted above (*V: 1.n2*), are translated with their antecedents stated again or with qualifying phrases to identify their references. Similar treatment is found with the phrase *evaṁ sati* (*VII: 6.n*), with *hi* (*saccaṁ*), and sometimes *evaṁ* (*VIII: 11 and 9*). In addition to these, words for 'other' (P. *aññā, itara, apara*) are often treated in a comparable way. The simple rendering does occur –

e.g. 51.28 aññaṁ tapā"so
pl. 149.2 aññesaṁ tapā"kun-so
51.1 aparasmiṁ divase tapā"so ne'nhuik

– but often, especially with *itara*, the reference of the word is clarified, by (1) direct identification, (2) explicit exception, or (3) both: e.g. –

(1) 130.26 itarā Amaradevī (i.e. not Mahosadhā)
(2) 5.27 aññ̃o ñātui'sukhamin-le"yok-tui'mha tapā"so
'another, apart from us four wise men'
(3) 37.21 itaraṁ Dīghapiṭṭhi-mha tapā"so Gotakāla-kui
'the other, Gotakāla, excluding Dīghapiṭṭhi'

4. Irregular renderings are sometimes made in order to bring out the meaning:

e. g. 137.20 hasamānā (strictly = B. ray-lyak 'laughing' – Pres. P'ple) B. ray-khraṅ"íakron"kā" 'the reason for my laughter (was)'
15.25 jānātha (strictly = B. *sikun-lo'* 'know!' – Imperative) B. si-oṅ prukun-lo' 'act so as to know!'
66.6 na akāsi (strictly = B. *mapru* 'did not do' – Aorist neg.) B. prusañ̃ mahut 'it was not that he did it (to slight his father)'

5. In other cases of irregularity it seems either that Burmese idiom slipped through inadvertently or that a strictly conventional rendering would have resulted in incomprehensible or misleading Burmese.

e.g. 145.12 gatā (strictly = B. *luik-í* or *luik-prī* – Past P'ple) B. luik-aṁ' (Future 'I shall follow'
18.15 ekadivasaṁ (Strictly = B. *tane' so ne' kui* – Accusative) B. tane'so ne'nhuik (Ablative) '(on) one day' (and so passim)
100.15 kiṁ jānanti (strictly = B. *abhay sikun-sanañ̃ñ* – Present) B. abhay sikun-aṁ'nañ̃ñ" (Future) 'How could they know?'

X. Burmese verb particles outside the system

A number of verb particles appear in nissaya Burmese without having any apparent correlation with Pali grammatical or syntactic features. Their use is no doubt regulated by the situational context in the narrative or by stylistic considerations, but their precise function has never been very clear and most of them present serious problems to the analyst. For this reason no indication of their function is attempted here. It seemed worth listing them, from the point of view of Burmese grammatical study, in order to single them out from particles which have definitely been equated with Pali features. Many of them are discussed by Anna J. Allott,[46]) and references are given below to other published studies. They are all referred to here as 'particles' without discrimination. S – Stewart's *Manual,* C – Cornyn's *Outline,* ML – Minn Latt's Second report, J – Judson; references are to paragraphs, not pages.[47])

The particles are grouped arbitrarily into two: those which seem to be grammatically unimportant in Burmese and those which do not. No examples of the first group are quoted here. Most of them occur in examples given in the preceding Sections, where they have been enclosed in square brackets.

1.1. Honorific: B. *V-tō mū* /to-mu/ S61 'performs royal or holy V' – used when the subject of the verb is a royal or sacred being.

1.2. Emphatic? euphonic?

1.2.1. *V-le* /lei/ S61, C72, 92, ML16, J112, 118

1.2.2. *V-pe* /pei/ S61, ML16, J112, 118

1.2.3. *V-khye* /hcei/ S61, 68, J112, 118

1.2.4. *V-lat* /la?/ J118; especially common in *V-lat-sö VII: 4.v1.*

1.2.n Note: there are also isolated occurrences of B. *V-lhañ̃ñ'* (169.16), *V-bhi* (100.21), *V-tuṁ* (100.5), *V-tha* (112.26f.) /hle., bi., toun, hta./.

2. Other particles:

2.1. *V-khai'* /hke./ S61, 68, C89, ML14.

e.g. 63.5 jàtaṁ phrac-khai'í
52.18 bhijji kyui"khai'í

2.1.n This particle is often used when translating P. verbs with the prefix *ā-* 'to, at, towards, near to, until, as far as, away, all round' (D. 222*516) –

e.g. 12.6 āharatha choṅ-khai'kun-lo'
21.24 ānetvā choṅ-khai'rwe'
136.19 ācikkhitvā krā"khai'rwe'

– but not regularly –

e.g. 126.13 āharitvā choṅ-rwe'
136.11 ānetvā choṅ[khye]rwe'
45.20 ācikkhi krā"[pe]í

2.2. *V-ra* /ya./ S64, C103, ML15

e.g. 5.11 sayittha ip[tō mū]rapā-í(lo) 'did you sleep?'
130.10 pacāmi khyak-ra-aṁ'naññ" '(how much) should I cook?'
138.3 gamissasi swā"ra-aṁ'sataññ" 'you will have to go'

2.2.n Note: *ra* occurs much more frequently in the text with B. *-aṁ'* than with other tenses: often, as in the second example above, with P. Present rendered (irregularly) as B. Future (cf. D. 320*611, v: 'The present is sometimes used with a future signification.').

2.3. *V-kra* /ca./ S54, C88, ML14

e.g. 87.11 jātā phrac-krakun-í
87.12 caranti swā"krakun-í

2.3.n Note: Though often described in grammars of Burmese as a particle indicating plurality, *kra* in nissaya does not displace the regular sign of the plural B. *kun*. It even occurs in the B. rendering of a singular P. verb:

e.g. 38.20 sameti ññīkra-í
'(one statement) tallies (with the other)'
77.14 na sameti maññīkra
'(a person of good luck) is not compatible (with one of ill luck)'

2.4. *V-ū"* /u:, oun:/ S54, C91, ML16

e.g. 150.22 pucchissāmi me"ū"aṁ'
164.21 uddharitvā (chaṅ"raimha) thut-ū"rwe'
122.12 mā vadetha machuilaṅ"ū" (B. singular for P. polite pl.)

2.5. *V-se"* /thei:/ S54, C101, ML16

e.g. 104.15 daharo ṅay-se"í
17.14 na hoti maphrac-se"

2.6. *V-to'* /to./ S54, C93, ML16 – only two examples found:
20.2 ānema choṅ-ra-kun-to'aṁ'(lo)
58.9 ānema choṅ-ra-kun-aṁ'to'(lo)

2.7. *V-luik* /lai?/ S61, C90, ML14

e.g. 136.2 khipi pac-khyaluik-í
42.27 pesayiṁsu celuik-kun-í (often with this and similar verbs)

2.8. *V-pā* /pa/ S54, C92, ML16

e.g. 1.7 likkhissāmi re"pā-aṁ' (translator to reader)
81.11 saddahāmi yuṁ-pā-í (Mahosadhā to king)
30.11 thassāma taññ-krapākun-aṁ (litigant to arbitrator)

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Appendix 1

Example of nissaya translation (A.D. c. 1750–1800).[48]

The translation is given here as it appears in the text. i.e. *Pali* word(s) followed by Burmese; in the lower line are references to sections of the analysis and English glosses.

Tato thui akhā mha *paṭṭhāya* ca rwe' *Bodhisatassa* bhurā"loṅ" í
V: 2.4 that time Abl. *VII: 2* begin Ger. *1: 2.4* Lord-to-be Gen.
yaso cañ"cim khyam"sā sañ *mahā* myā" sañ *ahosi* {phrac}
I: 2.1 luxury wealth Nom. *VI: 2.2* great Pred. Adj. *II: 4.2* was
í. *Taṁ sabbaṁ* thui aluṁ"cuṁ so cañ"cim khyam"sā kui
Aor. *III: 2.1* that entire Adj. luxury wealth Acc.
Udumbaradevīyeva Udumbaradevī sañ lhyaṅ *vicāresi* cīraṅ í.
I: 2.1, VIII: 1 Queen U. Nom. just *II: 4.2* managed Aor.

'From that time onwards, the Bodhisaita lived in great wealth and luxury; and it was Queen Udumbara who looked after it all.'

Appendix 2

Example of early nissaya translation (1491).[49]

Rammā nhaluṁ"mwe'lyōbhway rhiso *Kapilavā* Kapila (amañ rhiso)
III: 1 delightful *I: 2.6* from the country
prañ-mha *aho nikkhamitvā* thwak-prī"rwe' *Tathāgato* mrat-cwā
(called) K. *VII: 2.v1* having gone out *I: 2.1* the excellent
bhurā"sañ *padhānaṁ* kammaṭṭhan"kui *padahitvāna* luṁ'la
Lord *I: 2.3.1* meditation *V: 2.11, X: 2.4* having made
pru-ū"rwe' *dukkarakāriyaṁ* dukkarācariyākui *katvā*
effort *I: 2.3.1* austerity *VII: 2.11, X: 1.1, X: 3.4*
prutōmū-ū"rwe' *Ajapālarukkhamūlasmiṁ* A. (amañ rhiso) ñ̃ñoṅ-paṅ
having done *I: 2.8* by the Bodhi tree (called)
anī"nhuik *nisīditvā* netōmūprī"we' *Tathāgato* mrat-cwā
Ajapāla *VII: 2.v1, X: 1.1* sitting *I: 2.1* the excellent
bhurā"sañ *tattha* thui (ñ̃ñoṅ-paṅ-raṅ")nhuik *pivāsaṁ*
Lord *V: 2.1* there (at the foot of the Bodhi tree) *I: 2.3.1*
nui'chwam"kui *paggayha* khaṁ-tōmūprī"rwe' *Nerañjaraṁ*
milk-rice *VII: 2.v1, X: 1.1* having taken *I: 2.3.2*
Nerañjarā (mrac)sui' *upeti* kap-tōmū-í.
to (the river) N. *II: 4.2, X: 1.1* approached.

'The Buddha, after going out of the lovely country of Kapila, exerted himself in meditation and practised austerity; then, sitting at the foot of the Bodhi tree called Ajapāla, the Buddha there took the milk-rice and proceeded to the river Nerañjara.'

Appendix 3

Example of recent nissaya translation (1910).[50]

Kyī"sai Le"thap Mahā Therena (kye"jū"tōrhaṅ) ashyaṅ Kyī"sai Le'thap
I: 2.7.2 With the venerable K. abbot

Charātō bhurā″krī″nhaṅ' *saddhiṁ* takwa *Wā″lay gāma vihare*
(who deserves our gratitude) *VIII: 13* together *I: 2.8*
Wā″lay-rwā kyoṅ″nhuik *vasantassa* sītaṅ" suṁ"netōmūso
in the monastery of W. village *III: 1.2, X: 1.1* residing
Sīrimālā Therassa ashyan Sīrimālā Mahā Ther(mrat)í *santikehi*
I: 2.4 the (venerable and) reverend monk S's *I: 2.6*
athaṁ-tōtui'mha *laddhopadesena* ra-ap-so naññ″padesa-phraṅ' from the presences
I: 2.7.1, III: 1.3 with instruction received
samaṁ aññī aññwat *catukaṇḍehi* le"puiṅ"le"kaṇḍatui'phraṅ' *cf. I: 2.7.2*
in accordance *I: 2.7* with four sections
maṇḍitvā tan″chā chaṅ-rwe' *racito* cīraṅ-ap-so *Kabyā Sārattha Saṅgaho*
VII: 2.11 embellishing *III: 1.3* composed *I: 2.1*
K.S.S. kyam"sañ *ekasahassa dvisata dvesattati Sakkarāje* Sakkarāj the book
K.S.S. *III: 1* (called)
1272-taññ″ (hūso) *vasse* nhac-nhuik. . . *suniṭṭhito* koṅ″cwā cīraṅ S. 1272
[= A.D. 1910] *I: 2.8* in the year. . . *VI: 1.3* is well finished.
oṅ-mraṅ prī″ci″peprī.

'The book Kabyā Sārattha Saṅgruih, composed with the embellishment of four sections, in accordance with instruction received at the feet of the venerable Kyithè Laydat Sayadaw, who deserves our gratitude, and the venerable monk the Reverend Sīrimālā, who resides in the monastery of the village of Walè, was brought to a successful conclusion in the year 1910.'

Appendix 4

Example of Burmese translation from Pali (c. 1800).[51]

This translation is not a nissaya, but written in nissaya style. For comparison, the Pali text from Andersen's *Reader* (p. 1) is shown in the lower line.

Lwan-leprī″so akhā Bārāṇasī-praññ-nhuik Brahmadat mañ-so maṅ″sañ *Atīte* (*I: 2.8* †) *Bārāṇasiyaṁ* (*I: 2.8*) *Brahmadatte* (*I: 2.8.3*)
maṅ″prusañ rhisō Himavantā arap-nhuik bhurā″loṅ″sañ *rajjaṁ kārente* (*VII: 4.3*) *Himavantapadese* (*I: 2.8*) *Bodhisatto* (*I: 2.1*)
myok amyui″nhuik phrac-rwe' chaṅ-proṅ-ā″kui choṅ-nuiṅ *kapiyoniyaṁ* (*I: 2.8*) *nibbattitvā* (*VII: 2.11*) *nāgabalo* (*VII: 3.1*)
sañ acwam″nhaṅ'praññ'cuṁ-"sañ krī"so kuiy rhisañ taṅ'tay-khraṅ″*thāmasampanno* (*ibid*) *mahāsarīro* (*ibid.*) *sobhaggapatto*
acusui'rok-sañ phrac-rwe' mrac-kwe'phrac-so tonerānhuik
(*ibid.*) *hutvā* (*ibid.*) *Gangānivattane* (*III: 1*) *araññāyatane* (*I: 2.8*)
ne-í.
vāsaṁ kappesi (*II: 4.2*).

[† strictly: ... akhānhuik]

'Once upon a time, when King Brahmadatta was king in Benares, the Bodhisatta came into being as a monkey. He grew up to have the strength of an elephant, to be possessed of bodily might, powerfully built, and endowed with grace; and he lived in a place in the forest on a bend in the river.'

Appendix 5

Example of Burmese free translation from Pali (1784).[52]

The translation is not a nissaya, nor written in strict nissaya style. This passage corresponds to that from the nissaya quoted in Appendix 1. *o* before a section reference marks departure from nissaya convention.

Isui' (*VIII: 9*) Mahosadhā sukhamin-sañ (*I: 2.1*)... bhun"krak-sare cañ″cim uccā akhraṁ-araṁ (*oI: 2.1*) tui″tak pran'pwā″myā″mrat-sañ (*VI: 2*) phrac-í (*II: 4.2*). Thui M. sukhamin (*oI: 2.4*) im-nhuik (*I: 2.8*) im-thoṅ-mhu paccañ″uccātui'kui (*I: 2.3*) thin″sin″mañ'sū im-rhaṅ (*oI: 2.1*) marhise″sañ phrac-rwe' (*VII: 3*) Udumbaradevī mibhurā″sañsālhyaṅ (*I: 2.1, VIII: 1.v1*) kraññ'rhu webhan cīmaṁ khwaikhram″saphraṅ' (*VII: 2.n3.3*) up-khyup coṅ-ma-ra-í (*II: 4.2*).

'In this way, the wise man Mahosadhā increased greatly in power, glory, wealth, luxury and following. As there was not yet a mistress of the household, in that Mahosadhā's house, who could supervise his household possessions and wealth, it was Queen Udumbara who had to assist in the management, taking care of things, and making decisions, arrangements, and apportionments.'

Appendix 6

Examples of nissaya particles commonly replaced or omitted in original Burmese prose (between 1714 and 1733).[53]

For Pali	*nissaya*	*omitted*	*replaced*	*by*
Nom.	N-sañ	217.9	216.11	N-ka /ka./
Acc.	N-kui	216.24		
Gen.	N-í	216.32		
Dat.	N-ā″		215.2	N-kui /kou/
Abl.	N-mha		216.14	N-ka /ka./
Abl.	N-mha		217.22	N-kasañ /ka. thi/
Instr.	N-phraṅ´		218.1	N-nhaṅ´ /hnin./
Loc.	N-nhuik	216.2	216.11	N-twaṅ /twin/
pl. (N)	N-tui'	216.19	217.24	N-myā″ /mya:/
Pres., Aor.	V-í		216.2	V-sañ /thi/
Future	V-aṁ´		216.14	V-mañ /myi/
Imp'tive	V-lo´		216.21	V-to' /to./
pl. (V)	V-kun	217.9		
Adj.	V-so		216.5	V-sañ' /thi./

Other obvious differences are

V-lhyaṅ (217.2) for nissaya *V-saññ rhisō* or *akay-rwe'V-aṁ'*
V-nuiṅ (216.12) for nissaya *V-aṁ'soṅhā tat-nuiṅ*
N-nhaṅ' (216.22) for nissaya *N-nhaṅ'takwa;*
and among the pronouns:
yaṅ" (217.28) for nissaya *thui*
pasui' (216.34) for nissaya *abhay-sui'* or *asui'*.
There are also usages not matched in the nissaya – e.g. *V-mha* (217.5) and *N-kron'* (217.24).

Notes

1. The Rev. A. Judson, *Grammar of the Burmese language*, Rangoon, 1888, new ed., 1951.
2. A. W. Lonsdale, *Burmese grammar*, Rangoon, 1899.
3. J. A. Stewart, *Manual of colloquial Burmese*, London, 1955.
4. W. S. Cornyn, Outline of Burmese grammar (*Language* Dissertation, 38), Baltimore, 1944.
5. Minn Latt, 'Reports on studies in Burmese Grammar', *Archiv Orientální*, first report, XXX, 1962; second report, XXXI, 1963; third report XXXII, 1964.
6. In some nissaya the Burmese incorporates material, literary or explanatory, additional to the Pali text. Tin Lwin (see n. 8 below) classities four types of nissaya: verbatim, free, ornate, and translation with short notes. It is the ordinary verbatim type, with minimal additions, which is relevant for this paper.
7. See Mabel Haynes Bode, *The Pali literature of Burma* (Royal Asiatic Society publication), London, 1909, 101.
8. See Tin Lwin, *A study of Pali-Burmese nissaya* (M A. thesis, London), 1961, 39; extracts were published in *JBRS*, 46, 1963.
9. This also appears to be true, *mutatis mutandis*, for *trāai*, the Mon equivalent of nissaya: see C. Duroiselle, 'Talaing nissaya', *JBRS*, 3, 1913, 113.
10. See W. S. Cornyn, 'A Burmese Jātaka commentary', *Language*, 20, 1953, 358.
11. Nyaunggan Sayadaw, *Eka* (*Duka*, etc.) *Nipāt Jāt Vatthu*, Mandalay-Rangoon, 1925–1928.
12. U Obhāsa, *Jātaka Vatthu* [published separately], Rangoon, 1906–1922.
13. U Pe Maung Tin, Editorial Note, *JBRS*, 6, 1916, 79.
14. U Kala, *Mahayazawindawgyi*, I–III, Rangoon, 1925–1960.
15. Op. cit., xi.
16. *Outline*, 5.
17. Op. cit., first report, 53.
18. See Bode, op. cit., for an account of the history of Pali studies in Burma.
19. See Mabel Haynes Bode, 'Early Pali grammarians in Burma', *Journal of the Pali Text Society,* 1908.
20. U Paññāsāmi, *Sāsanavaṁsa* (1861), translated by B.C. Law, London, 1952, 81.
21. 85ff.
22. E.g. Shin Mahā Raṭṭhasāra's *Kogan Pyo* (1526), ed. Daw Khin Saw, Rangoon, 1959; and, for nissaya, Shin Sīlavaṁsa's *Paramidawgan Pyo* (1491), Rangoon, 1914. Cf. Tin Lwin, op. cit., 105ff.
23. See Bode, *The Pali literature of Burma,* 101.
24. See U Wun, 'Mran-mā-nuiṅ-ṅan rhe"khet bhāsāpran samuiṅ-khyup', *JBRS,* 45, 1962, 131.
25. See Mahā Zeyyathinkhayā, *Vohāralinatthadīpanī* (1830), Mandalay, 1899, 6.

26. See *Hman-nan Yazawin,* I–III, by a committee of authors (1829), Mandalay, 1907–1921, beginning of Part Three, where further details are given.
27. See publisher's preface to Banya Dala, *Rājādhirāj Are"tōpuṁ,* Mandalay, 1922.
28. See U Shwe Zan Aung, 'Philological study of the Burmese language', *JBRS,* 6, 1916, 57 and 144.
29. E.g. Mahā Zeyyathinkhayā, op. cit., 7; cf. 259, 268; Kyaw Aung San Hta Sayadaw II, *Vohāratthapakāsanī* (c. 1800), Rangoon, 1933, 6.
30. From Okpo Sayadaw, *Wibhāt 7-sway saṅkheta hmat-phway,* Rangoon, 1900, 29 and 32.
31. See Taungdwin Sayadaw, *Saddābyūhā* (?1750), 2nd imp., Rangoon, 1882; and Kyaw Aung San Hta Sayadaw I, *Kawilakkhaṇa Mran-mā Saddā* (1748), Rangoon, 1962.
32. Op. cit., iii.
33. Since J. A. Stewart's *Introduction to colloquial Burmese,* London, 1936.
34. See U Kaung, 'Survey of the history of education in Burma', *JBRS,* 46, 2, 1963.
35. *Supra*, 29.
36. E.g. *Mran-mā phat-cā* (*Doṅ"tan-chip*), by Saya Lin, 1913; revised edition by Saya Lin and Maung Shwe Kyu, 1929–1932. Another set of readers was prepared by U Pe Maung Tin for Longmans in 1931–1932. U Wun composed a set of 'Supplementary Readers' (*Apui Mran-mā phat-cā*), published in 1938, which were evidently intended as a move away from the classical style of the early readers: 'They are written only in the style found in contemporary newspapers, journals and magazines' (preface to vol. 1), but U Pe Maung Tin's readers were reprinted unchanged in 1949–1952.
37. See n. 12.
38. Minn Latt, first report, 53.
39. Shin Guṇalaṅkāra, *Mahosadhā Jātaka Aṭṭhakathā Pāṭh Nissaya*, I–III, Rangoon, 1928.
40. D. Andersen, *Pāli Reader* with notes and glossary, London, 4th ed., 1935. His Nos. 29 and 30 = nissaya 121.14–139.10 and 29.3–32.14 (for nissaya numbering see p. 198 below).
41. See C. Duroiselle, 'Literal transliteration of the Burmese alphabet', *JBRS*, 6, 1916.
42. C. Duroiselle, *Practical grammar of the Pāli language,* Rangoon, 3rd ed., 1921.
43. This point is discussed by the Taungdwin Sayadaw, op. cit., sections 115-128.
44. Hla Pe, 'A re-examination of Burmese classifiers', *IPLS*, 2.
45. V. Fausbøll, *The Jataka*, London, 1877–1896.
46. In her paper 'Categories for the description of the verbal syntagma in Burmese', *IPLS,* 2.
47. For bibliographical details of these works see notes 1, 3. 4 and 5.
48. From Shin Guṇalaṅkāra, op. cit., I, 121, lines 14ff.
49. From Shin Sīlavaṁsa, op. cit., 7.
50. From Saya Lun, *Kabyā Sārattha Saṅgruih* (1910), Rangoon, 1955, 381.
51. From Nyaungan Sayadaw, op. cit., II, 224.
52. From U Obhāsa op. cit. (*Mahosadhā*), 131.
53. From U Kala, op. cit., III; references are to page and line.

31

NORTH-EAST INDIA AS A LINGUISTIC AREA*

Dipankar Moral

Source: *Mon-Khmer Studies* 27, 1997, 43–53.

1. Introduction

1.1. Language situation in the northeastern part of India

The northeastern part of India comprises the seven sister states of Assam, Meghalaya, Manipur, Nagaland, Tripura, Mizoram and Arunachal Pradesh. According to the 1971 census there are about 220 languages spoken in these states, belonging mainly to three language families, namely Indo-European, Sino-Tibetan and Austric. Indo-European is represented by Asamiyà, Sino-Tibetan is represented by the Tibeto-Burman languages of Boro, Karbi, Garo, Mising, Rabha, Dimasa, Kachari, Tiwa, Deuri etc, and Tai represented by a few dialects of Tai-Ahom, Tai-Phake, Tai-Khamyang, Tai-Turung, Tai-Aiton and Tai-Khamti.

The sole representative of the Austric family is Khasi (Kakati 1941:32) and it is the major language spoken in the state of Meghalaya in which such minor languages as Asamiya and Garo are spoken.

Tibeto-Burman Meitei is the official language of Manipur, where Tangkhul-Naga of the same group is also spoken. Different Tibeto-Burman languages like Ao, Angami, Sema, Lotha, Konyak, Dzemi, etc. are spoken in Nagaland. Asamiya is also used in certain parts of Nagaland.

Tibeto-Burman Kak-borak, sometimes also called Tripuri, and Bangla are the main languages of Tripura.

Mizo and Hmar of the Tibeto Burman group are the major languages spoken in Mizoram.

In Arunachal Pradesh all the major languages spoken belong to the Tibeto-Burman group, namely, Hrusso, Tanee, Nisi, Adi, Abor, Nocte, Apatani, Misimi, Galong, etc.

It is interesting to note here that Asamiya has been serving almost as a *lingua franca* among many speech communities mentioned for the last couple of centuries. It is being used for inter-language and also for inter-dialect communication between the various speech groups. In some cases the creation of pidgins has also been noticed. For example, the various mutually unintelligible Naga dialects use

the Naga pidgin in Nagaland, where the source language is Asamiya. In Arunachal Pradesh it has been observed that a similar situation prevails where Arunachalese, a pidgin where the source language is Asamiya, is being used like the Naga pidgin for both inter-language and inter-dialect communication.

The Tibeto Burman tribes came through Burma and entered the hills and valleys of Assam in about 1000 B.C. They gradually encroached upon the Austric settlers who have been settling here since 2000 to 2500 B.C. and forced most of them to take refuge in mountainous homes. That was how the Khasis thrived in their mountainous homes high on the hills of Meghalaya.

Like any other Aryan language, Asamiya had its roots in the Apabhramsa dialects developed from Magadhi Prakrit of the eastern group of Sanskritic languages. The Kamarupa variety of the Apabhramsa dialects made its way into Assam and eventually Asamiya was created. That Asamiya came into existence in Assam at a very early date can be gauged from a reference by Xuan-Zang, a Chinese traveller who visited Assam in 643 A.D. The copper plate inscriptions of the rulers of Kamarupa or Assam from the 5th through 13 century A.D. (written in Sanskrit) and the stone inscriptions at Umachal dating back to the 5th century A.D. confirm such an observation.

Early in the 13th century, a section of the Mao branch of the Tai race entered Assam under the leadership of Chao-lung Shu-ka-pha and conquered it and ruled till the British annexed erstwhile Assam in 1826. These people came to be known as Ahoms and their language Ahom or more properly Tai-Ahom. Dr. B.K. Kakati suggests that the name Assam pronounced /OxOm/ has its roots with the Ahoms who were so called, / OxOmO/ meaning unequaled by the vanquished local people. For several centuries the Ahom language continued as their mother tongue in which works on various subjects such as history,[2] astrology, religion and politics were produced. Many of these works are still preserved by certain families. But gradually the Ahoms converged with the local OxO-mias (the Assamese) and there was almost a total shift of language from Ahom to Assamese. Today the Tai-Ahom language is used only by the Maw-sams, Mawhungs and Maw-plangs (Deodhai Mawhun and Bailung), the three priestly Ahom classes, for religious purposes only.[3] The shift of Ahom to Asamiya undoubtedly had a remarkable impact on the Asamiya language structure.

Large-scale diffusion of linguistic innovations has been taking place between Asamiya, the Sino-Tibetan languages, and Khasi in this area for a very long time, which has resulted in many common linguistic features binding all these languages in a common thread even though they are not related genetically. This is a direct result of linguistic innovations originating in one language spreading to neighboring varieties through the medium of bilingual speakers. The common structural features shared by these languages of this area are not found in any language in the rest of the country. Xuan-Zang observed as early as in 643 A.D. that the languages spoken here differed from that of mid-India.

1.2 Language profile of India

Barring the northeast, India is inhabited by a large population who speak languages belonging to three major families: **Indo-Aryan** (a sub-family of Indo-European)

represented by Hindi, Marathi, Bangla, Oriya, Gujarati, Maithili, etc.; **Dravidian**: Tamil, Telegu, Malayalam, Kannada, etc.; and **Munda**: Sora, Santhali, Malto, Kharia, etc. Co-existence over time has resulted in large-scale diffusion of linguistic features across genetic boundaries resulting in an Indo-Aryanization of Dravidian languages (Sridhar 1975) and Dravidianization of Indo-Aryan languages (Gumperz and Wilson 1971, Nadkarni 1975, Pandit 1972). Significant borrowings of linguistic features from Munda into the other two families and vice-versa are also evident (Burrow 1955).

2. Common linguistic characteristics of the languages of northeast India

In the following sections I describe the salient linguistic features which are peculiar to this area and distinguish it from the greater Indian linguistic area.

2.1 Phonological features

(a) As Emeneau has observed, 'Most of the languages of India, of no matter which major family, have a set of retroflexes, in contrast with dentals. The retroflexes include stops, nasals, fricatives, laterals, trills and flaps. This is an essentially Dravidian feature which has crept into all Indo-Aryan and Munda languages marked by Barushaski in Kashmir'.[4] In other words, it forms a solid bloc characterized by this phonological feature. However, the northeastern part of India is totally out of this bloc because not a single language, irrespective of family, has contrasts between dental and retroflex sounds, a unique feature of the languages here is a total absence of any retroflex sounds. Instead the languages here have a whole series of dental or alveolar sounds which include oral and nasal stops, fricatives, laterals, approximants, flaps and trills.[5] This absence of retroflex sounds and the presence of alveolar or dental sounds are features typical of the northeast Indian languages.

(b) Another striking phonological feature shared by all the languages of the northeast, is the use of velar nasal /ŋ/. Extensive use of this sound at all positions in a word is seen in all the languages of the North-East,[6] and the way /ŋ/ is pronounced here clearly marks this area different from the rest of the mainland. It is interesting to observe that in all the languages of northeastern India /ŋ/ is always pronounced singly eat in the rest of the country speakers of any language attach a homorganic sound /g/ immediately after /ŋ/, and it is pronounced simultaneously. Thus /ŋ/ is realised as /ŋg/. For example, certain important place names of the North-East like Rangiya, Pengeri, Dhing, are pronounced by speakers here as /roŋia/, /peŋeri/ and /dhiŋ/, respectively, but contrary to this any language speaker from the mainland will pronounce them as /roŋgia/ /peŋgeri/ and /dhiŋg/ etc. This is a common hurdle faced by all language speakers learning any language belonging to the mainland and vice-versa. Moreover, there is a limitation of occurrences of /ŋ/ in a majority of Indian languages. This is a distinct Sino-Tibetan feature creeping into all the languages of this area because it is observed that for almost any Sino-Tibetan language in South-East Asia /ŋ/ is a very common sound.

(c) The palatal sounds of underlying Sanskrit have attained different sound values in different Indo-Aryan varieties. For instance, in Bangla they have become palatal affricates, in Marathi they have become dento-palatal affricates, but in Asamiya these sounds were lost due to the impact of neighboring languages, where the alveolars or the dentals are the most dominant.

Regarding the fricatives, one can postulate that /s, z, h/ occur in all languages irrespective of any family in the northeast. However in Asamiya only an extra fricative /x/[7] is noticed.

2.2 Grammatical features

(a) Personal deictics or markers: The use of personal markers in regard to the use of various kinship terms in reference to the age and rank of both the speaker and listener, is a feature which separates the northeastern languages of India from all other languages in the rest of the country. However, a few languages belonging to the Munda group in Central India, particularly Santhali, have somewhat similar systems. G.A. Grierson in modern *Indo-Aryan Vernaculars* (p.75) has mentioned this aspect, particularly in Boro and a few other Tibeto-Burman languages. According to Dr. Banikanta Kakati, this is an Austric feature which has influenced all the other languages of this area. This seems possible because the distant Munda language of Santhali may have preserved this system, while the others might have lost it due to the Indo-Aryan and Dravidian impact where no traces of such a system are seen.

The following examples from Asamiya, Khasi (Austric) and a few Tibeto-Burman languages show such use of personal markers.

Asamiya (Indo-Arayan)	*Khasi (Austric)*	*Meitei*	*Boro*	*Mising*
/tumar deuta ra/ (your+father+marker)		/nOm gin opa/ (your+marker+father)		/no KKou ani/ (my+marker+mother)
	/la zoŋ phupa/ (your+marker +father)		/naŋ ni aøa/ (your+marker +father)	

The differences between Asamiya and a majority of Tibeto-Burman languages and Khasi as shown above are that in Asamiya the marker is attached after the noun, but in the rest it occurs before the noun. However, it is worth mentioning here that in a few Tibeto-Burman languages, like Garo and Rabha, such markers are attached after the noun as in Asamiya.

GARO:	RABHA:
phag + gi + pa	ba + p^ha + bra
my + father + marker	my + father + marker

(b) Negativization process: The process of negation of verbs in Asamiya is another feature which clearly demarcates it from the rest of the sister new

Indo-Aryan languages and other Dravidian languages. In Asamiya /n/ is attached to the verb followed by a vowel which is the exact copy of the vowel of the first syllable of the verb, as in:

(i) /na lage/ 'do not want' (1st, 2nd, 3rd, person)
(ii) /ni likhu/ 'will not write' (1st person)
(iii) /nukutu/ 'will not nibble' (1st person)
(iv) /nElEkhE/ 'does not write' (3rd person)
(v) /nOKOrO/ 'do not do' (2nd person)

Where the various negative markers are (i) /na/, (ii) /ni/, (iii) /nu/, (iv) /nE/ and (v) /nO/

A similar system is also observed in Tai-Ahom where the negative marker is /m/ and it is prefixed to various verbs, as in the verbs /kin/ in Tai-Ahom which means 'to eat', and /mikin/ which means 'not eat'.

Khasi also has a more or less similar system where the negative marker is /em/. Whenever it is prefixed to a verb negativisation occurs, as in:

/bam/	'to eat'	(1st person)	-	/embam/	'will not eat'
/let/	'to go'	(1st person)	-	/emlet/	'will not go'
/dOn/	'to have'	(1st person)	-	/emdOn/	'dont'have'

This feature of prefixing the negative marker seems to be an influence from Khasi, but it has undergone a slight change in its use as is observed in the examples from Asamiya and Ahom. Even Rabhamese, a variety of Rabha spoken in West Assam bordering the Khasi hills, is reported to have a similar system.

(c) The use of plural suffixes in all the languages spoken in the northeast is another feature which marks them as different from a majority of Pan-Indian languages. In Asamiya, for instance, all the bound forms such as /hot/, /bur/, /bilak/, /mokha/, /zak/, /Xokol/, etc. denote plurality and are suffixed to a noun or a pronoun. Boro and Garo have /bur/, /bilak/, /mokha/ etc. as plural markers.

Many Tibeto-Burman languages such as Rabha, Tiwa, Mising, Karbi, etc., use a variety of such types of plural markers. In Khasi also a plural system is observed, as in /icŋ/ 'house', but /sikitieŋ/ 'houses', where the plural marker /sikit/ is prefixed. In Tai-Ahom, the plural markers are /nam/, /khOn/, /cheo/ etc., as in /konnam/ 'man many', /lucheo/ 'many horse', etc.

(d) The derivation of nouns from verbs through suffixation is a common feature in all the languages of this area. For example, the verb /kha/ in Asamiya meaning 'to eat' changes to the noun /kha On/ meaning 'good eating'. Almost all verbs can be transformed to nouns by the addition of the suffix /On/ in the language. In Garo the suffixes /ani/, /gipa/ and /gimin/ attach to a verb to change it to a noun, as in the verb /dak/ 'do' which changes to the noun /dakani/ 'being done', /dakgipa/ 'one who does' and /dakgimin/ 'already done', respectively.

(e) The extensive use of classifiers in all the languages in this area is another feature which is a pecularity of the northeast. However, in certain Indian languages,

limited use of a few classifiers are noticed. Among the new Indo-Aryan languages, the most notable being Bangla, Oriya, Maithili and Marathi, a few classifiers are used. Similarly, other languages like Santhali, Kurukh, and Malto of the Munda family make limited use of classifiers. But almost all the languages of the north-east (Asamiya, Khasi or any other Sino-Tibetan language) use a huge number of classifiers. For almost everything or every shape these languages use a different classifier. The following lists of classifiers from Asamiya, Boro and Garo prove the point.

Asamiya

/ZOn/	for males (adult)
/Zoni/	for females (women as well as animals)
/gOraki	for man and woman (honorific)
/tu/	for inanimate objects or male of animals and men (impolite)
/ta/	for numbers.
/ti/	for inanimate objects or infants.
/khOn/	for flat, square or rectangular, big or small, long or short objects.
/khOni/	for objects like rivers and mountains etc.
/pat/	for things which are flat, thin, wide or narrow etc.
/SOta/	for solid objects
/kosa/	for mass nouns
/motha/	for bundles of objects
/muthi/	for smaller bundles of objects
/tar/	for broom-like objects
/gOs/	for wick-like objects
/khila/	for leaf-like things, papers, etc.

Boro

/sa/	with human beings
/ma/	with all types of living things
/thui/	with fruits, currency, teeth, stones etc.
/gOŋ/	for leaf-like objects.
/phaŋ/	for trees, saplings etc.
/doi/	for eggs
/thote/	for posts, bamboo etc.
/suba/	for bamboo groves
/thuba/	for bamoo groves, shrubs etc.
/nOŋ/	for abstract objects.
/goŋ/	for horns, wooden objects, houses, weapons
/doŋ/	for hair rope etc.
/daŋ/	for garlands etc.
/mutha/	for betel leaf, paddy
/athi/	for firewood
/dor/	for fish, nuts etc.
/bar/	for flowers and plants
/dan/	for days of the month
/san/	for days
/kha/	for human beings

Garo

/sak/	for people of all sorts, even gods and ghosts
/may/	for animals
/ge/	for all objects of daily use and also for fingers
/kiŋ/	for thin flat things
/pat/	for paper
/miŋ/	for words, stories, songs, etc.
/roŋ/	for round objects
/poŋ/	for hollow cylindrical objects
/diŋ/	for rope-like things
/te/	for houses, rice pots, cups and other hollow objects
/goŋ/	for bank notes
/paŋ/	for plants and trees
/baŋ/	for parts of a whole
/dOt/	for things that stick out from the ground
/nOK/	for households
/jaK/	for leaves and pages of books
/gar/	for bunches of things
/paK/	for half of anything etc.

Moreover, the combination of classifiers with a noun and a numeral in constructing phrases and sentences is a distinct Sino-Tibetan feature shared by many languages such as Chinese, Japanese, Korean, Vietnamese, Burmese and Thai,[8] which has crept into India through the Sino-Tibetan languages of the north-east and has influenced Asamiya and Khasi the most. The Magadhan group of languages, like Bangla, Oriya, Maithili etc. and a few other new Indo-Arayan languages like Marathi, some Dravidian languages like Kolami, Parji, etc. and Santhali and Malto of the Munda family spoken in central India, have also been influenced to some extent. The point to be noted here is that all the languages of the Northeast make extensive use of this system and the frequency of such use is at a comparatively higher level than the languages of the mainland as mentioned above. M.B. Emeneau in his study on the Indian linguistic area has observed that Marathi has a meager suggestion of such a system with one classifier (dzan) 'person' and (dzani) feminine, and the word order in such a construction is fixed as 'numeral + classifier + noun'. Kolami and Parji classify persons only when they are a numerated by the numeral six and over. The Kurukh system is similar to the Magadhan languages of Bangla, Oriya, Maithili, etc. The classifiers are used with the borrowed Indo-Aryan numerals as well as the Dravidian numerals from two to four. Malto, which has borrowed from the Magadhan group, has a fixed order of numeral + classifier + noun. In certain dialects of Telegu and Kannada limited use of this system is noted where the numerals from eight to ten are followed by a classifier /mandi/ when persons are enumerated (For detail see Emeneau, p. 649). The use of this unique system gets more limited in languages as we move away from the Northeast. The maximum use of this system among the languages of the mainland is observed in the Magadhan group bordering the various languages of the North-East. The use gets more and more limited as we go southward. This is

a case of neighbourhood effect of this innovation which has its epicentre at the Northeast. In Sino-Tibetan languages, Asamiya, and Khasi, the use of this system is most frequent in comparison to any other in India. This is a distinct Sino-Tibetan feature which has engulfed Asamiya and Khasi totally. The following examples from different languages of this area show the validity of this statement. Mary R. Haas has rightly commented that the use of classifiers in Thai is a matter that must be treated not only as a part of the grammer of the language but also as part of its lexicography. The same holds true for each and every language of this area.

(i) Numeral + classifier + Noun: This combination is used by Asamiya, Rajbongshi, Khasi, Konyak, Kakborak (Tripuri), Nocte, Mizo, Rangkhal, Karbi, Tiwa, etc.
(ii) Noun + numeral + classifier: Asamiya, Bishnupriya Manipuri, Kachari, Rabhamese, Dimasa, Boro, etc.
(iii) Noun + classifier + numeral: Garo, Nocte, Mizo, Hmar, Rabha, Tiwa, Apatani, Dimasa, Khasi, Mising, Kak Borak, Boro, Nishi, Ahom, Karbi, etc.
(iv) Classifier + numeral + noun: Boro-Kachari, Tiwa, Nocte, Apatani, Tagin, Misimi, etc.

The classifiers are also combined with all types of nouns and numerals occurring in these languages.

Apart from such constructions, the use of a classifier along with the noun is very basic with all the languages of this area, as in Asamiya /kitap khon/ (book + classifier), /suli kusa/ (hair + classifier), etc.

Finally, it can be said that the use of classifiers is not a pan-Indian phenomenon but essentially a Sino-Tibetan feature and has spread to many other languages through the neighbourhood effect. The following examples from Ahom, Asamiya, Boro, and Kakborak show a few combinations of noun, numeral and classifier operating in these languages.

Tai-Ahom

maw kham + saŋ + luk (maw-vessel, kham-gold Saŋ-two- LuK-classifier)
phanum + phuŋ + luŋ (pha-cloth, num-cotton, phuŋ-classifier, luŋ-one)
ma + tu + luŋ (ma-horse, tu-classifier, luŋ-one).
laN + mak + luŋ - (lan-jackfruit, mak-classifier, luŋ-one)

Asamiya

E + zon + manuh (E - one, zon - classifier, manuh - man)
du + khon + kitap (du - two, KhOn-classifier, kitap - book)
Phul + E + ta (phul - flower, E-numeral, ta = classifier)
pat + doh + khila (pat - leaf, doh - ten, khila - classifier)

Boro

mansi + sa + noi (mansi-man, Sa-classifier, noi - Two)
gan + se + kitap. (gan- one, se-classifier, kitap-book)
moi + der + nase (moi-one, der-classifier, nase- elephant)

KokBorak (Tripuri)

bu + phaŋ + sa (bu-cow, phaŋ-classifier, sa-one)
dukhai + duk +tuŋsa (dukhai-one, duk-classifier, tuŋsa-rope)

2.3 Lexical features

(a) For the present study I did a pilot survey of fifty words, essentially a part of the basic vocabularies of Khasi (Austric), Asamiya (Indo-Aryan), Boro, Garo, Rabha, Mishing, Karbi, Tiwa and Angami (all Tibeto-Burman). The loanword percentage is calculated by dividing the items of acculturation by the total number of items on the list and multiplying it by one hundred. The list included various items such as common domesticated and wild animals, kinship terms, items of daily use, parts of a house, paddy-field, types of dress, names of rivers and places, and bodily functions and body parts.

The list was prepared from such various published works as (i) Kakati (1941), (ii) Grierson (1933), (iii) Medhi (reprinted 1988), (iv) Bhattacharya (1977), Goswami (1991), Balwan (1982), Wolfenden (1929), and Terang (1974). Lexical sources of each item in the list were taken from the above mentioned works as well as from dictionaries and other relevant materials available in the various languages. The following table shows the loanword percentages and the Austric, Indo-Aryan or Tibeto Burman influence.

	Austric		*Indo-Arayan*		*Tibeto-Burman*	
	Total Items (50)	*%*	*Total Items (50)*	*%*	*Total Items (50)*	*%*
Asamiya	14	28%			24	48%
Khasi			15	30%	17	34%
Boro	13	26%	26	52%		
Garo	20	40%	24	48%		
Rabha	18	36%	24	48%		
Mising	6	12%	28	56%		
Tiwa	11	22%	26	52%		
Karbi	23	46%	24	48%		
Angami	5	10%	9	18%		

It is interesting to observe from the table above that all the Tibeto-Burman languages (except Angami in Nagaland) spoken in the Brahmaputra valley show a uniformly similar percentage score and the rate of Asamiya (Indo-Aryan) influence is more in comparison to Khasi (Austric)[9] and Angami (Tibeto-Burman). This may be attributed to the fact that Asamiya and the Tibeto-Burman languages, barring Angami, are directly exposed to each other and the process of diffusion was rapid and extensive. Since Angami and Khasi are slightly, isolated therefore the rate of influence be it Indo-Aryan,

Tibeto-Burma or Austric, is relatively less in comparison to the other languages. Another important factor to be considered is that a majority of the population of the different Tibeto-Burman groups in the Brahmaputra valley adopted Hinduism, and as a result the process of Aryanization was accelerated, which is not true in the case of Khasi or Angami. From the table it is clear that all the language families have influenced each other and the more the languages are exposed to one another the higher is the rate of influence. However, this minor study on lexical acculturation were to be taken up in an extensive way where all the Tibeto-Burman languages, Khasi and Asamiya are taken into account in a much broader canvas, I am sure it would throw more light on such an important linguistic aspect.

(b) Another interesting lexical phenomenon is the commonality of place and river names of all the languages spoken in the northeast, which is not shared by any languages in the entire Indian sub-continent. In the derivation of such names many Sino-Tibetan and Austric features have distinctly crept into, as in:

(i) The Boro word 'di' for water is noticed in innumerable river names in the northeast, as in dihiŋ, diborU, dibonŋ, digaru, dikhou, dikreŋ, disaŋ, digboi (boi meaning 'flow of water' in Asamiya).
(ii) The Tai-Ahom influence is also evident in such names, where the Tai-Ahom equivalent for water is nam. The mighty Brahmaputra is nam-ti-lao, other such names are nam-daŋ, nam-zin, nam-khun, nam-saŋ, nam-khe, nam-shao, nam-rup, nam-ti, nam-phuk, nam-sai, nam-choom etc.
(iii) The Khasi equivalent for river is /um/ and occurs in many names found in these parts, as in umtru, umsuŋ, umiam, umraŋsu, umpliŋ, um-Khrah etc.
(iv) -ti- is a typical Tai-Ahom classifier which has crept into all the languages in the northeast. In Ahom it is particularly used with place names which eventually became names of many important places in the northeast, such as tiphuk, tipam, tiru, tirap, tifai, tiŋkhoŋ, tiŋ rai, tiOk, tiho, etc.

3. Conclusion

The preceeding cross-language evidence indicates that such common structural features of all the languages spoken in the northeastern part of India together separate this area from the rest of the Indian sub-continent as such features are not to be found in most of the languages in the country. This I feel is enough evidence to term northeast India as a separate linguistic area where socio-cultural and linguistic diffusion between the different language families has been going on for centuries.

However, in my opinion a more detailed typological investigation of individual language cases will definitely throw more light on such shared cross-linguistic features of the languages of this area.

Notes

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2. The word for history in Asamiya is 'buranji' which has been borrowed from Ahom.
3. A few Tai dialects are reported to be in use in East-Assam in the Dibrugarh district. However heavy carry-over from Asamiya is evident. These Tai dialects are Tai-Khamti, Tai-Phake, Tai-Aitong, Tai-Khamyang and Tai-Turung. Except for Tai-Ahom, all these dialects have maintained their own linguistic status.
4. See Emeneau (1954 a)
5. For more details see Grierson, Indian Antiquary (supplement, 1933, October, P-156).
6. In Asamiya it has some limitation on its occurence as it never occurs word-initially.
7. The voiceless velar fricative /x/ is a distinct characteristic of Asamiya which is not to be found in any language in the entire country. It is similar to the velar sound in German, of Europe. It may be an Indo-European feature which has been preserved by Asamiya. It is a very important phoneme in the language.
8. Lanyon Orgill has observed that classifiers are at once the most important characteristic features of the Thai language.
9. However, in Karbi the Austric influence is the maximum in comparison to the other languages in the Brahmaputra valley, as it is directly exposed to Khasi.

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32

INDO-ARYAN AND TIBETO-BURMAN CONTACT

As seen through Nepali and Newari verb tenses

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1. Introduction[1]

Nepali refers to the official language of Nepal and to the other Eastern Pahari dialects spoken through Nepal and eastward. It is a North Indian language, belonging to the Indo-Aryan branch of Indo-European. The Newari language is a Tibeto-Burman group of substantially similar dialects spoken primarily in the Kathmandu Valley, but also in towns and villages elsewhere in Nepal. Writing and publication in both languages uses the Devanagari syllabary. The written, taught, formal style of Nepali is almost standardized, is in part considered by some to be artificial or pundit speech, and differs more or less sharply from native speakers' colloquial depending on education, caste-clan group, and geographical region. Modern written or literary Newari is to a large extent a creation of this century and is basically derived from a writer's spoken language although standardization has set in. Prior to this an archaic. classical Newari was used for religious literary texts. It is a prestige dialect of Kathmandu, on which writers are basing their standardization, that is described in this paper.

The comparison to be made here between the two languages does not imply that their similarities are due only to their contact with one another. For one thing, Nepali has been in centuries-long contact with other Tibeto-Burman languages during its eastward spread through the Himalayas and is a second language for large numbers of Tibeto-Burman speakers. For another, Newari speakers repeatedly absorbed immigrant groups from North India that originally spoke Indo-Aryan languages. In addition both languages share areal features which are doubtless of greater antiquity than the present millenium or more and are of broader geographical extent than North India and the Himalayas. There are thus many similarities which cannot be unambiguously identified as the product solely

of Nepali-Newari contact, and even many of those that might appear to be so identifiable would require description of neighboring languages for substantiation.

Out of the mass of morphological, syntactic, and other parallels, as well as of direct mutual borrowing of forms, evidenced between the two languages, this paper will restrict itself to the less obvious congruences in the verb and related syntactic behavior. More importantly, it will try to show how the semantic study of language contact reveals underlying similarities in grammar that differences in form would tend to obscure. In any event, Nepali and Newari do not exhibit the spectacular relationship, reportedly found elsewhere in South Asia, of being virtually one code with two expression systems.

First, those tense forms that will be discussed are introduced and briefly described for the two languages. Next, various semantic and other categories will be proposed and exemplified in a characterization of the Newari tense system. After that, the Nepali system will be presented in comparison with the Newari one including discussion of varieties of Nepali and some peculiarities of the Nepali ergative construction illuminated by a Tibeto-Burman model.

Many of the finer details and considerations have been omitted in the discussion of the Newari and Nepali tense systems, and the reader should not look for more than the broad outlines. A more comprehensive study of the Newari system is in preparation. The label "tense" is used only as a very traditional cover term for what will be described. Time is only one element of "tense" as used here, and often a minor one.

2 The verb tense forms to be compared[2]

2.1. The Nepali forms

Where there are person-number distinctions in Nepali verbs, only third person singular forms will be used at this point to exemplify categories in Nepali. Other persons are discussed under evidentials and the ergative below. Items are cited in their shape and use in a formal style, and differing spoken usages are give where pertinent later. The verb tenses to be considered here will first be exemplified with the stem *gar–* 'do' and then identified. The glosses given here and elsewhere are, of course, primarily for translation identification, their more precise semantics being a subject of this paper. Translation is also resorted to in order to help the reader of English map the Newari and Nepali systems into a familiar grid, in place of an etic grid of semantic description, which linguistic science has only begun to develop.

(1)	*Perfective*	(a) *gar-yo*	'did'
		(b) *gar-eko*	'done'
		(c) *gar-eko cha*	'has done'
		(d) *ga-eko thiyo*	'had done, did'
(2)	*Imperfective*	(a) *gar-ne*	'doing'
		(b) *gar-cha*	'does, will do'
		(c) *gar-thyo*	'used to do, would have done'
		(d) gar-la	'will/might do'

(1) *Perfective.* (a) *-y-* the finite past (perfective) tense suffix + *-o* third person singular suffix after *-y-*. (b) *-e* perfective participle suffix + *ko-* the broad genitive/adjectivalizing/nominalizing suffix. (c) *-eko*, see (b), + *ch-* present stative stem of existential-locative 'to be' + *-a* third person singular suffix after *ch-*. (d) *-eko*, see (b), + *th (i)-* past stative stem, corresponding to *ch-*, + *-yo*, see (a).
(2) *Imperfective.* (a) *-ne* imperfective participle suffix.
(b) *-cha*, see (1c). (c) *-thyo* bound form of *thiyo* (1d).
(d) *-la* future suffix, with third person singular marked by absence of a personal suffix.

2.2. The Newari forms

The Newari verb endings to be considered here are, exemplified with the stem *yat-* 'do', as follows:

(a) *yat-o* 'did'
(b) *ya-*v' 'does/do, used to do, did'
(c) *yan-a* '(I/we) do, used to do, did'
(d) *ya-i* 'will/might do'
(e) *ya-e* '(I/we) will do'
(f) *ya.v'-gu, yan-a-gu, ya-i-gu, ya-e-gu* 'having done, doing, going to do etc.'

The Newari verb endings are thus *-o*, *-v'*, *-a*, *-i*, and *-e*. (These letter symbols will be used without hyphen in the next section to identify the tenses in the semantic formulas.) These tenses do not distinguish number nor, as explained below, person. The adjectivalizing/nominalizing suffix *-gu* is added to *-o*, *-a*, *-i*, and *-e*, but not to *-v'*. Thus, *yat-o* + *-gu*, yields *ya. v'-gu* 'having done' (i. e., the latter is not from **ya-v'* + *-gu*). A kind of perfect is formed with *du*, the locative-existential 'be': *ya. v'-gu du* 'has / had done', *yan-a-gu du* '(I / we) have / had done'.

3. Semantic and other features of the Newari tense endings

3.1. Introduction

The definitions of the "tenses" will be given more in the form of descriptions. A stricter statement in logical form is still in the process of being worked out, especially since it also requires the preliminary formulation of a descriptive theory including, for example, presuppositions, illocutionaries, and felicity conditions. The present paper is not the proper context for defending the framework of description adopted. The approach to definition at this point in the analysis will be that of seeking a core meaning for each tense. That is, the tense *form* is taken as the starting point, and, where possible, a single definition will be attempted. The definition gives the components that can be factored out of the range of usages of the given form and that oppose it to the other forms. Then some of these various

usages will be described. The ultimate goal would be an autonomous statement of the semantic system of tenses, linked by rules to the formal expression system. On the evidence some of the usages to be described seem to be good candidates for becoming separate categories of the semantic system.

For the description, the agentive/ergative "subject" of transitive verbs will not be distinguished from the subject of intransitives since transitivity does not affect the interaction of subject with verb endings. A detailed discussion would have to cover the semantic interactions of subject and object with one another and with the verb and tense meanings. The question of subject, object, etc. as categories only of surface grammar will be glossed over for simplicity. Thus, *x* will be used as a variable corresponding to subject noun phrase (referent), and *F* will represent the state or action of the main verb phrase without the verb tense endings. That is, *F* represents an action that *x* performs or undergoes or a state that *x* is in.

The proposition *F* (*x*), with predicate *F* and argument *x*, is itself the argument of complex higher predicates, and the tenses expressed by *-v'*, *-o*, *-a*, etc. are among them. The phonological letter symbol of each tense ending will be used, without hyphen, to represent the particular complex of (higher) predicates that this tense incorporates. For example, *wo-n'ya-v'* she/he does/used to do (it)' (*wo* third person singular pronoun, *-n'* agentive suffix, *yat-* 'do', *-v'* characterizing tense suffix) is one realization of *v' (F (x))*, where *x* is *wo* and *F* is *yat–*. These notational conventions are adopted to simplify the definitions and descriptions of the tenses.

We start with the evidential categories in the Newari system. Given a statement, in a definition, that the speaker *s* asserts that *F(x)* (or some other proposition), this statement should be understood to have the following felicity condition. The condition is that *s* know that *F(x)* and thus that *s* have had one or more experiences that have caused *s* to know that *F(x)*. In describing the evidential components of *–o*, *–v'*, *–a*, *–i*, and *–e*, four subtypes of experience are specially singled out: (a) *s* observes at least part of the action or state *F*(*x*) to occur or exist; (b) *s* observes circumstantial evidence that *F*(*x*); (c) *s* is told that *F*(x); (d) *s* is *x* and intentionally performs the action *F*(*x*).

To account for the location of *S*(*x*) in relation to the time/event of speaking at which *s* asserts, reports, questions, etc. *F*(*x*) is presupposed to carry with it a time variable *Time F*(*x*) at which it is or can be located. This time variable derives from a variable time located. (This time variable derives from a variable time predicate taking *F*(*x*) as its argument.) Since the tenses include aspect and other characteristics, they have their own time variables, *Time o, Time v', Time a*, etc. These are not necessarily coterminous with *Time F*(x) for the propositions *o* (*F*(x)), *v'* (*F*(*x*)), *a* (*F*(*x*)), etc.

Each tense definition will be introduced by translations of its more neutral usages, i. e. usages elicited with no more than minimal contextual cues, whether verbal or nonverbal.

3.2. o (F(x))

For o (*F*(*x*)) translations might be '*x* did *F*' or '*x* fell to doing *F*' where *F* is an action performed by *x*. States can be translated '*x* became *F*', '*x* turned out to be *F*', '*x* has become/turned out to be *F*', '*x* is *F*'. (This last, '*x* is *F*', is discussed

in *4.1* below in a comparison with Nepali *–yo*.) Thus, a part of a core meaning definition we would say that an action or state *F*(*x*) comes to be at least once. For a given occurrence *o* (*F*(*x*)), i. e. in an utterance, *Time F(x)* and *Time o* are classes of times (or occasions) with at least one member each. This is as in English, where '*x* did *F*' or '*x* became *F*', for instance, do not specify how many times the event took place.

To describe *o* (*F*(*x*)) somewhat more formally, we say that the speaker *s* asserts that *F*(x) comes to be at least once, or in other words *s* asserts that *become (F(x))* at *Time o*. The conditions are that *Time o* is before the time of speaking and that the evidence of *s* for making the assertion is at least one experience of *s* of observing at least part of *F*(*x*).

Some comments on this are in order: First, the assertion *become (F (x))* would include the assertion of *F (x)*, where *Time F (x)* is after *Time o* without any intervening time. Next, the above definition of *o* (*F (x))* is a unitary one devised to match a single tense *form*. That is, it assumes that there is one category in the semantic system matching one unit in the formal system rather than several semantic categories matching several homonymous formal units (see **3. 1** above). Then, although the time of speaking follow *Time o*, it may or may not be included in *Time F (x)* or in the time of a resultant state or action, and one regular use of *o (F (x))* includes present-time reference.

3.3. The evidential felicity condition and the inchoative

The evidential felicity condition, it must be stressed, only says that at least one of the experiences of *s* must be one of observation; it does not imply that the experience of observation is the only one that *s* must have. For example, *o* (*F* (*x*)) may be used where a proper translation might be '*x* became *F*' and *s* did not observe *become* (*F* (*x*)) but only *F* (*x*). Here *s* may have known by observation or otherwise that *x* was not *F*, i. e. *not* (*F* (*x*)), before the *Time o* of *become (F (x))*. However, there are situations to which *o (F (x))* is applied where the translation '*x* (has) turned out to be *F*' or '*x* is / was *F*' is appropriate, for example trying on a shoe and finding that it is too small. Here *s* may reasonably assume that *F (x)*, rather than *not (F (x))*, held before *Time o* and continued to hold through *Time o* and the *Time F (x)* actually referred to, i. e. the shoe did not suddenly shrink upon being tried on. Obviously, the import of *become (F (x))* must be worked out more carefully as a component of *o* (*F (x))*.

To do this, a three-valued truth dimension can be set up for Newari assertions (it could also be seen as two linked binary dimensions): (a) *F (x)* is established by evidence, (b) *not (F (x))* is established by evidence, (c) the status of *F* (*x*) is not (yet) established by evidence. Then *became* (*F (x)* might be better rendered as '*F* (*x*) comes to be established by evidence' or '*F* (*x*) comes to be true or proven'. Thus an assertion *become* (*F* (*x*)) (i. e., *o (F (x)*) requires no necessary presupposition that *not* (*F (x)*) just before *Time o*, nor a condition that *s* know any such thing, and none has been included under the conditions in the definition. Since the

inchoative label "*become* (*F* (*x*))" has been used with such a presupposition in describing other languages, it might, for the sake of the metalanguage, have been better to pick some other label for this component in Newari.

3.4. v' (F (x))

In the case of *v'* (*F* (*x*)), where *F* is an action performed by *x*, translations might be '*x* does *F*' or '*x* used to do *F*', and where *F* is a state, '*x* is *F*', '*x* becomes *F*', '*x* used to be *F*', '*x* used to become *F*'. *v'* (*F* (x)) can also refer to a single past-time event, as well as repeated past-time events, and overlaps in such cases with *o* (*F* (*x*)). However, it does not require direct observation as an evidential condition, which *o* (*F* (*x*) does require.

A definition of *v'* (*F* (*x*)) might be as follows. The speakers depicts *x* as characterized by *F* (*x*). To put it differently, *s* says (not "asserts") that *x* is such that *F* (*x*). This formulation depends on the fact that in a question *v'* (*F* (*x*)) is not ordinarily answered by *kho-v'* 'yes / it is so/it is true' or *mo-khu* 'no / etc.' (from *khot-* 'be / become so'), unlike the other tenses. As a question, *v'* (*F* (*x*)) is ordinarily answered by a repetition of the verb of the question, in the same tense, in the affirmative or negative.

The conditions are as follows. *F* (*x*) occurs at least once. (Note that this falls under conditions in contrast to the case of *o* (*F* (*x*)), where it is asserted.) The *Time v'*, during which *F* (*x*) characterizes *x*, begins before the time of speaking, i. e. *Time v'* may end before the speech event begins, or it may include the latter. *Time v'* includes all *Time F* (*x*) referred to by the given utterance of *v'* (*F* (*x*)). The evidence of *s* is at least one experience of observing that *F* (*x*) and / or of observing circumstantial evidence that *F* (*x*) and/or of being told that *F* (*x*). This disjunction can be removed by a formulation which says that there is at least one experience of *s* which is other than the intentional performance by *s* himself of the *F* (*x*) referred to by the utterance, intentional performance being the fourth type of evidence mentioned in **3.1** above for making a statement.

Some clarification is needed for this formulation of the experience required in evidence. Evidential experience is presented for the Newari tenses as a dimension with four values (a) observation, (b) hearsay, (c) circumstantial evidence, (d) intention. For *v'* (*F x*)) a minimum of one experience from (a), (b), or (c), a disjunction, has been rephrased as a unitary statement of a minimum of one experience from non- (d). The reason is more than a theoretical demand for the economy of unitary definition. To help explain this, *a* (*F* (*x*)) is described next.

3.5 a (F (x))

In the simple declarative the subject *x* of *a* (*F*(*x*)) is first person, and translations might be 'I (or 'we') did *F*', 'I used to do *F*'. Thus, the speaker *s* asserts that *F*(*x*) occurs at least once, and the conditions are: *s* = *x*; *F*(*x*) is an action; *x* performs this

F(x) intentionally; *Time a* of this intention includes all *Time F*(x); at least one such *Time F*(*x*) occurs before the time of speaking; the evidence for the assertion is at least one experience of *s* which is this intentional performance of *F*(x) (i. e., *F*(*s*)). It could be argued that only *s* can claim the internal experience of intentional *F*(*x*) and that therefore *s* = *x* follows naturally and is superfluously stated above as a condition. In any event, it should be noted that *s* = x is given as a condition rather than as part of the assertion since *–a* is evidential and not a first-person verb ending: it may occur with any person such as, for example, second person in the interrogative and third person in the quotative. A fuller statement would thus account for how speaker *s* can be second or third person.

Since F (*x*) must be an intentional action here, states, as well as actions defined as involuntary (i. e., where *x* undergoes *F*), occur with *v'* (*F*(*x*)) or *o* (*F*(*x*)) even when the subject is first person. Actions defined as unmarked for either intentional or involuntary occur freely with any evidential category for first person, information about intention being supplied by the category of the tense.

Actions defined as intentional when in the simple declarative with first person subject occur expectedly then with *a*(*F*(*x*)). When these conditions are met but *v'* (*F*(*x*)) or *o*(*F*(*x*)), occurs instead of *a*(*F*(*x*)), the speaker *s* indicates hearsay or observation as evidence for his report of his own actions. This has several uses. Thus, *s* may not remember doing *F* and has found out about it in some other way. Or *s* splits himself into two personae, speaking from the point of view of someone else or reporting his actions in a dream. There is a general effect of talking about oneself in the third person, although the first-person pronoun is used. When *s* employs this usage even though he also has the evidential experience of his own intentional performance (i. e., even though a (*F*(*x*)) would not be infelicitous), there is an impression of flippancy, annoyance, distance, or failure to accept responsibility for one's actions in the face of one's interlocutor, an impolite usage towards one's seniors. This then is one more justification for a unitary statement of the evidential condition for *v'* (*F*(*x*)) as at least one experience of nonintention, since that is what *s* communicates when speaking in the first person with *v'* (*F*(*x*)). The additional evidence of an intentional experience is not excluded as a possibility by this evidential condition for *v'*(F(x)): it is simply not mentioned.

3.6. e (F(x)) and i (F (x))

These two tense forms will not be described in as much detail as the previous three. Typical translations of *e* (*F* (*x*)) are in the first person: 'I (or 'we') will/shall do F', 'I would do F'. Thus, *e* (*F* (*x*)) is in the same evidential category with *a* (*F* (*x*)). It involves actions as opposed to states; the actions are defined as intentional or unmarked as opposed to those defined as unintentional; *s* = x; F (x) will occur at least once. In contrast to *a* (F (x)), *e* (*F* (*x*)) has a different time reference: *Time F* (*x*) is future, but the evidence of *s* for making the prediction (assertion?) is present intention of *s*.

The use of *i* (*F* (*x*)) in the first person declarative when *e* (*F* (*x*)) would also seem appropriate gives similar effects to those described in the preceding section.

i (*F* (*x*)) falls in the same evidential category with *o* (*F* (*x*)), and possibly *v'* (*F* (*x*)), in that the evidence of the speaker *s* that is required as a condition is other than intention of *s*. Time reference is in some sense future. *F* (*x*) will occur at least once.

There are more reasons than for *o*(*F*(*x*) to believe that *i*(*F*(*x*)) is best considered not one form, but several homonymous forms. These reasons will not be gone into here in detail. They consist of such things as differing ways of forming the negative, selective combination with *-gu*, and informant reactions of actual ambiguity The last, ambiguity, is distinguished from simple generality or vagueness of reference, Like ambiguity, generality must often be rendered by more than one translation, but, unlike ambiguity, such multiple renderings derive from greater fineness of the target language on the meaning in question compared to the source language. In any event, the following breakdown of *i* (*F*(x) into several homonymous forms is tentative.

(a) One sense expressed by *i*(*F*(x)) can be translated '*x* will (do/be/become) *F*' or 'x is to/was to *F*'. As the independent clause of a conditional construction, it may be rendered 'x would F'. (b) Another sense translates at '*x* may/might *F*'. (c) A kind of present-time usage of *i*(F(x)) can be translated by a similar use of the English future with *will* to express a repeated or habitual occurrence, e. g. 'on a warm summer's night he *will* often drop by after supper'. A core meaning can be offered for (a), (b), and (c) that involves and evidential in the form of a conditional statement: 'if *y* observes x at *time i, y* will observe *F*(*x*)'.

3.7. The tense forms with '–gu'

The suffix *–gu* is added to the tense endings *–o, –a, –i*, and *–e*, but not to *–v'*. Thus, *wo-n' ya. v'–gu* 'he (she) having done (it)' corresponds to *wo–n' yat–o* 'he did (it)' (*wo* third person singular pronoun, *–n'* agentive suffix, *yat–* 'do'); *ji–n' yan–*a*–gu* 'I doing / having done' to *ji–n' yan–a* 'I do / did' (*ji* first person singular); *wo–n' ya–i–gu* 'he doing' to *wo–n' ya–i* 'he will do' *ji–n' ya e-gu* ' I doing' to *ji–n' ya–e* 'I will do'. The *–gu* form adjectivalizes a verb phrase, rendering the equivalent of a relative clause: *ji-n' yan-a-gu jya* '(the) work that I do/did' from *ji-n' jya yan–a* 'I do/did (the) work'. This can further be nominalized to *ji–n' yan–a–gu* 'what I do/did; the fact of my doing (it)'. Similarly, *wo–n' ya. v'–gu* 'what he did; the fact of his having done (it)'. Relativized usage such as 'the work that he did' or 'what he did' does not assert in itself that he did it but rather presupposes the truth of his havig done it, and this holds for the *–gu* forms.

Furthermore, *–gu* clauses regularly occur as complete sentences and do not become assertions of the action itself thereby, but remain presuppositions. Take, for example, the following conversational sequence. *A*: *wo–n' yat–o* 'he did (it)'. *B*: *gu–boloe ya. v'–gu?* when did (he) do (it)?'. *A*: *mhigo ya. v'–gu* '(he) did (it) yesterday'. The action having been asserted once in the first statement, the last statement need not reassert it. Knowledge already shared by the interlocutors is also stated in a *–gu* sentence. The above question, *gu–boloe ya. v'–gu*, presupposes

that he did it and asks when. Such questions can also occur without *–gu*, e. g. *gu–boloe yat–o*? They are then both assertions and questions : 'he did it; now, when did he do it?'. Such a form is understandably avoided when speaking to persons that one owes respect.

Although *–v'* does not have a separate *–gu* form, the function of the latter is served in other ways. When *–v'* has the same time and event reference as *–o*, it corresponds to the.*v'–gu* (from *–o* + *–gu*) of *–o*. This *–gu* neutralizes the evidential condition of direct observation required for *–o*, a condition which *–v'* does not have. When *–v'* refer to the habitual (or interative), it corresponds to the *–i–gu* of *–i* in the latters reference to habitual action.

Form with *–gu* also form a perfect with *du*, the *–v'* form of *dot–* existential 'be': *ji–n' yan–a–gu du* 'I have/had done (it)', *wo–n' ya. v'–gu du* 'he has/had done (it)'. Although *wo n' yat–o* 'he did (it)', as an *–o* form, can also cover reference to the result of the action as 'he has done (it)', the *–gu du* form asserts the result as well. Thus *wo wol –o* 'he came/has come/had come', but *wo wo. v' –gu du* 'he came/ etc. and is/was here'.

4. A comparison of the Nepali and Newari tense systems

The formal or official style of Nepali is presented unless specified otherwise. For grammatical characterization of the Nepali tense forms, refer to *2.1* above. For fuller description of the semantic categories, see under the appropriate Newari form in the preceding section on the meanings of Newari tense endings.

4.1. Time and aspect categories

A chart at the end of this subsection summarizes comparison with aspect in broad outline.

The Nepali *–yo* form is equivalent to Newari *-o* in time reference and aspect. (Newari *–a* is compared separately below.) Thus, Nepali *us le gar–yo* (*us* oblique of *u* third person singular pronoun, *–le* agentive suffix, *gar–* 'do') and Newari *wo-n' yat–o* are both 'he did/has done (it)'. Both are perfective in aspect and depending on the nature of the verb and the context, may be inchoative. That is, the action began and finished coming into being and may also be completed, or the state finished coming to be and may or may not still exist at present. This also allows for a kind of inchoative or inceptive of ongoing action, depending on the proper context: 'fell to doing/has fallen to doing/is doing'.

In both languages, the inchoative of state may be either 'came/has come to be' or 'came/has come to be true, turned/has turned out to be so'. Thus, for example, Nepali *Thik bha-yo* (*Thik* 'O. K.', *bha–* perfective stem 'be') and Newari *thik jul-o* (*thik* 'O. K.', *jul–*the equational or class-membership 'be') can both translate as '(it) became/has become O. K. (not having been so before)', i. e. an actual change of state, or '(it) turned/has turned out to be O. K. (and presumably was O. K. before but without my, her, etc. knowledge)'. Furthermore, for states, *–yo*

and *–o* may translate not just '*x* has become *F*', but simply '*x* is *F*'. In this latter sense, these perfectives are particularizing; '*x* is *F*' on this occasion, as opposed to a characterizing tense in which '*x* is *F*' as a characteristic, regulariy, if one were to observe *x*, etc.

The Newari *–gu* forms correspond to the Nepali *–eko* perfective and *–ne* imperfective participial forms, i. e. *–o + –gu* (> *v'–gu*) to *–eko*, and *–i–gu/–e–gu* to *–ne* (see below for *–a–gu*). As described above for Newari, the Nepali *–eko* and *–ne* suffixes form relativized (adjectivalized) and nominalized clauses. Such clauses likewise, can also stand as independent sentences expressing presuppositions rather than assertions. The same social implication, given as an example for Newari, follows from their meaning: e. g., *timi-le ke gar-eko*? what have you done?' vs. *timi-le ke gar-yaw*? 'I see you've done something; now, what was it?'. Basically, the *–eko* and *–ne* forms correspond to the *–yo* and *–cha* tenses respectively with regard to aspect. (For the imperfective *–cha* tense, see below.) *–eko* and *–ne* are quite common as the finite verb forms of independent sentences in the spoken language, and one bureaucratic style for interoffice memoranda is cast primarily in such sentences.

We see here a case where differences of form obscure similarities in function. Nepali has two adjectivalizing/nominalizing suffixes to differentiate aspect, whereas Newari has one and expresses aspect in the usual verb endings preceding this suffix. (Actually, the two Nepali suffixes are each segmentable, e. g. *–eko* contains *–e–* as a separate marker of the perfective).

Nepali *-eko cha*, as *us-le gar-eko cha* 'he has done', and *-eko thiyo*, as *us-le gar-ako thiya* 'he had done/did', make a distinction of time which the single Newari *-gu du* as *wo-n'ya.v'-gu du* 'he has/had done', does not. The latter includes Nepali *-eko cha* and overlaps with *-eko thiyo*. In both languages, as described in the discussion on Newari, these forms assert not only the action but also some sort of state or situation as resulting from the action and continuing after it up to some reference point. This is in contrast to the simple perfectivity of Nepali *–yo* and Newari *–o* which may not express continuance of the resultant.

The Newari *–v'* and *–i* (and *–e*) and Nepali *-cha, -thyo* and *–lā* overlap in most of their senses. The equivalents of 'do' will be used to exemplify the comparison. Newari *ya-v'*, when referring to past habitual (characterizing) 'used to do', corresponds to this sense of Nepali *gar-thyo*. In present habitual (characterizing) usage, *ya-v'* corresponds to Nepali *gar-cha* 'does'. *gar-cha* as 'does' also covers Newari *ya-i* in the latter's present habitual sense. (See *3.6* above for the uses of *–i.) gar-cha* as definite future, 'will do', renders this same sense of *ya-i*. The contingent future of Newari *ya-i*, 'may do' or '(watch out: he) might do (it)', corresponds to Nepali *gar–lā*. Newari *ya-e* '(I) will do', as a statement of the speaker's future intention, is rendered by the first-person form of Nepali *gar–cha*. Correspondences change slightly in the interrogative, where, for instance, request for permission may be expressed.

Nepali also has a future form, *gar-ne-cha* 'will do', expressing a strong assertion or prediction of a future event in the spoken language. In a modern, formal, often journalistic, written style, it is equivalent to the simple future of Western languages, particularly English.

Newari *–a* (and *-a-gu*) expresses only nonfuture time with regard to tense, and the evidential category of intentional action, assertable only by the performer of the action. In time and aspect, therefore, it is more general and covers the range of the Newari nonintentional *-o* (*.y'-gu*) and *-v'* both. It has no equivalent in Nepali and, in the simple declarative, corresponds to the first-person forms of Nepali third-person *-yo -cha, -thyo* (and *-eko* and *-ne*). Likewise, the perfect *-a-gu du* in the declarative expresses the first-person forms of Nepali *-eko cha* and *eko thiyo*.

Summary chart

Approximate tense-aspect correspondences

Newari	*Nepali*	*Glosses with 'do'*
-gu	*-ne*	'doing'
	-eko	'having done'
-gu du	*-eko cha*	'has done'
	-eko thiyo	'had done'
-o	*-yo*	'did'
-v'	*-thyo*	'used to do'
-i	*-cha.....*	'does'
		'will do'
	-lā	'may/might do'

4.2. Evidential categories and personal endings of verbs

As said, Newari endings may be put into two classes, *–a -e* for intentional associated with first person, and *–v' –o -i* for nonintentional (i. e., unmarked for intention). As evidential categories, these forms may occur with any person however, depending on evidence, affirmative *vs.* interrogative, assertive *vs.* quotative, and other factors, and furthermore do not distinguish number. (In addition Newari and Nepali have a set of high-honorific verb forms which are not considered here but do not essentially pose any exceptions to the tense systems.)

In the formal or official style of Nepali, the *–yo* tense is neutral as to the speaker's evidence for the assertion, in contrast to the aspectually corresponding Newari *–o* of direct observation but there are speakers who would avoid *–yo* if their evidence is hearsay. Both languages add quotative particles, Nepali *re* and Newari *hõ*, to verb forms to specify hearsay evidence. The Nepali first–person ending and Newari *–a* may both occur with these quotative particles with third person reference if the speaker's source for the information is the performer of the action. Nepali has a further form, e. g. *gar–e-cha*, for actions or states found out about after the fact by later observation, hearsay, etc.

In the formal style, Nepali, has the Indo–European system of verb–tense endings consisting of a differentiation of three persons and two numbers. The second person, however, is tied in with the scale of honorifics, and its singular represents the low grade of the honorific scale, where its "plural" is middle grade with singular *vs*. plural being marked in the pronoun with *gar-* 'do', for example, in the past (perfective) tense and for tenses using (–) *cha*, the six forms are :

	Sing.	*Plur.*	*Sing.*	*Plur.*
1P.	gar-ẽ	gar-yãw	chu/chũ	chãw
2P.	gar-is	gar-yaw	chas	chaw
3P.	gar-yo	gar-e	cha	chan

In the various spoken styles and dialects, however, not all of these distinctions are found. For example, in the few, earlier grammars of Nepali, often based on the speech of hill peoples serving outside of Nepal in the Gurkha regiments, notes, may be found to the effect that in speaking only the 1P. sing. and 3P. sing. forms need be used, the 3P. sing. for all non-1P. This begins to give the appearance of the two main evidential categories of the Tibeto-Burman Newari: the intentional, associated with (although not restricted to) 1P., and the nonintentional, associated with the other persons.

Because of social and regional variation, a further example of a Nepali colloquial will be given from the speech of a single individual, born in the Gurkha district, raised later in Kathmandu, educated, from a wealthy Chetri family. Primarily utilitarian in his approch to language, he describes the range from colloquial through formal speech to writing in terms of the rigor with which teachers in school corrected given items in students' speech and writing. In his colloquial speech as observed, and, he claims, that of his associates and family, as a rule the 1P. and 3P. *sing*. verb endings are used regardless of whether the subject is singular or plural. In the perfect tense *–eko cha* with transitive verbs, the 3P. sing. form *cha* tends to be used for all persons and numbers. (Note that transitives in perfective tenses are ergative, the "subject" taking the agentive suffix *–le*.) This is parallel to the Newari perfect *–gu* d*u*, where *du* is the invariable form. In fast speech, the 2P. "plur." ending of the *–yo* tense, namely *-yaw* [yəw], tends to simplify phonologically and reduce to *-yo* [yo], and then both to reduce further to [yə].

In his variety of Nepali colloquial, then, there is no distinction of number in the verb endings, which only distinguish person (except in the *-eko cha* tense). The 2P. "plur." endings remain distinct from 2P. sing., but, as said above, this is really an honorific distinction and note one of plural *vs*. singular number. Also, the 3P. "plur." verb ending of any tense may be used with a higher grade honorific function, without in fact distinguishing number semantically, with certain honorific pronoun (and noun) subject forms. Only these honorific pronoun forms will be marked for number. To use these honorific pronouns but replace the 3P. "plur." verb endings with the corresponding 3P. "sing." ones may be found humorous and labeled *pàkhe*, the speech of a country bumpkin making gaffes in the use of forms he has not mastered.

It should be noted that the reductions of person-number distinctions in the verb endings in this variety of Nepali seem to result from more than one factor (e. g., *–yaw* becoming *–yo* appears to depend on tempo), but are all in the direction of the Tibeto–Burman system exemplified by Newari.

Although Indo-Aryan influence on Newari lies not so strongly in the area discussed here, there is reported to be a form of Newari spoken in the town of Patan, near Kathmandu, in which the intentional category has lost its evidential function and become fixed as a first-person ending.

4.3. The ergative and subject-verb concord

Newari, like related Tibeto-Burman languages, attaches an agentive suffix to the "subject" of a transitive verb in any tense-aspect, but not to the subject of an intransitive. This does not, however, affect the verb endings. Being evidential rather than concord or agreement suffixes, the latter continue to interact in the same way with the person of the subject regardless of whether the verb is transitive or an intransitive intentional action. Thus, the agentive suffix *–n'* does not affect the verb endings : *ji-n'-ya*-a 'I did (it)' and *ji won–a* 'I went' both have *–a*; *wo–n' yat–o* 'he did (it)' and *wo won-o* 'he went' both have *–o*.

In the more westerly of the North Indian languages and dialects, the tendency is to use the ergative (from the Sanskrit passive in the perfective tenses of transitive verbs, marking the "subject" usually with an agentive suffix; other verb forms are not ergative. Furthermore, verb endings are concord suffixes and agree in person and number, when there is agreement, with the "object" of transitive verbs in the perfective and with the subject of all other verb forms.

Nepali, a North Indian language, lies somewhere between these two systems. The agentive is regularly suffixed to the subject of transitives in perfective forms of the verb. However, usage with other verb forms of the transitives is variable, and the agentive suffix may be added to the subject in such cases too, depending on the particular nonperfective in which the transitive verb occurs and on such things as emphasis, speaker, style, dialect, etc. Furthermore, the verb endings, which are concord suffixes rather than evidentials at least in more formal style, agree in person (and number) with the subject of transitive verbs regardless of whether the agentive suffix appears, and of course with the subject of intransitives. Thus, Nepali verb endings follow a North Indian pattern in terms of person (and number) concord but show a Tibeto-Burman trait when remaining unaffected by ergativity. For example, *may-le gar*-ẽ 'I did (it)' and *ma gɪ*-ẽ 'I went' both have -ẽ; *us-le gar-yo* 'he did (it)' and *u ga-yo* 'he went' both have *-yo*.

5. Conclusion

As said at the beginning, Nepali and Newari have at this point been taken only as examples of the convergences discussed. It is not necessarily clear for all of the many parallels between them, which are due specifically to the several centuries

of contact between the two languages in the Kathmandu Valley and which are prior diffusions of broader areal features of this part of South Asia, including other ancient and more recent Indo-Aryan and Tibeto-Burman contacts.

Only major points in broad outline have been touched on in this comparison. There are other, more complex verb constructions and, of course, finer details and subtler points in tense usage not covered here. The area of comparison was one in which parallels are not as striking and lie more in a semantic rapprochement where convergence in form lags behind. Thus, a form in one language may add a function of a form in another without becoming identical to the latter in all senses, as, for example, a topic not covered, the influence between two Nepali verbs 'to be' and three Newari ones. A general syntactic comparison would merely have repeated basic patterns of the broader South Asian area. In the case of expanded verb morphology, many similarities would stand out: for instance, to express the continuous as in 'is doing', Nepali has *gar–i–rah–e-ko-cha* and Newari *yan-a-cwon. v'-gu du*; both are perfects in a sort of inchoative or inceptive of ongoing action and consist of *gar-/yan-*'do', *–i/-a* absolutive participle suffix, *rah/cwon–* 'remain',*–e/–o* >.*v'* perfective, *–ko/–gu* adjectivalizing suffix, *cha/du* existential–locative verb 'be'. Such comparisons would have been more salient and certainly more convincing, but perhaps also more obvious.

Notes

1. This paper is based on research carried out in Nepal in 1965–1966, supported by Public Health Service research grant No. MH 05743. Works consulted for Nepali include: Clark 1963, Meerendonk 1964, Rogers 1950, Southworth 1967.
2. The following transcription system are used. Only a few phonological observations are made.
   Nepali: *P t T c k, b d D i g, s h, m n, r l, w y; i e a ā u o. T D* are retroflex. Aspiration / breathiness is marked with *h* (*ph, bh*, etc.). Nasalization is marked with a tilde (ẽ, ũ, etc.). *a* covers a broad schwa range. *ā* is low central to front.
   Newari: *p t c k, b d j g, s h, m n, r l, w y; i e a o u. h* marks aspiration / breathiness. A tilde marks nasalization. *v* marks a long vowel (*iv, av*, etc.). *o* covers a broad schwa range, *a* is low central to front. *wo* includes [o] as a variant. Arguments can be made for treating *e as yo. oe / o-e* includes [ɛ :] as a variant. *ae/a-e* includes [æ :] as a variant. (The hyphen represents one of the morpheme boundaries.) *n'* represents lengthening and nasalization of the preceding vowel (e. g., *an'/a–n'* [ã :]; the acute accent marks special morphophonemic symbols). *v'* represents morphophonemic consonant loss, realized as lengthening of the preceding vowel, with nasalization if the deleted consonant is a nasal. (Thus, e. g., *an'/a-n'* and *anv' / anv'* are both realized as [ã :].
   Nepali *ā* and Newari *a* are phonetically equivalent, as are Nepali *a* and Newari *o*, and both of the latter include a centralized lower back rounded variant. Nepali *o* and Newari *wo* are approximately equivalent. However, for many Kathmandu speakers of Nepali, if not for others as well, a five-vowel system, as in Newari, would be appropriate, with [o] represented as *w* plus schwa rather than as a separate *o*.

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LANGUAGES IN CONTACT IN WESTERN CHINA

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0. Introduction

During the 1982-83 academic year I investigated the linguistic situation in the eastern border region between Gansu province and Qinghai province. Although the area is located practically at the center between the eastern seaboard and the western boundary of China, it has always been the beginning of the Western Frontier of China. It covers the upper reaches of the Yellow River and it is near the terminal point of the Great Wall as well as the starting point of the silk route. The map below shows the provinces in western China. The area of study is shaded.

As the map shows, to the north and northeast of this area is the homeland of the Mongols; to the northwest are the Turkic Uighurs and Khazakhs; to the south and southwest lies the domain of the Tibetan culture; and to the east is the old civilization of the Han Chinese. It is, therefore, not surprising that this area should be a center where different ethnic groups, languages, and cultures come in contact with each other. Today aside from the Han Chinese, most of whom arrived as immigrants following the establishment of the People's Republic of China, the region is the homeland of seven other ethnic groups: Tibetan, Santa (Dongxiangzu), Salar (Salazu), Baonan (Baoanzu), Monguor (Tuzu), Hui (Huizu), and Wutun. Contact between many languages and the resultant linguistic borrowing and interference in this area is intense.

For a number of reasons, the most important of which were limited time and the representation of diverse language families, I focused my field work in this area on three languages--Baonan in southern Gansu, Wutun in Qinghai province, and the language of the Hui people in Linxia of Gansu province--and collected in-depth data on them. Baonan is a member of the Mongolian language family. Wutun belongs to the Chinese language family but it is so heavily influenced by the local Tibetan language, both lexically and grammatically, that one may easily mistake it, on first impression, for a Tibetan dialect. The language of the Hui in Linxia is a Chinese dialect replete with Altaic features. What I would like to do in this article is to focus on the Baonan language: in particular, the infusion of Chinese grammar and lexicon into Baonan. Before delving into that topic in Section III, however, I will briefly sketch the contact-induced characteristics of Wutun (Section I) and the Chinese dialect spoken by the Hui in Linxia (Section II).

I. Wutun

Wutun is spoken by a little more than two thousand people living in five villages in Tongren County of Qinghai province. The predominant population and language in that region, as is the case in most of Qinghai province, was and remains Tibetan.[1] According to the oral history of the Wutun people, their ancestors were Chinese Moslems who immigrated from the city of Nanjing and Sichuan province several centuries ago. Under the threat of total annihilation by the surrounding Tibetans, those immigrants were given three days to convert to Lama Buddhism, take on Tibetan names, and adopt the Tibetan costumes. During those three days, the women of Wutun worked day and night to sew Tibetan garments for the male members of their families, but were left with no time to make Tibetan dresses for themselves. The result is that to this day, the men of Wutun dress like Tibetans, but the women don't. The story of their forced Tibetanization is told every year in a ritual dance during the June Festival. However, the Wutun people nowadays consider themselves a subgroup of the Tibetan ethnic stock. Very few of the Wutun people can speak Chinese. Their second language is usually Tibetan.

To a linguist who works on Chinese, the first striking feature of Wutun is that it does not have tones. The lexicon, in elicited words and sentences, as well as discourse data, is primarily Chinese but without any trace of tones. The data does not provide any clues as to how and when the language lost its tones.

The loan words in Wutun not only contain consonantal clusters which are alien to the phonological structure of Chinese morphemes, but also display segments that are not usually found in Chinese dialects. The following examples are Tibetan loan words in Wutun whose phonological structures are alien to Chinese:

[ʕtɛxpá]	= village	[tʃanxká]	= number
[çoxuá]	= extra	[alɔ́ɒ]	= a living Buddha
[xuetʃʰá]	= book	[xtʃuŋ]	= reason
[4aʁáŋ]	= the altar room for worshipping the Buddha	[ʕkalá]	= to like
[tsal 4xá]	= leap month		

To highlight those grammatical features of Wutun which are alien to the Chinese language family, I will cite a few basic principles:

(a) The language is strictly postpositional and without co-verbs.

e.g. [tʰuo - ʂl] [nantʃíŋ - ra]
head - on Nanjing - from
'on the head' 'from Nanjing'

[tʰian - li]
sky - in
'in the sky'

(b) The language is rigidly verb-final. The following sample sentences illustrate this principle.

1) wútʰun ʕtɛxpá vú - kə jʏ - li
Wutun village five - classifier exist - attitudinal particle
'Wutun has five villages'

2) ŋo kuo ta - li
I him/her hit - attitudinal particle
'I will hit him/her.'

3) ɕampá ŋa tsʰia ji - ta kʰa - liɔ
ɕampa me money one - dollar give - perfective
'ɕampa gave me one dollar.'

(c) Pronouns are inflected according to nominative-accusative/dative in the singular only. Other grammatical cases are expressed by case suffixes.

	Singular		Plural
	nominative	accusative/dative	
1st person	[ŋo]	[ŋa]	[ŋó-tɕikə]
2nd person	[ni]	[nia]	[ní-tɕikə]
3rd person	[ku]	[kuo]	[kú-tɕikə]

(d) The case suffixes of Wutun are the following:

Nominative = θ	Genitive = [-tə]
Dative/Accusative = [-ha]	Comitative = [-tə]
Instrumental = [-liaŋkə]	

There is an interesting interplay between the ordering of the nominals and the presence/absence of the dative/accusative suffix in a sentence. In the unmarked word order, [ha] marks the dative rather than the accusative. Of all the case suffixes, only the genitive, the comitative and the instrumental are obligatory in all contexts.

(e) The classifier [kə] has replaced almost all other classifiers in Wutun. When [kə] occurs with a numeral to form a classifier phrase, the phrase follows the head noun. For example,

[ʁua	vu	- kə]		[jitsí	san	- kə]	
mountain	five	- classifier		soap	three	- classifier	
'five mountains'				'three pieces of soap'			

[tʰiánmi	tsʰi	- kə]	
candy	seven	- classifier	
'seven pieces of candy'			

[kə] can also occur as a nominal suffix with the meaning, 'one', e.g.,

[xuitʃʰá	- kə]		[pʰínkuo	- kə]	
book	- classifier		apple	- classifier	
'one book'			'one apple'		

[rən	- kə]	
person	- classifier	
'one person'		

(f) There is no resultative compound in Wutun. Instead, causative constructions are marked by a causative suffix, [-kə], on the verb, e.g.,

4) i) ɕampá toŋtʂí - (ha) tá - liɔ
ɕampa Doŋdzɻ - (accusative) hit - perfective
'ɕampa hit Doŋdzɻ.'

ii) ŋo ɕampá - ha toŋtʂí tá - kə - liɔ
I ɕampa - dative Doŋdzɻ hit - causative - perfective
'I made ɕampa hit Doŋdzɻ.'

Notice in 4) i) the accusative marker is optional, whereas in 4) ii) the agent [ɕampá] of the verb [ta] 'hit', having been demoted to the dative slot because of the causative, is obligatorily marked with the dative case marker.

I will limit the discussion of Wutun to the preceding sketch. In brief, the language differs significantly from members of the Chinese family and displays a fascinating mixture of Tibetan and Chinese features in every aspect of its structure.

II. The Hui languages of Linxia

The Hui people are Moslems. However, not all Moslems in China are Hui. For instance, the Baonan people, whose language will be discussed in Section III, are Moslems belonging to the Baonan ethnic group. The origin of the Hui, who are considered an ethnic group in China, is not clear. At this point, they live in various parts of China,[2] and each group speaks the local Chinese dialect of the place in which it lives. Traditionally in Linxia, the Hui people lived in the outskirts of the city, whereas the Han Chinese lived inside the city wall. Hostile clashes between the Han Chinese and the Hui were common until the estalishment of the People's Republic of China. Today, the city wall of Linxia is the seat of the district government of the Linxia Hui Autonomous District. But one can still tell a Hui from a Han Chinese in Linxia by listening to his/her dialect. Within the Linxia Hui Autonomous District live the Baonan people, the Santa people, the Han Chinese, Tibetans, and Salars as well as the Hui. Santa and Baonan belong to the Mongolian language family. Salar is a Turkic language. The Tibetans in that region speak Anduo Tibetan. Language contact and linguistic interference are intense in this small district, which is about the size of a California county.

The Hui language of Linxia (henceforth abbreviated as Hui) is easily recognizable as a member of the Mandarin dialect group of the Chinese family. However, it displays a wide array of the grammatical features commonly associated with verb-final languages, even though it has few loan words. In the following disussion, I will describe a few of the structural features of Hui to illustrate the consequences of linguistic interference:

(a) Direct and indirect objects occurring before the verb (which is the preferred word order in simple sentences), are obligatorily marked with a case suffix. The unusual feature of this case suffix is that its phonetic realization is conditioned by the main vowel of the noun stem. Thus, one can say that this Chinese dialect has a restricted manifestation of vowel harmony. I will state the governing rule in the following:

i) The dative/accusative case marker is /a/, if the noun ends in a back vowel or a nasal.[3]
ii) The dative/accusative case marker is /ɛ/, if the noun ends in a front vowel.
iii) The dative/accusative case marker is /ə/, if the noun ends in a mid vowel or an apical vowel such as [1] or [i].

If the noun syllable ends in a vowel identical to the case suffix vowel, then the vowel of the noun syllable is lengthened. Here are some examples:[4]

5) ŋə tʂədz1 - ə ta: mai - czi - liɔ
I car - accusative him/her sell - to - perfective
'I sold the car to him/her.'

6) vu - gə vəntɕi - ɛ hɔ dzi̯ɛdzɣɛ
that - classifier problem' - accusative good solve
'That problem is easy to solve.'

7) ta dʐie - e hə - lji
s/he wine - accusative drink - attitudinal
'S/he drinks wine!' particle

8) ta ŋa ji - bən ʂu - a ka - liɔ
s/he me one - classifier book - accusative give - perfective
'S/he gave me a book.'

9) ŋə dʐianjiŋ - a kan - guə
I movie - accusative see - experiential
'I've seen movies.' aspect

10) lɔdʐaŋ jinjɣɛ: tɕiŋ - dʐə - lji
Lɔdʐaŋ music - accusative listen - progressive - attitudinal
'Lɔdʐaŋ is listening to music!' particle

(b) Hui requires obligatory suffixal markers for the comitative case and genitive case. The forms are: [-la] for comitative and [-dʐi] for genitive:

11) ŋə tamən - la van - lji
I they - comitative play - attitudinal
'I'll play with them!' particle

12) ɕiɔlji - dʐi tuidzi duan - liɔ
ɕiɔlji - genitive leg break - perfective
ɕiɔlji's leg broke.'

(c) The preferred word order in Hui is verb-final. An object complement clause is usually marked with the accusative case marker and placed before the verb, e.g.

13) ta dzw dʐi - ɛ ŋə mji tɕiŋdɔ
s/he leave nominalizer - accusative I not hear
'I haven't heard that s/he left.'

14) vu - aə mai niɣ dzi - ɛ ni
that - classifier sell cattle nominalizer - accusative you (nom.)

rəndʐi la ?
recognize question
marker 'Do you recognize that person who sells cattle?'

15) ta hə dʐi dʐie - e ŋə bu jɔ
s/he drink nominalizer wine - accusative I not want
'I don't want the wine that s/he drank.'

(d) The tone system of Hui exhibits signs of simplification. There are only three tones in isolation:

i) A rising tone which may be represented by 24 on the tone scale. This tone generally corresponds to the 1st and 2nd tones (the Yin Ping and Yang Ping) of Mandarin.

ii) A high level tone, 44, which generally corresponds to the 3rd tone of Mandarin.

iii) A high falling tone, 42, which generally corresponds to the 4th tone of Mandarin.

/fəŋ/	24	'wind'	/jy/	44	'rain'
/biŋ/	24	'ice'	/ha/	44	'sea'
/gaŋ/	24	'steel'	/ma/	44	'horse'
/vu/	42	'fog'	/fan/	42	'meal'
/tɕɛ/	24	'eggplant'	/te/	24	'head'

In terms of the number of tones, three is the lowest among the Chinese dialects. But the most interesting phenomenon of the tone system of Hui is that all three tones change to a low level tone, 22, when the syllable is "de-stressed". The best way to clarify the phonetic nature of "de-stressed" is to use a Mandarin example. In Mandarin, the third tone on a syllable such as /mǎ/ 'horse,' is realized as the 213 tone only when it is stressed. When it is "de-stressed", it is realized as a 21 tone. Thus, the tone of a de-stressed syllable in Hui is not equivalent to the neutral tone in Mandarin. The 22 tone of a de-stressed syllable in Hui is a full tone without any devoicing of the segments of the syllable or any weakening of the syllabic structure. The majority of compounds in Hui involve a de-stressed syllable. Here are some examples.

/sun-dzl/	22-44	'grandson'
/hə-dzl/	22-44	'box'
/tʂuən-tɕan/	24-22	'spring season'
/mi-rən/	24-22	'match-maker'
/tɕɛ-tʂa/	22-24	'iron fork'
/da-ji/	44-22	'overcoat'
/fu-laŋ/	44-22	'rich peasant'
/dʐi-dʐu/	44-22	'landlord'

Sentences 16) and 17) are examples illustrating de-stressed tones in sentences:

16) 24 22 22 22 42
dząŋsan ɕiɔli - ɛ nai
Dząŋsan ɕiɔli - accusative love
'Dząŋsan loves ɕiɔli.'

17) 24 22 44 24 44 22 22 22
dząŋsan meiguə tɕi ˜bu ha liɔ
Dząŋsan America go not can sentence
'Dząŋsan cannot go to America.' particle

Finally, the 42 tone in Hui syllables in isolation (which corresponds to the falling tone of Mandrin), merges with the 44 tone if it is followed by another syllable. The 42 tone may occur only in the final position of an utterance. In the following examples, the syllable which has the 42 tone in isolation but is realized as 44 is underlined.

/tɕi-tʂə/	44-22	'automobile'
/ɕin-fəŋ/	44-24	'envelope'
/pu-dzi/	44-22	'shop'
/tɕian-dəŋ/	44-24	'electric light'
/gua-fu/	44-{44/42}	'widow'
/ma-dɛ/	22-{44/42}	'a sack made of hemp fibre'
/lɔ-ʂu/	44-{44/42}	'an old tree'
/jyɛ-lian/	22-{44/42}	'moon'

The overall picture of the Hui tone system yields the impression that it is significantly different from the tone systems of other Chinese languages. It has the least number of tones of all Chinese languages (except Wutun, which has no tones at all); it uses the de-stressed tones often in speech. These are signals indicating the simplification or perhaps weakening of the tone system.

In the above discussion, I have briefly presented some of the non-Chinese features in Hui. Since the ethnic origin of the Hui people is unknown, it is not possible to decide whether those non-Chinese features are the consequence of borrowing from Altaic and Tibetan languages by a group of Chinese-speaking people, or the result of substratum interference when a group of Altaic immigrants to China acquired Chinese as their language. A decision may be obtained in the future when sufficient information on the history, the culture as well as the language of the Hui is gathered. In this study, the language of the Hui people in Linxia is particularly important because it is the major Chinese language with which the Baonan people have been in contact.

III. Baonan

Although the Baonan language belongs to the Mongolian family, the ethnic origin of the Baonan people remains a mystery. The only definite information on their ethnic origin is their total rejection of the linguistically-based hypothesis that they are of Mongolian descent. The name, Baonan, was given to them by the Chinese. It designates a town in Qinghai province, which is the former homeland of the Baonan people.

The Baonan population in southwestern Gansu province is composed of approximately 5,000 Moslems occupying five villages in Jishishan county. They migrated to their present homeland in the mid-nineteenth century from Qinghai province because of religious strife with the Lama Buddhists. There remain approximately 2,000 Baonan people in Qinghai who are Lama Buddhists. But they consider themselves Tuzu, the Chinese name for the Monguor ethnic group. Their Baonan dialect differs from the Jishishan Baonan dialects in that the former is primarily influenced by Tibetan, whereas the latter are heavily sinicized. The Baonan dialect discussed in this paper is spoken in the Ganhetan village of Jishishan county in Gansu.

III.1 The genetic distance between Baonan and Inner Mongolian.

Since China was closed to foreigners until recently, American scholars know very little about the Mongolian languages in China: How similar or different are these languages? Where are they spoken? How many speakers are there of each language? There are nine Mongolian languages spoken in China: Daxur (Dagur), Dongxiang (Santa), Tuyu (Monguor), Baonan, Eastern Yugu (Yellow Uighur), Buriat, Oirat, Kalmak (Kalmyk) and Inner Mongolian.[5] The lexical and grammatical differences between any two of these nine languages can be great. Since Inner Mongolian is the standard language of the Mongols in the People's Republic of China, I will briefly discuss the difference between Baonan and Inner Mongolian.

Baonan and Inner Mongolian are *not* mutually intelligible. One may compare the communicative gap between the two languages to that between German and English.

On the basis of approximately 3,000 Baonan morphemes I have collected, 50%-55% are loan words from Chinese. Since Inner Mongolian has relatively few Chinese loan words, the lexical difference between Baonan and Inner Mongolian alone constitutes a significant gap between the two languages. This gap is further widened by the fact that Baonan also has a number of Tibetan loan words, a consequence of centuries of interaction between the Tibetans and the Baonan in southern Qinghai and Gansu. Independent of the loan words, the indigenous words of Mongolian stock in Baonan show a tremendous distance from their cognates in Inner Mongolian (IM). Table 1 below provides an illustration:

Table 1 Cognate samples of Inner Mongolian and Baonan

Gloss	Inner Mongolian	Baonan
sun	[nor]	[narɔ́ŋ]
star	[ɔt]	[hotʰɣ́]
wind	[xi:] 'air' [salx] 'wind'	[kʰi]
donkey	[ɔ́ldʒik]	[tɕigɔ́]
fish	[tʃʌ́gas]	[tɕalʁasúŋ]
door	[u:t]	[tɔŋ]
cry	[uilax]	[lagá]
red	[úla:n]	[fulɔŋ]
cooking pot	[tʰɔ́go:]	[tʰʁoŋ]
chicken	[tʰáxic]	[tʰʁa]
eat	[ídəx]	[ndagó]
water	[us]	[su]
cattle	[únə]	[uniɔ́ŋ]
grass	[ops]	[vɛsúŋ]
negative imperative	[pɔ́tʰkʰi]	[tʰəgɔ́]
cold	[xúitʰən]	[kʰitʰɔ́ŋ]
younger sister	[ɔ́xindu]	[ɕindɣ́]
older brother	[ox]	[kagɔ́]
fruit	[álim]	[almɔ́ŋ]
knife	[xútʰag]	[toʁɔ́]
ride (a horse)	[únax]	[honəgɔ́]

The phonological systems of the two, languages also differ in many respects. For instance, IM has vowel harmony, but the Baonan in Gansu doesn't, vowel length (long vs. short) is phonemic in IM but not in Baonan; main stress falls on the word-initial syllable in IM whereas in Baonan the word-final syllable receives the main stress. There are also significant differences between the two phonemic inventories of the two languages.

In morphology and syntax, the two languages differ in many ways, Part of the difference is due to the large-scale influx of Chinese grammatical structures into Baonan. Those Chinese elements in Baonan will be discussed in Section III.2. Here, I will cite three other areas of morphological and syntactic differences between Baonan and IM.

(i) Baonan has an intricate evidential system employed in all declarative sentences, whereas IM does not have an evidential system. The Baonan evidentials are codified as either verb suffixes or independent particles. One type of evidentials is used if the validity of the event, state or action denoted by the sentence is ascertained by the speaker, and the speaker only, on the basis of the speaker's own sensory perception. For example, if the speaker has noticed a flower nearby but the hearer hasn't, the evidential /ji/ must be used. On the other hand, if the speaker is aware that the hearer has also noticed the flower, the evidential /o/ must be used.

(ii) Both Baonan and IM are verb-final languages, each with an elaborate case system. Whereas similarity between the case systems of the two languages exists, there are also important differences. For example, in Baonan, the agent of a transitive verb is demoted to the dative slot when that verb takes on a causative suffix, whereas in IM the same agent is demoted to the oblique slot and marked with the instrumental case.

(iii) IM has a passive construction, a reciprocal construction, and a collective action construction, each of which commands a distinctive verb morphology as well as other grammatical features. Baonan does not have those constructions.

III.2 The sinicization of Baonan

Among the nine Mongolian languages spoken in China, Dongxiang (Santa) and Baonan have sustained the greatest Chinese influence.[6] I have already mentioned that 50%-55% of the Baonan lexicon is borrowed from Chinese. Grammatically, the influence of Chinese is also pervasive. I will first illustrate the Chinese elements in Baonan at the lexical level.

(i) Chinese loan words in the Baonan lexicon

Since Chinese culture impinges upon every aspect of the life of the Baonan people, Chinese loan words are widespread in the Baonan lexicon. In those cultural areas

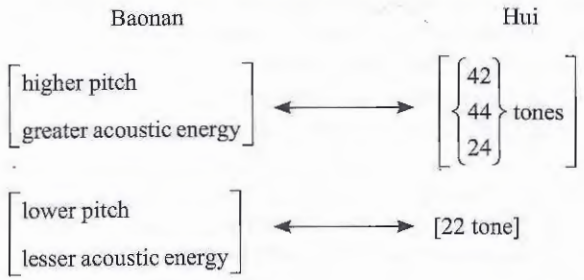
where the Baonan people are most indebted to the Chinese, Chinese loan words are dominant. For example, political terms such as 'chairman,' 'party secretary,' 'socialism,' 'prime minister,' 'committee,' 'conservative,' 'to make revolution,' 'to struggle against,' 'to promote,' 'to propagandize,' are almost exclusively modern Chinese loan words. Most vocabulary related to tools comes from Chinese, e.g., 'hammer,' 'saw,' 'drill,' 'nail,' 'pipe,' 'spade,' 'plier,' 'screw,' 'chain.' Words concerning edućation such as 'shool,' 'university,' 'student,' 'teacher,' 'notebook,' 'principal,' 'pen,' 'pencil,' 'to study,' 'to take examination,' and words related to transportation and vehicles such as 'train,' 'automobile,' 'trućk,' 'bicycle,' 'motorcycle,' 'airplane,' 'to drive,' 'to skid,' 'traffic,' 'to brake,' are usually from Chinese. One can cite many other semantic domains where Chinese loan words are dominant, but the impact of the Chinese language on Baonan is most striking when one finds that in many indigenous cultural areas, Chinese loan words have often displaced Baonan words. For example, out of the 61 kinship terms in Baonan, 29 are Chinese loan words and 10 are mixed compounds of Chinese words and Baonan words, whereas standard Mongolian of the Kangxi period[7] and present day Inner Mongolian have preserved their own elaborate autochthonous kinship terminology, free of any Chinese loan words.

In the speech of the Baonan youngsters, Chinese loan words continue to replace indigenous Baonan words. For example, Chinese loan words have replaced indigenous numerals except in counting. In my discourse data, numerals are almost exclusively given in Chinese loan, but in my data obtained through single word elicitation, numerals are given in indigenous morphemes. Other examples of this on-going displacement of indigenous words by Chinese loans in Baonan are given in Table 2. A Baonan person may use words from either one of these two columns in his/her speech, i.e., both the loan and the indigenous words are in the lexicon of the speakers, indicating that the displacement process is not yet complete.

Table 2 Recent Chinese loans and their co-existing indigenous counterparts

Gloss	*Recently adopted Chinese loan*	*Indigenous Baonan*
highway	/goŋlú/	/fgo mər/
doctor	/dɛ́fu/	/manbú/
tiger	/loxú/	/basí/
to play an accordian	/la-gə/	/tçirgə/
mouse	/xaŋlotʂú/	/xardá/
to catch cold	/oanmó-gə/	/jibadɣ kur/
married couple	/liáŋ-kɣ/	/ɛrí muʁalá/
stutterer	/dzɛdzí/	/dəkəldzigɣ kuŋ/
thumb	/dámutʂu/	/fgo ʁoɾ/

Phonologically, the most significant Chinese influence is demonstrated by the placement of word stress in Baonan. The main stress of an indigenous Baonan word falls on the final syllable. This rule does not apply to the loan words from Chinese. Instead, the stress, of the loan words constituting 50%-55% of its lexicon is determined by the tones of the words in the source language. The source language from which the loan words are taken by Baonan is the Hui language of Linxia discussed in Section II. Recall that Hui has a low level tone (22 in terms of the tone scale) for all de-stressed syllables in speech. When bisyllabic words are borrowed from Hui into Baonan, the de-stressed syllable, regardless of its position in the word, is not stressed. If the word does not have a de-stressed syllable with the 22 tone in Hui, then both syllables are stressed in Baonan. I should point out that a Baonan stressed syllable is characterized not only with greater acoustic energy but also with higher pitch than an unstressed syllable. Table 3 provides some examples illustrating the correspondence of Baonan stress with the Hui tones. This correspondence can be stated as follows:



Since the indigenous stress rule in Baonan is disrupted by the massive infusion of loan words from Hui, and the assignment of stress depends on the tones of the source language, one would expect the occurrence of minimal pairs in Baonan to be distinct on the basis of stress placement only. Indeed, such minimal pairs exist. Table 4 provides some examples.

Just as the Hui language of Linxia shows a simplification or weakening of its tone system because of its contact with Baonan, Santa, Salar, and Anduo Tibetan, all non-tonal languages, so has the stress-accent of Baonan taken on some tonal features because of the influence of Hui. Thus, language change due to languages in contact with Western China works in both directions. Contact with the Hui language of Linxia has resulted in the sinicization of Baonan, and contact with verb-final languages has resulted in major structural changes in Hui and Wutun.

Before moving on to morphology, I should point out that beyond the 50%-55% Chinese loan words, semantic borrowing from Chinese at the lexical level is also pervasive. I will cite one example here. In Chinese, including Hui, the verb which means 'hit' has been generalized to denote a variety of activities depending on the object noun it combines with. Thus, in Mandarin, we have, for example, dǎ-pé 'hit-card = to play cards,' dǎ-liè 'hit-hunting = to hunt,' dǎ-gēr 'hit-belch = to

Table 3 Correspondence of Baonan stress and Hui tones

Gloss	*Hui*	*Baonan*
craftsman	/dzaŋrən/ (44–22)	/dzáŋrən/
wild rabbit	/jɛtu/ (44–42)	/jétú/
blacksmith	/tɕɛdzaŋ/ (22–42)	/tɕɛdzáŋ/
glove	/ʂetɔ/ (44–44)	/ʂýtó/
doctor	/dɛfu/ (44–22)	/défu/
landlord	/dʐídʐu/ (44–22)	/dʐídʐu/
factory manager	(tʂaŋdzaŋ/ (44–42)	/tʂáŋdzáŋ/
school	/ɕyɛɛɔ/ (22–42)	/ɕyɛɛó/
automobile	/tɕitʂə/ (44–22)	/tɕítsɛ/
male donkey	/dzɔly/ (44–22)	/dzóly/
model (person)	/muəfan/ (22–42)	/məfán/
commune	/goŋʂə/ (22–42)	/guŋʂé/

Table 4 Baonan minimal pairs based on stress placement

/xəxə/	'box'	/xəxə́/	'hairlip'
/dzíndzl/	'mirror'	/dzindzí/	'nail'
/guándzl/	'crown of a bird'	/auandzć/	'restaurant'
/ʂídzl/	'persimmon'	/ʂɪdzí/	'lion'
/gáŋgaŋ/	'a metal bar'	/gaŋgáŋ/	'cistern'
/dándzl/	'courage'	/dandzí/	'a piece of cloth'

burp,' dǎ-yú 'hit-fish = to fish with a net.' This generalized usage of the 'hit' verb is borrowed in its entirety into Baonan. The indigenous Baonan verb root meaning 'hit' is /ʂgə/. Corresponding to the above Mandarin Chinese examples, we have the following expressions in Baonan:

/pɛ ʂgə/	/vi ʂgə/
card hit	hunting hit
'to play cards'	'to hunt'
/bogɛ́ ʂgə/	/dzaiʁasúŋ ʂgə/
belch hit	fish hit
'to burp'	'to fish (with net)'

It should be noted that whereas the Mandarin examples involving the semantically generalized 'hit' verb tend to fuse into verb-object compounds, there is no indication of compound formation in Baonan. For example, the object noun in those Baonan expressions involving the semantically generalized verb /sge/ 'to hit' may take on the accusative suffix. It is also worth noting that whereas 'playing

cards' may be an activity borrowed from the Chinese, hunting is definitely native to the Baonan culture. Nevertheless, the above examples show that the expression for hunting involves a semantically generalized usage of the 'hit' verb, a result of semantic borrowing from Chinese, suggesting that the indigenous word for hunting in Baonan has been displaced.

(ii) The influence of Chinese on Baonan morphology and syntax

An important morphological process in Chinese, creating "resultative compounds," has made its impact on Baonan through the Hui language of Linxia. A typical resultative compound in Chinese is composed of two elements, with the second element signaling some result of the action or process conveyed by the first element.

For example: jiòo-lái 'call-come = call (someone) with the result that s/he comes'

dă-yūn 'hit-faint = hit (someone) with the result that s/he faints'

Sentences 18) and 19) show examples of resultative compounds functioning as transitive verbs in Mandarin Chinese.

18) wǒ bă xiáolĭ dă - yūn - le
I Xiaoli hit - faint - perfective
'I hit Xiaoli with the result that s/he fainted.'

19) tā bă dàifu jiào - lái - le
3rd person singular doctor call - come - perfective
'S/he called the doctor with the result that the doctor came.'

The Baonan counterparts of sentences 18) and 19) are 20) and 21) respectively.

20) bu habib - nə ʂgə - dzį fajýngə - dzį
I Habib - accusative hit - subordinator faint - perfective
'I hit Habib with the result that he fainted.'

21) dząŋ défu - nə ur - dzį rə - dzį
s/he doctor - accusative call - subordinator come - perfective
'S/he called the doctor with the result that the doctor came.'

The Chinese borrowing in Baonan constructions exemplified by 20) and 21) is both semantic and syntactic. Semantically, the causative relationship between the two elements of a Chinese resultative compound is transplanted into the relationship between the two verbs in the Baonan complex sentence. This transplantation has occurred inspite of the fact that Baonan has a productive affixal causative construction. With the affixal causative, /-ʁə-/„ sentences such a 20) and 21) can be transformed into indigenous Baonan causative constructions 22) and 23) respectively.

22) bu habib - nə ʂgə - dzį fajýngə - ʁə - dzį
I Habib - accusative hit - subordinator faint - cause - perfective
'I caused Habib to faint by hitting him.'

23) dząŋ défu - nə ur - dzį rə - ʁə - dzį
s/he doctor - accusative call - subordinator come - cause - perfective
'S/he caused the doctor to come by calling him/her.'

Sentences 20) and 21) were volunteered by my Baonan consultant. 22) and 23), although made up by me, were perfectly acceptable to him.

Syntactically, the word order of the Chinese resultative compound is transplanted into the Baonan complex sentences 20) and 21), with the effect that the meaning of the sentence as given in 20) and 21) is exactly the opposite of what is to be expected from the indigenous grammatical structure of the sentence. Consider 20) for instance. The subject of 20) is 'I' and the main verb of the sentence is 'faint,' whereas the object of 20) is 'Habib' and the subordinate verb is 'hit.' Thus, the expected reading of 20) should be "I fainted as a result of hitting Habib," not "Habib fainted as a result of my hitting him." This reading "I fainted..." was elicited from my Baonan language consultant. In later testings, it was clear that the preferred readings of 20) and 21) are not the expected readings derived from the indigenous grammatical structure of the sentences. Rather, they are the given meanings in 20) and 21), which are the result of syntactic and semantic borrowing from Chinese.

An interesting syntactic borrowing from Chinese into Baonan involves the introduction of the Chinese copula verb, with the consequence that verb-medial copula sentences, which previously did not exist, are now established in Baonan. The indigenous Baonan copula construction, which is strictly verb-final, is illustrated by 24).

24) habíb défu o
Habib doctor be
'Habib is a doctor.'

The following variant forms, involving the borrowed Chinese copula verb /ʂɹ/ in the sentence-medial position are used.

25) habíb ʂi défu o
Habib be doctor be
'Habib is a doctor.'

26) habíb ʂi défu
Habib be doctor
'Habib is a doctor.'

25) represents a transitional stage of the change from the traditional verb-final construction 24) to the new verb-medial construction 26). The elders of Ganhetan, my Baonan consultant's home village, use only the traditional structure illustrated by 24) with /manbú/ 'doctor', a word borrowed from Tibetan long before the Baonan people left Qinghai province. Thus, the copula sentence for 'Habib is a doctor' in the speech of village elders is 27):

27) habíb manbú o
Habib doctor be
'Habib is a doctor.'

Although borrowing from Chinese probably began centuries ago in Baonan, the process of sinicization has been much more intensified during the past twenty to thirty years because of new political and sociological factors. One can, therefore, observe a significant linguistic gap between the elders of Ganhetan village, who are still steeped in Islam and who speak a less sinicized version of Baonan, and the youngsters of the village, who are no longer as religious and whose speech shows much greater Chinese influence. For instance, with respect to the copula construction, only the structures illustrated by 25) and 26) are used by the younger generation.

Another Baonan construction which is halfway toward becoming a northern Mandarin construction is the comparative construction. The Mandarin comparative structure involving the comparative morpheme, bǐ, is as follows:[8]

28) X bǐ Y dimension
(standard)

Sentence 29) is a simple example from Mandarin:

29) wǒ bǐ nǐ gāo
I compare you tall
'I am taller than you.'

The indigenous Baonan comparative construction marks the standard of comparison with the suffix /s1/ which also means 'from, if':

30) X Y - s1 dimension
(standard)

Sentence 31) is an example of the indigenous Baonan comparative construction:

31) bu tɕi - sí ondər
I you(nom.) - comparative marker tall
'I am taller than you'.

The frequently occurring comparative sentences in Baonan speech nowadays have the following structure:

32) X bi Y - s1 dimension
(standard)

32) suggests a hybrid of the Chinese and the Baonan comparative constructions: the Chinese comparative morpheme occurs side by side with the Baonan comparative marker, analogous to the intermediate stage of the change of the copular construction shown in sentence 25). The change from an indigenous Baonan structure, 30), to the Chinese structure, 28), would be complete, if and when the Baonan suffix /s1/ in 32) is dropped. I have not found a single incidence of a Baonan comparative without the suffix /s1/ on the standard of comparison in my sentence and discourse data. It wouldn't be surprising, however, if the suffix /s1/ were to be dropped in the near future, completing the process of contact-induced syntactic change in Baonan.

Although there are other aspects of the sinicization of Baonan, because of the limitation of space, I would like to conclude this section by citing two short passages from my Baonan discourse data. The first passage is the beginning of a narrative describing the year-round agricultural activities in the Baonan village of Ganhetan. In order to distinguish the Chinese loans from indigenous morphemes, all morphemes borrowed from Chinese are underlined:

33) i) nə dʐaŋdʐárən - nə dʐuandzí fáŋmian.
the peasant - genitive agriculture aspect
'The agricultural side of the peasant (life).'

ii) dʐuandzí fáŋmian suŋ nə fú - tɕan loʁomú
agriculture aspect from the hot - day plowing
ʂgə - gɣ - s1 kɛʂí
do - nominalization - from begin
'The agricultural side (of the peasant life) begins from the plowing (of the land) (during) the hot days.'

iii) fú - tɕan loʁomú ʂgə - gɣ - s1 nə,
hot - day plowing do - nominalization - if pause particle
'As for plowing (the land) in the hot days,
dui dʐaŋdʐárən nə, ʂí lisí dʐuántuŋ.
to peasant pause particle be history tradition
it is an historical tradition of the peasant.'

iv) dʐaŋdʐárən jó - dɛ - fú, fu - lí lí tɣ - tʂá,
peasant want - obtain - wealth heat - in plow first - round
'If a peasant wants to do well, (he) plows the first round in the heat.'

v) jó - dɛ - tɕún, ʂí - jyɛ - lí lí tɣ - tʂá
want - obtain - poverty ten - month - in plow first - round
'If (he) wants to be poor, in October, (he) plows the first round.'

vi) nə ʂɪ dzɑ̨ndzɑ́rən - nə bílíŋ
this be peasant - genitive rule
'Such is the rule of the peasant.'

The second passage is the beginning of a narrative on the matrimonial tradition and practice of the Baonan people. As in 33), all Chinese borrowings are underlined.

34) i) buda - nə baonán gatɕi.
we - genitive Baonan language
(exclusive)
'Out Baonan language.'

ii) kɛʂí.
begin
'Let me begin.'

iii) au - dé vɛrí kal - dzɻ́ gəsí
son - dative wife talk - subordinator concerning
'Concerning talking to (your) son about (getting) a wife,

jidó sí -wu -liɣ,
as soon as ten-five-six
as soon as (he) reaches fifteen or sixteen,

áda ámu vɛrí kal - dzɻ́ ok - dzɻ́.
father mother wife talk - subordinator give -imperfective
his father and mother (will) be giving (him) talks (about taking) taking) a wife.'

iv) vɛrí kal - dzɻ́ gəsí,
wife talk - subordinator concerning
'As for talking about a wife,

kɛʂí ɕán kaŋ - nə agɤ́ saŋ.
begin first who - genitive daughter good
one begins with (the question): whose daughter is good?'

v) agɣ - nə duíɕáŋ ndzɑ - dzɻ́.
girl - accusative match look - imperfective
'(The boy's parents will) be considering the girl as a match.'

vi) ndzɑ - dzɻ́ saŋi' jidzɻ́gəsí,
look - subordinator good if
'If (the boy's parents) consider (the girl) good,

agɣ́ vəndáŋ, teintɕín sɣ - dzɻ́.
girl steady relation settle - imperfective
(that is,) the girl is steady, a relation will be in the making.'

vii) teintɕín sɣ - dzɻ́ gəsí
relation settle - subordinator concerning
'As for making a relation,

kɛʂí, nə ʂɪ jigə́. guandzɑ́n.
beginning this be one pivot
the beginning is pivotal.'

The two short narrative passages 33) and 34) demonstrate how extensive the Chinese borrowing in Baonan is. It includes content words as well as functor words, syntactic structures as well as morphological devices. In this paper, I have highlighted only a few facets of the Chinese borrowing into Baonan. One pattern of contact-induced syntactic change that repeats itself over and over again in Baonan and Wutun is a two-step process. The first step involves applying a borrowed grammatical morpheme for a construction that already has an indigenous grammatical device with the same function. At this stage of the contact-induced change, the affected construction may be described as a hybrid with a borrowed structure added onto an indigenous structure. The comparative in Baonan is a good example. The Mandarin comparative morpheme *bi* is added to the indigenous comparative structure and placed before the noun phrase denoting the standard of comparison as it is used in the source language. Notice that the addition of the borrowed morpheme *bi* results in a change in the constituent structure of the sentence: a previously non-existing constituent *bi + NP standard of comparison* is now created. But the indigenous structure involving a suffix marking the standard of comparison in the sentence remains at this juncture. Immediately following the influx of the borrowed structure, the native speaker's perception of what is the comparative marker undergoes a shift from the indigenous suffix to the borrowed word. If and when such a perceptual shift is completed, the indigenous grammatical device, (in the case of the Baonan comparative, the suffix *-sɪ*), will be dropped. This dropping of the indigenous grammatical device constitutes the second step of the contact-induced syntactic change. In Baonan, we witness the entire process in the changing of the copular construction. The total effect is a rather dramatic change from a verb-final copular construction to a verb-medial copular construction.

IV. Conclusion

I have described a few features of two Chinese languages in order to illustrate the impact of Anduo Tibetan and Altaic languages on them and I have presented the highlights of the intrusion of Chinese elements into Baonan. The data from Baonan, Wutun and Hui as indicated by the above examples, suggests that contact-induced change has no constraints and requires no linguistic prerequisite, a conclusion already persuasively put forth by Thomason (1982). The most fascinating aspect of the Baonan situation is that contact-induced change is on-going and is proceeding at an astonishing pace, as if centuries of diachronic processes were compressed into a few decades. The situation is a close approximate to a controlled experiment of contact-induced language change.

The definitive study of contact-induced change in language remains to date the work of Uriel Weinreich (1968), first published in 1953 as a monograph based on

his master's thesis and doctoral dissertation. The linguistic situation in the border region between Qinghai and Gansu offers us an unusual opportunity to take the study of languages in contact to a new frontier, beyond the pioneering works of Weinreich (1968) and Haugen (1950) among others. We have in this geographical area two diametrically-opposed typological groups of languages in contact: verb-final agglutinative languages versus verb-medial isolating languages. The Altaic and Tibetan languages are prototypal verb-final languages with complex suffixal morphologies, while the Chinese languages represent model isolating languages with a predominant verb-medial word order. In addition, Chinese languages are tonal, Altaic languages and Anduo Tibetan are not. The contact of these two groups of languages has resulted in fascinating lexical, morphological and syntactic changes in a number of cases. Depending on the sociological factors, some Chinese languages such as Wutun have been tibetanized or altaicized, while others such as Baonan and possibly Santa (Dongxiang) have been sinicized. As the modernization of the People's Republic of China accelerates and Putonghua, the official standard language based on Peking Mandarin, spreads its influence across the country, the sinicization of the Altaic and Tibetan languages in western China will probably hasten while the tibetanization and the altaicization of the Chinese dialects in that area may very likely be reversed. This possible reversal of the direction of contact-induced change would make the linguistic situation in western China even further deserving of our attention.

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Notes

1. The Tibetan language spoken in Qinghai province and in southern Gansu province is called Anduo Tibetan. It is significantly different, especially in phonology, from the standard Tibetan of Lhasa. For instance, Anduo Tibetan retains the complex initial consonantal clusters of Classical Tibetan, whereas Lhasa Tibetan doesn't; Anduo Tibetan does not have tones, whereas Lhasa Tibetan does.
2. The largest concentration of the Hui people is in the province immediately to the east of Gansu province, designated an Autonomous Region of the Hui people by the People's Republic of China.
3. Hui, like most members of the Mandarin dialect group, only has syllables that end in either a vowel or a nasal.
4. In all of the transcriptions of Hui and Baonan in this paper except for Table 1, the symbols for voiced stops and affricates stand for voiceless, unaspirated stops and affricates, whereas the symbols for voiceless stops and affricates represent voiceless aspirated stops and affricates. All Mandarin Chinese data are given in Pinyin.
5. The dialect of Xilinhot is considered the standard speech of Inner Mongolia. Eastern Yugu is spoken in the Yuguzu Autonomous County of the north central region of Gansu province. Western Yugu spoken in the same country, however, belongs to the Turkic language family.
6. λ grammatical sketch of Santa by Liu (1981) indicates that the language contains grammatical as well as lexical loans from Chinese.
7. This data is from the multi-lingual dictionary, Qīngwénjiàn (清文鑑), compiled during the Kāngxī reign (1661-1722) of the Qīng Dynasty.
8. For further information on the comparative construction or any other aspects of Mandarin Chinese, see Li and Thompson (1981).

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34

ALTAIC ELEMENTS IN THE LÍNXIÀ DIALECT

Contact-induced change on the Yellow River Plateau[1]

Arienne M. Dwyer

Source: *Journal of Chinese Linguistics* 20, 1, 1992, 160–7.

Abstract

Language contact between the Hàn and non-Hàn languages of China has often been assumed to be unidirectional (i.e., Hàn > non-Hàn) and limited generally to lexical items, while morphosyntactic interference is believed to be moderate and comparatively recent. However, in the northwestern Chinese dialect of Línxià, it will be shown below that in fact the opposite is true: the Línxià dialect consistently retains certain native phonological and lexical features, while undergoing heavy interference in syntax.

In this paper three examples illustrating the nature and extent of contact- induced change in the Línxià dialect are examined. In Section 1 the morphemes for 'small, little' of the region's languages are compared as an illustration of extensive lexicosemantic diffusion resulting in areal convergence. In Section 2 it is concluded that the co-existing markers of the comitative/ instrumental in Línxià represent two different types of borrowing: one, a calque on a compound numeral of the Mongolic languages of the region, and the other an outright loan from Mongolic of the Proto-Altaic comitative suffix *-*lū*. Finally, as an example of significant syntactic and phonological reanalysis, in Section 3 the Línxià postpositional conditional marker -*ʂʅ* is examined.

We conclude that this is the result of the combination of certain social and linguistic factors, and that social factors, such as political dominance, may well be the primary determinants of change[2]. These data provide evidence to support a reanalysis of certain universals of language contact.

0. Introduction

The Yellow River plateau, which includes modern-day western Qīnghǎi and southern Gānsù provinces and the Níngxià Huí Autonomous Region,[3] has long been a hotbed of cultural and linguistic contact. Represented in this area are not only the Chinese dialects loosely grouped under 'northwestern Mandarin', but also the Turkic languages of Salar and Western Yugur, the Mongolic languages of Monguor, Eastern Yugur, Bǎonán and Santa, and Amdo Tibetan. In politics, language, and geography, this region represents a transition zone between Hàn-controlled and historically non-Hàn areas, between majority Hàn Chinese-speaking and majority Altaic-speaking peoples, and between the valleys and fertile loess plains of northern China and the arid, high steppe country of the Northwest.

With the innumerable political campaigns waged through this region by Hàn and non-Hàn alike, extensive cultural and linguistic contact was inevitable. Given, for example, the frequent intermarriage of Hàn and Altaic peoples during the partitioning of northern China in the fourth century, it is likely that linguistic interference could have occurred at an early date.

Línxià 臨夏 city (formerly Hézhōu 河州) is located south of the Yellow River at the confluence of the Dàxià River 大夏、河 in Gānsù province. It has long been an economic center for the Mongolic, Turkic, and Tibetan peoples residing in or on the perimeters of the Línxià Huí Autonomous district. Within Línxià city itself, significant linguistic differences between Hàn and Huí Chinese reflect the cultural differences of these two groups.

The Chinese spoken by the Hàn of Línxìa is representative of the widespread and profound syntactic interference that has occurred in Chinese dialects in northwestern China. With head-final constructions and postpositions, the Línxià dialect, unlike Standard Chinese, is an SOV language.

Morphosyntactic markers and certain lexemes often bear a striking phonological resemblance to those of neighboring languages, while the lexicon and aspect markers of the Línxià dialect are clearly Chinese.

The convergence features exhibited by these languages can be isolated by comparing local varieties with related languages and with their historical counterparts. Past work on the Línxià dialect is lacking, with the notable exception of recent works on Línxià morphology by Mǎ Shujun.

1. 'Small, little'

In the Línxià dialect there are two expressions for 'small': *ka*44 杂 and *ɛio*44; the latter closely resembles Standard Chinese *xiâo* 小. *ka* is perceived by Línxià speakers to be a more native word; only speakers from outside the region use *ka*44. *ka*44 also bears emotional overtones of affection, while *io* is neutral. For example, *ka*44 *foŋ*13 *tsɛ*.3 expresses the speaker's subjective fondness of the house, i.e. 'a small (cute) house', whereas a *ɛio foŋ*13 *tsɛ*.3 expresses objectively 'a small house'. *ka*44 is also used predicatively, e.g.:

(1) *ts*ɿ53 *kə*3 *foŋ*13 *ts*ɛ.3 *ka*44 *ts*ɿ3 *xɛn*44
this M house small EXTENT very
'This house is pretty small'

Still, as an attribute, the Standard Chinese *ɕio* is used instead of *ka*, as in *ɕiokoŋ* 小工 'unskilled laborer', *ɕiomi* 小米 'millet', and *ɕioyə* 小月 'lunar month'. Looking at the distribution of *ɕio* in both Linxià and Xīníng, we notice that *ɕio* generally occurs in compounds which also occur in Standard Chinese. Attributive *ka*, on the other hand, only occurs in free lexemes, and is obligatory with kinship terms of the nuclear family (*ka wawa* 'small child' or even Xīníng *wo te ta ka wawa* 'my eldest child'). With many other kinship terms, however, *ka* and *ɕio* alternate. *ka* also expresses the emphatic superlative 'youngest': *ka ertsʔ* 'my youngest son'; and Xīníng *ka pa* 'youngest of father's younger brothers; uncle'.

Thus, in the Chinese dialects of the Yellow river plateau, *ɕio* occurs in bound lexemes as an attribute; some of these lexemes may have been borrowed from Standard Chinese. *ka* is colloquial, subjective and occurs in free lexemes attributively, and can express an emphatic superlative.

In addition to Línxià and Xīníng, this distribution of features is partially reflected in the neighboring languages. The morpheme *ka* appears in Santa (in the attributive only), and in the Tángwàng 唐汪 and Wǔtún 五屯 creoles[4] (in both the attributive and the predicative). In Santa, the attribute *ka* can be used subjectively (as in Línxià *ka*), or it can be used in bound forms borrowed from Standard Chinese (as in Línxià *ɕio)*:

(2) *ka otsʰin* 'little girl' (affectionate)

(3) *ka ʂɯn* 'litre' (<Std. Chinese *sheng* 升)

Santa has another morpheme, *məila*, for the predicative:

(4) *məila oliə* 'half as small/half as young'

(5) *məila səila* 'the large and the small'

The source language for *ka* is uncertain; clearly it is not of Chinese origin: *ka* is a rare syllable in Chinese, appearing generally in loans or onomatopoeic syllables. It is striking that in at least four of the languages of the region, speakers distinguish between *ka* and one other morpheme for 'small, little' on the basis of both subjective and objective linguistic criteria.

Two other neighboring languages have a similar syntactic and/or semantic split. Amdo Tibetan has:

(6) *(w)o* 'little, small'(affectionate), as in *o-mo* 'girl'

(7) *tsʰun tsʰun* 'little, small' (neutral)

Both originate in literary Tibetan.[5]

The Bǎonán dialects have *dʒigaŋ*[6] and *bədi*[7]; it appears that the former is bound while the latter is a free morpheme:

(8) *fgo-dʒigaŋ* 'the large and the small'

(9) *dʒigaŋ χaŋ ge dʒi* 'a little less, a little smaller'

(10) *bədi tsina qala* 'two small wolves (together)'[8]

From the above, it is clear that the languages of this region possess two distinct lexical items partitioning the functional load of 'small, little'. Although the specific morphemes may differ between languages, the semantic and syntactic features of these two morphemes is remarkably similar. This linguistic convergence illustrates the extent of lexicosemantic diffusion in this region.

2. Comitative/instrumental 'together with n'

Whereas in Standard Chinese prepositions (*yòng* and *gēn*) are used to express the instrumental and the comitative, in Línxià the postpositional elements *-la* and *liaŋkə* are used.

(11) *ɲo*44 *pfi*13 *liaŋkə*44. 13 (~ *-la*.3) *ɕi*44 *tsʔ*53
I pen INST (INST) write
'I write with a pen'.

(12) *ŋo*44 *tɕia*13 *liaŋkə*44. 13 (~ *-la*.3) *pfu*24 *tsʔ*53
I he COM NEG go
'I won't go with him'

liaŋkə is obviously derived from the Standard Chinese quantity numeral 兩 'two', and the general measure *ge* 個. But in the Línxià language, unlike in Standard Chinese, *liaŋkə* functions both as the simple numeral 兩 'two' and the compound numeral 倆 'two together.' (Standard Chinese *lia* 倆 'two together' does not occur in the Línxià dialect.) Thus Línxià *liaŋkə* has three functions: as a simple quantity numeral, as a compound numeral, and when used postpositionally, as an instrumental/comitative marker[9].

The latter case marker appears to be an semantic extension and abstraction of the compound numeral 'two together'; however there is no precedent for the abstraction of a numeral to a case marker in Standard Chinese; moreover, its use as a postposition suggests more than mere drift is involved here. I would like to propose that Línxià *liaŋkə* is a calque on the compound numeral 'two together' in Yellow River plateau Mongolic. In Bǎonán and Santa the compound numeral *qua-la* has been reanalyzed as a postpositional instrumental/comitative suffix *-qala (~ -qal)*.

Looking at Bǎonán, we find:

(13) *gete-qalə dalga node* 'use a mallet to pound earth clods'

(14) *bədi tsina-qalə* 'two small wolves (together)'

This use of the compound numeral precisely parallels that of Línxià: Bonan, Santa:
-qala < *quar* 'two' + *le* (plural suffix) 'two together'[10]

Línxià:
liaŋkə < *liaŋ* 'two̍ (qty)' + *ke* (measure) 'two together'

The numeral has thus been reanalyzed first as a postposition, and then as an enclitic. What, then, is the origin of the Línxià alternate suffix *-la? -la* has a broad distribution in the languages of the region; it functions as an instrumental and/or comitative postposition.

For example, compare data from Tángwàng and Santa:
Tángwàng:

(15) *va*53*va*53 *-m* *ʂɯ*53*ʂɯ*53 *-la* *tsʔ*
child -PL. spoon -INST eat
'Children eat with a spoon.'

(16) *ɲi*23 *a*21 *ka* *[-la]* *ji*24*ta* *tɕʰʔ*
you elder bro. COM together go
'You go together with elder brother.'

Santa:
(17) *kʰɯwos* *-la* *ʂo-ʂo-qala* *itɕiə*
child -PL spoon-INST eat
'Children eat with a spoon'

(18) *tʂɯ* *aka* *-le* *hantu* *etʂʰu*
you elder.bro. -COM together go
'You go together with elder brother.'

In Santa, *-qala* marks the instrumental, while *-le* (~ *-la*) marks the comitative. In Tángwàng, *-la* marks both the instrumental and the comitative. This is true of many of the region's languages, including for example Salar:

(19) men sen-la va(r)-ʁur
I you-COM go-FUT
'I'll go with you'

Let us compare the distribution of these markers in all the major languages of the region:

	Comitative	Instrumental
Línxià	*-la*44 *liaŋkə*44.3	*-la*44 *liaŋkə*44.3
Xining	*-lia*.3 ~*te*324 *N lia*.3	*-lia*.3 ~*te*324 *N lia*.3
Wutun	*liaŋkə*	*liaŋkə*

Tángwàng	*-la*	*-la*
Santa	*-qala/-qal*	*-lə (~ -lə x amtu)*
Bǎonán	*-qala/-qal*	*-lə (~ -qala x amtu)*
Monguor	*-la*	*-la (~-la x amdə),-de*
E. Yugur	*aar/-eer/-oor*	*-la/-le/-lo xamdə*
Salar	*-la, -la bilə*	*-la, -la bilə, -la nə*
W. Yugur	*budzin ~vudzin*	*-s* (Recip.-Refl. voice)
Amdo Tibetan	*-ki/-gi*	*-la xamdə*[11]

The source of *-la*, found in all four major language families above, is complex. Professor Poppe has identified the Proto-Altaic Comitative suffix **-lū;* the modern Turkic languages have the reflex *-li/-lig* (< **lū + gal* (adjectival)) except for Yakut and Salar, which have *-lin/-lun* and *-la ne*, respectively (< **lū + -n*, an ancient instrumental).[12] The modern Tungusic languages have only the latter compound type comitative *-muń* (< **lū + -n*, again, an ancient instrumental). Only the most conservative of Mongolic languages preserve Proto-Altaic **-lū* : Monguor, Santa, and Eastern Yugur. Most other modern Mongolian language instead have **-taị/-teị* as the comitative.[13]
Thus:

P. Altaic **-lū*
- Com. Turkic (1) **-li, liɣu* — Modern Tkc. *-li, liɣu*
  (2) **-li -n* — Yak. *-lin/lun*
- Com. Tungusic (3) **-lū-n* — Sal. - *la nə*[14]; Evenki, Lamut *-nun*
- Com. Mongolic (4) **-lū-gāi* > **lūɣa* > *-lu'a* > E. Yug. *-la/-le/-lo*
  (5) **-taị/-teị* — Mod. Mongolic **-tai/-tei*

The above data indicates an Altaic origin for the comitative suffix *-la*; in particular, the following evidence suggests that Mongolic languages are the source for this suffix: Common Mongolic, unlike Common Turkic, preserved the feature [+BACK] of Proto-Altaic **-lū*. The vowel in **-lū* became lowered through regressive assimilation and coalescence with the suffix *-gai*. As Professor Poppe explains, "**-lū* a should have resulted in *-lo* in Modern Mongolian, but when becoming part of the declension system, the comitative form appeared, analogically to all the other case forms, with the suffix *-lā/-lē* and, in some languages having the labial attraction, also with *-lō/-lö*."[15]

Furthermore, given the harmonic rules of Salar vowels, we would expect the suffix *-li(nə)*. The presence of a low back vowel in the modern comitative suffix *-la* suggests that it is also a loan from Mongolic.

Why do the case suffix *-la* and the former compound numeral *(-qala, liaŋkə)* co-occur as the instrumental/comitative markers in the languages of this region? Both markers appear in early Altaic sources; however, it is likely that Proto-Altaic

*-*lū* originally had a function other than to indicate the instrumental or comitative,[16] and that only after its affixation to certain ancient particles (*-gai* in Mongolic, *-gu/-u* in Turkic, and *-n* in Turkic and Tungusic) did the compound suffix assume the function of instrumental/comitative marker.

The widespread use of a suffixed numeral postpositionally to mark the comitative is attested in Orxon Turkic: *birla* 'with' < *bir* 'one' + *la* (emphatic particle):

(20) *toquz tatar birla* 'together with the Tokuz Tatar'[17]

However, while in Bǎonán and Santa there is the suffixed numeral *-qala*, such a numeral is not attested in Middle Mongolic. Thus *-qala* could well be a calque from Salar *bilə*. The instrumental/comitative markers *liaŋkə* and *lia* in the Chinese dialects of the Yellow river plateau are the most recent examples of this regional loan translation. The Línxià postposition, unlike Xīníng *-lia*, still retains its full tonal features.

The two instrumental/comitative markers of the Línxìa dialect reflect different degrees of interference: the suffix *-la* has been borrowed outright probably from Bǎonán or Santa, while the compound numeral postposition has been nativized to *liaŋkə*.

Interestingly, the Hàn Chinese of Línxià prefer to use *-la*, while the Huí tend to use *liaŋkə*.[18] This may well reflect a stronger cultural identity on the part of the Huí Chinese, who are thus more likely to blend foreign and native features rather than borrowing outright.

3. Conditional *-ʂʅ*

In the Línxià dialect, there is a clause-final suffix *-ʂʅ* that is phonologically equivalent to the Standard Chinese copula *shì* 是 but functions instead as a marker of the conditional:

(21) koŋ13fu44 pfu34 xa53 tsʅ ʂʅ53 tsi53 (xa3) tɕiu53 ɕi44 pfu32 xo44
time NEG spend PROG COND, kanji (ACC) then write NEG well
'If you don't take the time, you won't write well'.

(22) tɕia13 me44kuo13 tɕi ʂʅ 53 ɲo44 tɕia13 xun13 pfu32 tɕie44
he America go COND I he [won't marry]
'If he goes to America, I won't marry him'.

Compare the usage of the Salar conditional marker *-se*:

(23) at al-ɣu keli-se da eŋər al-ʁu keli
horse buy need-COND also saddle buy need
'If you want to buy a horse, you also need to buy a saddle.'

If we compare the conditional markers of the other languages of the region, we find that they are all clause-final suffixes which fall into two major groups: those

virtually identical with the Salar form (the Turkic and Mongolic languages), and those with a different suffix (the languages of Tibetan origin).

Salar	*-sa/-se*
W.Yugur	*-sa/-se*
Bǎonán	*-sə*
Santa	*-sə*
Monguor	*-sa*
E. Yugur	*-sa /-se /-so*
Amdo Tibetan	*-na*
Wǔtún	*-ra*

The conditional forms above have no cognates in the historical or modern Mongolic languages outside of this region (compare, for example, Khalkha *-bəl*). However, conditional *-sa /-se* is a regular feature common to all Turkic languages. This suggests that the Yellow river plateau Mongolic conditional suffixes are loans from Salar or West Yugur.

Given the phonological and morphosyntactic similarities between Línxià *-ʂʅ* and Salar *-sa*, it is conceivable that the Turkic conditional was loaned into Línxià and then underwent certain nativizing phonological changes. However, the syllable *sa* exists in Línxià Chinese;[19] therefore there is no reason for it to have become retroflexed if Salar *-sa* was borrowed directly into the Línxià dialect. It is thus more plausible that Línxià *-ʂʅ* is a contraction of the Standard Chinese conditional marker *yàoshì* 要是, which has been reanalyzed as a verbal suffix.[20] Thus, only the morphosyntactic features of the Salar conditional marker were shifted into Línxìa.

4. Implications for language contact theory

The maintenance of native structural features (including segmentals and tone) in the Línxià conditional marker *-ʂʅ*, coupled with the wholesale adoption of foreign morphosyntactic features, parallels the case of the instrumental/ comitative marker *liaŋkə*. These two examples of the use of functionally equivalent structures in Línxià to nativize such adstratum features testifies to the resiliency of certain levels of the language, namely lexicon and, to a lesser degree, phonology. Even within the context of such heavy borrowing, "interference features are still scattered among the various grammatical subsystems, so that typological disruption in any one subsystem is limited: the inherited structures, including the morphemes that express them, are still largely intact."[21]

This contradicts the hallowed implicational universal that phonological and lexical change must precede any transfer of syntactic features. Moreover, constraints on naturalness and markedness would lead us to believe that in such a complex multicultural environment (where the need for intergroup communication at least in commerce is fairly high), that these would display trends towards simplification and less markedness, and, thus, convergence of certain features. In the Línxià dialect, the adoption of an SOV word order and its accompanying

postpositions (such as *liaŋkə*) and suffixes (such as *-ʂʅ*) to parallel the other languages of the region has resulted in a decrease in its areal markedness; yet by retaining certain features of an SVO order, the incorporation of external features has resulted in the complication of its structure.

This simultaneous co-existence of genetic (i.e. Chinese) features with borrowed features at all levels of language, while more complicated, serves two important functions for the speakers of the Línxià dialect: by increasing the number of structures for any given function, Línxià speakers are increasing the likelihood of intergroup communicative success, while at the same time maintaining their own linguistic identity. It is likely that this is a factor in maintaining both Altaic instrumental/comitative *-la* and also the nativized *-liaŋkə*.

In addition, the expressive possibilities within a given level of the Línxià dialect also increase. Take, for example, the *ka~ɕio* alternation discussed above. In Standard Chinese, subjective affection is expressed through reduplication or vocal inflection of the morpheme *xiǎo* 小. While these morphosyntactic or suprasegmental processes also occur in Línxià, its speakers have a lexical alternative as well.

Although the Línxià dialect has been drastically changed through incorporated Altaic features, it still maintains a basic stratum of Chinese lexicon and phonology. Social and historical factors, such as the political and economic dominance of the Hàn Chinese (even in a region where the Hàn are culturally a minority), have contributed to the genetic continuity of the Chinese stratum of the Línxià dialect. As we have seen, the stronger group identity of the Huí Chinese has resulted in significant structural isoglosses within Línxià city itself: Hàn Chinese is more vulnerable to substratum interference.

Through at least several hundred years of contact, the Línxià dialect has had pervasive substratum interference, particularly in syntax and morphology. Yet the surrounding languages have likewise undergone contact-induced changes. In these languages, it appears that those changes that were the result of Altaic or Tibetan interference are generally phonological and lexical and are temporally remote. This is due to their genetic relationship and typological similarity. Those changes that have been induced through contact with Chinese, however, are of two types. The older Chinese loans into these languages were also lexical and, to a lesser extent, phonological in nature. The more recent interference features, however, occur at all levels of language, and have in many cases been rapidly assimilated into the Altaic and Tibetan languages.[22]

The difference in the nature of contact-induced changes between Hàn and non-Hàn can perhaps be explained in the following way. For the last several centuries, the non-Hàn have been economically and politically subordinate. They have thus been more motivated to become bilingual in the dominant language, Chinese. In learning the language, speakers of Altaic and Tibetan languages assimilate whatever vocabulary and pronunciation (morphophonemic rules) they need to function in Hàn society. Some speakers abruptly abandoned the vocabulary of their native language, while retaining its syntax, resulting in, for example, the Tángwàng and

Wǔtún creoles. Others who remained bilingual, like the Salar, Santa, and Bǎonán, were exerting pressure on Chinese syntax at the same time that Chinese features were being shifted to these languages. One can only speculate that this syntactic pressure resulted from either imperfect learning of Chinese on the part of the non-native speakers, thus introducing SOV syntax into intergroup communication; or that the Hàn Chinese began to produce a mixed SVO/SOV word order in their efforts at commercial or political communication.

Notes

1. An earlier version of this paper was presented to the Seventh Annual Meeting of *Central Asia at Berkeley*, May 19-20, 1989.
2. For case studies and further discussion on the social determinants of linguistic change, see Thomason and Kaufman.
3. The Yellow River plateau covers an area approximately 35-38 degrees latitude and 101-105 degrees longitude.
4. The Tángwàng creole represents the spoken language of two villages in the northeast of the Dōngxiāng Autonomous County in Gānsù. Numbering approximately 20,000, its speakers are Muslims and call themselves Santa (*Dōngxiāngzú* 東鄉族) although they do not speak the Santa language. While the lexicon is almost exclusively Chinese, the morphosyntactic features of Tángwàng are largely Santa. Speakers of the Wǔtún creole number about 2000 and reside in the *Huángnán* 黃南 Tibetan Autonomous State in eastern Qīnghǎi province. While Tibetan is the lingua franca for the area, most speakers are bilingual in Tibetan and Chinese, which is reflected in lexical and morphological features of their language.
5. Although the same graph 尕 appears in certain Tibetan place names of the region, it is a different morpheme altogether: 尕 is used to transliterate the Amdo Tibetan *kha* 'mouth' (and by extension, 'opening; col'). For example, *Kasar* 尕撒爾 (a village on the west bank of the Lóngwù river in Qīnghǎi), and *Wankatan* 完尕灘 village, located south of Línxià).
6. In Gānsù Bǎonán (Jíshíshān 積石山 county, Dàtún 大屯 village); based on data in Bu He, Chén Naixiong 1982.
7. In Qīnghǎi Bǎonán (Tóngrén 同仁 county); based on data in Bu He, Chén Naixiong 1981.
8. *bedi* may be cognate with Inner Mongolic *bagii* and also possibly Monguor *mula(a)* 'small' and W. Yugur *mula* 'child'. The origin of *dʒigaŋ* is unclear.
9. Conversely, in Xīníng, the compound numeral *liaŋ* has become generalized to these three functions to the exclusion of *liaŋkə*.
10. Bu He, Chén Naixiong p. 67; Liu Zhaoxiong 1981.
11. In Amdo Tibetan the comitative *-la xamdə* occurs only rarely with certain verbs (e.g., 'to have') in the literary language. It is unlikely that *-la* is native to Amdo Tibetan since it is not present in the basic stratum; furthermore, *xamtu* appears in *The Secret History of the Mongols* as 'together', suggesting that *-la xamdə* was borrowed into Amdo Tibetan from the neighboring Mongolic languages, perhaps during the medieval period.
12. Poppe 1977, p. 72.
13. Poppe 1955, p.204.
14. The Salar instrumental suffix *-la*, unlike the comitative suffix, alternates with *-la nə*, which I believe is the last trace of the Common Turkic (and Common Tungusic) ancient instrumental suffix *-n*.

15. Poppe 1955 p. 203.
16. Proto-Altaic *-*lū* occurred without other suffixes only in pre-thirteenth century Turkic, where it functioned to create derived nouns or as a nominalizer: *tengrili yerlida* 'in Heaven and on earth'; *edguli ayiyli* 'the good as well as the evil one'. (examples from Poppe 1977, p. 204.)
17. Tekin, p. 277.
18. Personal communication from my language informant, Mr. Xiǎolí Zhū, to whom I extend my thanks for his patience and good humor.
19. For example, *sa53* 'what?'
20. This reanalyzed form of the Standard Chinese conditional *yàoshi* 要是 also appears in the Línxià clause-final counterfactual enclitic *zhèhuàʂɿ* 這話是 (<*zhè53hua53* 這話 'actually, really' + *ʂɿ* [conditional marker]). Although the counterfactual, like conditional *ʂɿ*, maintains the segmental features of the original morphemes, tonal features are not maintained except in emphatic speech. *-ʂɿ* only occurs as a bound morpheme in Línxià. The verb *ʂɿ* 是 is ungrammatical in copular sentences unless it co-occurs with the negative particle *bù* 不. Thus at the levels of both phonology and syntax, what was in origin a copula and a preverbal conditional marker has been abstracted to a suffix in the Línxià dialect.
21. Thomason and Kaufman, p. 76.
22. Particularly after 1949 we see the rapid assimilation of Standard Chinese political and economic vocabulary and the adaptation or assimilation of certain Standard Chinese phonemes. For example, as much as 51% of Gānsù Bǎonán vocabulary is Chinese in origin (Li, 1989).

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